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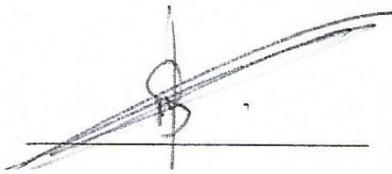
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**Date Completed:** 20/06/2018

*‘A thesis submitted in fulfilment of the requirements for the degree Doctor Legum (LLD) in the Faculty of Law of the University of the Western Cape’*

## **PLAGIARISM DECLARATION**

I declare that ‘*Sustainable Development Goal 6: A Watershed Moment for Ensuring Sustainable Freshwater Development and Management?*’ is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.



Signed: Muhammad Sameer Kasker

Date: 20/06/2018



## **DEDICATION**

*For my parents.*



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WESTERN CAPE

## **ACKNOWLEDGEMENTS**

Thank you to the Almighty for providing me with the strength to undertake this journey.

Thank you to my parents, for everything that you have done for me, during this time and always. No words can or ever will be enough.

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## **KEY WORDS**

- International Environmental Law
- International Freshwater Law
- Sustainable Development
- Sustainable Development Goals
- Sustainable Development Goal 6
- Millennium Development Goals
- Millennium Development Goal 7
- Water Access
- Water Scarcity
- Water Quality
- Water Pollution
- Water Management
- Water Rights
- Water as a Human Right
- Environmental Governance
- Water Governance
- International Water Agreements
- Environmental Degradation
- Globalisation and the Environment
- Models for Global Water Governance



## **ABSTRACT**

Water is at the very core of sustainable development, critical for a thriving people, planet and prosperity. Water is regarded as a public good which is fundamental for health and life. Water is so important that it was debated as being a basic human right on many international platforms. Water access has plagued many parts of the world for a long period of time. In recent years, there have been increasingly urgent warnings of a global water crisis, as the human species consistently uses more water than is sustainably available. The international community tried to work towards overcoming these water-related issues by establishing the then Millennium Development Goals (hereafter referred to as MDGs), with MDG7.C focusing on access to safe drinking water. Even though MDG7.C was achieved in part, issues still remained regarding water access and quality. Sustainable Development Goal 6 (hereafter referred to as SDG 6) was then introduced and the scope of SDG6 is much wider than its predecessor, since the water access and scarcity problems are still prevalent today. The 2030 Agenda for Sustainable Development includes a dedicated goal on water and sanitation that sets out to ensure availability and sustainable management of water and sanitation for all. SDG6 expands the MDG focus on drinking water to now cover the entire water cycle, including the management of water, wastewater and ecosystem resources, with water at the very core of sustainable development. The goal has, in essence, extended to include a much broader spectrum of issues that need to be solved which, in essence, unravels even more challenges along the way. As a result, it is imperative to determine whether SDG6 can allow for actual sustainable development in terms of freshwater resources. Thus, this thesis will discuss the advent of the Sustainable Development Goals (hereafter referred to as SDGs), in particular SDG6, as well as analyse how SDG6 impacts on International Environmental Law, with particular emphasis on International Freshwater Law. The main aim of this research is to determine whether the creation and implementation of SDG6 can result in overall freshwater sustainability and whether this can result in the furtherance of sustainable development.

## **ABBREVIATIONS**

CESCR – Committee on Economic, Social and Cultural Rights

GEG – Global Environmental Governance

GWG – Global Water Governance

ILA – International Law Association

MDG7.C – Millennium Development Goal 7.C

MDGS – Millennium Development Goals

SADC – Southern African Development Community

SDG6 – Sustainable Development Goal 6

SDGS – Sustainable Development Goals

UN – United Nations

UNE – United Nations Environment

UNICEF – United Nations International Children’s Emergency Fund

UNW – United Nations – Water

WHO – World Health Organization



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## **CHAPTER ONE - INTRODUCTION**

*The simple and profound equation is this: Water is life. Yet the startling reality is that today, more than a billion people worldwide do not have access to safe drinking water, resulting in nearly 2 million fatalities a year - mostly children - due to waterborne diseases. With water scarcity increasing due to human population growth, pollution, and climate change, clearly our relationship to water must change.<sup>1</sup>*

### **1.1. Background**

Water is of major importance to all living things. Water covers seventy-one percent of the Earth's surface and is vital for all known forms of life.<sup>2</sup> On Earth, ninety-six percent of the planet's water is found in oceans, one percent in groundwater, another one percent in glaciers and ice caps, and a fraction of a percentage in the air as vapour and clouds.<sup>3</sup> Up to sixty percent of the human adult body is water. The brain and heart are composed of seventy-three percent water, and the lungs are about eighty-three percent water. The skin contains sixty-four percent of water, muscles and kidneys are seventy-nine percent of water, and even the bones are watery at thirty-one percent.<sup>4</sup> It is evident that the very existence of human-life is dependent on the existence of water. It is also important to note that plant and animal life depends on water as a life-source as well. This means that water is a central theme in our ecosystem and is an essential requirement in ensuring the proper functionality of daily life for most species on Earth.

Each day, humans must consume a certain amount of water to survive. Of course, this varies according to age and gender, and also by location. Generally, an adult male needs about three

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<sup>1</sup> Lake O.O., (2010), *Uprisings for the Earth: Reconnecting Culture with Nature*, Ashland, OR: White Cloud Press, Page 1.

<sup>2</sup> <http://www.un.org/waterforlifedecade/background.shtml>, (last accessed 7/05/16).

<sup>3</sup> Gleick P.H., (1993), *Water in Crisis: A Guide to the World's Freshwater Resources*, Oxford University, Page 13.

<sup>4</sup> Perlman H., (2016), *The Water in You*, The USGS (United States Geological Survey) Water Science School, available at <https://water.usgs.gov/edu/propertyyou.html>, (last accessed 15/06/16).

litres per day while an adult female needs about 2.2 litres per day.<sup>5</sup> Clean, accessible water for all is an essential part of the world we want to live in. There is sufficient fresh water on the planet to achieve this. However, due to bad economics or poor infrastructure, every year millions of people, most of them children, die from diseases associated with inadequate water supply, sanitation and hygiene.<sup>6</sup> More than a billion people lack access to safe drinking water. Two and a half billion people live without access to adequate sanitation systems necessary to reduce exposure to water-related diseases. Indeed, pollution of water itself is a major factor and must be addressed. Pollution of river bodies has become a major problem that is becoming critical because of inadequacy or non-existence of surface water quality protection measures and sanitation. Lagoons, rivers and streams are sinks for wastes. Wastes are most often discharged into the receiving water bodies with little or no regard to their assimilative capacities. The discharge of raw sewage, garbage, as well as oil spills are threats to the diluting capabilities of the lagoons and rivers in the major cities. The natural purification of polluted waters in itself is never fast, while heavily polluted water may traverse long distance in days before a significant degree of purification is achieved.<sup>7</sup> The failure of the international aid community, nations, and local organizations to satisfy these basic human needs has led to substantial, unnecessary, and preventable human suffering. Tens of thousands of people, mostly young children and the elderly, die every day from water-related diseases.<sup>8</sup> Statistics of this nature is truly indicative of the dire situation that confronts humanity today. Properly understood, the concept of access to water is half-way between human rights law and environmental law, where fulfillment of access is structured in terms of the States' obligation to provide access to water.<sup>9</sup> Indeed, based on the importance of water to everyday human life and development, it can be assumed that water is a right for all. However, this is not the case, as the right to water has not achieved the status of customary international law.<sup>10</sup>

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<sup>5</sup> Mitchell H.H., (1945), The Chemical Composition of the Adult Human Body and its Bearing on the Biochemistry of Growth, *Journal of Biological Chemistry*, Page 158, available at <http://www.jbc.org/content/158/3/625.full.pdf+html>, (last accessed 15/06/16).

<sup>6</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 22/06/16).

<sup>7</sup> Halder J.M. and Islam M.N., (2015), Water Pollution and its Impact on the Human Health, *Journal of Environment and Human*, Vol. 2, No. 1, Pages 36 – 37.

<sup>8</sup> Gleick P.H., (1999), The Human Right to Water, *Water Policy*, Vol. 1 (5), Pages 487- 583.

<sup>9</sup> Dupuy P.M. and Vinuales J.E., (2015), *International Environmental Law*, Cambridge University Press, Page 315.

<sup>10</sup> Hardberger A., (2006), Whose Job is it Anyway? Governmental Obligations Created by the Human Right to Water, *Tex. International Law Journal*, Vol. 41, Page 533.

Water is at the very core of sustainable development, critical for a thriving people, planet and prosperity. Water is needed for domestic purposes, for agricultural, industrial and energy production, and these uses are highly inter-linked, potentially in competition in terms of development, and these developments generate wastewater that may cause pollution. Water is central to climate change, linking the climate system to the environmental and socio-economic systems; climate change severs water scarcity in some parts of the world, and the risk of flooding in others. Water is a key factor in managing risks such as famine, epidemics, migration, inequalities and political instability. Integrated water resources management is essential to harness synergies as well as to manage potential trade-offs across sectors and regions, to ensure availability and sustainable management of water and sanitation for all.<sup>11</sup> The use and abuse of increasingly precious water resources has intensified dramatically over the past decades, reaching a point where water shortages, water quality degradation and aquatic ecosystem destruction are seriously affecting prospects for economic and social development, political stability and ecosystem integrity.<sup>12</sup> Pictures of parched lands, disappearing lakes and streams, and single-faucet villages have become commonplace as thirsty straws siphon life-giving water from above and below the surface of the earth. Currently a billion people (40% of humanity) live in water-stressed conditions, and studies predict that the situation will deteriorate rapidly in the next few years, as the agricultural sector, which already accounts for an average of seventy percent of global fresh water use, struggles to feed an additional billion by 2030.<sup>13</sup>

It is indeed evident that water is essential for life and that proper water management must occur in order for this precious resource to be properly enjoyed by all of humanity. Environmental law is indeed at the forefront of the global community and environmental protection and conservation is regarded as of utmost importance. Some treaties, regional legal instruments and national water laws and policies regulating the utilization and joint management of a specific trans-boundary watercourse, pay considerable attention to sustainable development. We also see that courts – both at the international and domestic level – increasingly adopt a sustainable development-oriented approach to international water law. Through this development, the open and largely procedural norms and principles of

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<sup>11</sup> <http://www.unwater.org/sdgs/a-dedicated-water-goal/en/>, (last accessed 31/07/17).

<sup>12</sup> Lewis K., United Nations Development Programme, (2007), *Effective Water Governance: The Key to Sustainable Water Management and Poverty Eradication*, available at <http://www.undp.org/water/>, (last accessed 19/06/16).

<sup>13</sup> <http://www.internationalwaterlaw.org/blog/2014/01/22/offshore-fresh-water-aquifers-which-law-will-apply/>, (last accessed 31/07/17).

general international water law are interpreted in such a way as to oblige States to embrace a ‘green’ approach to regulating the use of their freshwater resources.<sup>14</sup> This means that states should start managing water in line with an approach that is more eco-centric, that places values on the environment and on all human beings, so that each and every person (and living organism) can benefit from this natural resource. Eco-centrism refers to the idea that all life has intrinsic value. An eco-centric ethic nature has moral consideration because it has intrinsic value, value aside from its usefulness to humans.<sup>15</sup> In essence, we must take into consideration that water is not only useful to human-beings, but also to the functioning of the Earth as well. This mind-set allows for more value to be placed on an object, especially when taking into consideration that that object is an essential part of the chain of life for most inhabitants on Earth.

## **1.2. Significance and Aims of the Study**

The international recognition of the importance of water has gradually emerged over the years and has culminated into the Sustainable Development Goals (SDGs) that we have today. Water is at the very core of sustainable development, critical for a thriving people, planet and prosperity. Water is regarded as a public good which is fundamental for health and life. Water is so important that it was debated as being a basic human right on many international platforms. Water access has plagued many parts of the world for a long period of time. In recent years, there have been increasingly urgent warnings of a global water crisis, as the human species consistently uses more water than is sustainably available. The international community tried to work towards overcoming these water-related issues by establishing the then Millennium Development Goals<sup>16</sup> (hereafter referred to as MDGs), with MDG 7.C focusing on access to safe drinking water. Even though MDG 7.C was achieved in

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<sup>14</sup> Spijkers O., (2016), The Cross-fertilization between the Sustainable Development Goals and International Water Law, Review of European, Comparative and International Environmental Law (RECIEL), Vol. 25, Issue No. 1, Page 39.

<sup>15</sup> Kortenkamp K.V. and Colleen M.F., (2001), Ecocentrism and Anthropocentrism: Moral Reasoning about Ecological Commons Dilemmas, Journal of Environmental Psychology, Page 2.

<sup>16</sup> United Nations Millennium Development Goals, available at <http://www.un.org/millenniumgoals/>, (last accessed on 22/06/16).

part, issues still remained regarding water access and quality.<sup>17</sup> Sustainable Development Goal 6 (hereafter referred to as SDG6) was then introduced and the scope of SDG6 is much wider than its predecessor, since the water access and scarcity problems are still prevalent today. The 2030 Agenda for Sustainable Development includes a dedicated goal on water and sanitation that sets out to ensure availability and sustainable management of water and sanitation for all.<sup>18</sup> SDG6 expands the MDG focus on drinking water to now cover the entire water cycle, including the management of water, wastewater and ecosystem resources, with water at the very core of sustainable development. The goal has, in essence, extended to include a much broader spectrum of issues that need to be solved which, in essence, unravels even more challenges along the way. As a result, it is imperative to determine whether SDG6 can allow for actual sustainable development in terms of freshwater resources. Thus, this thesis will discuss the advent of the Sustainable Development Goals (hereafter referred to as SDGs), in particular SDG6, as well as analyse how SDG6 impacts on International Environmental Law, with particular emphasis on International Freshwater Law. The main aim of this research is to determine whether the creation and implementation of SDG6 can result in overall freshwater sustainability and whether this can result in the furtherance of sustainable development. In order to achieve this aim, it is important to determine how the adoption of SDG6 promotes the furtherance of sustainable development and the enhancement of International Freshwater Law, pursuant to the promotion of access to quality water, under the auspices of sustainable development. In order to determine whether or not this reality exists, it is important to deal with the various facets of water law on an international scale.

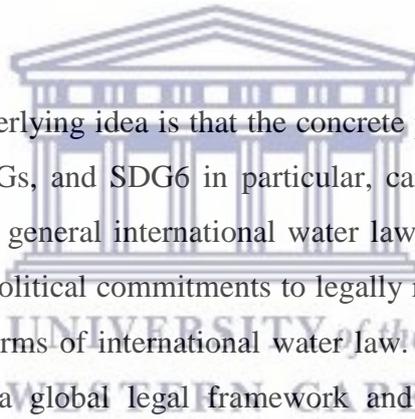
This particular study is indeed significant in today's day and age because global environmental protection is on the agenda of most countries. SDG6 on water and sanitation was adopted in 2015 and officially came into force on 1 January 2016. The main purpose of this research is to determine whether SDG6 may further sustainable water-resource management and in essence, allow for proper sustainable development in relation to water and international freshwater law. Sustainable development is the development to fulfil the

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<sup>17</sup> MDG7.C aimed to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation, available at <http://www.un.org/millenniumgoals/envIRON.shtml>, (last accessed on 22/06/16).

<sup>18</sup> SDG6 aims to: (6.1.) achieve universal and equitable access to safe and affordable drinking water for all, (6.2.) achieve access to adequate and equitable sanitation and hygiene for all, (6.3.) improve water quality by reducing pollution, (6.4.) substantially increase water-use efficiency across all sectors, (6.5.) implement integrated water resources management at all levels, and (6.6.) protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes, available at <https://sustainabledevelopment.un.org/sdg6>, (last accessed 22/06/16).

needs of the present generation without compromising to serve the future generations. Sustainable development in water resources must be considered. Even though water is a renewable resource, if the usage of the resource exceeds the renewability, then there comes an uncertainty which will have effects on the environmental ecosystem. Sustainability in water ensures that life is prolonged, and allows for us to fulfil the eco-centric ethic duty too. It is important to determine how SDG6 allows for overall sustainability of water, especially since this resource is becoming ever-more scarce in today's age. This contribution sets out to examine whether the SDGs can also play a modest role in this ongoing development. In other words, can the SDGs give a further boost to the evolution of general international water law towards a more sustainable development oriented legal framework. This topic is pertinent to society as a whole, as there are many water crises, and people suffer as a result of not having access to basic water and sanitation in order to continue with daily life. Lack of water essentially means lack of life.



As stated by Spijkers, the underlying idea is that the concrete political commitments relating to water contained in the SDGs, and SDG6 in particular, can add substantive flesh to the otherwise abstract skeleton of general international water law. At the same time, the SDGs will be elevated from purely political commitments to legally relevant obligations when they can be so 'attached' to the norms of international water law. In short, there is potential for true cross-fertilization, with a global legal framework and global environmental policy strengthening each other.<sup>19</sup> Indeed the global emergence and call for water to be recognised as a human right has now placed access to quality water for human beings at the forefront of the international environmental agenda. Proper quality and quantity of water impacts greatly on sustainable development for human beings as well. Thus, there is scope to determine and hypothesise whether the emergence of the SDGs can allow for progressive access to good quality and a proper quantity of water, which can then allow for the furtherance of sustainable development. Thus, it is important to determine whether the SDGs can catapult the international water agenda in order to progressively realise this access and quality. The aim is to analyse how much of an impact SDG6 can have on the emerging global water agenda. There is a need to determine whether or not SDG6 can have any effect on other facets of

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<sup>19</sup> Spijkers O., (2016), The Cross-fertilization between the Sustainable Development Goals and International Water Law, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol. 25, Issue No. 1, Page 39.

international water law, including its status, management and governance. The idealist rhetoric is that the emergence of SDG6 can allow for efficient water governance, management and distribution. However, it is important to keep in mind that the success of realising the goals and target of SDG6, and all the SDGs in general, requires commitment and action from various role-players and therefore it is imperative to determine whether SDG6 can act as a catalyst to facilitate this co-operative process.

### **1.3. Research Question**

How does the adoption of Sustainable Development Goal 6 promote the furtherance of sustainable development and enhancement of International Freshwater Law pursuant to the promotion of access to quality water, under the auspices of sustainable development?



### **1.4. Chapter Outline**

Chapter 1 of this composition introduces the background and problems being faced in international water law and water management. It aims to paint a picture of the current situation the world finds itself in with regard to water access, water use, water management and overall water sustainability. This chapter then includes the significance of the study; the research question for the study; as well as the manner in which this study will be organised.

The main issue regarding water itself is the actual access to and the quality of water that human beings enjoy. SDG6 sets out to achieve universal and equitable access to water for all. However, it is important to note why this goal was established in the first place. Chapter two of this composition will deal with the various issues currently found in international freshwater law, namely, access to water, pollution and quality of water and the scarcity of water. An investigation will be done into how these issues have emerged and how these issues affect water access and quality, essential for sustainable human development. I will explain what the consequences will be if these issues persist and what needs to be done in order to overcome these various issues.

Chapter three of this composition will deal with the various International Conventions and Treaties regulating International Freshwater Law currently. There will be particular emphasis placed on the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, as this is considered the main instrument for international watercourses. The chapter will allow for an idea of how water is regulated on an international scale. This chapter will also deal with the relationship between international freshwater law and sustainable development, as well as look at its potential link in terms of access to quality water.

Since water has been afforded so much international attention, chapter four will explore the prevalence of regarding and classifying water as a human right. The following chapter will explore the concept of water as a human right on the global scale. It will link various international treaties and conventions in order to establish the importance of water to mankind itself. There have been various calls for ensuring that water receives its due status, and this chapter will explore the progression of the relevance and importance of water on the international scale. Since water is integral to the survival of man, it is indeed warranted to determine whether this necessity is part of our core necessity of basic human rights.

Chapter five will then link international environmental law to the overarching concept of sustainable development. In this chapter, I will explain what sustainable development entails and how it has been a core concept in international environmental law, and how many policies and international agreements make some mention of this concept. I will also look at the links between sustainable development and international water law, and how SDG6 can allow for better or more efficient sustainable water management for not only the current generation, but also for future generations, as the concept of sustainable development calls for. This linkage will lay the foundation for the next chapter, which deals with the actual sustainable development goals, in particular SDG6.

Chapter six will then delve into the world of SDGs as well as MDGs. The aim of this chapter is to introduce the reader to the aims and objectives of the MDGs and SDGs in general, and especially focus on those pertaining to water. The MDGs, now defunct, will be looked at and there will be an analysis of how and why the goals were not fully realised in order to gain insight and generate lessons for the SDGs. The SDGs will then be explored and the main objectives of these goals as a whole will be detailed, especially in relation to water. The underlying idea is that the concrete political commitments relating to water contained in the

SDGs, and SDG6 in particular, can add substantive flesh to the otherwise abstract skeleton of general international water law. At the same time, the SDGs will be elevated from purely political commitments to legally relevant obligations when they can be so ‘attached’ to the norms of international water law. In short, there is potential for true cross-fertilization, with a global legal framework and global environmental policy strengthening each other.<sup>20</sup> The chapter will also explore the impact that the emergence of these SDGs has had in relation to overall sustainable development and International Freshwater Law.

An important facet of effective implementation of legal policy is good governance. When it comes to matters regarding water access, international water governance also plays an important role. Chapter seven deals with water governance and will analyse how effective water governance can play an important role in ensuring the better management and control of various water-related issues. This chapter will deal with the issues surrounding current global water governance and it will look at how these issues can be dealt with. The chapter will then focus on how global water governance can theoretically be a solution to ensuring effective water access, management and distribution. I will deal with the political, social and legal dimension of this form of governance in order to show how it can be a suitable mechanism to ensure proper water management, which in turn, ensures progressive sustainable development. Governance is linked to enforcement and implementation hence SDG17 will also be explained and linked here. SDG17 deals with revitalizing the global partnership for sustainable development, by revitalizing partnerships between governments, the private sector and civil society.<sup>21</sup> Thus, since international water governance requires co-operation on a global scale, this particular SDG must also be looked at.

Chapter eight of this composition will deal with recommendations regarding the promotion of SDG6. This chapter will contain my concluding remarks as well as recommendations for the creation of more effective water governance policies in order to better govern water matters in order to aid the progressive realization of SDG6. This chapter will provide some insights in order to ensure that the global community takes a step in the right direction in terms of effective freshwater policy. Ultimately, environmental degradation can only be effectively managed if all matters relating to environmental conservation and protection are effectively

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<sup>20</sup> Spijkers O., (2016), The Cross-fertilization between the Sustainable Development Goals and International Water Law, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol. 25, Issue No. 1, Page 39.

<sup>21</sup> <http://www.un.org/sustainabledevelopment/globalpartnerships/>, (last accessed 31/07/2017).

managed by the global community as a whole. Thus, a response to the research question will be given and recommendations will be made to form the final conclusion of this study.

### **1.5. Methodology**

Research will be conducted by means of a literature review. Hence, primary and secondary sources of law will be made use of. These sources include legal literature, case law and the commentaries of writers in both textbooks and journal articles in particular. Since the topic at hand deals with international environmental law, there will also be an analysis of international law. This will include exploring treaties, conventions and model legislation. There will also be a historical analysis in order to understand why the current system is the way it is and why these particular principles exist in the first place.



## **CHAPTER TWO – NARRATIVES OF WATER SCARCITY**

*Water, water everywhere and not a drop to drink. The complex explanation is that despite the fact that over 70% of our planet is covered with water, the resource is not necessarily located where it can be economically used, and some of what is accessible is contaminated, in dispute, and not appropriate for the intended use. We require water for agriculture, drinking, hygiene, manufacturing, and sanitation, however, United Nations data suggests that over one billion people (1 of 6) have no access or very limited access to safe drinking water, and another two billion have unacceptable sanitation. These problems lead directly to disease, death, poverty, and sometimes conflict.<sup>22</sup>*

### **2.1. Introduction**

The adoption of SDG6 is in response to the various issues plaguing water in the world. Water is needed for sustenance and for life itself, and even though it may seem that there is an abundance of water in the world, the reality is that most of the water is being used at a rapid rate to meet the demands of society and most of the other sources of water are not usable to mankind at all. The earth itself does have an abundance of water, however, only a small percentage (about 0.3 percent), is even usable by humans. The other 99.7 percent is in the oceans, soils, icecaps, and floating in the atmosphere. Still, much of the 0.3 percent that is useable is unattainable.<sup>23</sup> This is because most of these waters are found underground and in aquifers. An aquifer means a permeable water-bearing geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation.<sup>24</sup> Groundwater resources play a critical role in providing fresh water for people, industries, nations and the environment worldwide. Globally, groundwater provides approximately 45% of humanity's freshwater needs for everyday domestic uses, such as drinking, cooking and

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<sup>22</sup> Greenberg M.R., (2009), Why is Water an Issue, American Journal of Public Health, Vol. 99(11), Page 1297.

<sup>23</sup> Mullen K, (2012), Information on earth's Water, available at <http://www.ngwa.org/Fundamentals/teachers/Pages/information-on-earth-water.aspx>, (last accessed 7/03/17).

<sup>24</sup> Article 2(a) of the Articles on the Law of Transboundary Aquifers (2008), UNGA Resolution A/RES/63/124 Page 3, available at <http://legal.un.org/avl/ha/alta/alta.html>, (last accessed 7/09/17).

hygiene, as well as 24% of water used in irrigated agriculture.<sup>25</sup> Mankind is mainly dependent on surface water that is easily attainable via oceans, rivers, streams, lakes and reservoirs. Surface water is far easier to reach, so this becomes the most common source of potable water. About 321 billion gallons (1215 billion litres) of surface water is used by humans on a daily basis. In addition to this, there is also about 77 billion gallons (290 billion litres) of groundwater that is used each day.<sup>26</sup> Problems also exist in contamination of the water supplies. This further limits the amount of water available for human consumption. An increasing number of rivers now run dry before reaching the sea for substantial periods of the year. In many areas, groundwater is being pumped at rates that exceed replenishment, depleting aquifers and the base flows of rivers.<sup>27</sup> Increasingly, governments, corporations and communities are concerned about the future availability and sustainability of water supplies.<sup>28</sup> The absolute quantity of water on Earth does not change. It is thought to have been the same for billions of years.<sup>29</sup> However, ninety-seven percent of all water is salt water while only three percent is fresh. Of that amount of fresh water, most is locked in polar ice caps and deep underground aquifers-effectively beyond human reach. 0.3 percent of total fresh water reserves are found in rivers and lakes. The largest share of fresh water that is available to humans takes the form of groundwater, which constitutes about thirty percent of global fresh water reserves. Water is found in many different forms and in many different places. While the amounts of water that exist seem to be plentiful, the availability of the water for human consumption is limited. Water is an essential, life-giving force. Its scarcity and misuse demands our attention. Even with the coordinated efforts of all nations, future water scarcity may result in a health and financial crisis of unparalleled magnitude.<sup>30</sup>

It is widely accepted as fact that only 10 percent of the annual world water supply is consumed by humans and that only 15 percent of people worldwide have an abundance of

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<sup>25</sup> Eckstein G. and Sindico F., (2014), *The Law of Transboundary Aquifers: Many Ways of Going Forward, but Only One Way of Standing Still*, Review of European, Comparative and International Environmental Law (RECIEL), Vol. 23 (1), Page 32.

<sup>26</sup> Eckstein G. and Sindico F., (2014), *The Law of Transboundary Aquifers: Many Ways of Going Forward, but Only One Way of Standing Still*, Review of European, Comparative and International Environmental Law (RECIEL), Vol. 23 (1), Page 32.

<sup>27</sup> Postel S.L., (2000), *Entering an Era of Water Scarcity: The Challenges Ahead*, Ecological Applications Journal, Vol. 10(4), Page 941 – 948.

<sup>28</sup> Hoekstra A.Y, Mekonnen M.M, Chapagain A.K, Mathews R.E, and Richter B.D., (2012), *Global Monthly Water Scarcity: Blue Water Footprints versus Blue Water Availability*. PLoS ONE 7(2): e32688. <https://doi.org/10.1371/journal.pone.0032688>, Page 1.

<sup>29</sup> McCaffrey S., (1997), *The Coming Fresh Water Crisis: International Legal and Institutional Responses*, Vermont Law Review, Vol. 21, Page 803.

<sup>30</sup> Curry E., (2010), *Water Scarcity and the Recognition of the Human Right to Safe Freshwater*, NorthWestern Journal of International Human Rights, Vol. 9, Page103.

water.<sup>31</sup> It is stated that 1.1 billion people live without safe drinking water. Included in this is a further 783 million people who do not have access to clean and safe water worldwide.<sup>32</sup> This equates to one in nine people worldwide who do not have access to safe and clean drinking water.<sup>33</sup> To break this down even further, 319 million people in Sub-Saharan Africa are without access to improved reliable drinking water sources.<sup>34</sup> Sub-Saharan Africa is among the regions with the greatest drinking water spending needs, with the greatest investment needs in rural areas.<sup>35</sup> Two thirds or about 102 million of the 159 million still using surface water live in Sub-Saharan Africa.<sup>36</sup> Lack of water directly influences poverty, and based on these statistics, it is indeed evident why the African countries are plagued with poverty issues. The lack of access to water and poverty link is something that is worth exploring, especially since it has an adverse effect on human health and well-being.

Over 2 million people die every year owing to lack of safe water. Statistics also show that globally almost 6000 children under the age of five die every day from water related diseases.<sup>37</sup> In developing countries, as much as 80% of illnesses are linked to poor water and sanitation conditions.<sup>38</sup> It is stated that half of the world's hospital beds are filled with people suffering from a water-related disease.<sup>39</sup> Exposure to unsafe drinking water, inadequate sanitation and poor hygiene is a leading cause of cholera and a variety of infectious and topical diseases.<sup>40</sup> Nearly one out of every five deaths under the age of 5 worldwide is due to

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<sup>31</sup> Watkins K., *et al* (2006), Human Development Report: Beyond Scarcity: Power, Poverty and the Global Water Crisis, Page 537, available at <http://www.undp.org/content/dam/undp/library/corporate/HDR/2006%20Global%20HDR/HDR-2006-Beyond%20scarcity-Power-poverty-and-the-global-water-crisis.pdf>, (last accessed 19/03/17).

<sup>32</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, Progress on Sanitation and Drinking Water 2010, available at [www.wssinfo.org/](http://www.wssinfo.org/), (last accessed 19/03/17).

<sup>33</sup> Based on 87% of the global population using improved sources, found in WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, Progress on Sanitation and Drinking Water 2010, available at [www.wssinfo.org/](http://www.wssinfo.org/), (last accessed 19/03/17).

<sup>34</sup> World Health Organization, Key Facts from 2015 JMP Report, available at [http://www.who.int/water\\_sanitation\\_health/publications/JMP-2015-keyfacts-en-rev.pdf?ua=1](http://www.who.int/water_sanitation_health/publications/JMP-2015-keyfacts-en-rev.pdf?ua=1), (last accessed 19/03/17).

<sup>35</sup> World Health Organization, Global Costs and Benefits of Drinking-Water Supply and Sanitation Interventions to Reach MDG Target and Universal Coverage, available at [http://www.who.int/water\\_sanitation\\_health/publications/2012/globalcosts.pdf](http://www.who.int/water_sanitation_health/publications/2012/globalcosts.pdf), (last accessed 19/03/17).

<sup>36</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2015 Report and MDG Assessment, available at <http://www.wssinfo.org/>, (last accessed 19/03/17).

<sup>37</sup> World Resource Institute, Earth Trends Environmental Information, <http://www.wri.org/our-work/project/earthtrends-environmental-information>, (last accessed 19/03/17).

<sup>38</sup> United Nations. Statement by Secretary General Kofi Annan. June 2003, available at <http://www.un.org/News/Press/docs/2003/sgsm8707.doc.htm>, (last accessed 21/03/17).

<sup>39</sup> World Health Organization, WHO in the African Region, available at [http://www.afro.who.int/en/clusters-a-programmes/hpr/protection-of-the-human-environment/programme-components/index.php?option=com\\_content&view=article&id=24&Itemid=122](http://www.afro.who.int/en/clusters-a-programmes/hpr/protection-of-the-human-environment/programme-components/index.php?option=com_content&view=article&id=24&Itemid=122), (last accessed 20/03/17).

<sup>40</sup> *Ibid.*

a water-related disease.<sup>41</sup> A total of 443 million school days are lost each year due to water-related diseases.<sup>42</sup> By investing in clean water alone, young children around the world can gain more than 413 million days of health.<sup>43</sup> One of the biggest effects of unsafe water is the fact that all human beings are susceptible to illness and death. This is truly a worrying factor and even more of a reason to find a solution to the contamination of water.

The unfortunate part of the lack of access to water is the implications it has on the livelihood and basic conditions of people. Girls under the age of 15 are twice as likely as boys to be the family member responsible for fetching water in areas where access is an issue.<sup>44</sup> The physical and time burden of water hauling was found to fall primarily on women and girls who make up 72% of those tasked with fetching water.<sup>45</sup> Women and girls are responsible for water collection in seven out of ten households in 45 developing countries.<sup>46</sup> Almost two-thirds (64% of households) rely on women to get the family's water when there is no water source in the home.<sup>47</sup> The fact that women are so overly burdened to provide water for their families in these developing and under-developed areas is far too disturbing. This can further contribute to their under-development as human beings. As a result, discrimination against women can be further linked to water, especially when the task of accessing water becomes an extremely difficult chore that falls on women mainly. Also, over half of the developing world's primary schools do not have access to water and sanitation facilities. Without toilets, girls often drop out at puberty.<sup>48</sup> If we analyse this and link it back to the poverty aspect, again the correlation becomes evident. The unfortunate reality is that the 'poorer' or 'developing' countries are the ones stuck in a cycle of poverty that seems hard to escape

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<sup>41</sup> WHO/UNICEF, (2009), Diarrhoea: Why children are still dying and what can be done, available at [http://www.unicef.org/health/index\\_51412.html](http://www.unicef.org/health/index_51412.html), (last accessed 20/03/17).

<sup>42</sup> United Nations Development Programme, (2006), Human Development Report 2006: Beyond Scarcity: Power, Poverty and the Global Water Crisis, available at <http://hdr.undp.org/en/reports/global/hdr2006/>, (last accessed 4/04/17).

<sup>43</sup> World Health Organization, Costs and benefits of water and sanitation improvements at the global level, [http://www.who.int/water\\_sanitation\\_health/wsh0404/en/](http://www.who.int/water_sanitation_health/wsh0404/en/), (last accessed 4/04/17).

<sup>44</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation., Progress on Sanitation and Drinking Water 2010, available at [www.wssinfo.org/](http://www.wssinfo.org/), (last accessed 19/03/17).

<sup>45</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation., Progress on Sanitation and Drinking Water 2010, available at [www.wssinfo.org/](http://www.wssinfo.org/), (last accessed 19/03/17).

<sup>46</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation., Progress on Sanitation and Drinking Water 2010, available at [www.wssinfo.org/](http://www.wssinfo.org/), (last accessed 19/03/17).

<sup>47</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation., Progress on Sanitation and Drinking Water 2010, available at [www.wssinfo.org/](http://www.wssinfo.org/), (last accessed 19/03/17).

<sup>48</sup> UNICEF, Water, Sanitation and Hygiene, Updated May 2010. [http://www.unicef.org/media/media\\_45481.html](http://www.unicef.org/media/media_45481.html), (last accessed 5/04/17).

from. This is further heightened by the fact that water remains inaccessible and more of a chore to access. In essence, the poor get poorer so to speak.

Globally we use 70% of our water sources for agriculture and irrigation, and only 10% on domestic uses.<sup>49</sup> However, the relentless rise in demand for water to grow food, supply industries and sustain urban and rural populations has led to a growing scarcity of freshwater in many parts of the world. An increasing number of rivers now run dry before reaching the sea for substantial periods of the year.<sup>50</sup>

The aforementioned statistics paints a grim picture of the reality of the world that we live in. The fact that water flows from a tap every time it is opened causes many people to live in ignorance of the current situation. The reality is that more and more people live without this basic need or cannot access it easily. The lack of accessible water not only affects their livelihoods, it affects their state of being as well. The main issues that come to the fore are the scarcity of water and the access issues that tie into that, as well as the pollution of water.

The main issue regarding water itself is the actual access to and the quality of water that human beings enjoy. SDG6 sets out to achieve universal and equitable access to water for all. However, it is important to note why this goal was established in the first place. Furthermore, SDG 6.3 has set a target to improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally by 2030.<sup>51</sup> Thus, it is important to determine the current state of affairs in relation to these aspects, and what the situation truly entails. This chapter will deal with the various issues currently found in international freshwater law, namely, access to water, pollution and quality of water and the scarcity of water. An investigation will be done into how these issues have emerged and how these issues affect water access and quality that is essential for sustainable

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<sup>49</sup> AQUASTAT, Food and Agriculture Organization of the United Nations, Water Use, [http://www.fao.org/nr/water/aquastat/water\\_use/index.stm](http://www.fao.org/nr/water/aquastat/water_use/index.stm), (last accessed 2/05/17).

<sup>50</sup> Hoekstra A.Y, Mekonnen M.M., Chapagain A.K., Mathews R.E., and Richter B.D., (2012), Global Monthly Water Scarcity: Blue Water Footprints versus Blue Water Availability. PLoS ONE 7(2): e32688. <https://doi.org/10.1371/journal.pone.0032688>.

<sup>51</sup> SDG6, <https://sustainabledevelopment.un.org/sdg6>, (last accessed 20/02/18).

human development. I will explain what the consequences will be if these issues persist and what needs to be done in order to overcome these various issues.

## **2.2. Access and Scarcity of Water**

With a combined total volume of 332 cubic miles, the water sources of the world are one of the most abundant natural resources, making the notion of water scarcity even more confounding.<sup>52</sup> Water scarcity is one of the greatest challenges of the 21st century, and has been identified as one of the biggest societal and economic risks for the next decades. Addressing the issue of water scarcity and enhancing water efficiency go hand-in-hand. Water is wasted and lost along the entire value chain and in most sectors, including in agriculture, households and industries, for reasons ranging from negligence, water-inefficient processes, lack or quality of infrastructure, mismanagement and poor governance. Due to lack of inter-sectoral coordination, for example between water, agriculture and energy, decisions taken in a given sector can have an adverse impact on water availability and quantity and vice-versa, if not dealt with the inter-linkages explicitly.<sup>53</sup>

In the year 2000, the International Water Management Institute predicted that 1.8 billion people would experience absolute water scarcity by the year 2025.<sup>54</sup> More recent predictions suggest that between three and nine billion people will experience water scarcity within the next century.<sup>55</sup> Historically, water scarcity has been defined as a state of insufficient water to satisfy normal requirements.<sup>56</sup> Water scarcity can be fundamentally divided into two aspects, namely, shortage and stress. Water *shortage* refers to the impact of low water availability per person. In crowded conditions, when a large population has to depend on limited resources,

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<sup>52</sup> Curry E., (2010), Water Scarcity and the Recognition of the Human Right to Safe Freshwater, NorthWestern Journal of International Human Rights, Vol. 9, Page 105.

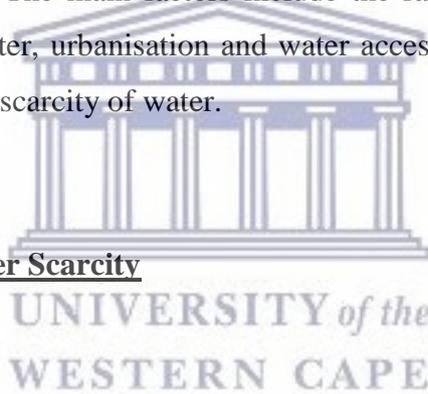
<sup>53</sup> Budapest Water Summit, (2016), Policy Recommendations for the Implementation of the SDG-6 Areas, available at [https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016\\_PR\\_v1129.pdf](https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016_PR_v1129.pdf), (last accessed 7/05/17).

<sup>54</sup> International Water Management Institute (IWMI), (2000), The IWMI global water scarcity study, available at [http://www.iwmi.cgiar.org/About\\_IWMI/Strategic\\_Documents/Annual\\_Reports/WSacarcity.pdf](http://www.iwmi.cgiar.org/About_IWMI/Strategic_Documents/Annual_Reports/WSacarcity.pdf), (last accessed 7/05/17).

<sup>55</sup> Oki T. and Kanae S., (2006), Global hydrological cycles and world water resources, Science, Vol. 313, Issue 5790, at Pages 1068 – 1072.

<sup>56</sup> Chenoweth J., (2008), A Re-Assessment of Indicators of National Water Scarcity, Water International, Vol. 33(1), Pages 5 - 18.

the capacity of the resource might become insufficient to satisfy otherwise small marginal demands, such as dilution of pollutants in a water body, and competition may result in disputes.<sup>57</sup> Given a resource and per capita requirements, water shortage can therefore be seen as population-driven scarcity. Hence, factors such as densely-populated areas or urbanisation can have a direct impact on the water shortage that occurs within a said area. When supply cannot meet demand, then shortage itself occurs. On the other hand, water *stress* refers to the impact of high water use (either withdrawals or consumption) relative to water availability. Use of a large portion of a resource might lead to difficulties in accessing the resource, including side effects including social and environmental impacts. Stress can be seen as demand-driven scarcity, potentially occurring even if the population is not large enough to cause shortage.<sup>58</sup> While the quantity of fresh water does not change on an absolute basis, the amount available to each individual does change with the growth of the human population.<sup>59</sup> There are various issues, in addition to shortage and stress that play a role in the depletion of water resources. The main factors include the rate of use of water by human beings, the quality of said water, urbanisation and water access. These factors play a major role in the current trend of the scarcity of water.



### **2.2.1. Factors Affecting Water Scarcity**

An examination of water consumption data over the past century illustrates a clear trend of abuse. In essence, the main users and wasters of water is the human population. While water is needed for everyday life, conscious saving of water rarely occurs, especially when water flows freely from domestic taps. In the last four decades, worldwide water use has doubled to more than 1,700 litres per person per day.<sup>60</sup> Water consumption essentially grows by a factor of two every twenty years. This rate is twice that of global population increases, suggesting

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<sup>57</sup> Falkenmark, M., (1997), *Meeting Water Requirements of an Expanding World Population*, Philosophical Transactions of the Royal Society of London, Series B, Biological Sciences, Vol. 352, Pages 929 – 936.

<sup>58</sup> Rockström J., Falkenmark M., Karlberg, L., Hoff H., Rost S. and Gerten D., (2009), *Future Water Availability for Global Food Production: The Potential of Green Water for Increasing Resilience to Global Change*, Water Resource Research Journal, Vol. 45, W00A12.

<sup>59</sup> McCaffrey S., (1997), *The Coming Fresh Water Crisis: International Legal and Institutional Responses*, Vermont Law Review, Vol. 21, Pages 803 – 804.

<sup>60</sup> Rose G., (2008), *The Big Necessity: The Unmentionable World of Human Waste and Why it Matters*, Metropolitan Books, Page 227, (In 2000, twice as much water was used throughout the world than in 1960).

that mere increase in population is not a sufficient explanation for the problem.<sup>61</sup> Human beings use about eight percent of the world's fresh water supplies for health and sanitation purposes.<sup>62</sup> While it took all of human history up to the year 1950 for the population to reach two and a half billion, it took fewer than forty years for it to double. By the year 2000 it has topped the six billion mark. If present trends continue, the United Nations estimates that after the year 2100, the world's human population will stabilize at around twelve billion. This means that in the year 1850, the average amount of water available per person worldwide was 43000 cubic meters per year; today it is under 9000, a change brought about only by increases in population.<sup>63</sup> The increase in population has had a direct impact on the increase of water usage. As the population size increases, the lack of adequate sanitation then becomes a contributing factor to the ever-present water scarcity crisis. In the year 2000, the Millennium Development Goals aimed at halving the proportion of people without access to safe drinking water and sanitation.<sup>64</sup> The tight link between sanitation and water scarcity suggests that any proposed solution to water scarcity must first account for improving sanitation.<sup>65</sup> Human excreta contaminates water sources and makes them unsafe, thus the issue of sanitation must be addressed.<sup>66</sup> There are currently 2.5 billion people without access to adequate sanitation; of those, 1.2 billion continue to practice open defecation, while four in ten defecate in fields used for food production. As long as basic sanitation eludes so many people, offering contaminate-free water to the global population will be impossible.<sup>67</sup>

By the year 2025, over 30 countries will be unable to provide 1,000 (cubic meters) per person per year, simply because of population growth.<sup>68</sup> That is, in thirty years over thirty countries will be under water scarcity. In some countries the situation is much worse. In 1990, there were twelve countries in which water availability was fewer than five hundred cubic meters

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<sup>61</sup> Rose G., (2008), *The Big Necessity: The Unmentionable World of Human Waste and Why it Matters*, Metropolitan Books, Page 227, (In 2000, twice as much water was used throughout the world than in 1960).

<sup>62</sup> Serageldin I., (1995), *Toward Sustainable Management of Water Resources*, The World Bank, Washington, D.C 3, Page 1.

<sup>63</sup> Gleick P.H., (1993), *Water Resources: A Long-Range Global Evaluation*, *Ecology Law Quarterly*, Vol. 20, Page 143.

<sup>64</sup> MDG 7.C, <http://www.un.org/millenniumgoals/envIRON.shtml>, (last accessed 19/03/17).

<sup>65</sup> Khalfan A. and Others., (2007), *Manual on the Right to Water and Sanitation*, 11 (Maria Katsabanis ed., COHRE, AAAS, SDC and UN-HABITAT 2007), Page 1.

<sup>66</sup> Curry E., (2010), *Water Scarcity and the Recognition of the Human Right to Safe Freshwater*, *NorthWestern Journal of International Human Rights*, Vol. 9, Page 107.

<sup>67</sup> Curry E., (2010), *Water Scarcity and the Recognition of the Human Right to Safe Freshwater*, *NorthWestern Journal of International Human Rights*, Vol. 9, Page 107.

<sup>68</sup> Gleick P.H., (2000), *Water in the 21st Century*, in Gleick P.H., *Water in Crisis*, Oxford University Press, Pages 105 – 106.

per person per year. This number is projected to increase to nineteen by 2025.<sup>69</sup> By the year 2025, thirty-two percent of the global population will live in some fifty-two countries suffering from water stress or chronic water scarcity.<sup>70</sup> By contrast, in 1990, a mere six percent of the world's population were living under these conditions.<sup>71</sup> A prime example of the current trend that affirms these estimations is the situation in Cape Town, South Africa as of the year 2017-2018. Cape Town's drought and associated water shortage has officially escalated to the level of a disaster. The hope for a natural solution ended with the close of the main rainy season in September 2017, and it is clear that water in the dams supplying the city will not last until the next rains in May-June 2018. The City's main strategy is to severely restrict water use through rationing. Rainfall data visualisations show that 2017 was one of the driest years in recent decades in Cape Town. The region's predicament was not solely caused by the low 2017 rainfall, but by the fact that 2017 followed two successive dry winters.<sup>72</sup> As a result, initially residents of Cape Town were limited to 87 litres of water per day.<sup>73</sup> However, due to further complications whereby the residents of the city could not stay within the daily limit and whereby there was no rainfall residents were further reduced to 50 litres of water per day. This means that each individual is required to use 50 litres or less per person per day in total, whether at home, work, school, gym or elsewhere.<sup>74</sup> This means that a person should use 10 litres of water maximum for showering (which equates to less than two minutes per shower), 2 litres of water for the brushing of teeth and daily washing of hands, 9 litres of water for the flushing of toilets (which equates to one toilet flush per day), 10 litres of water for laundry, 5 litres of water for general home cleaning, 9 litres of water for dish-washing, 1 litre of water for cooking, 1 litre of water for pet cleaning and 3 litres of water for drinking.<sup>75</sup> Even though the City of Cape Town has provided these guidelines, the daily usage is still exceeding its current targets. The fact that water is so scarce in this part of the world has hindered daily life and activities. It has gotten to such a state that no watering or irrigation with municipal drinking water is allowed. This includes watering or irrigation of gardens,

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<sup>69</sup> Gleick P.H., (2000), Water in the 21st Century, in Gleick P.H., Water in Crisis, Oxford University Press, Page 107.

<sup>70</sup> Falkenmark M. and Gunnar L., (2000), Water and Economic Development in Water in Crisis, Page 86.

<sup>71</sup> Ibid.

<sup>72</sup> Wolski P., (2017), Why Cape Town's Drought was so Hard to Forecast, available at <https://www.news.uct.ac.za/news/cape-town-water-crisis/-article/2017-10-20-why-cape-towns-drought-was-so-hard-to-forecast>, (last accessed 15/02/18).

<sup>73</sup> <http://www.capetown.gov.za/Family%20and%20home/residential-utility-services/residential-water-and-sanitation-services/make-water-saving-a-way-of-life>, (last accessed 15/02/18).

<sup>74</sup> Ibid.

<sup>75</sup> City of Cape Town Guidelines, available at: <http://resource.capetown.gov.za/documentcentre/Documents/Graphics%20and%20educational%20material/50%20Litre%20Life%20Poster-colour.pdf>, (last accessed 15/02/18).

vegetables, agricultural crops, sports fields, golf courses, nurseries, parks and other open spaces.<sup>76</sup> The City of Cape Town is the first major city in the world facing a complete water shutdown. If this is to happen, and no water is available, it could have adverse effects on the living conditions of all residents as well as businesses. Daily life as we know it will no longer be the same. The situation in Cape Town is a stark reminder of the importance of water. It shows that even major cities can come to a standstill if there is no water left to sustain it. People do not realise how important water is to daily living and daily life. It is essential for the functioning of not only human beings, but businesses as well. If water becomes scarce within a city, the repercussions are grave indeed. It must be noted that South Africa itself is a water stressed country with an average annual rainfall of only 464 mm. The country's freshwater resources are almost fully utilised and with an estimated increasing demand of 53 per cent in the next thirty years, the government has similarly been compelled to rethink its approach to water resource management.<sup>77</sup> Thus, it must be noted that there is a symbiotic relationship between water and a society. Economic and social activities can have a severe impact on the quality of the water resource, through direct and diffuse pollution that affects its availability to other users. The water environment is a resource in itself, underpinning a variety of activities, notably nature conservation and tourism, as well as other local livelihoods.<sup>78</sup> Water scarcity can have a major impact on water security as well. Water security has been defined as the reliable availability of an acceptable quantity and quality of water for health, livelihoods and production, coupled with an acceptable level of water-related risks.<sup>79</sup> According to UN Water,<sup>80</sup> water security refers to the capacity of a population to safeguard sustainable access to adequate quantities of and acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring

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<sup>76</sup> Level 6B Water Restrictions – Cape Town, available at <http://resource.capetown.gov.za/documentcentre/Documents/Procedures,%20guidelines%20and%20regulations/Level%206B%20Water%20restriction%20guidelines-%20eng.pdf>, (last accessed 15/02/18).

<sup>77</sup> Kotze L.J. and Paterson A., (2009), South Africa, in Kotze L.J. And Paterson A., *The Role of the Judiciary in Environmental Governance: Comparative Perspectives*, Kluwer Law International, Wolters Kluwer International Books, The Netherlands, Page 560.

<sup>78</sup> Muller M. and Others., (2009), *Water Security in South Africa*, Development Planning Division, Working Paper Series No. 12, Page 8.

<sup>79</sup> Grey D, and Sadoff CW., (2007), *Sink or Swim: Water Security for Growth and Development*, World Bank, Washington DC.

<sup>80</sup> UN-Water is an organisation that coordinates the efforts of United Nations entities and international organizations working on water and sanitation issues, <http://www.unwater.org/about-unwater/>, (last accessed 15/06/17).

protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability.<sup>81</sup>

This current situation clearly illustrates the dangers of the water shortage that plagues the world. When compounded by issues associated with climate change, most countries will gradually lose their water resources, and a modern day crisis will occur. Unpredictable weather patterns, which often induce droughts, only worsen conditions in water-scarce countries. The effects of global warming, while increasing the precipitation in areas less affected by water scarcity, continue to reduce rainfall in areas already in need.<sup>82</sup> Dry areas will continue to face the brunt of the long-term effects of global warming, but no nation will be immune. Estimates suggest that climate change will lead to a twenty percent increase in water scarcity across the globe.<sup>83</sup>

One of the major causes of water use and abuse is agriculture and industrial usage of water.<sup>84</sup> The agricultural sector consumes about sixty-seven percent of the available supply. In developing countries the figure is closer to seventy percent.<sup>85</sup> Food takes an important share in the total use of natural resources, such as water. Animal products have a particularly large water requirement per unit of nutritional energy compared to food of plant origin.<sup>86</sup> Population increase necessarily requires increased food production. The issue is that we need food to survive, much like we need water to survive. Unfortunately, we find ourselves in a time where the usage of water to develop crops is causing a rapid depletion of our essential resource. To supply one person with 2800 calories per day, one thousand cubic meters of water is needed.<sup>87</sup> It is estimated that within thirty years, a fourteen percent increase in

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<sup>81</sup> UN-Water., (2013), *Water Security and the Global Water Agenda: A UN-Water Analytical Brief*, Page 1, available at <http://www.unwater.org/publications/water-security-global-water-agenda/>, (last accessed 15/06/17).

<sup>82</sup> World Water Assessment Programme (2003), *The United Nations World Water Development Report (Executive Summary)* 8, Page 10.

<sup>83</sup> World Water Assessment Programme (2003), *The United Nations World Water Development Report (Executive Summary)* 8, Page 10.

<sup>84</sup> McCaffrey S., (1997), *The Coming Fresh Water Crisis: International Legal and Institutional Responses*, Vermont Law Review, Vol. 21, Page 808.

<sup>85</sup> Curry E., (2010), *Water Scarcity and the Recognition of the Human Right to Safe Freshwater*, NorthWestern Journal of International Human Rights, Vol. 9, Page 104 – 105.

<sup>86</sup> Hoekstra A.Y., and Chapagain A.K., (2008), *Globalization of Water: Sharing the Planet's Freshwater Resources*, Blackwell Publishing, Oxford, UK.

<sup>87</sup> Rose G., (2008), *The Big Necessity: The Unmentionable World of Human Waste and Why it Matters*, Metropolitan Books, Page 227.

freshwater will be needed to supply the expected twenty percent growth in irrigated land.<sup>88</sup> Water usage for agricultural purposes is increasing most rapidly. It is projected to double in the forty years from 1960 to 2000, from about 1500 to 3000 cubic kilometers per year.<sup>89</sup> Contributing to, and perhaps exacerbating this trend, is the fact that the new, high-yielding crop varieties that are strongly promoted by governments and international institutions require considerably more water than traditional varieties. The current trend among third world farmers of catering to Western influences (abandoning crops like lentils) and adopting water intensive crops (including biofuel crops like corn) further exacerbates the effects of water use.<sup>90</sup> Along with increased water consumption, the shift in production often leads not only to financial misfortune for the third world farmer, but also the disappearance of a number of species of plant and animal food sources.<sup>91</sup>

Industrial uses account for roughly twenty percent of the global water supply.<sup>92</sup> This leaves precious little for freshwater ecosystems that nourish countless species of plants and animals and constitute a vital part of the human life-support system. Human consumption of fresh water is escalating at alarming rates. On a worldwide basis, demand is doubling every twenty-one years. Industrial consumption of water accounts for more than ninety percent of total human water use, effectively limiting the supply available for domestic use.<sup>93</sup> By 2025, industrial water use will be more than 200% greater than 1995 levels. Within industrial applications, agricultural is the largest consumer of water, totalling seventy percent of all human water use.<sup>94</sup>

Another phenomenon having profound effects on the availability of fresh water and sanitation is that the world's population is increasingly concentrated in urban areas.<sup>95</sup> The percentage of world population living in cities was 29.2 % in 1950 and had skyrocketed to 41% by 1985.<sup>96</sup> It was estimated that half the world's population will be living in urban centres by the year

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<sup>88</sup> Bakker K., (2003), Archipelagos and Networks: Urbanization and Water Privatization in the South, *Geographical Journal*, Vol. 169, Pages 328 and 334.

<sup>89</sup> McCaffrey S., (1997), *The Coming Fresh Water Crisis: International Legal and Institutional Responses*, Vermont Law Review, Vol. 21, Page 808.

<sup>90</sup> Easterbrook G., (1995), *A Moment on the Earth: The Coming Age of Environmental Optimism*, Page 589.

<sup>91</sup> Easterbrook G., (1995), *A Moment on the Earth: The Coming Age of Environmental Optimism*, Page 589.

<sup>92</sup> Curry E., (2010), *Water Scarcity and the Recognition of the Human Right to Safe Freshwater*, *NorthWestern Journal of International Human Rights*, Vol. 9, Page 105.

<sup>93</sup> McCaffrey S., (1997), *The Coming Fresh Water Crisis: International Legal and Institutional Responses*, Vermont Law Review, Vol. 21, Pages 808 – 809.

<sup>94</sup> McCaffrey S., (1997), *The Coming Fresh Water Crisis: International Legal and Institutional Responses*, Vermont Law Review, Vol. 21, Pages 808 – 809.

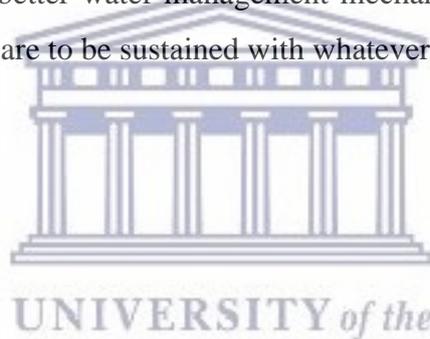
<sup>95</sup> Falkenmark M. and Gunnar L., (2000), *Water and Economic Development in Water in Crisis*, Pages 86 – 87.

<sup>96</sup> Falkenmark M. and Gunnar L., (2000), *Water and Economic Development in Water in Crisis*, Pages 86 – 87.

2000. As of the year 2017, more than half of the world's people live in cities and nearly two billion new urban residents are expected in the next twenty years.<sup>97</sup> These growing urban areas will experience increasing difficulty in providing adequate supplies of water to their inhabitants, not to mention in disposing of the large quantities of wastewater those inhabitants will produce. In urban areas the number of people without access to sanitation actually increased by about seventy million during the 1980s.<sup>98</sup> By way of current statistics, 2.4 billion are still using unimproved sanitation facilities, including 946 million people who are still practicing open defecation.<sup>99</sup>

It is clear that water is being used at a rapid rate without it being replenished at the same rate. This causes many issues and further extends to the problem of water scarcity and shortage. Unfortunately, a conundrum exists, especially when faced with water usage and agriculture. Human beings must develop better water-management mechanisms in order to address this shortfall and rate of use, if we are to be sustained with whatever water resources we have left.

### **2.2.2 Pollution of Water**



Water pollution occurs when unwanted materials enter into water and changes the quality of that water to the effect that it is harmful to the environment and human health.<sup>100</sup> Water is considered polluted if some substances or condition is present to such a degree that the water cannot be used for a specific intended purpose.<sup>101</sup> Thus, water is considered to be polluted when the water in it is altered in composition or condition, directly or indirectly as a result of the activities of man, so that it is less suitable for any or all of the purposes for which it would be suitable in its natural state.<sup>102</sup> Contaminated water can have devastating consequences on a society already depleted of water. The fact that water is scarce means that we should be even

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<sup>97</sup> Cities Alliance - A Look at Urbanisation, <http://www.citiesalliance.org/node/2195>, (last accessed 7/05/17).

<sup>98</sup> McCaffrey S., (1997), The Coming Fresh Water Crisis: International Legal and Institutional Responses, Vermont Law Review, Vol. 21, Page 807.

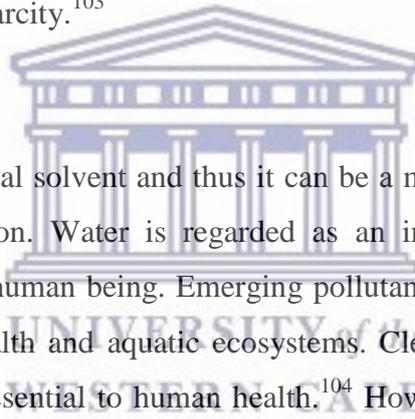
<sup>99</sup> MDG 7.C, <http://www.un.org/millenniumgoals/envIRON.shtml>, (last accessed 17/05/17).

<sup>100</sup> Alrumman S.A., El-Kott A.F. and Kehsk M.A., (2016), Water Pollution: Source and Treatment, American Journal of Environmental Engineering, Vol. 6(3), Pages 88 – 98.

<sup>101</sup> Owa F.D., (2013), Water Pollution: Sources, Effects, Control and Management, Mediterranean Journal of Social Sciences, Vol. 4 No. 8, MCSER Publishing (Rome-Italy), Page 1.

<sup>102</sup> Key A., (1956), Pollution of Surface Water in Europe, World Health Organisation 14 (845 – 948), Page 846.

more careful with the small amounts of water that we have left to use. However, the scourge of water pollution is unfortunately compounding to the ever-increasing list of water-related problems. In the 20th century, the Earth became the 'Chemical World' with millions of synthetic compounds, chemical fertilizers and pesticides, cosmetic and pharmaceutical residues, endocrine disruptors, hormones released uncontrolled onto the planet. Water carries these into natural cycles with and through various fluxes, including the food chain. High energy and costly state of art water treatment technologies is required to partly or fully eliminate these pollutants. Water pollution is even more dangerous and urgent to overcome than air pollution, but today few people recognise this. As water scarcity grows, pollution makes it even scarcer. Water pollution and atmospheric pollution contribute to and amplify each other. This includes agricultural, urban, industrial and atmospheric pollution of water. Bad water quality is limiting safe water use and threatens the integrity of freshwater ecosystems. Unless safeguarded and remedied water quality will gradually become the determining factor of water scarcity.<sup>103</sup>



Water is regarded as a universal solvent and thus it can be a major source of infection when contaminated through pollution. Water is regarded as an important natural resource for developmental purposes in a human being. Emerging pollutants detected in water may have adverse effects on human health and aquatic ecosystems. Clean water that is free of toxic chemicals and pathogens is essential to human health.<sup>104</sup> However, contaminated water can lead to infections, diseases and even death. According to World Health Organization (WHO), 80% of diseases are water borne. Infectious diseases, like cholera, typhoid fever, diarrhea, vomiting, skin, and kidney problems are spread through polluted water.<sup>105</sup> Also, 3.1% deaths occur due to the unhygienic and poor quality of water. The health consequences of poor sanitation and pollution are enormous. Water and sanitation-related diseases combine to kill a staggering 1.6 million people each year. A total of 25 000 of those deaths occur from mere consumption of contaminated water.<sup>106</sup> Water pollution has a dual effect on nature. It has

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<sup>103</sup> Budapest Water Summit (2016), Policy Recommendations for the Implementation of the SDG-6 Areas, available at [https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016\\_PR\\_v1129.pdf](https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016_PR_v1129.pdf), (last accessed 17/05/17).

<sup>104</sup> Kumar Reddy D.H. and Lee S.M., (2012), Water Pollution and Treatment Technologies. Journal of Environmental Toxicology, Vol. 2:e103. doi: 10.4172/2161-0525.1000e103, Page 1.

<sup>105</sup> Khan M.A., and Ghouri A.M., (2011), Environmental Pollution: Its effects on Life and its Remedies, Journal of Arts, Science and Commerce, Vol. 2(2), Pages 276 – 285.

<sup>106</sup> U.N. Human Rights Council (HRC), Promotion and Protection of All Human Rights, Civil, Political, Econ., Social and Cultural Rights, Including the Right to Development: Report of the Independent Expert

negative effects on the living and also on the environment. The effects of pollution on human beings and aquatic communities are many and varied. Water pollution causes approximately 14,000 deaths per day, mostly due to contamination of drinking water by untreated sewage in developing countries.<sup>107</sup> Unfortunately, children are the most susceptible to illness. Sanitation and water-related diseases account for up to twenty-five percent of all deaths of children under the age of five.<sup>108</sup> This means that a child dies every eight seconds from drinking contaminated water.<sup>109</sup> Diarrhea is regarded as the main cause of the majority of these deaths. Thus, diarrhea is responsible for more deaths than HIV, TB, or malaria.<sup>110</sup> The World Health Organization has estimated that 88 per cent of diarrheal disease is caused by unsafe water and sanitation.<sup>111</sup> This is due to the fact that drinking water in various countries does not meet WHO standards.

Furthermore, existing freshwater resources are gradually becoming more and more polluted and unavailable due to human or industrial activities. The increasing contamination of freshwater systems with thousands of industrial and natural chemical compounds is one of the key environmental problems currently facing humanity worldwide.<sup>112</sup> In addition to this, water pollution directly affects plant-life, which in turn directly affects human life. Human health is affected by the direct damage of plants and animal nutrition. Water pollutants are



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on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation, 5, U.N. Doc. A/HRC/12/24 (Jul. 1, 2009).

<sup>107</sup> Owa F.D., (2013), Water Pollution: Sources, Effects, Control and Management, Mediterranean Journal of Social Sciences, Vol. 4 No. 8, MCSER Publishing (Rome-Italy), Page 3.

<sup>108</sup> U.N. Human Rights Council (HRC), Promotion and Protection of All Human Rights, Civil, Political, Econ., Social and Cultural Rights, Including the Right to Development: Report of the Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation, 5, U.N. Doc. A/HRC/12/24 (Jul. 1, 2009).

<sup>109</sup> U.N. Human Rights Council (HRC), Promotion and Protection of All Human Rights, Civil, Political, Econ., Social and Cultural Rights, Including the Right to Development: Report of the Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation, 5, U.N. Doc. A/HRC/12/24 (Jul. 1, 2009).

<sup>110</sup> U.N. Human Rights Council (HRC), Promotion and Protection of All Human Rights, Civil, Political, Econ., Social and Cultural Rights, Including the Right to Development: Report of the Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation, 5, U.N. Doc. A/HRC/12/24 (Jul. 1, 2009).

<sup>111</sup> U.N. Human Rights Council (HRC), Promotion and Protection of All Human Rights, Civil, Political, Econ., Social and Cultural Rights, Including the Right to Development: Report of the Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation, 5, U.N. Doc. A/HRC/12/24 (Jul. 1, 2009).

<sup>112</sup> Schwarzenbach R.P, Escher B.I., Fenner K., Hofstetter T.B., Johnson CA, *et al*, (2006), The Challenge of Micro-Pollutants in Aquatic Systems., Science Journal, Vol. 313, Pages 1072 – 1077.

killing sea weeds, marine birds, fishes, crustaceans and other sea organisms that serve as food for human beings.<sup>113</sup>

With such adverse effects associated with water pollution, especially for human beings, it is important to determine the major causes of said pollution. The ever-expanding human population, domestic sewage, urbanisation, industrialisation and industrial wastes are of the major contributors to water contamination on a global scale.<sup>114</sup>

The increase in population plays a negative role in the polluting of water. As discussed previously, the increase in human population means that there is an increase in the demand for water usage and consumption. However, the increase in population also means an increase in solid and liquid human waste. Human excreta contaminates freshwater. In contaminated water, a large number of bacteria are also found which is harmful for human health.<sup>115</sup> Incorporated in this is urbanisation. Urbanisation can cause many infectious diseases when associated with overcrowding and unhygienic conditions. One quarter of urban population is susceptible to disease as a result of these conditions.<sup>116</sup> It is reported that 75 to 80% of water pollution is caused by the domestic sewage.<sup>117</sup>

Industrial pollution also poses a serious threat to water supplies. As with the lack of sanitation, the effects of industrial pollution have been found to disproportionately affect those of a certain income and race.<sup>118</sup> Discharge industrial effluent wastes, leakage from water tanks, marine dumping, radioactive waste and atmospheric deposition are major causes of water pollution. Heavy metals that are disposed of and industrial waste can accumulate in

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<sup>113</sup> Owa F.D., (2013), Water Pollution: Sources, Effects, Control and Management, Mediterranean Journal of Social Sciences, Vol. 4 No. 8, MCSEER Publishing (Rome-Italy), Page 65.

<sup>114</sup> Haseena M. and Others, (2017), Water Pollution and Human Health, Environmental Risk Assessment and Remediation, Vol. 1, Issue 3, Page 3.

<sup>115</sup> Desai N., (2014), A Study on the Water Pollution based on the Environmental Problem, Indian Journal of Research, Vol. 3(12), Pages 95 – 96.

<sup>116</sup> Kamble S.M., (2014), Water Pollution and Public Health Issues in Kolhapur City in Maharashtra, International Journal of Scientific and Research Publications, Vol. 4(1), Pages 1 – 6.

<sup>117</sup> Haseena M. and Others, (2017), Water Pollution and Human Health, Environmental Risk Assessment and Remediation, Vol. 1, Issue 3, Page 3.

<sup>118</sup> Curry E., (2010), Water Scarcity and the Recognition of the Human Right to Safe Freshwater, NorthWestern Journal of International Human Rights, Vol. 9, Page 108.

lakes and river, proving harmful to humans and animals. Toxins in industrial waste are the major cause of immune suppression, reproductive failure and acute poisoning.<sup>119</sup>

One of the greatest threat stems from deficient regulations controlling the amount of pesticides used in agriculture. To feed an exponentially expanding population, pesticide use has grown by six hundred percent in the last fifty years.<sup>120</sup> Pesticides are used to kill bacteria, pests and different germs from contaminating food sources. When applied to soil, pesticides have a tendency to seep into surrounding water supplies and can taint entire water sources indefinitely. Chemicals containing pesticides are directly polluting the water and affect the quality of water. If pesticides are excess in amount or poorly managed then it would be hazardous for agriculture.<sup>121</sup> Residues of chemicals mixed with river water due to flooding, heavy rainfall and excessive irrigation enter into the food chain. These chemicals are lethal for living organisms and many vegetables and fruits are contaminated with these chemicals.<sup>122</sup> In turn, human beings then consume these contaminated products which then further increase the risk of illness.

The statistics presented are indeed staggering. It is evident that water contamination is occurring at a far too rapid rate. Our most precious resource needed for livelihood is being wasted and abused, mainly by our own actions. The unfortunate part is that water itself is scarce, and the water that the human population does have access to is being polluted. This pollution affects human health and life.

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<sup>119</sup> Owa F.D., (2013), Water Pollution: Sources, Effects, Control and Management, Mediterranean Journal of Social Sciences, Vol. 4 No. 8, MCSER Publishing (Rome-Italy), Page 65.

<sup>120</sup> Barlow M., (2008), Blue Covenant: The Alternative Water Future, Monthly Review, <http://www.monthlyreview.org/080818barlow.php>, (last accessed 17/05/17).

<sup>121</sup> Khurana I. and Sen R., (2008), Drinking Water Quality in Rural India: Issues and Approaches - Water Aid, India Water Portal.

<sup>122</sup> Ebenstein A.Y., (2008), Water Pollution and Digestive Cancer in China, Institutions and Governance Programmes, Pages 1 – 45.

### **2.3. The Water Shortage and Poverty Nexus**

Poverty analysis which excludes access to water for purposes other than drinking is highly flawed.<sup>123</sup> As mentioned in this chapter, water is a precious, essential and scarce resource. There was also mention of a possible link between water and poverty, and this link must be explored, especially since water is essential in food production and thus, livelihood. The fact that water is already so scarce will surely bring about certain concerns among the poorer communities, especially since the disparity in resources between the poor and the rich is far too vast. There is growing recognition that there are strong linkages between water and poverty. However, the nature and direction of these linkages are unclear. On the one hand, many believe that water can drive socio-economic development, a view which provided impetus for the promotion of, and massive investment in, water resources development over the past five decades, to support such broad objectives as economic growth, rural and agricultural development, national food security, protection against famine and intensification of land use. These efforts are believed by many to have contributed to a considerable reduction in both absolute and chronic poverty, and hunger, in most developing countries. However, a contradictory view holds that while there might have been some positive outcomes, water resources development has also been environmentally destructive and unsustainable and has negatively affected directly or indirectly, the lives of millions of people, in particular, the poor.<sup>124</sup> The reality is that poverty hinders development and progression, and this link is especially unfortunate when looking at developing countries. As for development, human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.<sup>125</sup> Thus, development would include the conditions of reality that allow people to take their destiny into their own hands. Taking their lives into their own hands will involve economic, social, political, psychological, environmental, cultural, religious and international dimensions of their environment.<sup>126</sup> Symbiotically, without development poverty may not be eradicated.

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<sup>123</sup> Global Water Partnership, (2003), Poverty Reduction and IWRM, TEC Background Papers, No. 8, Global Water Partnership, Stockholm.

<sup>124</sup> Hussain I., and Giordano M., (2003), Water and Poverty Linkages: Case Studies from Nepal, Pakistan and Sri Lanka, International Water Management Institute, Project Report 1, Chapter One, Pages 1 – 2.

<sup>125</sup> Principle 1 of the Stockholm Conference on the Human Environment (1972).

<sup>126</sup> Oyeshola D., (2007), Development and Poverty: A Symbiotic Relationship and its Implication in Africa, African Journal of Traditional, Complementary Alternative Medicines, Vol. 4(4), Page 553.

Poverty is complex and multidimensional and is the result of a myriad of interactions between resources, technologies, institutions, strategies, and actions. The multidimensional character of poverty has been reflected in a wide array of papers, poverty reduction strategies and policies.<sup>127</sup> Hence, when something takes on a multi-dimensional character, it is important to understand that the various facets that make up the concept must be effectively solved and satisfied in order to allow for the concept to be effectively resolved. In order to develop, poverty should not exist. Poverty not only refers to a lack of money to fulfil basic needs, but it also includes a lack of access to services for basic needs fulfilment. Where there is no infrastructure and services, people will lack pipe borne water supplies, sewage connections or adequate toilet facilities, garbage collection and basic measures to prevent disease and provide health care. Such deficiencies promote diarrhoea, dysenteries, typhoid, intestinal parasites and food poisoning and not development. When combined with malnutrition, these can so weaken the body's defence system and measles, pneumonia and other common childhood diseases become major killers.<sup>128</sup> Hence, the link between poverty and development is indeed apparent as poverty has an impact on almost every aspect of human life and human development. Therefore, it is important to note that water is merely one component of the poverty nexus, but none the less, it must be efficiently managed within this context in order for there to be a resolution of poverty itself. Although water provides only a single element in the poverty equation, it plays a disproportionately powerful role through its wide impact on such factors as food production, hygiene, sanitation and health, vulnerability/food security and the environment. Indeed, development agencies, groups, and experts worldwide are increasingly recognizing the important role that water can have on poverty.<sup>129</sup> Hygiene and health issues can adversely affect human well-being, which will have even more devastating consequences when affecting poorer communities who do not have easy access to modern health care practices. Also, the more the environment is depleted of this natural resource, the more environmental degradation will occur, which will again have a greater adverse effect on poorer communities. Water, health and poverty are closely linked. Health and poverty have a two-way relationship. Good health brings prosperity, and prosperity brings improvements in health. Conversely, poor health may create and perpetuate poverty and poverty may lead to poor health. Whatever the direction, water is at the centre of

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<sup>127</sup> UNDP, 1997; Asian Development Bank, 1999; World Bank, 2000; Dutch Ministry of Foreign Affairs, 2001; Government of The Netherlands: Ministry of Foreign Affairs, 2001; OECD-DAC, 2001.

<sup>128</sup> Cairncross S., (1990), The Urban Context, in: Cairncross S, Hardoy J E, Satterthwaite D, editors, The Poor Die Young: Housing and Health in the Third World. London: Earthscan, Pages 1 – 24.

<sup>129</sup> World Commission on Dams, 2000; Water Supply and Sanitation Collaborative Council, 2000.

this linkage. Water influences health through direct consumption as in drinking water, in sanitation, and by its use in household food and nutrition. Water also contributes to the livelihoods of the poor, because it is a key input in agricultural and non-agricultural production processes and in the environment in which poor people live, and on which they depend.<sup>130</sup>

Improving water security for the poor has been a matter of immense concern in recent years. Water security in a broader context implies that all people, including the poor, have access to water services and sanitation to meet their basic needs.<sup>131</sup> As per an assumption, one would think that the poor not being able to access water merely relates to water for the purposes of drinking and the carrying out of daily activities. Indeed, the scope of water and access spans far beyond that, and can be linked to water as a catalyst for economic development and gain. For example, the growing of food requires water, therefore, if the poor already do not have access to water for their own daily needs, how can they be expected to reverse their situation if they cannot use water to meet economic needs. Water is the most important natural resource base for the livelihood of the poor in developing countries. In addition to using water for drinking, cooking, sanitation and other household activities, the poor use water as an enabling resource for making a livelihood. Agricultural production, either for subsistence or sale, is the main livelihood in rural areas in almost all developing countries. The poor base their livelihood on water in growing food crops and watering livestock and as a basic resource for small-scale production, such as making bricks or brewing. The poor also depend on other water-based resources like freshwater fish and harvesting of aquatic plants and roots in meeting their general food needs, or as coping strategies at times of distress. In irrigated areas, water is used not only for crop production, but also for domestic use, home gardening, growing tree crops and other permanent vegetation and livestock.<sup>132</sup> In addition, specific linkages have been made between water poverty and general socio-economic poverty rankings. This is of particular relevance to Sub-Saharan Africa where rural development is characterized by a significant reliance on agricultural production. In Sub-Saharan Africa, it is

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<sup>130</sup> Abayawardana S. and Hussain I., (2003), Water, Health and Poverty linkages: A Case Study from Sri Lanka, in Case Studies from Nepal, Pakistan and Sri Lanka, International Water Management Institute, Project Report 1, Chapter Four, Page 77.

<sup>131</sup> Pariyar MP., (2003), Water and Poverty Linkages in Mountainous Areas: A Case Study from Nepal, in Case Studies from Nepal, Pakistan and Sri Lanka, International Water Management Institute, Project Report 1, Chapter Two, Page 5.

<sup>132</sup> Gamage D., (2003), Agricultural Water and Poverty: A Case Study from the Dry Zone of Sri Lanka, in Case Studies from Nepal, Pakistan and Sri Lanka, International Water Management Institute, Project Report 1, Chapter Five, Page 93.

estimated that 75% of the population lives in rural areas, where rain-fed agriculture is the main source of livelihood. This means that water is a critical element not only for production purposes, but also for reproductive and consumption purposes.<sup>133</sup> It is clear that the water-poverty nexus is a persistent feature in under-development and human plight. The conundrum that exists is that water is required for poverty-alleviation, yet a lack of access to water cannot allow for this reality to come to fruition. If we were to further analyse this and link it to a specific case-study, we note that from a socio-economic point of view, Africa faces a crisis of endemic poverty and pervasive underdevelopment. In Africa, poverty is a hindrance to progress. Lack of infrastructure, deep seated corruption practices, conflict, bad governance and poor health facilities cannot promote a healthy population committed to work for progress and development.<sup>134</sup> Poverty in Africa is a reality created not only by the internal contradictions like conflict, war, illiteracy, nepotism and corruption within the continent but also and more importantly, by the unequal trade relations between the North and South. Africa lacks the basic requirements necessary to participate effectively and profitably in international trade. It lacks capital and technical expertise.<sup>135</sup> For many African countries, economic performance in the immediate postcolonial era was good. However, for most of Africa, particularly for sub-Saharan Africa, economic performance has been poor and worsening, since the oil crisis of the mid-1970s. During the past 20 years, African economic growth rates have been low.<sup>136</sup> Water is essential to development, and a lack of access to water would ultimately mean a lack of development. In order to alleviate poverty, the agricultural sector can play a very important role as mentioned. However, one of the worse performing sectors in Africa has been agriculture. It is argued that in most countries in Africa, agriculture will be the main source of foreign exchange and savings. It will also be an important source of inputs for industry and a major contributor to the market for some of Africa's infant industries. Yet Africa is the only continent where the growth in food production has been lower than population growth.<sup>137</sup> Inadequate water resources can become a constraint to improved agricultural development and food security. The net result would be

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<sup>133</sup> United Nations Environment Programme, (2006), Africa's lakes: Atlas of our changing environment. Division of Early Warning and Assessment, UNEP, Nairobi.

<sup>134</sup> Oyeshola D., (2007), Development and Poverty: A Symbiotic Relationship and its Implication in Africa, African Journal of Traditional, Complementary Alternative Medicines, Vol. 4(4), Page 553.

<sup>135</sup> Ibid at Page 556.

<sup>136</sup> Barron J. and Others, (2007), Water and Poverty Linkages in Africa, Stockholm Environment Institute, Working Paper: Water and Sanitation Programme, Pages 9 – 12.

<sup>137</sup> Matshe I. and Others, (2013), Water Poverty and Rural Development: Evidence from South Africa, Pages 137 – 140, available at <https://ageconsearch.umn.edu/bitstream/160632/2/Chapter%206.pdf>, (last accessed 20/05/17).

reduced resource availability for water resources development, resulting in further reduction in the availability of water. It is noteworthy that, even with its current poor performance, agriculture is the largest user of water in Africa, accounting for about 85-88 percent of total water use.<sup>138</sup> Many developing countries have made large investments in water resource developments which were believed to have contributed to enhancement of food security and overall economic development. Empirical evidence, however, shows that water resources development has tended to favour the wealthier sections of the communities and has widened the gap between the rich and the poor.<sup>139</sup> Much of the benefit of irrigation infrastructure, for example, has gone to the rich or large landholders who have the ownership of irrigable and fertile lowlands. The poor, who are often either landless, or have only a small patch of non-irrigated upland, are deprived of the benefits accruing from the irrigation investments, which mostly come from the national treasury or international grant/loan assistances. Within agriculture, water is a vital resource for many productive and livelihood activities and many developing countries have promoted water resources development over the last five decades to improve social outcomes. Huge investments have been made in water resources to achieve such broad objectives as economic growth, rural and agricultural development, national food security, famine protection, and land use intensification.<sup>140</sup> While irrigation development can have negative impacts on the poor under some circumstances, agricultural water/irrigation has been regarded as a powerful factor for providing food security, protection against adverse drought conditions, increased prospects for employment and stable income, and greater opportunity for multiple cropping and crop diversification. Access to reliable irrigation can enable farmers to adopt new technologies and intensify cultivation, leading to increased productivity, overall higher production, and greater returns from farming. This, in turn, opens up new employment opportunities, both on-farm and off-farm, and can improve income, livelihoods, and the quality of life in rural areas. Overall, irrigation water - like land - can have an important wealth-generating function in agriculture, specifically, and in rural settings

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<sup>138</sup> United Nations Environment Programme, (2006), Africa's lakes: Atlas of our changing environment. Division of Early Warning and Assessment, UNEP, Nairobi.

<sup>139</sup> Pariyar MP., (2003), Water and Poverty Linkages in Mountainous Areas: A Case Study from Nepal, in Case Studies from Nepal, Pakistan and Sri Lanka, International Water Management Institute, Project Report 1, Chapter Two, Page 5.

<sup>140</sup> Hussain I., Giordano M. and Hanjra MA., (2004), Agricultural Water and Poverty Linkages: Case Studies on Large and Small Systems, in Water and Poverty: The Realities, Published by the Asian Development Bank, Pages 53 – 55.

in general.<sup>141</sup> In essence, the control of water and the access to water can play a huge role in the alleviation of poverty. However, the fact that the poor have been discriminated against for many years does not provide them with the easiest of access to attain this precious resource that can aid them in reversing their current situation. The gap between rich and poor in terms of water access for drinking, let alone business, is far too big. This means that the poor always remain within the poverty-nexus, especially because of the fact that they cannot access a precious resource that can help them to thrive. The poor people, because of their sparse settlement, inability to contribute, unwillingness of the well-off communities, or for other reasons, do not have adequate access and this adds on further to the problem.<sup>142</sup>

Water is a socio-economic good when it contributes to domestic welfare, agricultural and other production, and the health of the environment. Water is a socio-economic bad when it brings water-borne diseases, results in flooding, contributes to land degradation through water logging and salinization, or carries pollutants which harm humans and ecosystems.<sup>143</sup> This interdependence between water availability and development is exemplified by the link between water and poverty. It is apparent that water and socio-economic development are mutually dependent on each other. They can be nodes in a vicious cycle that puts societies in a downward spiral of poor economic development and poor access to safe and adequate water supply and sanitation. Alternatively, they can be nodes in a virtuous cycle, reinforcing each other in an autocatalytic way, and leading to an upward spiral in which improved socio-economic development produces resources needed for improved development of water resources that, in turn, buttress and stimulate further socio-economic development.<sup>144</sup> Hence, water is a pertinent role-player in the functioning of human beings in daily life, and the availability and accessibility of water is thus of utmost importance. It maintains an integral role in ensuring not only human development, but also the development of land and the production of food, which in turn sustains human life. Therefore, the role water plays in the

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<sup>141</sup> Hussain I., Giordano M. and Hanjra MA., (2004), *Agricultural Water and Poverty Linkages: Case Studies on Large and Small Systems*, in *Water and Poverty: The Realities*, Published by the Asian Development Bank, Pages 53 – 55.

<sup>142</sup> Pariyar MP., (2003), *Water and Poverty Linkages in Mountainous Areas: A Case Study from Nepal*, in *Case Studies from Nepal, Pakistan and Sri Lanka*, International Water Management Institute, Project Report 1, Chapter Two, Page 5.

<sup>143</sup> Hussain I., and Giordano M., (2003), *Water and Poverty Linkages: Case Studies from Nepal, Pakistan and Sri Lanka*, International Water Management Institute, Project Report 1, Chapter One, Pages 1 – 2.

<sup>144</sup> Barron J. and Others, (2007), *Water and Poverty Linkages in Africa*, Stockholm Environment Institute, Working Paper: Water and Sanitation Programme, Pages 9 – 30.

actual sustainable development of human beings and the planet must be acknowledged, as it ensures efficient functioning, development and progression. While the poor and marginalized can benefit greatly from the ‘goods’ water can deliver, it is also they who have the least power and ability to adopt preventive or defensive measures to combat the negative influences of water. For the poor in particular, then, improved management regimes are essential to enhance the benefits of water.<sup>145</sup> The influence of water on the poverty-nexus is indeed great. Even though it is one component of poverty, it plays a huge impact on poverty being a factor itself. On the other hand, increased access to water, especially for the poor, can play a major role in poverty-reduction, since it opens up various avenues for growth economically. Thus, it is of utmost importance that all human beings are given the same access to water, as it can go a long way in achieving sustainable equitable living for all. The solution to the dilemmatic situation is to confront the reality of poverty and challenges of development simultaneously, nationally and internationally.<sup>146</sup>

#### **2.4. Concluding Remarks**

Based on the preceding discussion, it is evident that a dire situation exists when it comes to the water resources of the world. Many people who see the vast oceans and rivers of the world might stare in awe at its natural beauty while being totally oblivious to the fact that the world is actually in a situation where there is not enough water to meet demands. The fact that most of the water in the world is unusable is a chilling thought. The fact that most of the usable water in the world is unattainable further expands upon the dire issues plaguing human society when it comes to this precious resource. Water is essential for development and growth, it has been shown as one of the most pertinent natural resources to alleviate poverty and its proper management is of utmost importance in order to achieve these goals. The fact that this precious resource is polluted is a case for even more concern. The water situation should be at the forefront of not only the environmental agenda, but the global agenda as well. The misuse and abuse of water must come to an end in order for humanity to live a sustained life. The continued pollution and over-use of water will directly impact on human

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<sup>145</sup> Barron J. and Others, (2007), Water and Poverty Linkages in Africa, Stockholm Environment Institute, Working Paper: Water and Sanitation Programme, Pages 9 – 30.

<sup>146</sup> Oyeshola D., (2007), Development and Poverty: A Symbiotic Relationship and its Implication in Africa, African Journal of Traditional, Complementary Alternative Medicines, Vol. 4(4), Page 558.

health and well-being and it will be the cause of development being hindered within society. Thus, it will cause an unsustainable society which will hinder upon human progression, human development and human life itself.



## **CHAPTER THREE – INTERNATIONAL FRESHWATER LAW**

*Human interventions in the water flow frequently produce trans-boundary impacts. These international effects and the consumptive nature of certain water uses, such as water abstractions for agricultural purposes and industrial pollution, make agreements between States on the utilization of shared water resources necessary. Otherwise, multiple demands and uneven distribution of freshwater across regions may lead to tensions and disputes among States.*<sup>147</sup>

### **3.1. Introduction**

Freshwater is our most precious natural resource. The wise management and sharing of this resource is essential for the achievement of sustainable development. Despite this importance, globally water resources continue to be abused by way of excesses of human activities on land, through for example soil degradation and pollution. All these activities have an adverse impact on freshwaters and on freshwater reserves required for human sustenance and sustainability. In essence, sustainable water management is essential for the continued existence of mankind, especially when considering the various uses of water for living. However, we over-use water and continue to convert freshwater habitats to less productive uses. Unsurprisingly, this has resulted in the rate of biodiversity loss from freshwater ecosystems exceeding that from any other major biome by a considerable margin.<sup>148</sup> The sharing of this scarce, and essential, resource among numerous States is a multifaceted issue, with economic, political, hydrological, social, and legal implications. Co-operative measures can ensure healthier relations between various role-players, not only when it comes to water-resource management, but on a grand scale of various issues that extends beyond the dimensions of the environment. However, it must be noted that due to the nature of water, and the fact that water runs through towns, cities, countries and continents

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<sup>147</sup> De Chazournes L.B., Leb C. and Tignino M., (2013), International Law and Freshwater: The Multiple Challenges, New Horizons in Environmental and Energy Law Series, Edward Elgar Publishing, Page 2.

<sup>148</sup> Brels S., Coates D., and Loures F., (2008), Transboundary Water Resources Management: The Role of International Watercourse Agreements in Implementation of the CBD, CBD Technical Series no. 40, Secretariat of the Convention on Biological Diversity, Montreal, Canada, Page 1.

without being subjected to its own jurisdiction, the complexities of governing water between different countries and jurisdictions becomes somewhat of an intricate process. Thus, it may be assumed that due cooperation between States is required for overall sustainability and to achieve an overall goal when it comes to freshwaters and freshwater reserves. The high seas are the world's largest expanse of common space, feely used for navigation, exploitation of their living resources, extraction of mineral wealth, and as a disposal area for waste products of industry, domestic life, and war. However, the pressure of international competition for living resources, and the steady increase of the volume and effects of pollution from land and seaborne sources reached an intensity that required concerted international action. Thus, international agreements regarding the sea became frequent in order to curb the issues that started to arise during the early 1900s.<sup>149</sup>

The norms of international freshwater law are imperative when trying to ensure the promotion of SDG6. Since SDG6 deals with access to water, it is necessary to explore the laws governing the sources of water, and how these laws impact upon States and the relationships between States. A historical analysis of various water laws is thus important, as it will map out how we have come to this position within a legal context. Access to water can only be achieved if water is being used equitably amongst States and State entities. One needs to consider that even though the natural resource of water is abundant in the composition of the earth, the only available waters for human beings which are hydric water constitute about 3% of the world's water.<sup>150</sup> The remaining water resources are not useful and desirable for mankind and meeting his needs. Most of the Earth's surface is covered by oceans. A total of 97% of visible and obvious water is salty and 2% of it is frozen and only one per cent can be used as fresh water. Important rivers of the world are only divided among several countries and this unequal geographic distribution is one of the challenges confronting humankind. Nine countries have divided almost 45% of the world's annual share among themselves and there is not a balanced geographic distribution in them.<sup>151</sup> For example, in India there are many differences between the plains and the Himalayas. In China water freezes for several months and in the Amazon that constitutes 15 percent of the world's fresh water, its North

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<sup>149</sup> Birnie P.W. and Boyle A.E., (2002), *International Law and the Environment*, 2<sup>nd</sup> ed., Oxford University Press, Page 347.

<sup>150</sup> Grey D. and Sadoff C., (2013), *Sink or Swim? Water Security for Growth and Development*, Water Policy, Vol. 9, Page 545.

<sup>151</sup> UN-Water Task Force on Water Security Water Security and the Global Water Agenda – A UN-Water Analytical Brief, (2013) UN-Water, Page 5.

East part suffers from drought.<sup>152</sup> There are currently 263 rivers that either cross or demarcate international political boundaries. Geographically, Europe has the largest number of international basins (69), followed by Africa (59), Asia (57), North America (40), and South America (38).<sup>153</sup> The world's 263 international river basins account for nearly one-half of the earth's land surface and generate roughly 60% of global freshwater flow and are home to approximately 40% of the world's population. It is the political composition of these shared water systems, however, that highlights their vulnerabilities. A total of 145 countries contribute territory to international basins. Thirty-three nations, including such sizeable countries as Bolivia, Chad, the Democratic Republic of the Congo, Niger and Zambia, have more than 95% of their territory within the hydrologic boundaries of one or more international basins. Perhaps even more significant is the number of countries that share certain individual basins.<sup>154</sup>

Even with these staggering statistics, the world is faced with increasing water needs as populations rapidly grow. The impacts of climate change will be felt, and are already evident, mainly through impacts on the water cycle. Water will become either more scarce or over abundant in many areas resulting in more extreme and frequent droughts and floods. The future scenario is for rapidly increasing demands for water under rapidly changing conditions. Based on current trends we are not doing well in responding to the challenges we face. There is an urgent need for better allocation and management of water if aquatic ecosystems are to be used wisely to achieve sustainable human development.<sup>155</sup> The rule of law plays a significant role in managing trans-boundary freshwater resources. While laws do not in and of themselves provide solutions to the many concerns about water use, conservation and protection, they certainly provide a means of finding potential solutions to international water problems. Co-operation on trans-boundary water resources is unlikely to be established sustainably without appropriate legal support. In providing stability and predictability to regulation, the rule of law contributes both to the avoidance of and the

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<sup>152</sup> UN-Water Task Force on Water Security Water Security and the Global Water Agenda – A UN-Water Analytical Brief, (2013) UN-Water, Page 5.

<sup>153</sup> [http://www.transboundarywaters.orst.edu/publications/atlas/atlas\\_pdf/2\\_WorldsAgreements\\_atlas.pdf](http://www.transboundarywaters.orst.edu/publications/atlas/atlas_pdf/2_WorldsAgreements_atlas.pdf), (last accessed 3/06/17).

<sup>154</sup> [http://www.transboundarywaters.orst.edu/publications/atlas/atlas\\_pdf/2\\_WorldsAgreements\\_atlas.pdf](http://www.transboundarywaters.orst.edu/publications/atlas/atlas_pdf/2_WorldsAgreements_atlas.pdf), (last accessed 3/06/17).

<sup>155</sup> Brels S., Coates D., and Loures F., (2008), Transboundary Water Resources Management: The Role of International Watercourse Agreements in Implementation of the CBD, CBD Technical Series no. 40, Secretariat of the Convention on Biological Diversity, Montreal, Canada, Page 1.

settlement of disputes.<sup>156</sup> In essence, the management of watercourses between States allows for better utilisation of water. This further allows for better grounds to ensure the overall realisation of SDG6. In order to discover whether this hypothesis holds weight, it is important to understand the current legal precedent relating to international water law and international watercourses. The term *watercourse* may be defined as a system of surface waters and ground-waters constituting by virtue of their physical relationship - a unitary whole and normally flowing into common terminus.<sup>157</sup> Thus, an *International Watercourse* is a watercourse where parts of which are situated in different States.<sup>158</sup> Also, the multi-dimensional uses of international rivers and lakes have been classified, for legal purposes, into navigational and non-navigational uses. The main reason for such a distinction is that a separate set of international rules has emerged for each of the two uses.<sup>159</sup>

This chapter will deal with the various International Conventions and Treaties regulating International Freshwater Law currently. Thus, this chapter seeks to analyse the legal and historical context of international freshwaters and how it was and still is governed. There will be particular emphasis placed on the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, as this is considered the main instrument for international watercourses. The Convention on the Protection and Use of Transboundary Watercourses and International Lakes<sup>160</sup> and the Southern African Development Community Revised Protocol on Shared Watercourses<sup>161</sup> will also be dealt with. The chapter will allow for an idea of how water is regulated on an international scale. This chapter will also deal with the relationship between international freshwater law and sustainable development and sustainable water-use, as well as look at its potential link in terms of access to quality water.

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<sup>156</sup> De Chazournes L.B., (2009), Freshwater and International Law: The Interplay between Universal, Regional and Basin Perspectives, The United Nations World Water Development Report 3, Page 1.

<sup>157</sup> McCaffrey S.C., (2011), International Watercourses, Environmental Protection, Max Planck Encyclopaedia of Public International Law (MPEPIL), Page 1.

<sup>158</sup> McCaffrey S.C., (2011), International Watercourses, Environmental Protection, Max Planck Encyclopaedia of Public International Law (MPEPIL), Page 1.

<sup>159</sup> Helal M.S., (2007), Sharing Blue Gold: The 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses Ten Years On, 18 Colo. J. Int'l Env'tl. L. & Pol'y 337, Page 338.

<sup>160</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1936 UNTS 269; 31 ILM 1312 (1992).

<sup>161</sup> Southern African Development Community Revised Protocol on Shared Watercourses (2000).

### **3.2. The History and Development of International Water Law**

International water laws are a relatively recent product. Though treaties that were related to trans-boundary water governance occasionally developed early international water law, water resources were historically considered abundant, and allocation schemes were rudimentary and scarcely enforced. Initially, in the early 1800s to the mid-1900s, water was neither regarded as a subject or an object.<sup>162</sup> The perceived global abundance of water was a contributing factor for there not being many laws or standards regulating international waters. General international law did not include water-specific substantive rules. For this reason, water problems have been construed, in particular, as issues relating to sovereign rights over the use and control of water or, by contrast, as violations of sovereignty.<sup>163</sup> Sovereignty is defined as the absolute and perpetual power of a commonwealth.<sup>164</sup> Hence, States would rely on their own sovereignty when it came to water-related matters. Sovereignty would therefore imply that a State may do what it pleases with the waters that pass through its territory as it assumes some element of control over those waters. However, sovereignty is not absolute as shown in the *Lac Lanoux*<sup>165</sup> case between France and Spain. In this case, the water from the Lake Lanoux in France eventually ends up through the Spanish border into the River Segre in Spain. French authorities drew up a plan to divert the water from entering into Spain, however, Spanish authority claimed that this would be against the interests of Spain and that they had to have been consulted in this drafting process. The matter thus went to arbitration when the two States could not reach a mutual agreement. The tribunal gave its award on 16 November 1957, in which it pointed out that according to the rules of good faith, the upstream State is under an obligation to take into consideration the various interests involved and to show that in this regard it is genuinely attempting to reconcile the interests of other riparian states with its own.<sup>166</sup> This case established that a state is not the sole judge of its

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<sup>162</sup> Kuokkanen T., (2017), Water Security and International Law, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. 20, Page 4.

<sup>163</sup> Higgins R., (1994), Problems and Processes: International Law and How We Use It, Oxford University Press, Oxford, Pages 133 – 136.

<sup>164</sup> Bodin J., (1992), On Sovereignty: Four Chapters from the Six Books of the Commonwealth, edited and translated by Julian H. Franklin, Cambridge: Cambridge University Press, Page 1.

<sup>165</sup> Lake Lanoux Arbitration (English translation) 24 ILR 105-142; *Affaire du Lac Lanoux*, (1957) XII UNRIAA, 285-317 (Lake Lanoux case).

<sup>166</sup> Lake Lanoux Arbitration (English translation) 24 ILR 105-142; *Affaire du Lac Lanoux*, (1957) XII UNRIAA, 285-317 (Lake Lanoux case).

water and sovereignty serves only as a presumption.<sup>167</sup> According to international law, a State cannot use its territory without taking into account the consequences of such use on other states. Likewise, a state is expected to tolerate a certain degree of interference by other states.<sup>168</sup> Therefore, the control of water by way of sovereignty posed its own set of issues as States did not truly have ultimate control over waters within its region.

Indeed, water laws have played a role in human society for millennia. Access to water resources is a primary characteristic of the earliest human settlements and rules governing water use may have predated property regimes for land in some areas.<sup>169</sup> However, many of these initial agreements were tailored to region-specific communities and were governed as such, either on a local, regional or national level but local, regional or national policies dealing with the specific area.<sup>170</sup> After the end of World War Two in 1945, the utilisation of water started to become more apparent and conflict started to emerge between States as a result of this. Thus, there was a need to develop substantive rules for the utilisation of water for navigational and non-navigational purposes.<sup>171</sup> Indeed, this makes sense as the world was starting to develop at a rapid rate and water was essential in not only human welfare, but industrial development as well. Securing the freedom of navigation has been of vital interest and importance to States for quite some time. They have therefore been particularly eager to conclude agreements to safeguard the freedom of navigation and to establish international bodies to deal especially with navigational interests. One important interest at stake is that of navigation as it may be of vital concern to an up-river state that states nearer the mouth should not cut off its access to the sea. It may also be important to non-riparian states to have access to the uppers waters of the river. There was also an increasing awareness of the importance of the economic uses of rivers for purposes such as irrigation, the supply of water to large cities and the generation of hydro-electric power. It was therefore desirable that all these interests should, as far as possible, be effectively protected.<sup>172</sup> Again, the nature of water plays a vital role in its governance. The very nature of water means that it will run

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<sup>167</sup> Lake Lanoux Arbitration (English translation) 24 ILR 105-142; *Affaire du Lac Lanoux*, (1957) XII UNRIAA, 285-317 (Lake Lanoux case) at 301.

<sup>168</sup> Cassese A., (2005), *International Law* 2<sup>nd</sup> ed., Oxford University Press, Oxford, Page 490.

<sup>169</sup> Salzman J., (2006), *Thirst: A Short History of Drinking Water*, 18 *Yale Journal of Law and the Humanities*, Page 94.

<sup>170</sup> Stoa R., (2014), *The United Nations Watercourses Convention on the Dawn of Entry Into Force*, Florida International University College of Law, Vol. 47 *Vanderbilt Journal of Transnational Law*, Page 1326.

<sup>171</sup> Kuokkanen T., (2017), *Water Security and International Law*, *Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ)*, Vol. 20, Page 9.

<sup>172</sup> Clapham A., 2012, *Brierly's Law of Nations: An Introduction to the Role of International Law in International Relations* 7th ed., Oxford University Press, Page 207.

through various countries and thus cooperation is somewhat forced between States if effective utilisation is to be realised. Even though agreements for navigational purposes took precedent in the earlier days, States started to realise the importance of water for non-navigational purposes as well. Thus, new agreements were concluded on such matters such as the use of waters for fishing, irrigation, the floating of timber, as well as the use of hydro-electric power, the size of a dam to be constructed in a boundary, or the volume of water to be diverted for mining or industrial purposes.<sup>173</sup> It soon became apparent that water was an essential component for everyday life itself, and for everyday development. Thus, agreements had to be made to manage water for these purposes.

At a later stage, in the 1960s and 1970s, water pollution began to occur. There was now a need to develop substantive regulations to protect waters from pollution as contaminated waters would affect the interests of all Parties involved. Water was thus the object and subject of both sets of such rules, those concerning utilisation of water and those concerning protection of water.<sup>174</sup> As water pollution problems increased, states recognised their interest in securing not only water quantity but also water quality. Even though some early boundary waters treaties regulated water protection, it was mainly in the 1960s and 1970s that a number of bilateral and multilateral treaties were adopted to protect international watercourses.<sup>175</sup> The historical context of the development of water law paints a picture of the progressive development of the actual importance of water. As the years went on, it became far more evident that water was not actually in abundance as initially thought, and that water itself needed to be properly managed and used in order for its resources to be sustained. The importance of water for human life and human development could no longer be ignored, thus water became a subject and an object of legal protection by way of agreements between States.

International water law exists in the realm of customary international law and this sphere of law consists of practices of states undertaken out of a sense of legal obligation, a sense that law requires the practice.<sup>176</sup> Despite obvious difficulties in determining the precise content of

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<sup>173</sup> Kuokkanen T., (2017), Water Security and International Law, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. 20, Pages 9 – 12.

<sup>174</sup> Kuokkanen T., (2017), Water Security and International Law, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. 20, Pages 9 – 12.

<sup>175</sup> Kuokkanen T., (2017), Water Security and International Law, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. 20, Pages 9 – 12.

<sup>176</sup> Wolfke K., (1993), Custom in Present International Law (2nd rev. ed.), Martinus Nijhoff Publishers, Dordrecht, The Netherlands.

customary international law initially, the system has been remarkably successful. No form of international life could exist without shared norms that are largely self-effectuating.<sup>177</sup> A rich body of customary law regarding internationally shared fresh water has emerged, largely in the last century or so.<sup>178</sup> Industrialization brought the intensive use and extensive diversion of water from its source of origin. The resulting international claims and counterclaims quickly settled into a predictable pattern, depending on the riparian status of the state making the claim.<sup>179</sup> Therefore, a necessity arose for the transparent management of water between States.

The United Nations started paying attention to the issue of international rivers in the late 1950s. In 1959, the General Assembly decided to ‘initiate preliminary studies on the legal problems relating to the utilization and use of international rivers with a view to determining whether the subject was appropriate for codification’.<sup>180</sup> In 1959, the UN General Assembly adopted Resolution 1401 (XIV), which called for initiation of preliminary studies on the legal problems relating to the utilization and use of international rivers with a view to determining whether the subject is appropriate for codification.<sup>181</sup> Consequently, a report, entitled *Legal Problems Relating to the Utilization and Use of International Rivers*, was completed and presented to the General Assembly in April 1963. The report discussed the legal problems arising from the utilization of international rivers, which was submitted to the General Assembly in 1963.<sup>182</sup>

Following that report, the General Assembly recommended that the International Law Commission (ILC) should ‘take up the study of the law of the non-navigational uses of international watercourses with a view to its progressive development and codification’.<sup>183</sup>

The report was widely circulated, but it took seven more years before the General Assembly would return to the issue of international watercourses. On December 8, 1970, the General

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<sup>177</sup> Dellapenna J., (2001), *The Customary International Law of Transboundary Fresh Waters*, International Journal of Global Environmental Issues, Vol. 1, Pages 264 – 305.

<sup>178</sup> McCaffrey S., (2001), *The Law of International Watercourses: Non-Navigational Uses*, Oxford University Press, Oxford, United Kingdom.

<sup>179</sup> Dellapenna J., (2001), *The Customary International Law of Transboundary Fresh Waters*, International Journal of Global Environmental Issues, Vol. 1, Pages 264 – 305.

<sup>180</sup> Preliminary Studies on the Legal Problems relating to the Utilization and Use of International Rivers (UNGA Res. 1401 (XIV), 21 November 1959).

<sup>181</sup> Salman S.M.A., (2007), *The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?*, International Water Resources Association Water International, Volume 32, Number 1, March 2007, Page 2.

<sup>182</sup> Report of the Secretary-General on the Legal Problems Relating to the Utilization of International Watercourses (UN Doc. A/5409, 15 April 1963).

<sup>183</sup> Report of the Secretary-General on the Legal Problems Relating to the Utilization of International Watercourses (UN Doc. A/5409, 15 April 1963).

Assembly adopted Resolution 2669 (XXV) entitled ‘Progressive Development and Codification of the Rules of International Law Relating to International Watercourses.’<sup>184</sup> The Resolution referred to the earlier Resolution 1401 of 1959, and to the report that was produced as a result thereof. It highlighted several points and stated that water is of growing concern to humanity due to the growth of population and to the increasing and multiplying needs and demands of mankind. It also mentioned that the available freshwater resources of the world are limited and that the preservation and protection of those resources are of great concern to all nations. The Resolution noted the legal problems relating to the use of international watercourses, and the fact that such use is still based on rules of customary law. The Resolution requested the Secretary General of the UN to continue the study initiated under Resolution 1401 in order to prepare a supplementary report on the legal problems relating to utilization and use of international watercourses. It is worth noting that Resolution 2669 used the term *international watercourses* as opposed to the term *international rivers* used in Resolution 1401. The term *international watercourses* is more inclusive than the term *international rivers* because it includes lakes and groundwater, in addition to rivers. This indicates a clear progress in the global understanding of international waters issues.<sup>185</sup>

In 1966, the International Law Association (ILA) convened in Helsinki, Finland, to create the Helsinki Rules on the Uses of Waters of International Rivers (Helsinki Rules).<sup>186</sup> The goal of the rules was to codify customary legal norms and principles, in addition to setting in motion further development of international water law. Given the preliminary nature of the endeavour, the Helsinki Rules were appropriately modest in their ambition, establishing the groundwork for future action and establishing principles of water law that reflected prevailing notions of water resources management.<sup>187</sup> However, these rules can be seen as an effective foundation for legal conformity within the international water law context. It brought to the

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<sup>184</sup> Salman S.M.A., (2007), The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?, International Water Resources Association Water International, Volume 32, Number 1, March 2007, Page 2.

<sup>185</sup> Salman S.M.A., (2007), The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?, International Water Resources Association Water International, Volume 32, Number 1, March 2007, Page 3.

<sup>186</sup> International Law Association, The Helsinki Rules on the Uses of the Waters of International Rivers, United Nations Educ. Scientific and Cultural Organisation, 1 (1966), available at [http://webworld.unesco.org/water/wwap/pccp/cd/pdf/educationaltools/course\\_modules/reference\\_documents/internationalregionconventions/helsinkirules.pdf](http://webworld.unesco.org/water/wwap/pccp/cd/pdf/educationaltools/course_modules/reference_documents/internationalregionconventions/helsinkirules.pdf), (last accessed 20/05/17).

<sup>187</sup> Stoa R., (2014), The United Nations Watercourses Convention on the Dawn of Entry Into Force, Florida International University College of Law, Vanderbilt Journal of Transnational Law, Vol. 47, Page 1326.

fore various issues that needed resolving and attempted to ensure some form of transparency and base for water issues and water management in general, which could thus further international cooperative ties.

Although the title of the Rules refers to international rivers only, Article I states that the Rules are applicable to the use of the waters of an international drainage basin. Such a drainage basin is defined as a geographical area extending over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus.<sup>188</sup> As such, the Helsinki Rules also apply to groundwater connected to surface water. This is the first time that trans-boundary groundwater was addressed by any international legal instrument. The Helsinki Rules established the principle of reasonable and equitable utilization of the waters of an international drainage basin among the riparian states as the basic principle of international water law. The 'principle of equitable utilisation' is generally considered to be the fundamental principle of the law of the non-navigational uses of international watercourses.<sup>189</sup> The principle of equitable utilisation requires states to act reasonably and equitably when dealing with transboundary water resources in their territory. It requires that the reasonableness of any utilisation is to be determined by weighing all relevant factors and by comparing the benefit that would follow from the utilisation with the injury it might inflict on the interests of another basin state.<sup>190</sup> Article IV of the Helsinki Rules mentions that each basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin. This means that each water user has a right, within its own area of jurisdiction, to a reasonable and equitable share in the beneficial utilization of the waters of that part of a hydrologic unit comprised within its area of jurisdiction.<sup>191</sup> For that purpose, the Helsinki Rules have specified a number of factors for determining the reasonable and equitable share for each basin state. Article V of the Helsinki Rules states that the relevant factors to be considered include, but are not limited to: (a) the geography of the basin, including in particular, the extent of the drainage area in the territory of each basin state; (b) the hydrology of the basin, including in particular the contribution of water by each basin state; (c) the climate affecting the basin; (d) the past utilization of the

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<sup>188</sup> Article II of the Helsinki Rules on the Uses of the Waters of International Rivers.

<sup>189</sup> Paisley R., (2002), *Adversaries into Partners: International Water Law and the Equitable Sharing of Downstream Benefits*, Melbourne Journal of International Law, Vol. 3(2), Pages 2 – 3.

<sup>190</sup> *Gabčíkovo-Nagymaros Project (Hungary v Slovakia) (Merits)*, (1997), ICJ Rep 7.

<sup>191</sup> Wohlwend B., (2001), *Equitable Utilization and the Allocation of Water Rights to Shared Water Resources*, Page 2, available at <http://www.aida-waterlaw.org/PDF/EQUITABLE.PDF>, (last accessed 20/05/17).

waters of the basin, including in particular, existing utilization; (e) the economic and social needs of each basin state; (f) the population dependent on the waters of the basin in each basin state; (g) the comparative costs of alternative means of satisfying the economic and social needs of each basin state; (h) the availability of other resources; (i) the avoidance of unnecessary waste in the utilization of waters of the basin; (j) the practicability of compensation to one or more of the co-basin states as a means of adjusting conflicts among uses; and (k) the degree to which the needs of a basin state may be satisfied, without causing substantial injury to a co-basin state.<sup>192</sup> Indeed, the most significant principle of the equitable and reasonable utilization of water resources, or equitable use, was prevalent in many national legal settings, and by itself did not present controversy. The principle of equitable use states that States may use water resources as long as their use is reasonable and beneficial. Equitable use has since become a central pillar supporting the international water law regime by stipulating that a basin state (a state whose territory includes any portion of an international watercourse) has a right to beneficial uses of its water resource.<sup>193</sup> By its nature, however, equitable use is not without its limitations. The Helsinki Rules made it clear that while states are entitled to an equitable share of water resources, that share is to be determined by weighing the relevant factors of each particular case, including geography, hydrology, population, past utilization, etc. That rule ensures that each state receives a fair share of the available water or of its benefits, a right that is sometimes expressed as an obligation not to cause unreasonable injury to other states.<sup>194</sup> In a sense, this provision was the seed that would become the principle of no significant harm. At the time, however, the idea that a state should refrain from using water resources because it may have harmful impacts on co-riparians was merely a factor to consider in case-specific determinations of what constitutes an equitable use. There was little debate that the principle of reasonable and equitable use of shared water resources represented the heart of the Helsinki Rules.<sup>195</sup> The principle of equitable use can be understood to be an alternative to the two extremes of absolute territorial sovereignty and absolute territorial sovereignty, as neither of these two

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<sup>192</sup> ILA (International Law Association) (1966) Report of the Fifty-Second Conference, Helsinki, Pages 447–533, ILA London.

<sup>193</sup> Stoa R., (2014), The United Nations Watercourses Convention on the Dawn of Entry Into Force, Florida International University College of Law, Vanderbilt Journal of Transnational Law, Vol. 47, Page 1327.

<sup>194</sup> Dellapenna J. (1994), Treaties as Instruments for Managing Internationally-Shared Water Resources: Restricted Sovereignty vs. Community of Property, Case-Western Reserve Journal of International Law, Vol. 26(2), Page 56.

<sup>195</sup> Stoa R., (2014), The United Nations Watercourses Convention on the Dawn of Entry Into Force, Florida International University College of Law, Vanderbilt Journal of Transnational Law, Vol. 47, Page 1328.

approaches gained much support for a variety of reasons.<sup>196</sup> Thus, a middle ground is reached via limited territorial sovereignty, which within the international water context means that watercourse States enjoy equal rights to the utilisation of an international watercourse, whereby States must respect each other's rights regarding watercourses.<sup>197</sup> Also, the Rules devote a separate chapter to each of pollution, navigation and timber floating. With regard to navigation, the Rules incorporate the customary international law principle that grants each riparian state the right of free navigation on the entire course of the river or lake on a reciprocal basis. It is noteworthy that this is the first international legal instrument to include rules for both navigational and non-navigational uses of international rivers. Article VI of the Helsinki Rules confirmed the decline of the primacy of navigation by stating that a use or category of uses is not entitled to any inherent preference over any other use or category of uses. The Article, as such, equates all uses of international drainage basins. The Rules also include a chapter on procedures, not only for settlement, but also for the prevention of disputes. The latter part of the chapter deals with notification of other riparians of any proposed construction or installation that would alter the regime of the basin or give rise to a dispute. As such, the Helsinki Rules cover a wide range of issues, including both navigational and non-navigational uses of international watercourses.<sup>198</sup> Thus, it is important to note that the Helsinki rules is regarded as the foundations of conformity in international water law, by covering a vast array of topics within the field itself. The equitable utilization principle is imperative, as it allowed for a directive for fair use and management of water resources. In essence, this formed the basis for the 'access' issue to come to the fore of international water law, which is an issue still being faced currently. In principle, the fair and equal use of water seems to be a logical deduction, however, the implementation of said principle remains an issue.

Even though the Helsinki Rules can be seen as the first proper framework for International Freshwater Law, a consensus remained that further development was indeed required in order to address various shortcomings. This ultimately led to the 1997 United Nations Convention

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<sup>196</sup> Rieu-Clarke A., (2005), *International Law and Sustainable Development: Lessons from the Law of International Watercourses*, Water and Policy Series, IWA Publishing, London, Page 101.

<sup>197</sup> Tanzi A. and Arcari M., (2001), *The United Nations Convention on the Law of International Watercourses – A Framework for Sharing*, Kluwer Law International, The Hague, Pages 14 – 15.

<sup>198</sup> Salman S.M.A., (2007), *The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law*, *Water Resources Development*, Vol. 23, No. 4, Pages 629 – 630.

on the Law of the Non-Navigational Uses of International Watercourses coming into existence.

### **3.3. The 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses**

Up-to-date, international water law primarily regulates the use of trans-boundary water systems, meaning the use of hydrologic systems that are situated in different States and that constitute by virtue of their physical relationships a unitary whole. These include not only trans-boundary watercourses and connected aquifers that flow into a common terminus, but also trans-boundary aquifers that are not connected to surface water bodies.<sup>199</sup> The principles and rules codified by the International Law Commission in the 1997 UN Watercourses Convention are based on state practice and earlier treaties as well as on regional and local realities. Both instruments offer a frame of reference for the development of more specific instruments addressing the specificities of individual basins.<sup>200</sup> The codification of norms at the universal level that resulted in the adoption of the UN Watercourses Convention also underlined the importance of cooperation on trans-boundary waters in order to achieve equity. These two instruments not only recognize cooperation as one of the general principles of international water law, but they also inspire cooperation.<sup>201</sup>

On 21 May 1997, at the UN General Assembly, an overwhelming majority of States voted for the adoption of the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, a global overarching framework governing the rights and duties of States sharing freshwater systems.<sup>202</sup> The 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses is the only treaty governing shared

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<sup>199</sup> De Chazournes L.B., Leb C. and Tignino M., (2013), *International Law and Freshwater: The Multiple Challenges*, New Horizons in Environmental and Energy Law Series, Edward Elgar Publishing, Page 3.

<sup>200</sup> *Ibid* at Page 4.

<sup>201</sup> McCaffrey SC., (2013), *The Codification of Universal Norms: A Means to Promote Cooperation and Equity?*, in De Chazournes L.B., Leb C. and Tignino M., (2013), *International Law and Freshwater: The Multiple Challenges*, New Horizons in Environmental and Energy Law Series, Edward Elgar, Page 125.

<sup>202</sup> Rieu-Clarke A. and Loures F., (2009), *Still not in Force: Should States Support the 1997 UN Watercourses Convention?*, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol.18, Issue 2, Page 185.

freshwater resources that is of universal applicability. It is a framework convention, in the sense that it provides a framework of principles and rules that may be applied and adjusted to suit the characteristics of particular international watercourses.<sup>203</sup> The Convention is based largely on the ILA work, particularly the Helsinki Rules. The Convention itself recognizes ‘the valuable contribution of international organizations, both governmental and non-governmental, to the codification and progressive development of international law in this field.’<sup>204</sup> The Convention also recalled the existing bilateral and multilateral agreements regarding the non-navigational uses of international watercourses. The Convention is a framework convention that aims at ensuring the utilization, development, conservation, management and protection of international watercourses, and promoting optimal and sustainable utilization thereof for present and future generations. As a framework convention, it addresses some basic procedural aspects and few substantive ones, and leaves the details for the riparian states to complement in agreements that would take into account the specific characteristics of the watercourse in question. Such agreements can adopt or adjust the provisions of the Convention.<sup>205</sup>

Much like the Helsinki Rules, the cornerstone of the UN Watercourses Convention is the principle of reasonable and equitable use, according to which States must ‘utilize an international watercourse in an equitable and reasonable manner.’ As mentioned earlier, it is fundamental that water is fairly used and shared, as this will bring about harmony between the Parties involved. Hence, this principle was used and expanded upon, as it is fundamental to the nature of water management and conservation. In weighing up what is equitable and reasonable, States must take into account all relevant social, environmental and economic factors and circumstances.<sup>206</sup> Therefore, elements of the concept of sustainable development had found its way into the fore of water law. Sustainable use and management of water is the only way for water itself to be properly and effectively conserved. Article 5, contained in Part II, reflects the aforementioned principle of equitable utilization. The International Law

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<sup>203</sup> McCaffrey S.C., (1997), *Convention on the Law of the Non-Navigational Uses of International Watercourses* New York, 21 May 1997, available at <http://legal.un.org/avl/ha/clnuiw/clnuiw.html>, (last accessed 21/05/17).

<sup>204</sup> Annex - *Convention on the Law of the Non-navigational Uses of International Watercourses* 1997, 36 ILM 700 (1997); G.A. Res. 51/229, U.N. GAOR, 51st Sess., 99th mtg., UN Doc A/RES/51/229 (1997).

<sup>205</sup> Salman S.M.A., (2007), *The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?*, *International Water Resources Association Water International*, Volume 32, Number 1, Page 4.

<sup>206</sup> Article 6 - *Convention on the Law of the Non-navigational Uses of International Watercourses* 1997.

Commission (ILC) has stated in its 1994 Draft Articles states that where the quantity and quality of water is such that all the reasonable and beneficial uses of all watercourse States cannot be fully realised, then a conflict of uses arises, and it is in this case where a principle of equity must be used.<sup>207</sup> However, much of the commentary relating to equity and reasonable use has neglected to discuss what is actually meant by these concepts. The 1997 UN Watercourses Convention applies the term ‘equitable and reasonable’ throughout, without providing an explanation of the difference between the terms.<sup>208</sup> Thus, what is reasonable may vary depending on the stage of development of a State, and hence a State with the technical and financial capability to employ more efficient means for utilising an international watercourse should be held to a higher standard than the least developed watercourse States.<sup>209</sup> In order to ensure that the utilization of an international watercourse is equitable and reasonable, States are to take into account all relevant factors and circumstances as contained in article 6.<sup>210</sup> Article 5 also sets forth, in paragraph 2, the principle of equitable participation. According to this principle, States are to participate in the use, development and protection of an international watercourse in an equitable and reasonable manner.<sup>211</sup> Thus, affirmative conduct may be required by this principle, which is a further elaboration of the implications of equitable and reasonable utilization.<sup>212</sup> Part IV of the Convention deals with protection, preservation and management of international watercourses. It contains provisions on protection and preservation of watercourse ecosystems, prevention, reduction and control of pollution, and consultations concerning

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<sup>207</sup> Commentary to the Draft Articles on the Law of the Non-navigational Uses of International Watercourses, in Report of the International Law Commission on the Work of its Forty-Sixth Session, UN GAOR, 49<sup>TH</sup> Sess. Supp. (No. 10), UN Doc. A/49/10, (1994).

<sup>208</sup> Rieu-Clarke A., (2005), *International Law and Sustainable Development: Lessons from the Law of International Watercourses*, Water and Policy Series, IWA Publishing, London, Page 105.

<sup>209</sup> Rieu-Clarke A., (2005), *International Law and Sustainable Development: Lessons from the Law of International Watercourses*, Water and Policy Series, IWA Publishing, London, Pages 108 – 109.

<sup>210</sup> Article 6 of the Convention on the Law of the Non-navigational Uses of International Watercourses 1997 - 1. Utilization of an international watercourse in an equitable and reasonable manner within the meaning of article 5 requires taking into account all relevant factors and circumstances, including: (a) Geographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character; (b) The social and economic needs of the watercourse States concerned; (c) The population dependent on the watercourse in each watercourse State; (d) The effects of the use or uses of the watercourses in one watercourse State on other watercourse States; (e) Existing and potential uses of the watercourse; (f) Conservation, protection, development and economy of use of the water resources of the watercourse and the costs of measures taken to that effect; (g) The availability of alternatives, of comparable value, to a particular planned or existing use. 2. In the application of article 5 or paragraph 1 of this article, watercourse States concerned shall, when the need arises, enter into consultations in a spirit of cooperation. 3. The weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors. In determining what is a reasonable and equitable use, all relevant factors are to be considered together and a conclusion reached on the basis of the whole.

<sup>211</sup> Article 2 - Convention on the Law of the Non-navigational Uses of International Watercourses 1997

<sup>212</sup> McCaffrey S.C., (1997), *Convention on the Law of the Non-Navigational Uses of International Watercourses* New York, 21 May 1997, available at <http://legal.un.org/avl/ha/clnuiw/clnuiw.html>, (last accessed 21/05/17).

management of an international watercourse, among others.<sup>213</sup> The importance of these provisions is perhaps obvious. Watercourse ecosystems and watercourses themselves must be protected, preserved, and properly managed, if they are to support human and other forms of life.<sup>214</sup> The integration of quantity and quality aspects of water in watercourses had germinated and begun to grow in the beginning of the 20<sup>th</sup> century in relation to the principle of the reasonable and equitable utilization of waters. The principle of equitable utilization of water means the division of waters in such a manner as to permit the reasonable use of its waters by each of the riparian states.<sup>215</sup> Thus, the principle of equitable utilization means that a riparian state cannot deprive another riparian state of its right to an equitable share of the natural resources of an international watercourse.<sup>216</sup> In other words, as noted by the International Court of Justice in the *Gabčíkovo-Nagymaros Project* case, a riparian state cannot deprive another riparian state of its right to an equitable share of an international watercourse.<sup>217</sup> Jurisprudence on the utilization of international watercourses reaffirms the centrality of the equitable and reasonable utilization principle in international law. In the case concerning the Gabčíkovo-Nagymaros Project, the International Court of Justice (ICJ) agreed with the fundamental nature of the right to an equitable and reasonable share of the beneficial uses of an international watercourse. The Court considered that Czechoslovakia, *by unilaterally assuming control of a shared resource, and thereby depriving Hungary of its right to an equitable and reasonable share of the natural resources of the Danube* with the continuing effects of the diversion of these waters on the ecology of the riparian area of the Szigetkoz, failed to respect proportionality which is required by international law.<sup>218</sup> The principle was codified in the 1997 *Convention on the Law of the Non-navigational Uses of International Watercourses*. According to the key provision in Article 5 of the *mentioned Convention*, watercourse States shall in their respective territories utilise an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilisation thereof and benefits therefrom consistent with adequate

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<sup>213</sup> Articles 20 - 26 - Convention on the Law of the Non-navigational Uses of International Watercourses 1997.

<sup>214</sup> McCaffrey S.C., (1997) Convention on the Law of the Non-Navigational Uses of International Watercourses New York, 21 May 1997, available at <http://legal.un.org/avl/ha/clnuiw/clnuiw.html>, (last accessed 21/05/17).

<sup>215</sup> Lipper J., (1967), Equitable Utilisation, in Garretson A.H., Hayton R.D. and Olmstead CJ (eds.), *The Law of International Drainage Basins*, Oceana New York, Pages 15 – 88.

<sup>216</sup> Lipper J., (1967), Equitable Utilisation, in Garretson A.H., Hayton R.D. and Olmstead CJ (eds.), *The Law of International Drainage Basins*, Oceana New York, Pages 15 – 88.

<sup>217</sup> *Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* Judgment of 25 September 1997, ICJ Reports 1997, 7 Paragraph 85.

<sup>218</sup> *Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* Judgment of 25 September 1997, ICJ Reports 1997, 7 Paragraph 85.

protection of the watercourse.<sup>219</sup> Along with the emergence of the doctrine of sustainable development, in many instances the concept of the sustainable use of international watercourses was also used. For example, many freshwater agreements concluded since the 1990s refer to sustainable use or sustainable management.<sup>220</sup> Indeed, the *Convention on the Protection and Use of Transboundary Watercourses and International Lakes* (1992) (UNECE Convention / Helsinki Convention); the *Convention on Cooperation for the Protection and Sustainable Use of the Danube River* (1994); the *Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin* (1995); and the *Revised SADC Protocol on Shared Watercourses* (2000) all make mention of sustainable use and or management of water.<sup>221</sup> The *Revised Protocol on Shared Watercourses in the Southern African Development Community* expressly mentions that State Parties shall maintain a proper balance between resource development for a higher standard of living for their people and conservation and enhancement of the environment to promote sustainable development.<sup>222</sup> Thus, the influence of Sustainable Development is clearly seen, even in the equitable sharing of watercourses, as water ultimately is essential to life itself. In essence, special attention in water issues had evolved from navigation and even some spheres of non-navigation and other uses, to vital human needs. When determining vital human needs, special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for production of food in order to prevent starvation.<sup>223</sup> Human consumption is an important factor that must be given due attention. Human consumption of water is an essential part of human life, as water is needed for a human being to survive. Equitable sharing of water would thus allow for an equal share for regions, which can then allow for consumption to be fulfilled. In essence, this sounds like the ideal picture, with a ‘win-win’ result for all, but unfortunately, the practicality of implementing such a principle has proven hard, as evidenced by the current access issues still found today.

Another key principle that arises from the Convention is the so-called no harm rule, which requires States to ‘take all appropriate measures to prevent the causing of significant harm to

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<sup>219</sup> Article 5 of the Convention on the Law of the Non-navigational Uses of International Watercourses 1997.

<sup>220</sup> Kuokkanen T., (2017), Water Security and International Law, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. 20, Page 13.

<sup>221</sup> Kuokkanen T., (2017), Water Security and International Law, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. 20, Page 13.

<sup>222</sup> Article 3 (4) of the Revised Protocol on Shared Watercourses in the Southern African Development Community.

<sup>223</sup> Report of the Sixth Committee Convening as the Working Group of the Whole UN Doc A 51/869 (1997), Paragraph 8.

other watercourse States'.<sup>224</sup> This is important as it is underlined with the practice of 'good faith' that was implemented in the early development of water related matters. Indeed, it should be assumed that the activities of one State in relation to water should not cause harm to another State in relation to that water. In order to align the 'no harm' rule with equitable and reasonable utilization, the Convention provides that some harm may be tolerated if it can be proven that such harm is consistent with the principle of equitable and reasonable utilization.<sup>225</sup> However, the most contentious issue during negotiations was the relationship between equitable and reasonable utilization principle and the no harm rule. The debate centred on which norm should take precedence. In an attempt to solve the debate, Article 7(2), focusing on the relationship between those two norms, was significantly amended from its earlier versions in the 1991 and 1994 ILC draft Articles. The inclusion of the phrase 'having due regard for the provisions of Articles 5 and 6' was seen to give precedence to the principle of equitable and reasonable utilization over the rule of no significant harm.<sup>226</sup>

The procedural rules of the Convention find their roots in a general obligation upon States to 'cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilization and adequate protection of an international watercourse'.<sup>227</sup> Pursuant to this general obligation, the Convention contains specific provisions for the notification of, and consultations and negotiations on, planned measures; the establishment of management mechanisms; and the regular exchange of data and information.<sup>228</sup>

Consistent with the UN Charter, the UN Watercourses Convention also obliges States to settle any dispute by peaceful means, such as through negotiation, good offices, mediation, conciliation, arbitration or adjudication.<sup>229</sup> This is important to examine because of the nature of watercourses itself. Water runs through different cities, provinces, countries and even continents. Hence there is a shared aspect of water that is indeed important. In addition to this, if something is shared on such a vast scale, disputes will most likely arise as to water use and ownership. In the event that a dispute remains unresolved by the above-mentioned

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<sup>224</sup> Article 7 - Convention on the Law of the Non-navigational Uses of International Watercourses 1997.

<sup>225</sup> Article 7(2) - Convention on the Law of the Non-navigational Uses of International Watercourses 1997.

<sup>226</sup> Rieu-Clarke A. and Loures F., (2009), Still not in Force: Should States Support the 1997 UN Watercourses Convention?, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol. 18, Issue 2, Page 190.

<sup>227</sup> Article 8(1) - Convention on the Law of the Non-navigational Uses of International Watercourses 1997.

<sup>228</sup> Article 9 - Convention on the Law of the Non-navigational Uses of International Watercourses 1997.

<sup>229</sup> Article 33(1) - Convention on the Law of the Non-navigational Uses of International Watercourses 1997.

means, for a predetermined period, the Convention provides for the establishment of a 'Fact-finding Commission', upon request from any of the parties to the dispute. With the full cooperation of the States involved, the Commission's role is to investigate the dispute and produce a report setting forth its findings and recommendations on how to achieve an equitable solution. The parties are obliged to consider the Commission's recommendations in good faith. However, there was a controversial issue that centred on whether dispute-settlement provisions were appropriate within a framework agreement and the extent to which such measures should be compulsory. As adopted, Article 33 creates time-bound steps for peaceful dispute settlement. Notably, it allows for States to initiate unilaterally fact-finding procedures when they fail to reach an agreement through other available mechanisms after a determined period. The idea is to prevent the dispute from turning into a real conflict, while achieving an equitable resolution, based on an accurate knowledge and impartial assessment of the facts. While parties must consider the fact-finding report in good faith, such a report is not binding upon them.<sup>230</sup> An example of the aforementioned provision being implemented is in the *Gabčíkovo-Nagymaros Project* case as well. In considering the matter of reparation for damages incurred, the Court stated that reparation must, as far as possible, wipe out all the consequences of the illegal act. In this case, the consequences of the wrongful acts of both Parties will be wiped out as far as possible if they resume their cooperation in the utilization of the shared water resources of the Danube, and if the multi-purpose programme, in the form of a coordinated single unit, for the use, development and protection of the watercourse is implemented in an equitable and reasonable manner.<sup>231</sup>

The Convention also contains rules relating to the protection and preservation of international watercourses and their ecosystems. Article 20, in particular, sets out a general rule that States must 'individually and, where appropriate, jointly, protect and preserve the ecosystems of international watercourses'. Articles 21 - 23 of the Convention contain specific provisions relating to the prevention, reduction and control of pollution, the introduction of alien or new species, and the protection and preservation of the marine environment.

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<sup>230</sup> Rieu-Clarke A. and Loures F., (2009), Still not in Force: Should States Support the 1997 UN Watercourses Convention?, *Review of European, Comparative and International Environmental Law (RECIEL)*, Volume 18, Issue 2, Page 190.

<sup>231</sup> *Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* Judgment of 25 September 1997, ICJ Reports 1997, 7 paragraph 150.

The adoption of the UN Watercourses Convention by the General Assembly on May 21, 1997 marked a historic moment in the evolution of international water law. The approval of the Convention came at a time when water resources management, whether at the national or international level, started facing major challenges, resulting largely from the unprecedented population growth, environmental degradation, urbanization and industrialization. Those challenges led to the sharpening of the competing demands of riparian states, and to an increasing attention to water resources world-wide. The Convention is indeed comprehensive in detailing rules and norms pertaining to the use of water. It is regarded as a major step in the integration of water usage norms and the creation of some form of international legal precedent. However, as depicted above, there still remain contentious issues with the Convention itself. Even, with this being said, we cannot undermine the importance of this Convention to present day international water law.

#### **3.4. The 1992 UNECE Watercourses Convention**<sup>232</sup>

The member states of the United Nations Economic Commission for Europe gathered in 1992 and adopted the aforementioned UNECE Watercourses Convention. Article two of the UNECE Watercourses Convention deals with its main provisions and states that all parties to the Convention shall take all appropriate measures to prevent, control and reduce any transboundary impact.<sup>233</sup> A transboundary impact means any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party or within an area under the jurisdiction of another Party. Such effects on the environment include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; they also include effects on the cultural heritage or socio-economic conditions resulting from alterations to those factors.<sup>234</sup> As indicated by McCaffrey, the obligation to prevent, control and reduce any transboundary impact is indeed

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<sup>232</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1936 UNTS 269; 31 ILM 1312 (1992).

<sup>233</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1936 UNTS 269; 31 ILM 1312 (1992) at Article 2(1).

<sup>234</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1936 UNTS 269; 31 ILM 1312 (1992) at Article 1(2).

striking, especially since there is no qualification for the extent of the impact provided.<sup>235</sup> Parties are obligated to prevent, control and reduce the pollution of water; to ensure that transboundary waters are used with the aim of ecologically sound and rational water management, conservation of water resources and environmental protection; to ensure that transboundary waters are used in a reasonable and equitable way; and to ensure conservation and restoration of ecosystems where possible.<sup>236</sup> This is of particular importance as it references the issues of management, conservation, use and environmental protection, which are the fundamental components of access to water and sustainable development itself. It is evident that issues of pollution and access have plagued human society when it comes to access to water for the purposes of consumption and health. It is good to note that this UNECE Watercourses Convention makes reference to these issues, however, as stated by Fitzmaurice, it does not provide, nor does it aspire to provide a firm basis for the implementation of sustainable development.<sup>237</sup> Indeed, the UNECE Watercourses Convention generally provides for the protection and ecologically sound management of transboundary surface waters and groundwaters,<sup>238</sup> however, the Convention is and will only remain as a good framework instrument, especially because of the fact that it provides a general basis for States entering into region-specific bilateral or multilateral agreements.<sup>239</sup> It does not have direct provisions relating to water consumption in terms of use, nor water quality for said use. It mentions that each Party shall define, where appropriate, water-quality objectives and adopt water-quality criteria for the purpose of preventing, controlling and reducing transboundary impact.<sup>240</sup> Thus, what should be noted is the fact that the UNECE Watercourses Convention is both more specific and stringent than the UN Watercourses Convention when it comes to its obligations of protecting international watercourses and their ecosystems.<sup>241</sup> In principle it is safe to conclude that there is compatibility between the two

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<sup>235</sup> McCaffrey S.C., (2011), *International Watercourses, Environmental Protection*, Max Planck Encyclopaedia of Public International Law, Page 7.

<sup>236</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1936 UNTS 269; 31 ILM 1312 (1992), Article 2 (a-d).

<sup>237</sup> Fitzmaurice M., (2010), *The Relationship Between the Law of international Watercourses and Sustainable Development*, in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 622.

<sup>238</sup> McCaffrey S.C., (2011), *International Watercourses, Environmental Protection*, Max Planck Encyclopaedia of Public International Law, Page 8.

<sup>239</sup> Fitzmaurice M., (2010), *The Relationship Between the Law of international Watercourses and Sustainable Development*, in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 622.

<sup>240</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1936 UNTS 269; 31 ILM 1312 (1992), Article 3(3).

<sup>241</sup> McCaffrey S.C., (2011), *International Watercourses, Environmental Protection*, Max Planck Encyclopaedia of Public International Law, Page 8.

aforementioned Conventions. Tanzi states that the two appear complementary to each other on account of the basic compatibility between their individual provisions on the same subject-matter. Those providing for more detailed rules offer important elements complementing the guideline and the prescriptive function of those in the other Convention which are less stringent or detailed.<sup>242</sup> In his report, Tanzi further goes on to state that there would be no legal grounds supporting the argument that the less stringent provisions of the later Convention would supersede those of the earlier one, even in cases of mutually conflicting provisions.<sup>243</sup> Most importantly, the two Conventions in their complementary mutual relationship provide an important contribution in the ongoing customary law process in the field of international water law and that their terms can be instrumental in the generation of new customary law.<sup>244</sup> This in turn can provide a foundation for issues of sustainable development to come to the fore, especially in relation to water, as it allows for the protection of ecosystems, which would bode well for future generations.

### **3.5. The 2000 Revised SADC Protocol on Shared Water Resources**

A Protocol is a legally binding document committing Member States to the objectives and specific procedures stated within it. In order for a Protocol to enter in to force, two thirds of the Member States need to ratify or sign the agreement, giving formal consent and making the document officially valid. Any Member State that had not initially become party to a Protocol can accede to it at a later stage.<sup>245</sup> The Revised Protocol mirrors the 1997 Watercourses Convention and sets out principles for the joint management of rivers shared by two or more countries, sustainable development, sustainable utilisation of shared resources

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<sup>242</sup> Tanzi A., (2000), The Relationship between the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the 1997 UN Convention on the Law of the Non Navigational Uses of International Watercourses, Report of the UN/ECE Task Force on Legal and Administrative Aspects, Page 28.

<sup>243</sup> Tanzi A., (2000), The Relationship between the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the 1997 UN Convention on the Law of the Non Navigational Uses of International Watercourses, Report of the UN/ECE Task Force on Legal and Administrative Aspects, Page 29.

<sup>244</sup> Tanzi A., (2000), The Relationship between the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the 1997 UN Convention on the Law of the Non Navigational Uses of International Watercourses, Report of the UN/ECE Task Force on Legal and Administrative Aspects, Page 37.

<sup>245</sup> As per the Southern African Development Community (SADC) official website, <http://www.sadc.int/about-sadc/overview/sa-protocols/>, (last accessed 7/01/18).

and environmentally sound management.<sup>246</sup> Consistent with the 1997 UN Watercourses Convention, the SADC Protocol includes the use of the term ‘watercourse’ and deals with the ‘equitable and reasonable utilization principle.’ This should not come as a surprise, especially since the UN Watercourses Convention codifies a number of customary international law water principles and the majority of the SADC countries themselves endorsed the UN Watercourses Convention.<sup>247</sup> There is however some difference regarding navigational uses of shared watercourses and settlements of disputes, but the framework of the UN Watercourses Convention remain evident in the SADC Protocol. From a legal perspective, the SADC Protocol on Shared Watercourses is the key instrument for transboundary water management in the SADC region and is a framework agreement. Thus, it contains the generic rules for the management of shared rivers within the SADC region.<sup>248</sup> The overall objective of this Protocol is to foster closer cooperation for judicious, sustainable and co-ordinated management, protection and utilisation of shared watercourses and advance the SADC agenda of regional integration and poverty alleviation.<sup>249</sup> It must be noted that the socio-economic conditions characterizing the SADC sub-region include rapid population growth, high rates of urbanization, high HIV/AIDS and malaria prevalence, high poverty and income inequality levels, and high incidence of food insecurity. These socio-economic drivers have placed increasing demand for water resulting in increased stress on the limited water resources, and exacerbated competition and conflict between and among sectoral users.<sup>250</sup> In order to achieve this objective of closer cooperation of shared watercourses, this Protocol seeks to promote and facilitate the establishment of shared watercourse agreements and Shared Watercourse Institutions for the management of shared watercourses; advance the sustainable, equitable and reasonable utilisation of the shared watercourses; promote a co-ordinated and integrated environmentally sound development and management of shared watercourses; promote the harmonisation and monitoring of legislation and policies for planning, development, conservation, protection of shared watercourses, and allocation of the resources thereof; and promote research and technology development, information exchange,

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<sup>246</sup> Fitzmaurice M., (2010), The Relationship Between the Law of international Watercourses and Sustainable Development, in in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 619.

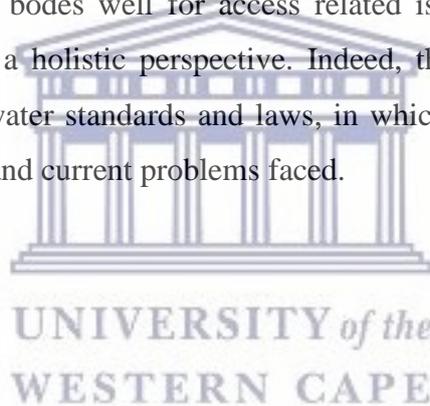
<sup>247</sup> Salman S.M.A., (2001), Legal Regime for Use and Protection of International Watercourses in the Southern African Region: Evolution and Context, Natural Resources Journal, Vol. 41, Page 1015.

<sup>248</sup> Earle A. and Malzbender D., (2007), Water – and the Peaceful, Sustainable Development of the SADC Region, African Centre for Water Research (Publications), Page 12.

<sup>249</sup> The 2000 Revised SADC Protocol on Shared Water Resources, Article 2.

<sup>250</sup> Braune E and Others., (2008), Protocol for the Assessment of the Status of Sustainable Utilization and Management of Groundwater Resources with Special Reference to Southern Africa, Water Research Commission, WRC Report Number TT318/08, Page 18.

capacity building, and the application of appropriate technologies in shared watercourses management.<sup>251</sup> The Revised Protocol is thus the first watercourses agreement to rely on the principles of sustainable development, as its main objective as stated in Article Two is underlined with principles of sustainable development.<sup>252</sup> Also, the Revised Protocol makes mention of water for domestic use. Domestic use means use of water for drinking, washing, cooking, bathing, sanitation and stock watering purposes.<sup>253</sup> The focus on domestic use is especially important for the aspect of access to water and the sustainable use thereof. As per the Revised Protocols general principles in Article Three, it states that the utilisation of the resources of the shared watercourses shall include agricultural, domestic, industrial, navigational and environmental use.<sup>254</sup> The Revised Protocol truly captures the idea of sustainable development, as it focuses on social, economic and environmental perspectives. It combines the principles of equitable use, protection of the watercourse environment, regulation and management. Thus, these elements are treated as complementing and enforcing each other.<sup>255</sup> This bodes well for access related issues, as this Protocol places emphasis on water needs on a holistic perspective. Indeed, this is a good example of the progressive development of water standards and laws, in which the law has evolved to suit the issues of the current time and current problems faced.



### **3.6. Concluding Remarks**

In this context, international law helps shape the water use relations among States and between States and individuals and other non-State actors. The gradual international importance afforded to water management should not go unnoticed. Indeed, the importance and value of water started to become evident quite some time ago, and States realised that they needed to protect their interests in this regard. Water plays a significant role in the promotion of a peaceful and orderly conduct among the various actors due to its necessity.

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<sup>251</sup> The 2000 Revised SADC Protocol on Shared Water Resources , Article 2 (a-e).

<sup>252</sup> Fitzmaurice M., (2010), *The Relationship Between the Law of international Watercourses and Sustainable Development*, in in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 619.

<sup>253</sup> The 2000 Revised SADC Protocol on Shared Water Resources, Article 1(1).

<sup>254</sup> The 2000 Revised SADC Protocol on Shared Water Resources, Article 3(2).

<sup>255</sup> Fitzmaurice M., (2010), *The Relationship Between the Law of international Watercourses and Sustainable Development*, in in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 621.

Water-relations thus play a role in harmonious and peaceful cooperation and coexistence. International law provides a regulatory framework to address water challenges, such as the promotion of equitable access to drinking water, the mitigation and prevention of environmental degradation, consumptive economic uses and the prevention and settlement of water-related disputes. International water policy has extended beyond mere navigational aspects of water and includes non-navigational aspects as well. It has further provided for principles and norms for the sustainable development and protection of this vital resource. Sustainable use of water is indeed essential in ensuring that human beings receive maximum benefit from this resource not only now, but in the years to come. The development of new agreements at the basin level, the codification efforts at the universal and regional level and the increasing case law of courts and tribunals dealing with water resources reveal a wind of change in the relationship between freshwater and international law. Ultimately, international norms and customs play a major role in paving the way for precedent to be formed. It is only through this process that actual sustainable development can occur. The Watercourses Convention exemplifies the necessity of the concerns of the international community during that period of time. Also, conventions, treaties, protocols and agreements that follow after the Watercourses Convention seem to use this Convention as a base, which underpins its importance to international discourse on water law and standards. Since water matters consistently change as a result of excessive use and climate change, the legal norms must also change to accommodate this, hence we have so many agreements. The gradual and progressive change can be noted by way of the historical analysis that has been shown. This shows how development takes place over time and how a new need develops in order to address a new issue in the same field. As mentioned before, the nature of water must be taken into consideration when trying to attach some form of governance unto it. The fact is that true achievement of effective water-management requires all role-players to be on the same page, and in essence, the same 'jurisdiction' or norm. This chapter has shown how water has been governed for the better part of history. Again, much like most international agreements, there must be consensus and this can only be achieved when viewing matters from the perspective of the greater or common-good for humanity. Indeed, since water is such a vital resource necessary for sustaining human-life, it would be amiss to not explore its actual status within the international context. Since it is important enough to be governed, we must look at whether it holds the status of being an essential human right. Human beings require water to survive, hence it would be assumed that something so vital to our very make-up and existence is regarded as an inherent human right for all to enjoy. Water is thus regarded as a

vital human need. This means that there should be sufficient water to sustain human life, including both drinking water and water required for the production of food in order to prevent starvation.<sup>256</sup> Thus, it seems reasonable to assume that what is intended by using the term ‘vital human needs’ is to give special attention only to the most essential needs in order to prevent death from dehydration or starvation.<sup>257</sup> This further alludes to the importance of water to everyday life and development. The production of food through water is also an important component of the water cycle, and this too alludes to the various roles water plays within daily life. As stated by Boyle, articulating a right to a decent or healthy environment within the context of economic, social, and cultural rights is not inherently problematic. Clarifying the existence of such a right would entail giving greater weight to the global public interest in protecting the environment and promoting sustainable development, but this could be achieved without doing damage to the fabric of human rights law, and in a manner which fully respects the wide margin of appreciation that states are entitled to exercise when balancing economic, environmental, and social policy objectives.<sup>258</sup> The reality of the situation, much like the law governing international waters, is again somewhat more intricate and complex in itself.



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<sup>256</sup> Convention on the Law of the Non-Navigational Uses of International Watercourses, Report of the 6th Committee Working Group, (1997), GAOR A/51/869, Article 10.

<sup>257</sup> Convention on the Law of the Non-Navigational Uses of International Watercourses, Report of the 6th Committee Working Group, (1997), GAOR A/51/869, Article 10.

<sup>258</sup> Boyle A., (2012), Human Rights and the Environment: Where Next?, *The European Journal of International Law*, Vol. 23, No. 2, Page 641.

## **CHAPTER FOUR – THE EXPLORATION OF WATER AS A HUMAN RIGHT**

*Water is fundamental for life and health. The human right to water is indispensable for leading a healthy life in human dignity. It is a pre-requisite to the realization of all other human rights.*<sup>259</sup>

### **4.1. Introduction**

If one admits that water is vital to life and the only basis for human rights is being human and the existence of human-beings, then it is possible to argue that the human right to water exists without requiring any legal recognition.<sup>260</sup> The concept of a ‘right to water’ for all human beings seems rudimentary in essence. A human right to water seems to be formed on the basis of natural justice, instead of legal justice. Legal Justice refers to justice governed by the law of the state and natural justice refers to moral justice and is governed by the law of equity.<sup>261</sup> Principles of natural justice are basically common-sense justice values which are built in the conscience of human beings. These principles are based on natural ideals and values which are universal in nature. Natural justice relieves legal justice from unnecessary technicality, grammatically pedantry or logical prevarication.<sup>262</sup> By applying Natural justice, it would seem elementary that all human beings have an inherent human right to water. However, this is not the case. The absence of a comprehensive guarantee of the human right to water in the universal human rights treaties has variously been dubbed ‘odd, at best’<sup>263</sup> and ‘startling’.<sup>264</sup>

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<sup>259</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant), 20 January 2003, E/C.12/2002/11.

<sup>260</sup> Ziganshina D., (2008), Rethinking the Concept of the Human Right to Water, Santa Clara Journal of International Law, Vol. 1, Page 114.

<sup>261</sup> Sahu M.J., (2015), Principle of Natural Justice in South Africa, National University of Study and Research in Law, Ranchi, Page 1.

<sup>262</sup> Sahu M.J., (2015), Principle of Natural Justice in South Africa, National University of Study and Research in Law, Ranchi, Page 1.

<sup>263</sup> McCaffrey S.C., (2005), The Basic Right to Water, in Weiss E.B., et al (eds) Fresh Water and International Economic Law, Page 93.

<sup>264</sup> Craven M., (2006), Some Thoughts on the Emergent Right to Water, in Riedel E. and Rothen P., (eds), The Human Right to Water, Page 37.

Water is life. Water is integral in the sustenance of human and animal life. It is integral in the sustenance and preservation of the earth itself. It is thus the key for human beings to thrive and the key for the planet on which human beings thrive. Hence, the assumption would be that water is a right entrenched within our very makeup, a basic human right and need, granted in order to allow for human life to flourish. Indeed, anything else you are interested in is not going to happen if you cannot breathe the air and drink the water.<sup>265</sup> Communities around the world have invoked the idea of a human right to water in local struggles to maintain access to traditional sources of water and to improve access to sufficient quantities of good quality and affordable water. Their calls for a human right to water have been grounded in notions of justice and have reflected not only a physical dependence on water for survival, but also a cultural, religious, and spiritual relationship with this vital natural resource.<sup>266</sup>

Traditionally, states asserted rights to non-navigational and navigational use of water, encompassing both quality and quantity of water. International civil society, represented by the International Law Association and the United Nations International Law Commission, has made efforts to create legal regimes for the use of water by states since the late 1960s. These treaties cover non-navigational uses of international water courses, such as surface water and ground water and include measures to protect, preserve, and manage them. In this arena, states claim their rights with other states.<sup>267</sup> However, the ‘human right to water’ approach focuses on the use of water by natural persons, either individually or collectively. The effective implementation of the human right to water will provide natural persons with their right to water in terms of quality, quantity, affordability, and access, thus ensuring that part of the vital human needs required by human beings is fulfilled. This is explained in the definition provided by the Committee on Economic, Social, and Cultural Rights, which defines the human right to water as a right to ‘sufficient, safe, acceptable, physically accessible and affordable water,<sup>268</sup>’ which would therefore also ensure that there is sufficient water to sustain human life, including both drinking water and water required for

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<sup>265</sup> Sagan C., (1983), *Cosmos*, Little Brown Book Group.

<sup>266</sup> Bielefeldt H., (2006), *Access to Water, Justice and Human Rights*, in Riedel E. and Rothen P., *The Human Right to Water*, Pages 49 – 51.

<sup>267</sup> Lee J. and Best M., (2017), *The Human Right to Water: A Research Guide and Annotated Bibliography*, The Program on Human Rights and the Global Economy, Northeastern University School of Law, Page 5.

<sup>268</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: *The Right to Water*, 20 January 2003, E/C.12/2002/11, at 2.

the production of food in order to prevent starvation.<sup>269</sup> Both quantity and quality of affordable water are directly connected to safe drinking water and sanitation, and, ultimately, linked to the health and life of people, which is further linked to the concept of vital human needs that are essential for human survival. Despite the recent prominence of the international law of human rights, the dominant discourse then in international law failed to recognize the important normative status of the individual. Traditional international legal theory focuses upon the rights and duties of states and ejects the contention that the rights of states are derivative of the rights and interests of the individuals who reside within them.<sup>270</sup>

This chapter will explore the prevalence of regarding and classifying water as a human right. It will explore the concept of water as a human right on the global scale. It will link various international treaties and conventions in order to establish the importance of water to mankind itself. There have been various calls for ensuring that water receives its due status, and this chapter will analyse the progression of the relevance and importance of water on the international scale. Since water is integral to the survival of man, it is indeed warranted to determine whether this necessity is part of our core necessity of basic human rights.

#### **4.2. Implicit Recognition of a Human Right to Water**

The 'right to water' was a concept of global concern that started to gain rapid international attention throughout the years. The Universal Declaration of Human Rights (1948) merely infers a right to water in terms of Article 25, where it is stated that everyone has a right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.<sup>271</sup> Upon interpretation of this, a human right to water is inferred, especially by proponents of establishing a human right to water, due to the fact that the realisation of these rights as mentioned in these various international

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<sup>269</sup> Convention on the Law of the Non-Navigational Uses of International Watercourses, Report of the 6th Committee Working Group, (1997), GAOR A/51/869, Article 10.

<sup>270</sup> Pink R., (2012), Child Rights, Right to Water and Sanitation, and Human Security, Health and Human Rights, Vol. 14, Number 1, Page 1.

<sup>271</sup> Article 25 of the Universal Declaration of Human Rights 1948, UN General Assembly, Universal Declaration of Human Rights, 10 December 1948, 217 A (III).

treaties are completely dependent on the access and use of quality and safe drinking water.<sup>272</sup> Thus, the key foundational documents of the international human rights system had not referred directly to a human right to water, but it is argued that water is so implicitly essential for human life that the framers of the Universal Declaration of Human Rights did not think about a need to explicitly include the right to water.<sup>273</sup>

Principle two of the 1972 Stockholm Declaration on Human Environment stated that natural resources of the earth, including air, water, land flora and fauna must be safeguarded for the benefit of the present and future generations through careful planning or management, as appropriate.<sup>274</sup> Indeed, this is the first mention of the preservation and management of water on an international scale, highlighting its importance to the global community.

In 1976, The International Covenant on Economic, Social and Cultural Rights (ICESCR)<sup>275</sup> came into force. The ICESCR has been interpreted to include an implied right to water in Article 11, the right to an adequate standard of living, and Article 12, the right to the enjoyment of health. Article 11 recognises the right of everyone to an adequate standard of living. This includes, but is not limited to, the right to adequate food, clothing, housing, and the continuous improvement of living conditions.<sup>276</sup> It also creates an obligation on parties to work together to eliminate world hunger. The right to adequate food, also referred to as the right to food, is interpreted as requiring the availability of food in a quantity and quality sufficient to satisfy the dietary needs of individuals, free from adverse substances, and acceptable within a given culture. This must be accessible to all, implying an obligation to provide special programmes for the vulnerable. This must also ensure an equitable distribution of world food supplies in relation to need, taking into account the problems of food-importing and food-exporting countries. The right to adequate food also implies a right to water.<sup>277</sup> This implicit interpretation again alludes to the oversight of the international community in relation to the importance of water as a human right. Article 12 of the

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<sup>272</sup> Shah S.A., (2017), *The Provision and Violation of Water Rights (the case of Pakistan) – A Human Rights Based Approach* in Chaisse J., *Charting the Water Regulatory Future – Issues, Challenges and Directions*, Edward Elgar Publishing, Page 170.

<sup>273</sup> McCaffrey SC., (2016), *The Human Right to Water: A False Promise?*, *University of Pacific Law Review* Vol. 47, Page 223.

<sup>274</sup> UN General Assembly, *United Nations Conference on the Human Environment*, 15 December 1972, A/RES/2994.

<sup>275</sup> UN General Assembly, *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, *United Nations, Treaty Series*, Vol. 993, Page 3.

<sup>276</sup> UN General Assembly, *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, *United Nations, Treaty Series*, Vol. 993 at Article 11.

<sup>277</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), *General Comment No. 15: The Right to Water*, 20 January 2003, E/C.12/2002/11, at Para. 3.

Covenant recognises the right of everyone to ‘the enjoyment of the highest attainable standard of physical and mental health.’<sup>278</sup> Health is understood not just as a right to be healthy, but as a right to control one's own health and body (including reproduction), and be free from interference such as torture or medical experimentation. States must protect this right by ensuring that everyone within their jurisdiction has access to the underlying determinants of health, such as clean water, sanitation, food, nutrition and housing, and through a comprehensive system of healthcare, which is available to everyone without discrimination, and economically accessible to all.<sup>279</sup> Article 12.2 requires parties to take specific steps to improve the health of their citizens, including reducing infant mortality and improving child health, improving environmental and workplace health, preventing, controlling and treating epidemic diseases, and creating conditions to ensure equal and timely access to medical services for all. The right to health is inclusive right extending not only to timely and appropriate health care but also to the underlying determinants of health, such as access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and environmental conditions.<sup>280</sup>

Also, in 1976, the International Covenant on Civil and Political Rights (ICCPR)<sup>281</sup> came into effect. The ICCPR provides an inherent right to life. Article 6(1) states that ‘every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life.’<sup>282</sup> As water is necessary to sustain a life, the right to life referred to in the ICCPR has been thought to include the right to water; however, this was once again inferred.<sup>283</sup>

In 1986, the United Nations General Assembly Declaration on the Right to Development classified a right to development as an inalienable right,<sup>284</sup> despite an explicit right to

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<sup>278</sup> UN General Assembly, International Covenant on Economic, Social and Cultural Rights, 16 December 1966, United Nations, Treaty Series, Vol. 993, Article 12, Page 3.

<sup>279</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 14: The Right to the Highest Attainable Standard of Health, UN Economic and Social Council. 11 August 2000, Paragraph 9 – 12.

<sup>280</sup> Human Rights and the Environment, Icelandic Human Rights Centre, available at <https://web.archive.org/web/20140306185240/http://www.humanrights.is/the-human-rights-project/humanrightscasesandmaterials/humanrightsconceptsideasandfora/humanrightsinrelationtoothertopics/humanrightsandtheenvironment/>, (last accessed 1/06/17).

<sup>281</sup> UN General Assembly, International Covenant on Civil and Political Rights, 16 December 1966, United Nations, Treaty Series, Vol. 999, Page 171.

<sup>282</sup> UN General Assembly, International Covenant on Civil and Political Rights, 16 December 1966, United Nations, Treaty Series, Vol. 999 at Article 6(1).

<sup>283</sup> Kirschner A., (2011), The Human Right to Water and Sanitation, Max Planck Yearbook of United Nations Law, Volume 15, Pages 445 - 487.

<sup>284</sup> United Nations General Assembly, (1986), Declaration on the Right to Development, A/RES/41/128.

development not existing in various human rights treaties.<sup>285</sup> It was found that the persistent conditions of underdevelopment was mainly due to a lack of food and water which again led to the highlighting of the importance of having access to water for survival.

While all of these instruments can be interpreted to imply a right to water, the failure to directly address the right to water and to articulate affirmative and imminent steps to be taken by states have contributed to states failure to systematically approach water issues from a rights perspective until the early 1990s. Thus, the inference of a right to water through a right to a healthy life, a right to an adequate standard of living and a right to development does not give water and access to water a firm standing within the international legal sphere.<sup>286</sup> It leaves uncertainty and this does not bode well for people seeking access to water, especially because of the dependency human beings have on water for survival. While not general and systematic, there were a few efforts to address the right to water before 1990s.<sup>287</sup>

### **4.3. Explicit Recognition of a Human Right to Water**

In 1977, the UN Conference on Water was held in Mar del Plata, Argentina. Its goals were to assess the status of water resources; to ensure that an adequate supply of quality water was available to meet the planet's socio-economic needs; to increase water use efficiency; and to promote preparedness, nationally and internationally, so as to avoid a water crisis of global dimensions before the end of twentieth century.<sup>288</sup> The conference issued an Action Plan on Community Water Supply, declaring that all peoples have the right to have access to drinking water in quantities and of a quality equal to their basic needs.<sup>289</sup> The Mar del Plata conference also recognized that water and disposal of wastewater are essential for life and human development. It called for international cooperation so that water is attainable and is justly

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<sup>285</sup> Hilderling A., (2004), The Right of Access to Freshwater Resources, in Schrijver N. and Weiss F., International Law and Sustainable Development: Principles and Practice, Martinus Nijhoff Publishers, Page 415.

<sup>286</sup> Hilderling A., (2004), The Right of Access to Freshwater Resources, in Schrijver N. and Weiss F., International Law and Sustainable Development: Principles and Practice, Martinus Nijhoff Publishers, Pages 411 – 417.

<sup>287</sup> Lee J. and Best M., (2017), The Human Right to Water: A Research Guide and Annotated Bibliography, The Program on Human Rights and the Global Economy, Northeastern University School of Law, Pages 11 – 12.

<sup>288</sup> Biswas A., (2004), Integrated Water Resources Management: A Reassessment, International Water Resources Association Water International, Vol. 29, Number 2, Pages 248 – 256.

<sup>289</sup> United Nations Water Conference, Mar del Plata, Mar. 14 – 25, 1977, Report of the United Nations Water Conference, U.N. Doc. E/CONF.70/29 (1977).

and equitably distributed among the people within the respective countries. Moreover, the decade between 1981 and 1990 was declared to be the International Drinking Water Supply and Sanitation Decade.<sup>290</sup> Thus, the idea of the human right to water, in terms of adequate quality and quantity of drinking water, was explicitly introduced on an international scale.<sup>291</sup> Resolution II stated that all people, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and of a quality equal to their basic needs.<sup>292</sup> Prior to this, a so-called *right to water*, was not explicitly mentioned in any international treaties or conventions. Next to frequently being considered as a milestone in the history of water development and management, this was also the first time that the issue of a right to water was brought to the international agenda. Another outcome of the conference was the recommendation to proclaim the period 1981-1992 as the International Drinking Water Supply and Sanitation Decade. The idea was to draw international attention to the fact that a large part of the world's population did not have access to safe water and adequate sanitation facilities, as well as to mobilize governments to take action and respond to this situation.<sup>293</sup>

In 1979, the right to water then garnered further international attention in the Convention for the Elimination of All Forms of Discrimination against Women (CEDAW). Article 14 (2)(h) stated that States Parties shall take all appropriate measures to eliminate discrimination against women in rural areas in order to ensure, on a basis of equality of men and women, that they participate in and benefit from rural development and, in particular, shall ensure to such women the right to enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications.<sup>294</sup> This right has been interpreted not to require equal access to water, but a right to clean water.<sup>295</sup> However, CEDAW's Article 14, however, only applies to rural women, and is not universally applicable.<sup>296</sup>

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<sup>290</sup> Murthy S.L., (2013), The Human Right(s) to Water and Sanitation: History, Meaning, and the Controversy Over-Privatization, Berkeley Journal of International Law, Vol. 31, Issue 1, Pages 92 – 93.

<sup>291</sup> United Nations Water Conference, Mar Del Plata, General Assembly Resolution 32/158.

<sup>292</sup> UN General Assembly, United Nations Water Conference, 1977, E.77II.A.12.

<sup>293</sup> Kirschner A., (2011), The Human Right to Water and Sanitation, Max Planck Yearbook of United Nations Law, Vol. 15, Page 450.

<sup>294</sup> Article 2 (h) of the Convention for the Elimination of All Forms of Discrimination against Women (CEDAW), UN General Assembly, Convention on the Elimination of All Forms of Discrimination Against Women, 18 December 1979, United Nations, Treaty Series, Vol. 1249.

<sup>295</sup> Singh N., (2016), The Human Right to Water – From Concept to Reality, Springer Publishing, Page 3.

<sup>296</sup> Lee J. and Best M., (2017), The Human Right to Water: A Research Guide and Annotated Bibliography, The Program on Human Rights and the Global Economy, Northeastern University School of Law, Page 11.

Subsequently, in 1989, Article 24 (1) of the Convention of the Rights of the Child mentioned that States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. Also, States Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services. Indeed a quality access to water can be inferred from this provision in order to attain the highest standard of health, but the Convention went a step further in terms of Article 24 (2)(c) wherein it states that States Parties shall pursue full implementation of this (aforementioned) right and, in particular, shall take appropriate measures to combat disease and malnutrition, including within the framework of primary health care, through, *inter alia*, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution.<sup>297</sup> The CRC directly links safe drinking water to health and includes the right to water under the right to health.<sup>298</sup>

The right to access clean water was further recognized in 1992 at the International Conference on Water and Environment in Dublin, but with an emphasis on affordable services and the economic value of water. The four key Dublin Principles were that fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment; Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels; Women play a central part in the provision, management and safeguarding of water; and, Water has an economic value in all its competing uses and should be recognized as an economic good.<sup>299</sup> In terms of water having an economic value, 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. The Dublin Principles recognized the basic right to clean water and sanitation, but also emphasized a link between pricing water appropriately and environmentally sustainable water usage. The basic idea was that if people had to pay for

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<sup>297</sup> Article 24 (2) (c) of the Convention of the Rights of the Child, UN General Assembly, Convention on the Rights of the Child, 20 November 1989, United Nations, Treaty Series, Vol. 1577.

<sup>298</sup> Lee J. and Best M., (2017), *The Human Right to Water: A Research Guide and Annotated Bibliography*, The Program on Human Rights and the Global Economy, Northeastern University School of Law, Page 11.

<sup>299</sup> International Conference on Water and the Environment, Dublin, Ir., Jan. 26-31, (1992), The Dublin Statement on Water and Sustainable Development (June 1992), available at <http://www.un-documents.net/h2o-dub.htm>, (last accessed 3/01/17).

water, it would be used more carefully. The idea in the Dublin Principle of managing water as an economic good was controversial. For many, the treatment of water as an economic good would pave the way for greater commodification and privatization, placing control over a vital natural resource in the hands of a few who would sell it for a price.<sup>300</sup> While the Dublin Statement limits the definition of water to an economic good, it also recognizes the basic human right to water, particularly affordable water. Despite its economic focus, the Dublin Statement affirms that water itself, as the source of life, merits protection.<sup>301</sup>

As part of the United Nations Programme of Action, the United Nations Conference on Environment and Development in Rio de Janeiro in 1992 occurred. From this Conference, Agenda 21 was born. Agenda 21 is a non-binding, action-plan of the United Nations with regard to sustainable development and is applicable to the United Nations, multi-lateral organisations and governments on national and local levels.<sup>302</sup> Agenda 21 includes *Chapter 18 which deals with the Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources*.<sup>303</sup> Agenda 21 recognizes water is essential to life and an integral part of the ecosystem.<sup>304</sup> It emphasizes that the scarcity of water requires integrated water resource planning and management, and sets specific goals to be reached by 2000 and 2025.<sup>305</sup> The Agenda outlines appropriate activities and means of implementation for drinking-water supply and sanitation, and sustainable development. It recognizes water as a social and economic good.<sup>306</sup> These goals were reviewed and updated at the United Nations General Assembly special session—Rio+5 in 1997, the World Summit on Sustainable Development—Rio+10 in 2002, the World Public Meeting on Culture—Agenda 21 for Culture in 2002, and finally, the United Nations Conference on Sustainable Development—Rio+20 in 2012.

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<sup>300</sup> Rogers P. and Leal S., (2010), *Running Out of Water: The Looming Crisis and Solutions to Conserve Our Most Precious Resource*, St. Martin's Press, New York, Page 124.

<sup>301</sup> International Conference on Water and the Environment, *The Dublin Statement on Water and Sustainable Development*, Principle No. 4 (Jan. 31, 1992).

<sup>302</sup> Sustainable Development Knowledge Platform, Agenda 21, available at <https://sustainabledevelopment.un.org/outcomedocuments/agenda21>, (last accessed 31/01/18).

<sup>303</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, opened for signature, Mar. 17, 1992, 1936 U.N.T.S.

<sup>304</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, opened for signature, Mar. 17, 1992, 1936 U.N.T.S. at 18.1 and 18.8.

<sup>305</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, opened for signature, Mar. 17, 1992, 1936 U.N.T.S. at 18.3 and 18.11.

<sup>306</sup> The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, opened for signature, Mar. 17, 1992, 1936 U.N.T.S. at 18.5.

In the year 2000, at the 22<sup>nd</sup> Session of the Committee on Economic, Social and Cultural Rights (hereafter referred to as the CESCR), General Comment No. 14, dealing with the right to the highest attainable standard of health (Article 12) was adopted. It was acknowledged that the right to health embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life, and extends to the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions, and a healthy environment.<sup>307</sup> Also, it was mentioned that State obligations included refraining from polluting water resources.<sup>308</sup>

In 2000, the Ministerial Declaration of the Hague on Water Security in the 21st Century was published. The goal of this document is to provide water security in the 21st Century and to identify the main challenges including: meeting basic needs for access to safe and sufficient water and sanitation, sharing water resources, valuing water, and governing water wisely. It proposes integrated water resources management as a solution, with an emphasis on collective action and inclusion.<sup>309</sup>

In 2000, Heads of states gathered in New York and reaffirmed UN efforts towards a peaceful, prosperous and just world in the United Nations Millennium Declaration. They resolved to halve the proportion of the world's people who are unable to access or to afford safe drinking water, and to eliminate the waste and misuse of water resources.

Also, in 2000, We the Peoples: The Role of the United Nations in the 21st Century, which later became known as the Millennium Development Report, was drafted. It is former Secretary General Kofi Annan's report on the status of the world in the year 2000. Water crises are cited across all six subject areas, each accompanied by an appeal from Annan for state action.<sup>310</sup>

In 2002, the Plan of Implementation of the World Summit on Sustainable Development, took place in Johannesburg, South Africa. Recognizing the right to water as an economic and

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<sup>307</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 14 (4), UN Doc. E/C12/200/4 (2004).

<sup>308</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 14 (4), UN Doc. E/C12/200/4 (2004).

<sup>309</sup> World Water Council, Ministerial Declaration of The Hague on Water Security in the 21st Century (Mar. 22, 2000) at 3, available at [http://www.worldwatercouncil.org/fileadmin/world\\_water\\_council/documents/world\\_water\\_forum\\_2/The\\_Hague\\_Declaration.pdf](http://www.worldwatercouncil.org/fileadmin/world_water_council/documents/world_water_forum_2/The_Hague_Declaration.pdf), (last accessed 3/01/17).

<sup>310</sup> U.N. Secretary-General, We the Peoples: The Role of the United Nations in the 21st Century (Millennium Report of the Secretary-General), The United Nations Department of Public Information (2000).

social right and specifying key obstacles to a healthy environment and poverty, this report launches the implementation plan on sustainable development to achieve the millennium development goal of safe drinking water. As a concrete measure, it sets a goal to halve the proportion of people without access to safe drinking water.<sup>311</sup>

The preceding developments resulted in General Comment No. 15. The most complete definition of the human right to water, and its scope and normative content, is contained in General Comment No. 15. This document is a non-binding but authoritative interpretation of Articles 11 and 12 of the ICESCR, issued by the Committee on Economic, Social and Cultural Rights (CESCR.) in 2002, and interprets the human right to water to be an economic and social right.<sup>312</sup> At the 29<sup>th</sup> session of the CESCR, in 2003, General Comment No. 15 was adopted. General Comment 15 defines the right to water as entitling everyone to sufficient, safe, physically accessible and affordable water, which is of an acceptable quality for personal and domestic uses.<sup>313</sup> It must also be noted that the right to water does not force countries to provide the resource for free, but it does mandate that water be affordable and priced at a point that aids in conservation.<sup>314</sup> General Comment 15 prohibits against any discrimination to providing access to water sources. The General Comment stresses that states are obliged to ensure that the right to water is enjoyed without discrimination and on the basis of equality between men and women (as expressed in the CEDAW provision). General Comment 15 focuses on providing access to groups who have been marginalized in the past, namely the poor and women, and providing them with a role in the water policy decision-making processes.<sup>315</sup> General Comment No. 15 essentially declares water as a human right. The Comment provides guidelines for states on the interpretation of the right to water under two articles of the International Covenant on Economic, Social and Cultural Rights – Article 11 (the right to an adequate standard of living) and Article 12 (the right to health). General Comment 15 affirms that *'the human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and*

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<sup>311</sup> World Summit on Sustainable Development, Plan of Implementation of the World Summit on Sustainable Development, U.N. Doc. A/Conf.199/20 (Sept. 4, 2002).

<sup>312</sup> Ziganshina D., (2008), Rethinking the Concept of the Human Right to Water, Santa Clara Journal of International Law, Vol. 1, Pages 115 – 116.

<sup>313</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant), 20 January 2003, E/C.12/2002/11.

<sup>314</sup> Curry E., (2010), Water Scarcity and the Recognition of the Human Right to Safe Freshwater, NorthWestern Journal of International Human Rights, Vol. 9, Page 118.

<sup>315</sup> Khalfan A. and Others., (2007), Manual on The Right to Water and Sanitation, Centre on Housing Rights and Evictions, OHRE, AAAS, SDC and UN-HABITAT, Manual on the Right to Water and Sanitation (2007), Geneva, Switzerland, Vol.11, Page 49.

*domestic uses.*<sup>316</sup> It notes that the right to water has been recognised in a wide range of international documents and reaffirms the fundamental importance of the right stating that *'the human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights.'*<sup>317</sup> The General Comment clarifies the normative content of the right to water by articulating the individual elements of the right, such as 'availability', 'quality' and 'accessibility'. In context, 'availability' indicates that the water supply for each person must be sufficient and continuous for personal and domestic uses.<sup>318</sup> Also, 'quality' suggests that the water required for each personal or domestic use must be safe.<sup>319</sup> Finally, 'accessibility' means that water and water facilities and services have to be accessible to everyone without discrimination.<sup>320</sup> General Comment 15 further defines accessibility by addressing 'physical accessibility,' requiring that water sources be within a safe distance. It also looks at 'economic accessibility,' whereby it requires that water supplies be affordable.<sup>321</sup> It also outlines the associated state obligations and certain international obligations. These include obligations to respect the right to water by refraining from interfering directly or indirectly with the enjoyment of the right, protecting the right to water by preventing third parties from interfering in any way with enjoyment of the right to water and fulfilling the right to water by adopting the necessary measures directed towards the full realisation of this right.<sup>322</sup> The Comment notes that the right should also be seen in conjunction with other rights enshrined in the International Bill of Human Rights, foremost amongst them the right to life and human dignity, that water is necessary to produce food (right to adequate food) and ensure environmental hygiene (right to health), and that water is necessary in securing livelihoods (right to gain a living by work), and enjoying certain cultural practices (the right to take part in cultural life). General Comment 15 suggests that since the word 'including' preceded the list of rights mentioned in the ICESCR, those rights were not intended to be exhaustive. Under this rational interpretation, since the right to water

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<sup>316</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 2.

<sup>317</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 1.

<sup>318</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 12.

<sup>319</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 12.

<sup>320</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 12.

<sup>321</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 12.

<sup>322</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 21 – 38.

is a natural extension of those rights listed in the ICESCR, recognition of the right to water is as essential as all others mentioned.<sup>323</sup>

There are nine core responsibilities that must be met in order to give effect to the right if adopted. The first includes the ensuring of access to the minimum essential amount of water that is sufficient and safe for personal and domestic uses to prevent disease.<sup>324</sup> The first core responsibility includes providing a sufficient amount of water to ward off dehydration.<sup>325</sup> Secondly, ensuring the right of access to water and water facilities and services on a non-discriminatory basis, especially for disadvantaged or marginalized groups must occur.<sup>326</sup> Again, the theme of non-discrimination comes to the fore, as the Comment has placed considerable value on ensuring access of water to all. Generally, it is the disadvantaged or non-marginalised groups that suffer, especially in relation to water access, so actively addressing this issue is a step in the positive direction. The third responsibility is to ensure physical access to water facilities or services that provide sufficient, safe and regular water; that have a sufficient number of water outlets to avoid prohibitive waiting times; and that are at a reasonable distance from the household.<sup>327</sup> Fourthly, there is a responsibility to ensure personal security is not threatened when having to physically access to water.<sup>328</sup> The third and fourth responsibility again caters for those who come from disadvantaged groups. Extra attention is given to these groups, and their safety is ensured as a result of these commitments. Fifthly, equitable distribution of all available water facilities and services must also be ensured.<sup>329</sup> Sixthly, governments must adopt and implement a national water strategy and plan of action addressing the whole population; the strategy and plan of action should be devised, and periodically reviewed, on the basis of a participatory and transparent process; it should include methods, such as right to water indicators and benchmarks, by which progress can be closely monitored; the process by which the strategy and plan of action are devised, as well as their content, shall give particular attention to all disadvantaged or marginalized

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<sup>323</sup> Curry E., (2010), Water Scarcity and the Recognition of the Human Right to Safe Freshwater, *NorthWestern Journal of International Human Rights*, Vol. 9, Page 118.

<sup>324</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

<sup>325</sup> Curry E., (2010), Water Scarcity and the Recognition of the Human Right to Safe Freshwater, *NorthWestern Journal of International Human Rights*, Vol. 9, Page 119.

<sup>326</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

<sup>327</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

<sup>328</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

<sup>329</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

groups.<sup>330</sup> Seventhly, governments are to monitor the extent of the realization, or the non-realization, of the right to water.<sup>331</sup> Eighthly, relatively low-cost targeted water programmes to protect vulnerable and marginalized groups is to be adopted.<sup>332</sup> Finally, government has the responsibility to take measures to prevent, treat and control diseases linked to water, in particular ensuring access to adequate sanitation.<sup>333</sup>

Unfortunately, General Comment 15 does not offer much guidance regarding the implementation of the right to water. However, it can be inferred that governments will be required to act in an expeditious and effective manner in order to meet the responsibilities of the Comment.<sup>334</sup> If General Comment 15's interpretation were to be adopted by the UN, only states parties to the ICESCR will be held responsible for implementation.<sup>335</sup> If a state-party fails to take the appropriate steps for implementation, it will be allowed the opportunity to defend the omission, unless it involves a violation of a core obligation.<sup>336</sup> The reporting procedure is a non-adversarial process which is heavily reliant on 'constructive dialogue' between the reporting state and the monitoring body. The concluding observations of the ESCR Committee might not be too intrusive, meaning that states might listen to the ESCR Committee without the need to confront it with arguments about their domestic obligations relating to the human right to water.<sup>337</sup> Punishment of states parties who choose not to conform includes a committee report of the infraction along with comments on options for future improvement. Despite the mild penalties, the enforcement actions would at least provide some incentive for governments to conform and recognize the right.<sup>338</sup>

General Comment 15 stands as the model embodiment of what we can hope for in an established right to water, and, although it serves only as an authoritative statement, its

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<sup>330</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

<sup>331</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

<sup>332</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

<sup>333</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 37.

<sup>334</sup> Khalfan A. and Others., (2007), Manual on The Right to Water and Sanitation, Centre on Housing Rights and Evictions, OHRE, AAAS, SDC and UN-HABITAT, Manual on the Right to Water and Sanitation (2007), Geneva, Switzerland, Vol.11, Page 45.

<sup>335</sup> Khalfan A. and Others., (2007), Manual on The Right to Water and Sanitation, Centre on Housing Rights and Evictions, OHRE, AAAS, SDC and UN-HABITAT, Manual on the Right to Water and Sanitation (2007), Geneva, Switzerland, Vol.11, Page 28.

<sup>336</sup> UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water, 20 January 2003, E/C.12/2002/11, at 39 – 44.

<sup>337</sup> Bulto T.S., (2011), The Human Right to Water in the Corpus and Jurisprudence of the African Human Rights System, African Human Rights Law Journal, Pages 341 – 367.

<sup>338</sup> Bulto T.S., (2011), The Human Right to Water in the Corpus and Jurisprudence of the African Human Rights System, African Human Rights Law Journal, Pages 16 – 25.

influence is widespread. Since General Comment 15's adoption in 2002, seventeen countries have altered their constitutions or laws to conform to the ideals of valuing water as a right of every member of the global community.<sup>339</sup> In addition, more than 50 countries now accept the right to water in their domestic laws as a result of General Comment No. 15.<sup>340</sup> The re-framing of water as a basic human need and a right has thus provided leverage to NGO initiatives pressuring local and national governments to adopt policies which provide sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use.<sup>341</sup> General Comment No. 15 is a detailed and comprehensive document and clearly recognises water as a human right however it does not mandate the enforceability of the right to water.<sup>342</sup> It is important to note that General Comments of the International Covenant on Economic, Social and Cultural Rights are non-binding and of an advisory nature.<sup>343</sup> General Comment No. 15 set up a foundation for establishing a right to water, but further development is needed to extend and strengthen the scope and the protection of this right through legally binding instruments both at the national and international levels.

The Resolution adopted by the General Assembly [*on the report of the Second Committee (A/55/582/Add.8)*] 55/196, proclaimed that 2003 was to be the International Year of Freshwater. It requested that the Subcommittee on Water Resources of the Administrative Committee on Coordination manage the year-long project and provide the General Assembly with proposals for activities and appropriate sources of funding.<sup>344</sup>

The UN General Assembly Resolution 58/217, the International Decade for Action, Water for Life came into being in 2003. Following it resolution 55/196 in 2000, which proclaimed the

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<sup>339</sup> Curry E., (2010), Water Scarcity and the Recognition of the Human Right to Safe Freshwater, NorthWestern Journal of International Human Rights, Vol. 9, Page 121.

<sup>340</sup> Reiners N., (2002), General Comment No. 15 on the Right to Water, Page 7, available at <https://www.geschichte-menschenrechte.de/general-comment-no-15-on-the-right-to-water-2002/?type=98765>, (last accessed 24/05/18).

<sup>341</sup> Reiners N., (2002), General Comment No. 15 on the Right to Water, Page 7, available at <https://www.geschichte-menschenrechte.de/general-comment-no-15-on-the-right-to-water-2002/?type=98765>, (last accessed 24/05/18).

<sup>342</sup> Shah SA, (2017), The Provision and Violation of Water Rights (the case of Pakistan) – A Human Rights Based Approach in Chaisse J, Charting the Water Regulatory Future – Issues, Challenges and Directions, Edward Elgar Publishing, Page 172.

<sup>343</sup> Shah SA, (2017), The Provision and Violation of Water Rights (the case of Pakistan) – A Human Rights Based Approach in Chaisse J, Charting the Water Regulatory Future – Issues, Challenges and Directions, Edward Elgar Publishing, Page 172.

<sup>344</sup> G.A. Res. 55/196 (Dec. 20, 2000).

year 2003 the International Year of Freshwater, the UN General Assembly proclaimed the period from 2005 to 2015 the International Decade for Action, Water for Life.<sup>345</sup>

In 2006, The United Nations Development Programme (hereafter referred to as UNDP) recommended that States should make water a human right.<sup>346</sup> Furthermore, in 2007, it was stated that it is now time to consider access to safe drinking water and sanitation as a human right, defined as the right to equal and non-discriminatory access to a sufficient amount of safe drinking water for personal and domestic uses - drinking, personal sanitation, washing of clothes, food preparation and personal and household hygiene - to sustain life and health. States should prioritize these personal and domestic uses over other water uses and should take steps to ensure that this sufficient amount is of good quality, affordable for all and can be collected within a reasonable distance from a person's home.<sup>347</sup>

The UN General Assembly Resolution 64/292, The Human Right to Water and Sanitation in 2010 then allowed for the adoption of a resolution recognizing a human right to safe and clean drinking water and sanitation. It further called upon states to support the realization of this right. It proclaimed that this is a most vital right for the enjoyment of life and all other human rights.<sup>348</sup>

The year 2010 saw the Human Rights Council Resolution 15/9: Human Rights and Access to Safe Drinking Water and Sanitation. This resolution is a follow-up to General Assembly Resolution 64/292. It affirms and clarifies state obligations to work toward the realization of this right, both in practice and in law. It emphasizes the link between discrimination against disadvantaged groups and lack of access to water, and further identifies the right to health, life and human dignity as sources for the right to water. This resolution situates the right to water as deriving from the right to an adequate standard of living. As the right to water is derived from various human rights law instruments, including the ICESCR, CEDAW, and CRC, the resolution reaffirms that the human rights to safe drinking water and sanitation are essential for the full enjoyment of life and all human rights.<sup>349</sup>

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<sup>345</sup> G.A. Res. 58/217 (Dec. 23, 2003).

<sup>346</sup> UN Development Programme, *Beyond Scarcity: Power, Poverty and the Global Water Crisis*, (2006), Page 4.

<sup>347</sup> UN General Assembly, Human Rights Council, Report of the United Nations High Commissioner for Human Rights on the Scope and Content of the Relevant Human Rights Obligations Related to Equitable Access to Safe Drinking Water and Sanitation Under International Human Rights Instruments, Page 66, UN Doc A/HRC/6/3.

<sup>348</sup> G.A. Res. 64/292, The Human Right to Water and Sanitation (July 28, 2010).

<sup>349</sup> Human Rights Council, 15/9: Human Rights and Access to Safe Drinking Water and Sanitation, A/HRC/RES/15/9 (Oct. 6, 2010).

In 2011, the Human Rights Council Resolution 16/2: The Human Right to Safe Drinking Water and Sanitation noted that the right to sanitation is a complement to the Committee on Economic, Social and Cultural Rights' General Comment 15. It also encourages the Independent Expert on the issue of human rights to promote the full realization of the human right to safe drinking water and sanitation.<sup>350</sup>

The World Health Organisations primary decision-making organ allowed for the adoption of World Health Assembly Resolution 64/24: Drinking-Water, Sanitation and Health in 2011. In this resolution, the decision-body proclaimed its adoption of resolutions GA 64/292 and HRC 15/19. It further urged states to make sure that their national health strategies contribute to the fulfilment of the water-and-sanitation-related Millennium Development Goals.<sup>351</sup>

In 2013, the UN Human Rights Council Resolution reaffirmed that the right to safe drinking water and sanitation is derived from the right to an adequate standard of living. Additionally, the accessible and affordable water and sanitation should be delivered for personal and domestic use, without discrimination.<sup>352</sup>

Indeed the call for water to be recognised as a human right has gained momentum throughout the years as depicted above. It should be noted that the MDGs and SDGs have also been included in this call, however, this will be detailed in Chapter 6 of this composition. The importance of water to the quality of life has been linked time and time again and it has been shown through the various aforementioned conventions. The fact that such international attention has been afforded to a human *right* to water highlights its actual importance within the international community itself. The *right*, be it implicit or explicit, encompasses the ideals of an international community that places emphasis on quality of life and quality of being for human being. Water is an essential element in the daily activities of man, and it is integral for human development as well. Since the human body is made up of up to sixty percent of water,<sup>353</sup> and the earth itself is made up of seventy percent of water,<sup>354</sup> it is glaringly clear how important water is to our very existence and why the right to water has been propelled to reach the status of an actual human right.

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<sup>350</sup> Human Rights Council, 16/2: The Human Right to Safe Drinking Water and Sanitation, A/HRC/RES/16/2 (Mar. 24, 2011).

<sup>351</sup> World Health Organization, Res. 64/24 (May 24, 2011).

<sup>352</sup> Human Rights Council Res. 24/18 (Sept. 27, 2013).

<sup>353</sup> Mitchell H.H., (1945), Journal of Biological Chemistry, Page 158, available at <http://www.jbc.org/content/158/3/625.full.pdf+html>, (last accessed 15/06/16).

<sup>354</sup> <http://www.un.org/waterforlifedecade/background.shtml>, (last accessed 9/02/2017).

#### **4.4. Legal Implications of Recognising a Human Right to Water**

Essentially, in order for any proper form of human life and development to take place, water is needed as the bedrock for sustenance. After examining the legal basis and sources of the right to water, the issue of its status within human rights law remains. The concept of a right to water is frequently referred to not as an independent right on its own which can be claimed as such, but as a right which can solely be claimed in connection with other human rights, especially the right to health and the right to an adequate standard of living.<sup>355</sup>

Apart from providing greater legal certainty, there are several other reasons that warrant a treatment of the right to water as a distinct right. First of all, water is undoubtedly a primary vital need. It should not be subordinated under the rights to health, housing or an adequate standard of living, but be given the prominence and visibility of a distinct right.<sup>356</sup> Acknowledging a right to water would encourage the international community and individual governments to renew their efforts to meet basic water needs of their populations. By acknowledging a right to water, pressures to translate that right into specific national and international legal obligations and responsibilities are much more likely to occur. To emphasize the human right of access to drinking water does more than emphasize its importance. It grounds the priority on the bedrock of social and economic rights, it emphasizes the obligations of states parties to ensure access, and it identifies the obligations of states parties to provide support internationally as well as nationally. Also, acknowledging a right to water maintains a spotlight of attention on the deplorable state of water management in many parts of the world. Acknowledging a right to water thus helps focus attention on the need to more widely address international watershed disputes and to resolve conflicts over the use of shared water by identifying minimum water requirements and allocations for all basin parties. Explicitly acknowledging a human right to water can help set specific priorities for water policy. In particular, meeting a basic water requirement for all humans to satisfy this right should take precedence over other water management and

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<sup>355</sup> Kirschner A., (2011), The Human Right to Water and Sanitation, Max Planck Yearbook of United Nations Law, Vol. 15, Page 467.

<sup>356</sup> Kirschner A., (2011), The Human Right to Water and Sanitation, Max Planck Yearbook of United Nations Law, Vol. 15, Page 468.

investment decisions.<sup>357</sup> In essence, acknowledging a right to water will ensure that ideals such as SDG6 garner more serious attention on the international stage. It will ensure that the goals and targets are taken into proper account and that mechanisms are put into place to actually attain it.

#### **4.4.1. Case Study of Legal Implications of a Right to Water: African Union Context**

One of the crucial guarantees to have eluded the list of African Charter socio-economic rights is the right to drinking water and water for sanitation. The African Charter on Human and Peoples' Rights of 1981 (Banjul Charter),<sup>358</sup> is the human rights charter of the African region and it is intended to promote and protect human rights and basic freedoms in the African continent.<sup>359</sup> The Banjul Charter is progressive in its nature, as it incorporates civil and political, cultural and social, as well as solidarity rights in one instrument.<sup>360</sup> Even though the Banjul Charter is progressive for development of the African continent, and even though it realises a right to a generally satisfactory environment,<sup>361</sup> the initial document did not expressly mention a right to water or access to water. Given the scarcity of water within this region, it is startling to come to this realisation. Lacking a comprehensive legal protection in the main regional instrument, the human right to water creates a hierarchy within a hierarchy, as it sits on the lowest rung of the already-marginalised socio-economic rights.<sup>362</sup> However, gradual reform has taken place within the African context. A Resolution on the Right to Water Obligations<sup>363</sup> was passed whereby the Commission urged African Union Member States to meet their obligations in providing clean drinking water for all their populations and

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<sup>357</sup> Gleick P., (2007), *The Human Right to Water*, Pacific Institute, Page 4.

<sup>358</sup> Draft African Charter prepared for the Meeting of Experts in Dakar, Senegal from 28 November to 8 December 1979, CAB/LEG/67/3/Rev.1.

<sup>359</sup> Draft African Charter prepared for the Meeting of Experts in Dakar, Senegal from 28 November to 8 December 1979, CAB/LEG/67/3/Rev.1.

<sup>360</sup> Scholtz W., (2015), *Human Rights and the Environment in the African Union Context*, in Scholtz W. and Verschuuren V., *Regional Environmental Law: Trans-regional Comparative Lessons in Pursuit of Sustainable Development*, (2015), Edward Elgar Publishing, United Kingdom, Pages 103 – 104.

<sup>361</sup> Article 24 of the Banjul Charter, Organization of African Unity (OAU), African Charter on Human and Peoples' Rights (Banjul Charter), 27 June 1981, CAB/LEG/67/3 rev. 5, 21 I.L.M. 58 (1982).

<sup>362</sup> Bulto T.S., (2011), *The Human Right to Water in the Corpus and Jurisprudence of the African Human Rights System*, African Human Rights Law Journal, Page 341.

<sup>363</sup> Resolution ACHPR/Res.300 (EXT.OS/XVII) 20.

to conscientiously cooperate in the management and protection of water resources.<sup>364</sup> This Resolution is a clear indication of the progressive development of water protection within the African continent and the importance it was now being afforded. The Resolution requires for Member States to protect the quality of national and international water resources and the entire riverine ecosystem, from watersheds to oceans; to ensure the rational and equitable use of water resources through the distribution of water resources to meet, in priority, the vital human needs of the populations concerned, in particular access to drinking water in sufficient quantity for personal and domestic use, sanitation, agriculture and other means of subsistence; to recognize, protect and develop traditional and local water management systems for indigenous populations on their ancestral lands as well as local communities, and protect water resources from abusive use and pollution; to establish mechanisms for the participation of individuals and communities in decision-making on the management of water resources; to guarantee the justiciability of the right to water; to build the capacity of populations in human rights education, including the right to water and protection mechanisms; and to comply with the principle of non-discrimination within and among riparian populations, and take into account the needs of vulnerable persons, in particular women and children, persons with disabilities, elderly persons, rural populations living in geographically inaccessible areas, displaced persons, refugees and persons deprived of their liberty.<sup>365</sup> The African Charter on the Rights and Welfare of the Child provides that state parties are required to take measures to 'ensure the provision of adequate nutrition and safe drinking water.'<sup>366</sup> Also, the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa provides that state parties shall take 'appropriate measures to provide women with access to clean drinking water.'<sup>367</sup> Thus, there is room for interpreting the African Charter's provisions in a way that allows the 'reading-in' of an independent human right to water. Also, certain African countries have already explicitly recognised a 'right' to water. In the case of *Sudan Human Rights Organisation & Centre on Housing Rights and Evictions (COHRE) v. Sudan*,<sup>368</sup> the Complainants (The Sudan Human Rights Organisation and Others) alleged gross, massive and systematic violations of human rights by the Republic

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<sup>364</sup> African Commission on Human and Peoples' Rights, available at <http://www.achpr.org/sessions/17th-eo/resolutions/300/>, (last accessed 9/06/17).

<sup>365</sup> African Commission on Human and Peoples' Rights at 1 – 7, available at <http://www.achpr.org/sessions/17th-eo/resolutions/300/>, (last accessed 9/06/17).

<sup>366</sup> Art 14(2)(c) of the African Charter on the Rights and Welfare of the Child.

<sup>367</sup> Art 15(a) of the African Charter on Human and Peoples' Rights on the Rights of Women in Africa.

<sup>368</sup> *Sudan Human Rights Organisation & Centre on Housing Rights and Evictions (COHRE) v. Sudan*, 279/03-296/05, African Commission on Human and Peoples' Rights, May 2009.

of Sudan (the Respondent State) which included large-scale killings, forced displacement of populations, destruction of public facilities and properties, and the disruption of life through bombing by military fighter jets in densely populated areas.<sup>369</sup> In addition to this, the Complainant also submitted that forced evictions and accompanying human rights violations constituted violations by the Respondent State of the right to adequate food and the right to water implicitly guaranteed under Articles 4,<sup>370</sup> 16<sup>371</sup> and 22<sup>372</sup> of the African Charter on Human and Peoples' Rights (the Charter), as informed by standards and principles of international human rights law.<sup>373</sup> The Complainant relied on the Committee on Economic, Social and Cultural Rights General Comment Number 14 of 1999, which obligates States to respect, protect and fulfil the right to adequate food, and General Comment Number 15 of 2003, where the Committee declared that the human rights to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal domestic uses.<sup>374</sup> The African Commission in its decision facilitated the views of the Complainants by stating that the destruction of homes, livestock and farms as well as the poisoning of water sources, such as wells, exposed the victims to serious health risks and amounted to a violation of Articles 4, 16 and 22 of the Charter.<sup>375</sup> In its decision, the African Commission stated that the Respondent State thus had to rehabilitate the economic and social infrastructure, including education, health, water, and agricultural services in the Darfur Province. It also stated that the Respondent State must establish a National Reconciliation Forum to address the long-term sources of conflict, equitable allocation of national resources to the various provinces, including affirmative action for Darfur, resolve issues of land, grazing and water rights, including destocking of livestock. Hence, from its decision it is clear to note that even implicit 'rights' to water hold a lot of weight when it comes to legal decision and action. The

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<sup>369</sup> Note 3 - Sudan Human Rights Organisation & Centre on Housing Rights and Evictions (COHRE) v. Sudan, 279/03-296/05, African Commission on Human and Peoples' Rights, May 2009.

<sup>370</sup> Article 4 of the BANJUL Charter - Human beings are inviolable. Every human being shall be entitled to respect for his life and the integrity of his person. No one may be arbitrarily deprived of this right.

<sup>371</sup> Article 16 of the BANJUL Charter – (1) Every individual shall have the right to enjoy the best attainable state of physical and mental health. (2) Parties to the present Charter shall take the necessary measures to protect the health of their people and to ensure that they receive medical attention when they are sick.

<sup>372</sup> Article 22 of the BANJUL Charter – (1) All peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind. (2) States shall have the duty, individually or collectively, to ensure the exercise of the right to development.

<sup>373</sup> Note 124 - Sudan Human Rights Organisation & Centre on Housing Rights and Evictions (COHRE) v. Sudan, 279/03-296/05, African Commission on Human and Peoples' Rights, May 2009.

<sup>374</sup> Note 125 - Sudan Human Rights Organisation & Centre on Housing Rights and Evictions (COHRE) v. Sudan, 279/03-296/05, African Commission on Human and Peoples' Rights, May 2009.

<sup>375</sup> Note 212 - Sudan Human Rights Organisation & Centre on Housing Rights and Evictions (COHRE) v. Sudan, 279/03-296/05, African Commission on Human and Peoples' Rights, May 2009.

interpretation to include access to water in health issues holds tremendous weight, as water consumption is foremost in ensuring human health. The Commission clearly interpreted the aforementioned Articles to include a ‘right’ to water, since inevitably the best attainable state of physical and mental health requires access to water for human beings to consume. Therefore, if a State is not upholding its duty to provide water to human beings, a gross violation of human rights is indeed occurring.

It is important to note that some countries have incorporated a right to water within their legislation, for example, South Africa. This shows that recognition is being given to the importance of water for human beings. The South African situation will be detailed as it provides good insight as to what the legal implications of recognising a right to water are. The right to water is contained in section 27 of the South African Constitution and it states that everyone has the right to have access to health care services, including reproductive health care,<sup>376</sup> sufficient food and water,<sup>377</sup> and social security, including, if they are unable to support themselves and their dependants, appropriate social assistance.<sup>378</sup> It also mentions that the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights<sup>379</sup> and that no one may be refused emergency medical treatment.<sup>380</sup> The South African Constitution also contains an ‘environmental right’ as per section 24. It states that everyone has the right to an environment that is not harmful to their health or well-being;<sup>381</sup> and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation;<sup>382</sup> promote conservation;<sup>383</sup> and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.<sup>384</sup> If we analyse this particular right, especially through s24 (b)(i), (ii) and (iii), it is fairly safe to say that water, and water resources, should and can be included into the bracket which these subsections refer to, because the preservation and protection of water is necessary to ensure a healthy and sustainable

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<sup>376</sup> s27 (1)(a) of the Constitution of the Republic of South Africa (1996).

<sup>377</sup> S27 (1)(b) of the Constitution of the Republic of South Africa (1996).

<sup>378</sup> s27 (1)(c) of the Constitution of the Republic of South Africa (1996).

<sup>379</sup> s27 (2) of the Constitution of the Republic of South Africa (1996).

<sup>380</sup> s27 (3) of the Constitution of the Republic of South Africa (1996).

<sup>381</sup> s24 (a) of the Constitution of the Republic of South Africa (1996).

<sup>382</sup> s24 (b)(i) of the Constitution of the Republic of South Africa (1996).

<sup>383</sup> s24 (b)(ii) of the Constitution of the Republic of South Africa (1996).

<sup>384</sup> s24 (b)(iii) of the Constitution of the Republic of South Africa (1996).

environment not only for ourselves, but for future generations as well. If water resources are destroyed or pollution occurs in our oceans, rivers and streams, ecological degradation too will occur, which is in contravention of s24 of the constitution. Without water, s24 (a) too cannot be upheld, as water is regarded as one of the basic forms of health and nutrition. Thus if s27 can be seen as the constitutional provision for the access of water, then s24 of the constitution can play a part and be seen as a mechanism for the protection of water. The water right in itself can be seen as an extremely complex right, as it incorporates not only the access to water and sustainable development, but also other core fundamental constitutional rights, such as the right to equality,<sup>385</sup> the right to human dignity,<sup>386</sup> and the right to life.<sup>387</sup> The water right therefore encompasses an array of other rights, and thus if ones access to water is infringed, it could easily affect and infringe upon some of the aforementioned constitutional rights as well.<sup>388</sup> The Department of Water Affairs and Forestry is the control body for water and in its White Paper<sup>389</sup> on a National Water Policy for South Africa, it highlighted issues prevailing in 1997, namely that 12 to 14 million South African citizens were without access to safe water. Again it was found that the majority of these persons were black people living in rural areas. Thus even with constitutional reform, there was no actual redressing of past wrongs.<sup>390</sup> Upon closer inspection of s27 (1)(b), not only is there an access requirement to water, but one indeed has to take note of the fact that sufficient water must be accessible. The wording may cause controversy as to what sufficient can be regarded as. When first looking at the access requirement, this provision is fairly simple to understand. One indeed has to implement conventional methods of thinking in order to understand that the constitution in itself provides all South African citizens with a basic right to water and the access thereof. Thus if one is in a position where one is unable to access safe drinking water, then indeed ones constitutional rights has been violated. The backlog of people without access is being addressed is being addressed by means of a provision of access to water, either by direct provision of water to houses, or providing access to water within a reasonable distance of people's dwellings.<sup>391</sup> Regulation 3 of the June 2001 regulations under the Water Services

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<sup>385</sup> s9 of the Constitution of the Republic of South Africa (1996).

<sup>386</sup> s10 of the Constitution of the Republic of South Africa (1996).

<sup>387</sup> s11 of the Constitution of the Republic of South Africa (1996).

<sup>388</sup> Kidd M.A, (2004), Not a Drop to Drink: Disconnection of Water Services for Non-Payment and the Right of Access to Water, South African Journal on Human Rights, Vol. 20, Issue 1, Pages 122 - 123.

<sup>389</sup> A white paper is an authoritative report or guide helping readers to understand an issue, solve a problem, or make a decision.

<sup>390</sup> The Department of Home Affairs and Forestry, (1997), White Paper at 15.

<sup>391</sup> Kidd M., (2011), Environmental Law, (2<sup>nd</sup> ed.), Juta and Co Ltd, Cape Town, Page 90.

Act<sup>392</sup> provides in essence that the minimum standard for basic water supply is a minimum quantity of potable water<sup>393</sup> of 25 litres per person per day or 6 kilolitres per household per month. In terms of the Free Basic Water Policy of the government, it is recommended that 6000 litres of clean water is provided for households per month, which amounts to about 30 full 200 litre drums. This policy is mainly aimed at poor households and it shows how government has been trying to redress the wrongs of the past by allowing everyone access to safe water.<sup>394</sup> However, it has been stated that for the urban poor who are used to relatively high levels of water usage, 6 kilolitres of free water for each household per month will not be adequate. For a household of 8 people, 6 kilolitres of water amounts to two flushes of a toilet per person per day and will therefore be completely inadequate.<sup>395</sup> In another study, it was shown that 50 litres of water per day can be regarded as sufficient. The author states that 5 litres should be allocated for drinking, 20 litres for sanitation services, 15 litres for bathing and 10 litres for food preparation.<sup>396</sup> This suggests that the government's determination of a basic water supply of 25 litres per day may not be sufficient to meet the right of access to a basic water supply as envisaged by s27 of the constitution. Despite having water available, a person's right to access of sufficient or adequate water may be infringed upon.<sup>397</sup>

In the case of *Mazibuko v City of Johannesburg 2010 (4) SA 1 (CC)*, the Constitutional Court delivered a judgment concerning the right of access to water entrenched in section 27 of the Constitution, which provides that everyone has the right to 'sufficient water'. The case considers the lawfulness of Operation Gcin'amanzi (to save water), a project the City of Johannesburg piloted in Phiri in early 2004 to address the severe problem of water losses and non-payment for water services in Soweto. This project involved re-laying water pipes to improve water supply and reduce water losses, and installing pre-paid meters to charge consumers for use of water in excess of the 6 kilolitre per household monthly free basic water allowance.<sup>398</sup> Mrs Mazibuko and four other residents of Phiri, Soweto (the applicants) challenged, firstly, the City of Johannesburg's Free Basic Water policy in terms of which 6 kilolitres of water are provided monthly for free to all households in Johannesburg and,

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<sup>392</sup> 108 of 1997.

<sup>393</sup> Suitable for drinking.

<sup>394</sup> <http://www.dwaf.gov.za/documents/fbw/gabrochureaug2002.pdf>, (last accessed 08/06/2016).

<sup>395</sup> De Visser and Others., (2002), *The Free Basic Water Supply Policy: How Effective is it in Realising the Right?*, Economics and Social Rights (ESR) in South Africa Review Vol. 3.

<sup>396</sup> Gleick P.H., (1993), *Water in Crisis: A Guide to the World's Freshwater Resources*, Oxford University, Page 487.

<sup>397</sup> Kidd M., (2011), *Environmental Law*, (2<sup>nd</sup> ed.), Juta and Co Ltd, Cape Town, Page 91.

<sup>398</sup> *Mazibuko v City of Johannesburg Unreported Case No. 06/13865 (W)*; *City of Johannesburg v Mazibuko 2009 (3) SA 592 (SCA)*; *Mazibuko v City of Johannesburg 2010 (4) SA 1 (CC)*.

secondly, the lawfulness of the installation of pre-paid water meters in Phiri.<sup>399</sup> The applicants succeeded in the South Gauteng High Court. The Court found that the installation of pre-paid water meters in Phiri was unlawful and unfair. It also held that the City's Free Basic Water policy was unreasonable and therefore unlawful. It ruled that the City should provide 50 litres of free basic water daily to the applicants and 'similarly placed' residents of Phiri.<sup>400</sup> On appeal, the Supreme Court of Appeal varied this order and held that 42 litres of water per day would be 'sufficient water' within the meaning of the Constitution, and directed the City to reformulate its policy in light of this conclusion. It was declared in the Supreme Court of Appeal that the City of Johannesburg is constitutionally obliged to provide 42 litres of free water to each Phiri resident who cannot afford to pay for such water, to the extent that it is reasonable to do so, having regard to its available resources. It ordered the City and Johannesburg Water (Pty) Ltd to reconsider and reformulate their free water policy accordingly. Until such time as that policy is reformulated, the City and Johannesburg Water were ordered to provide accountholders in Phiri who are registered as indigent with 42 litres free water per day per member of his or her household.<sup>401</sup> The Supreme Court of Appeal also held that installation of the pre-paid water meters was unlawful on the ground that the City's By-laws did not make provision for them in these circumstances.<sup>402</sup> All the parties before this Court, including the applicants, accepted that the old system of water supply to Soweto was unsustainable and had to be changed. The applicants however asserted that the City's policy and the manner in which it was implemented is unlawful, unreasonable, unfair and in breach of their constitutional right to sufficient water. The Constitutional Court held that the obligation placed on government by section 27 of the Constitution is an obligation to take reasonable legislative and other measures to seek the progressive realisation of the right.<sup>403</sup> In relation to the Free Basic Water policy, therefore, the question is whether it is a reasonable policy. The Court notes that it is implicit in the concept of progressive realisation that it will take time before everyone has access to sufficient water.<sup>404</sup> The Court concluded, in contrast to the High Court and the Supreme Court of Appeal, that it is not appropriate for a court to give a quantified content to what constitutes 'sufficient water' because this is a matter best

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<sup>399</sup> *Mazibuko v City of Johannesburg Unreported Case No. 06/13865 (W); City of Johannesburg v Mazibuko 2009 (3) SA 592 (SCA); Mazibuko v City of Johannesburg 2010 (4) SA 1 (CC).*

<sup>400</sup> *Mazibuko v City of Johannesburg Unreported Case No. 06/13865 (W); City of Johannesburg v Mazibuko 2009 (3) SA 592 (SCA); Mazibuko v City of Johannesburg 2010 (4) SA 1 (CC).*

<sup>401</sup> *City of Johannesburg v Mazibuko 2009 (3) SA 592 (SCA).*

<sup>402</sup> *City of Johannesburg v Mazibuko 2009 (3) SA 592 (SCA).*

<sup>403</sup> s27 (2) of the Constitution (1996).

<sup>404</sup> *Mazibuko v City of Johannesburg 2010 (4) SA 1 (CC).*

addressed in the first place by the government. The national government has adopted regulations which stipulate that a basic water supply constitutes 25 litres per person daily, or 6 kilolitres per household monthly (upon which the City's Free Basic Water policy is based).<sup>405</sup> The Court concluded that it cannot be said that it is unreasonable for the City not to have supplied more, particularly given that, even on the applicants' case, 80% of the households in the City will receive adequate water under the present policy. The Court noted that 100 000 households within Johannesburg still lack access to the most basic water supply, that is a tap within 200m of their household.<sup>406</sup> On pre-paid water meters, the Court held (contrary to the High Court and the Supreme Court of Appeal) that the national legislation and the City's own by-laws authorise the latter to introduce pre-paid water meters as part of Operation Gcin'amanzi (to save water). The Court concluded that the installation of the meters was neither unfair nor discriminatory.<sup>407</sup> The Court affirmed the democratic value of litigation on social and economic rights. It noted that the applicants' case required the City to account comprehensively for the policies it has adopted and establish that they are reasonable. During the litigation, and perhaps because of it, the City has repeatedly reviewed and revised its policies to ensure that they do promote the progressive achievement of the right of access to sufficient water. The Court thus upheld the appeal by the City and Johannesburg Water and the Minister. The orders of the High Court and Supreme Court of Appeal were, therefore, set aside.<sup>408</sup> The Constitutional Court therefore disagreed with the courts before it and stated that the courts are not in a position to stipulate what a sufficient amount of water is. The right of access to water was indeed being upheld in the view of the Constitutional Court. The Constitutional Court also stated that the installation of pre-paid top up meters were indeed valid, even though most resident would be unable to pay for these top-ups and would be left with no water supply if the basic free water ran out. This judgement does seem very flawed because if residents are left with no water, there is thus no access. The Court can argue that access is granted if residents were to pay and top-up, but many other socio-economic factors must be taken into account, namely that these residents were the poorest of the poor and it was highly unlikely that they would ever be able to pay for more water. In terms of s27 (2), the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights. This constitutional obligation allowed for the creation of new legislation in order to govern

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<sup>405</sup> *Mazibuko v City of Johannesburg* 2010 (4) SA 1 (CC).

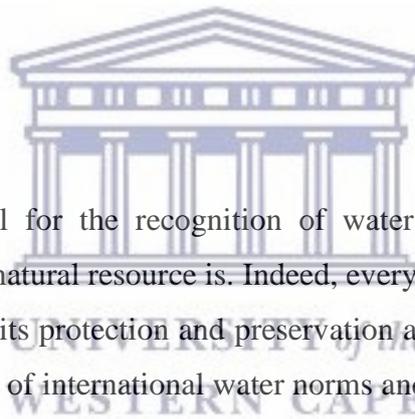
<sup>406</sup> *Mazibuko v City of Johannesburg* 2010 (4) SA 1 (CC).

<sup>407</sup> *Mazibuko v City of Johannesburg* 2010 (4) SA 1 (CC).

<sup>408</sup> *Mazibuko v City of Johannesburg* 2010 (4) SA 1 (CC).

water and water policies. These pieces of legislation include The National Water Act<sup>409</sup> and The Water Services Act.<sup>410</sup> As a result, there is an upholding of the constitutional section which requires the state to take reasonable legislative and other measures to achieve the progressive realisation of these rights (the water right). The National Water Act operates in tandem with The Water Services Act. Section (2)(a) of the Water Services Act states that its main objects is to provide for ‘the right of access to basic water supply and the right to basic sanitation necessary to secure sufficient water and an environment not harmful to human health or well-being.’<sup>411</sup> This section directly correlates with s27 of the constitution, which deals with the access to water. There is thus a direct link between the two and thus also an upholding of the constitutional obligation put out in s27 (2), which requires legislative measures to be taken in order to achieve the progressive realisation of the rights.

#### **4.5. Concluding Remarks**



The gradual international call for the recognition of water as an essential right indeed highlights how important this natural resource is. Indeed, every Convention as depicted above somehow mentions water and its protection and preservation and this links with the previous discussions dealt with in terms of international water norms and laws. It is imperative to note that water supply and watercourses are directly linked to water access itself. Again, it is important to peruse the laws pertaining to this facet of international water law as well. International human rights law provides for access to water and access to sanitation. International water law regulates the use of freshwater resources, such as rivers, lakes, wetlands, aquifers, and glaciers. Like other natural resources, freshwater resources can be depleted, destroyed and polluted. International rivers provide different benefits to different riparian states. For example, for many agricultural states, rivers are essential for food security. Irrigation and fisheries are important for some riparian states, especially midstream and downstream states. The most urgent problems relating to the sustainable utilisation of freshwater resources include water pollution, depletion of non-rechargeable underground water and fossil water, and the diversion of freshwater resources in a way that negatively

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<sup>409</sup> 36 of 1998.

<sup>410</sup> 108 of 1997.

<sup>411</sup> s2(a) of the Water Services Act 108 of 1997.

affects underlying ecosystems.<sup>412</sup> Access to a basic water requirement is a fundamental human right implicitly and explicitly supported by international law, declarations and State practice. Governments, international aid agencies, non-governmental organizations, and local communities should work to provide all humans with a basic water requirement and to guarantee that water as a human right. By acknowledging a human right to water and expressing the willingness to meet this right for those currently deprived of it, the water community would have a useful tool for addressing one of the most fundamental failures of 20th century development.<sup>413</sup> The gradual implicit and explicit recognition of water as a human right alludes to the actual importance of water itself. Access to clean and safe water allows for human life to develop and flourish. The legal recognition and protection of access to water has culminated into Sustainable Development Goal 6, which aims to achieve universal and equitable access to safe and affordable drinking water for all. The fact that water itself has garnered such international attention throughout the years surely signifies its importance. Since water has been of such international concern for such a long time, it becomes even more imperative that the SDGs are realised and achieved. The SDGs are indeed a culmination of the international communities concerns and strategies in order to address said concerns. It is a mechanism of importance as it highlights the current concern of basic human needs and highlights how to attain the sustained use and access of those needs. This is the same for SDG6 as well, as it places greater emphasis in achieving the overall goal of access to water and the attainment of this basic human necessity.

Although access to water, sanitation and hygiene is considered as a human right in some jurisdictions,<sup>414</sup> billions of people are still faced with daily challenges accessing even the most basic of services. The international attention garnered by a 'right' to quality and accessible water has indeed been significant, and it is therefore imperative that this 'right' is progressively realized in order to allow for the progressive sustainable development to gradually occur. The quality and quantity of water must be of proper standards to allow for human beings to be able to sustain themselves and the land around them. A 'right' to access water is not truly fulfilled if that water is of sub-standard quality or is of too little in quantity. Around 1.8 billion people globally use a source of drinking water that is contaminated.

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<sup>412</sup> Spijkers O. and Others, (2016), The Role of Sustainable Natural Resources Management International Law, Johannesburg Conference, Page 4.

<sup>413</sup> Gleick P., (2007), The Human Right to Water, Pacific Institute, Page 4.

<sup>414</sup> Calaguas B., (1999), The Right to Water, Sanitation and Hygiene and the Human Rights-Based Approach to Development, Water Aid Briefing Paper, Page 2.

Proper water and sanitation is a key foundation for achieving many of the other Sustainable Development Goals, including good health and gender equality, so we cannot get very far on the 2030 Agenda without it. By managing our water sustainably, we are also able to better manage our production of food and energy and contribute to decent work and economic growth. Moreover, we can preserve our water ecosystems, their biodiversity, and take action on climate change.<sup>415</sup> In order to initially globally promote proper water resource management, the Millennium Development Goal 7.C was agreed upon and put into force as part of the Millennium Development Goals (hereafter referred to as MDGs) agenda aimed at poverty reduction. This was later re-developed to meet current global water needs and issues and thus the Sustainable Development Goals as a successor came into being. Recognition of the right to water would place the issue of scarcity and human need at the forefront of discussion in international arena. An official statement of the right to water would force states parties to provide access to water resources and make the necessary policy changes to ensure that access would not be disrupted. Governments would be held accountable for their actions and would be responsible for adapting their policies to include the goals of conservation and citizen access.<sup>416</sup> Indeed, General Comment No. 15 provides the framework required for ensuring that this right to water is progressively realised. In addition, the trends of many more countries implementing some form of explicit or implicit right to water within their borders is surely on the rise. Indeed, the concept of vital human needs is of utmost importance, especially when integrating water within this aspect. Water is essential for human survival and as such, is regarded as a vital human need. The sustainable management of water resources becomes even more important, as it will ensure that this vital human need is accessible to all of humankind. Thus, a global right allowing for access to water for all becomes even more imperative.

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<sup>415</sup> United Nations Development Programme: Sustainable Development Goals, Clean Water and Sanitation, Why it Matters, available at [http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/06/Why-it-Matters\\_Sanitation\\_1p.pdf](http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/06/Why-it-Matters_Sanitation_1p.pdf), (last accessed 20/06/17).

<sup>416</sup> Curry E., (2010), Water Scarcity and the Recognition of the Human Right to Safe Freshwater, NorthWestern Journal of International Human Rights, Vol. 9, Page 121.

## **CHAPTER FIVE – SUSTAINABLE DEVELOPMENT AND WATER**

*Sustainable development is one of those concepts that it is difficult not to agree with; who would not wish to guarantee environmental protection, while at the same time promoting social and economic development, particularly in some of the poorest regions of the world? It is little wonder that politicians, policy-makers and many academics alike have been so attracted to such an apparently simple juxtaposition, not just of words, but also of ideas. But lying behind the apparent simplicity of sustainable development are some very difficult, potentially even intractable, issues.*<sup>417</sup>

### **5.1. Introduction**

The present generation may deplete resources in several ways that conflict with the interests of future generations. It may also consume resources of a higher quality and this over-exploitation may lead to higher real resource prices for future generations.<sup>418</sup> This reality is an indication of the many issues that human beings will face over the course of time. If resources are continually depleted without being replenished to a similar state, then future generations are going to suffer and struggle to survive. Water is indeed a necessary resource for human life, and the sustainable use and management of water is of pertinent importance to the survival and thriving of mankind. Hence, the issue at hand is that water is being used at such a rapid rate, that it is hard to replenish those resources without adequate rainfall or interventions. The adage goes that supply must keep up with demand. In the case of water however, the supply is definitely not keeping up with the demand and use, and thus water reserves are continually lowering. This does not bode well for both the current and future generation because water is indeed essential to development and survival. Therefore, sustainable use of water is an essential component in ensuring that water reserves are effectively managed and shared among humankind. Conscience efforts to use water sparingly and re-use and reduce water consumption play an important role in water preservation.

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<sup>417</sup> French D., (2010), Sustainable Development, in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 51.

<sup>418</sup> Weiss E.B., (2010), Implementing Intergenerational Equity, in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 100.

Sustainable use of water falls under the overarching concept of sustainable development. According to the Brundtland Report (*Our Common Future*), sustainable development concerns itself with the present generation meeting its own needs without compromising the ability of the future generation to meet its own needs.<sup>419</sup> Sustainable development also encompasses extending an opportunity to all to have the opportunity to fulfil their aspirations for a better life.<sup>420</sup> The concept of sustainable development affects the deep-seated interrelationship of mankind and the environment, and ensures the continued existence of both, encompassing in doing so aspects of philosophy and policy development.<sup>421</sup> Indeed the concept of sustainable development in itself is admirable and incorporates a common-good approach that is inclusive of all human and natural life. The concept is thus important to the continued survival of the planet and life on this planet, hence it is only expected that this concept is at the forefront of not only environmental law, but of law in general. However, the interdisciplinary nature of sustainable development has caused for more and more issues to arise, especially since the concept incorporates natural and social sciences, as well as the legal sphere.<sup>422</sup> It pervades the environmental, social, political, economic, and cultural discourses from the local through to the ‘global’ level by both the public and private sectors.<sup>423</sup> The reconciliation of these issues is imperative. If sustainable development is not ensured, the collective welfare of the present generation will be placed in danger and also, an even more hopeless future will be placed upon the future generations. If the preservation of mankind itself is not in danger here, then at least the preservation of the quality of life of future generations is.<sup>424</sup> The quality of the environment passed to future generations also raises an important problem of equity. Pollution in its various forms has degraded air, fresh water, soils, land and even the marine environment.<sup>425</sup> As a result of this ever-increasing development and pollution, future generations will be severely impacted. Thus, it can even be viewed that the present generation has an obligation, if only moral and ethical, to ensure that

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<sup>419</sup> United Nations., (1987), Report of the World Commission on Environment and Development. General Assembly Resolution 42/187, Pages 16 – 17 at 27 – 30.

<sup>420</sup> United Nations., (1987), Report of the World Commission on Environment and Development. General Assembly Resolution 42/187, Pages 16 – 17 at 27 – 30.

<sup>421</sup> Orians G., (1996), Economic Growth, the Environment, and Ethics, Ecological Applications, Vol. 6(1), Pages 26 – 27.

<sup>422</sup> French D., (2010), Sustainable Development, in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 51.

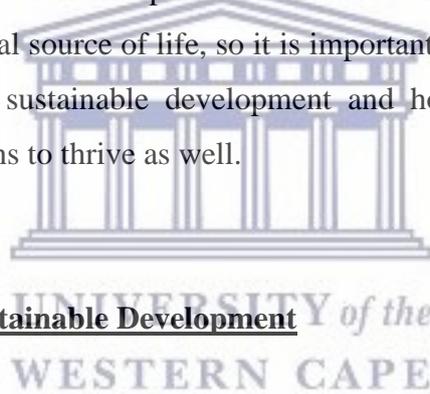
<sup>423</sup> Barral V., (2012), Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm, European Journal of International Law, Vol. 23, Issue 2, Page 377.

<sup>424</sup> Veinla H., (2005), Sustainable Development as the Fundamental Principle of Europe’s Environmental Ius Commune, Juridica International, Page 117.

<sup>425</sup> Weiss E.B., (2010), Implementing Intergenerational Equity, in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 101.

development occurs in a sustainable and fair manner, and that natural resources are not depleted for the generations to come. Sustainable development can be regarded as an ideal that was born out of necessity. In essence, it is important to share what we have so to speak, so that everyone, present and future, can benefit. Indeed, this would then bring about moral and ethical considerations, which compounded with the economic, social and equitable considerations, makes sustainable development a complex and intricate concept that must cater to all the spheres which it is built upon.

This chapter will deal with the overall concept of sustainable development. It will provide historical background and context on the concept itself and it will deal with the linkage of the concept to international environmental law. The aim of the chapter is to ultimately show the link between sustainable development and water law, and how these concepts are interrelated when it comes to the conservation and preservation of water resources. Indeed, as stated previously, water is an essential source of life, so it is important to establish how water law is impacted by the concept of sustainable development and how water resources must be preserved for future generations to thrive as well.



## **5.2. The Development of Sustainable Development**

One of the most striking characteristics of the term sustainable development is that it means so many different things to so many different people and organizations.<sup>426</sup> Over the past 20 years, sustainable development has risen to the forefront of the environmental strategy, both at the local and international level. As previously stated, according to *'The Brundtland Report,'* sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.<sup>427</sup> This was one of its first definitions which also first brought the concept itself to prominence. The definition leaves plenty of scope for interpretation, and did not pose a challenge to the

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<sup>426</sup> Robinson J., (2004), Squaring the Circle? Some Thoughts on the Idea of Sustainable Development, *Ecological Economics*, Vol. 48, Page 373.

<sup>427</sup> WCED (World Commission on the Environment and Development), (1987), *Our Common Future*, Oxford University Press (The Brundtland Report), Page 43.

dominant neoliberal economic ideology.<sup>428</sup> It must be remembered that sustainable development was not only about ensuring resources for future generations, it was also put in place in order to bridge the gap between poverty and economics. This was not specifically meant to involve people within the same regions only, but also to include bridging the gap and divide between regions itself. As a result, it aimed at managing to balance developmental and environmental concerns between all.<sup>429</sup> Sustainable development, as interpreted by the majority of actors,<sup>430</sup> is based around three subsidiary pillars, namely, economic development, social equity and environmental protection, each of which help to make up the full concept of sustainable development.<sup>431</sup> These can be seen as complementary, with some trade-offs between them, or alternatively as competitive discourses through which the overall meaning of the concept can be dominated by one or another.<sup>432</sup> Given its influence, the political context<sup>433</sup> of the Brundtland Report also needs to be taken into account, as at the time, the environmental agenda was largely dominated by the more affluent countries of the North, whilst the South struggled with economic and political instability.<sup>434</sup> Hence, the North-South divide was a critical driving force in the creation of sustainable development, especially because of the inequities and inequalities that existed between these two regions. In theory, bridging the gap between the North and South would allow for better sustainability and sharing of natural resources on a global scale. It has even been mentioned that sustainable development may be an approach for bridging the North-South divide in international environmental law.<sup>435</sup>

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<sup>428</sup> The neoliberal economic ideology is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade, Harvey D., (2005), *A Brief History of Neoliberalism*, Oxford: Oxford University Press, Page 2.

<sup>429</sup> Clapp J. and Dauvergne P., (2005), *Paths to a Green World: The Political Economy of the Global Environment*, Cambridge, Mass, MIT Press, Page 61.

<sup>430</sup> 'Actors' of international environmental law include State and non-state parties, Drumble M., (2007), *Actors and Law-Making in International Environmental Law*, Research Handbook of International Environmental Law, in Ong and Fitzmaurice, eds., Edward Elgar Publishing, Abstract, Page 2.

<sup>431</sup> Drexhage, J. and Murphy D., (2010), *Sustainable Development: From Brundtland to Rio 2012*, International Institute for Sustainable Development (IISD), New York, Page 2.

<sup>432</sup> Drexhage, J. and Murphy D., (2010), *Sustainable Development: From Brundtland to Rio 2012*, International Institute for Sustainable Development (IISD), New York, Page 2.

<sup>433</sup> The Report was developed amidst the backdrop of Cold War tensions, Carter N., (2007), *The politics of the environment*, Cambridge, Cambridge University Press, Page 209.

<sup>434</sup> The Report was developed amidst the backdrop of Cold War tensions, Carter N., (2007), *The politics of the environment*, Cambridge, Cambridge University Press, Page 209.

<sup>435</sup> Beyerlin U. and Marauhn T., (2011), *International Environmental Law*, Hart, Oxford, Page 83.

### **5.2.1. The North-South Divide**

The North–South divide is broadly considered to be a socio-economic and political divide. For more than a generation, the ‘North-South’ divide was central to the explanation of world inequality and poverty. From the 1960s to the late 1980s, there was an image of the world split between the wealthy developed countries of the North and the poor developing countries of the South.<sup>436</sup> A cursory glance at current international environmental cooperation reveals that the developing states are still far from being on par with the industrialized states.<sup>437</sup> Hence, the ‘imagery’ created by the North-South divide holds some truth, as we are still seeing the major gaps in equality between the two regions. Issues of injustice and inequality still plague many regions of the South, while the North still maintains its developed status. Unfortunately, many parts of the world are caught in a vicious downwards spiral as poor people are forced to overuse environmental resources to survive from day to day, and their impoverishment of their environment further impoverishes them, making their survival ever more difficult and uncertain.<sup>438</sup>

Certain theoretical approaches have been devised in order to bridge the North-South divide. These approaches include international solidarity and international justice.<sup>439</sup> The principle of solidarity was apparently understood as a concept that imposes an obligation to render assistance on the part of the developed states towards the least developed countries. By definition, solidarity cannot impose a one-sided obligation.<sup>440</sup> Thus, solidarity is not tantamount to ‘charity’ in the sense that the rich states must support the poorer ones by granting development aid, but rather, there must be a qualified form of inter-state cooperation.<sup>441</sup> Solidarity is strongly present in actions against a number of environmental problems, where states which have contributed more to the creation of the concerned problem end up partially bearing the costs incurred by states which have contributed comparatively

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<sup>436</sup> Therien J., (1999), *Beyond the North-South Divide: The Two Tales of World Poverty*, Third World Quarterly, Vol 20, No. 4, Page 723.

<sup>437</sup> Beyerlin U., (2006), *Bridging the North-South Divide in International Environmental Law*, Heidelberg International Law Journal, Vol. 66, Page 266.

<sup>438</sup> WCED (World Commission on the Environment and Development), (1987), *Our Common Future*, Oxford University Press (The Brundtland Report), Page 27.

<sup>439</sup> Beyerlin U., (2006), *Bridging the North-South Divide in International Environmental Law*, Heidelberg International Law Journal, Vol. 66, Page 268.

<sup>440</sup> Macdonald J., (1993), *The Principle of Solidarity in Public International Law*, Pace International Law Review, Vol. 8, Issue 2, Page 275.

<sup>441</sup> Beyerlin U., (2006), *Bridging the North-South Divide in International Environmental Law*, Heidelberg International Law Journal, Vol. 66, Page 269.

less and lack the capacity to tackle the problem.<sup>442</sup> Today, a number of multilateral agreements, in their preambles or even in their operative parts, declare certain categories of environmental issues to be a common concern of mankind. The common concern of mankind approach is essential in sustainable development and sustainable water management. Such agreements seem to bear testimony to the will of their parties to establish a solidarity-driven community for the purpose of pursuing the common welfare on a worldwide scale.<sup>443</sup> This nourishes hopes that international solidarity will also determine the future endeavours of states towards bridging the North-South-divide in global environmental affairs. The North should feel induced to win the South as an equal partner of a world-wide community that is fully committed to achieving some goals of common welfare, such as climate protection and the preservation of biological diversity.<sup>444</sup> In essence, the development of sustainable development can be seen as having its roots within the actual bridging of the North-South divide. By assisting the South, the North can essentially bridge the gap in poverty and inequality, and this can allow for actual development of the South itself, which then can allow for sustainable development to take place. Thus, a sense of justice can then prevail as the interests of all parties are catered to. Thus, sustainable development can be viewed as the culmination of negotiations between the North and the South, to move on from general development and rather to progressively realise sustainable development in order to ensure human progression.

When dealing with a broad concept like justice, especially international justice, it is important focus on the sphere of international environmental justice, as this topic relates to international environmental law. A four-part definition of environmental justice states that the concept itself consists of distributive justice, procedural justice, corrective justice and social justice.<sup>445</sup> Distributive justice calls for the fair allocation of the benefits and burdens of natural resource exploitation among and within nations.<sup>446</sup> Procedural justice requires open, informed and inclusive decision-making processes.<sup>447</sup> Corrective justice imposes an obligation to provide compensation for historic inequities and to refrain from repeating the conduct that caused the

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<sup>442</sup> Cullet P., (2003), *Differential Treatment in International Environmental Law*, Ashgate Publishing, Page 173.

<sup>443</sup> Macdonald J., (1993), *The Principle of Solidarity in Public International Law*, *Pace International Law Review*, Vol. 8, Issue 2, Page 301.

<sup>444</sup> Beyerlin U., (2006), *Bridging the North-South Divide in International Environmental Law*, *Heidelberg International Law Journal*, Vol. 66, Page 270.

<sup>445</sup> Kuehn R.R., (2000), *A Taxonomy of Environmental Justice*, *Environmental Law Reporter*, Vol. 30, Page 1068.

<sup>446</sup> French D., (2010), *Sustainable Development and the Instinctive Imperative of Justice in French D.*, *The Global Order, Global Justice and Sustainable Development*, Leiden, Martinius Nijhoff Publishers, Page 8.

<sup>447</sup> Kuehn R.R., (2000), *A Taxonomy of Environmental Justice*, *Environmental Law Reporter* 30, Page 1068.

harm.<sup>448</sup> Social justice recognises that environmental struggles are inextricably intertwined with struggles for social and economic justice and that it cannot be separated from inequality on the basis of race or gender or the post-colonial domination of the global South.<sup>449</sup> Environmental justice has an important North-South dimension. Through overconsumption of natural resources, wealthy countries have contributed disproportionately to a variety of environmental problems. Despite their far smaller contribution to environmental degradation, poor countries bear most of the harm due to their vulnerable geographical locations, lack of resources and limited administrative infrastructure.<sup>450</sup> North-South environmental conflicts reflect broader social injustice because they are inextricably intertwined with colonial and post-colonial economic policies that impoverished the global South and facilitated the North's appropriation of its natural resources.<sup>451</sup> By noting these inequalities, the North and South had to come together and address these issues in order to bridge the North-South divide and allow for environmental justice to prevail. The environment concerns all of mankind as its depletion will affect all of mankind. Hence, it is in the best interests of humanity that there is equal sharing and distribution of the resources within the earth, as this can reduce over-use and over-exploitation of said natural resources.

Indeed, it is agreed that the modern conceptualisation of the concept of sustainable development began to surface in the early 1970s when the Stockholm Declaration linked social and economic development.<sup>452</sup> It was stated that economic and social development are essential for ensuring a favourable living and working environment for man and for creating conditions on earth that is necessary for the improvement of the quality of life.<sup>453</sup> Indeed this link showed that improving the quality of life was not only dependant on one factor. This is the first sign of the inter-related nature of sustainable development. However, the publication of the Brundtland Report is widely viewed as the moment in environmental history at which sustainable development became a broad policy objective or at least an aspirational goal, and its main concept has been endorsed by governments, international organisations and non-

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<sup>448</sup> Mickelson K., (2009), *Competing Narrative of Justice in North-South Environmental Relations*, in Ebbesson J., *Environmental Law and Justice in Context*, Cambridge: Cambridge University Press, Pages 299 - 300.

<sup>449</sup> Gonzalez C.G., (2011), *An Environmental Justice Critique of Comparative Advantage*, University of Pennsylvania Journal of International Law, Vol. 32, Page 728.

<sup>450</sup> Anand R., (2004), *International Environmental Justice: A North-South Dimension*, Burlington: Vermont, Ashgate Publishing, Pages 128 - 130.

<sup>451</sup> Gonzalez C.G., (2011), *An Environmental Justice Critique of Comparative Advantage*, University of Pennsylvania Journal of International Law, Vol. 32, Page 595.

<sup>452</sup> Feris L.A., (2010), *The Role of Good Environmental Governance in the Sustainable Development of South Africa*, PER: Potchefstroomse Elektroniese Regsblad, Vol. 13, No. 1, Pages 78 – 79.

<sup>453</sup> Declaration of the United Nations Conference on the Human Environment (Stockholm) 16 June 1972, A/CONF. 151/26 (Vol I). hereafter referred to as the Stockholm Declaration.

governmental actors alike.<sup>454</sup> Under the heading of sustainable development it mentions that humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. It also notes that the concept of sustainable development does imply limits - not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But technology and social organization can be both managed and improved to make way for a new era of economic growth. The Commission believes that widespread poverty is no longer inevitable. Poverty is not only an evil in itself, but sustainable development requires meeting the basic needs of all and extending to all the opportunity to fulfil their aspirations for a better life. A world in which poverty is endemic will always be prone to ecological and other catastrophes.<sup>455</sup> The Report then goes on to incorporate the concept of equity by stating that meeting essential needs requires not only a new era of economic growth for nations in which the majority are poor, but an assurance that those poor get their fair share of the resources required to sustain that growth. Such equity would be aided by political systems that secure effective citizen participation in decision making and by greater democracy in international decision making.<sup>456</sup> This brings about not only the equity aspect, but also the governance issue and intergovernmental relations. Already, there is a whole host of spheres that is incorporated into this single concept. The Report then goes further to state that sustainable global development requires that those who are more affluent adopt life-styles within the planet's ecological means - in their use of energy, for example. Further, rapidly growing populations can increase the pressure on resources and slow any rise in living standards; thus sustainable development can only be pursued if population size and growth are in harmony with the changing productive potential of the ecosystem.<sup>457</sup> Finally, the Report mentions that in the end, sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs. Thus, in the final analysis, sustainable

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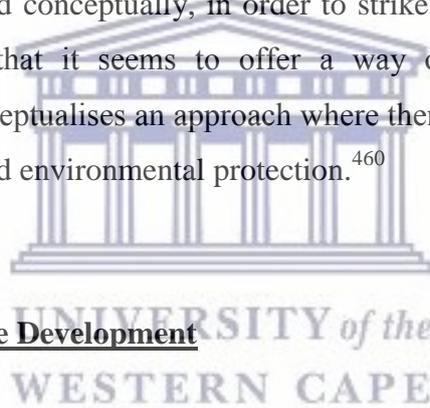
<sup>454</sup> Voigt C., (2009), *Sustainable Development as a Principle of International Law*, Martinus Nijhoff Publishers Leiden, Page 15.

<sup>455</sup> United Nations., (1987), *Report of the World Commission on Environment and Development*. General Assembly Resolution 42/187 at Note 27.

<sup>456</sup> United Nations., (1987), *Report of the World Commission on Environment and Development*. General Assembly Resolution 42/187 at Note 28.

<sup>457</sup> United Nations., (1987), *Report of the World Commission on Environment and Development*. General Assembly Resolution 42/187 at Note 29.

development must rest on political will. What can be taken from this is that the concept of sustainable development is multi-faceted to say the least. It is a necessary concept, but one that seems tough to properly implement, especially when looking at all the linkages provided for by the Brundtland Report. The Report called for equity, lifestyle-change, economic considerations, social considerations and technological development, but then finally placed the proverbial ball in the court of the political sphere without providing proper guidance. It is no wonder that there remain issues within this concept, even till today. Nevertheless, by defining the term sustainable development, the Commission was able to maintain a careful political balance, rarely achieved internationally, which recognised the real needs of developing countries, without apparently requiring unpalatable solutions from developed countries.<sup>458</sup> Also, the Brundtland Report explicitly framed sustainable development as incorporating both developmental concerns, mainly of the South, and environmental concerns, mainly of the North, in an attempt to overcome their contradictions and bridge the divide both internationally and conceptually, in order to strike a balance.<sup>459</sup> The promise of sustainable development is that it seems to offer a way out of ‘the economy versus environment impasse.’ It conceptualises an approach where there allows longer need there be a trade-off between growth and environmental protection.<sup>460</sup>



### **5.2.2. Equity and Sustainable Development**

A very important concept of sustainable development is equity because inequalities, of resources, or power, result in environmental degradation. This environmental degradation will often impact on those unable to protect themselves, that is, the worlds’ poor.<sup>461</sup> In this particular context, the world’s poor can be seen as the ‘South’ half (or developing countries) of the ‘North-South’ divide. Their subsequent struggle to survive will then place a greater stress on environmental resources, as they may be forced to move to marginal lands or deforest large areas.<sup>462</sup> This equity is not just equity within a current generation, but also across them for generations to come, preserving fragile ecosystems for future generations.

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<sup>458</sup> French D., (2010), Sustainable Development, in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar, Page 53.

<sup>459</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 209.

<sup>460</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 212.

<sup>461</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 218.

<sup>462</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 218.

Without this equity, sustainable development is impossible. Thus, sustainable development does indeed require both intra-generational and intergenerational equity.<sup>463</sup> Principle 5 of 'The Rio Declaration of 1992,'<sup>464</sup> states that 'All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.'<sup>465</sup> It also emphasizes in Principle 6 that 'The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.'<sup>466</sup> Thus, there is hardly any doubt that the *Rio Declaration* assigns to the concept of sustainable development an important role in the process of bridging the North-South divide in international environmental and developmental relations.<sup>467</sup> Sustainable development provides for a very close interdependence between the competing policy goals of development and environmental protection.<sup>468</sup> However in practice this encounters considerable difficulties. The 'common but differentiated responsibilities' of the Rio Declaration<sup>469</sup> does little to point how much these actors should bear the costs.<sup>470</sup> Inevitably, there have been considerable tensions over where these differentiated responsibilities fall and around the 'right' of the South to develop in similar ways to the North, which allowed them to attain such unprecedented levels of prosperity.<sup>471</sup> Furthermore, increased democratic participation follows on from the focus on the principle of equity, as it is seen as essential to allow marginalised groups a voice so as to define their own needs, and in legitimating the

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<sup>463</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 275.

<sup>464</sup> The Rio Declaration on Environment and Development (1992).

<sup>465</sup> The Rio Declaration on Environment and Development (1992), Principle 5.

<sup>466</sup> The Rio Declaration on Environment and Development (1992), Principle 6.

<sup>467</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 273.

<sup>468</sup> Beyerlin U., (1996), The Concept of Sustainable Development, in Wolfrum R., (ed.), Enforcing Environmental Standards: Economic Mechanisms as Viable Means?, New York, Springer, Page 95.

<sup>469</sup> Rio Declaration on Environment and Development, Principle 7, 'States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.'

While the first sentence of Principle 7 contains the precept of interstate cooperation that is inspired by the idea of international solidarity, the following two sentences of this principle stipulate substantive equality among states by differential treatment as a special perception of international justice, Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, 66 Heidelberg International Law Journal, Page 277.

<sup>470</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 219.

<sup>471</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 219.

process, and possible costs of sustainable development.<sup>472</sup> A precautionary principle<sup>473</sup> was also formulated within the context of sustainable development, and this relates to the environmental protection pillar as well as social justice. The precautionary principle requires states to still act according to their capabilities, to not act irresponsibly in ways that might damage the environment irreparably, or that will have a detrimental impact on future generations.<sup>474</sup> Again, it is far from clear how this should be applied, by whom, or to what extent the benefits outweigh the risks.

With regard to the economic pillar of sustainable development, the common theme throughout this particular strategy for sustainable development is the need to integrate economic and ecological considerations in the decision making process.<sup>475</sup> This compartmentalised approach to the environment ignored the interconnected nature of sustainability and the economy, as many environmental resources were used at the expense of nature in order to better the economic position. A continuing segmented approach fragments responsibility and environmental governance.<sup>476</sup> The economic direction of sustainable development also involves planning, due to the complexity of the interactions between the environment, economics and society. Free markets alone cannot deliver the radical reforms necessary, but sustainable development does not specify what form these market interventions must take in order to balance economic interests and ultimately strike a balance between the North-South divide.<sup>477</sup> Sustainable development remains neutral with regards to the implementation stage in order to achieve such a balance.

The Brundtland Report played a major role in the influencing of the meaning of what we know as sustainable development today. The domination of the issues of compatibility between sustainable development and economic growth, however, has led to the neglect of the broader framework of sustainable development within which the Commission attempted to integrate environmental policies and developmental strategies.<sup>478</sup> The mandate of the

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<sup>472</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 222.

<sup>473</sup> Rio Declaration on Environment and Development, Principle 15, 'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.'

<sup>474</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 223.

<sup>475</sup> WCED (World Commission on the Environment and Development), (1987), *Our Common Future*, Oxford University Press (The Brundtland Report), Page 72.

<sup>476</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 224.

<sup>477</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 225.

<sup>478</sup> Langhelle O., (1999), Sustainable Development: Exploring the Ethics of Our Common Future, *International Political Science Review / Revue internationale de science politique*, Vol.20, No. 2, Page 130.

report was based around attempting to bridge the North-South divide and this also resulted in a strongly anthropocentric outlook,<sup>479</sup> which many in the environmental movement still find objectionable.<sup>480</sup> This shift away from ecocentrism<sup>481</sup> has brought environmental issues to a much wider audience and it has shown the disproportionate impact which environmental degradation has on the poorest in society.<sup>482</sup> Indeed this realisation is of importance as it ensures the upholding of the principles of the World Charter for Nature, which mainly deal with the conservation of nature in a sustainable manner.<sup>483</sup> Aspects of the definition of sustainable development and its links with economic growth have been widely criticised, but these reflect the dominant definition of sustainable development. The focus on growth, associated with the processes and meanings of sustainable development, is qualified in the Brundtland Report itself. The essence of the normative-conceptual position is that Gross National Product<sup>484</sup> should be made less material and energy-intensive so as to keep within the bounds of the ecologically possible.<sup>485</sup> The economic interpretation of sustainable development is potentially more limiting for the sustainable development agenda itself as it infers that the reigning orientation of development is development comprised purely for the sake of economic growth.<sup>486</sup> However, in its general sense, and understood as a concept pursuing a combined anthropocentric and ecocentric approach, sustainable development cannot be suspected of being ‘a force of ideological imperialism’ featuring ‘the idea of nature as separate from man.’<sup>487</sup> Sustainable development shows both an intra-generational and intergenerational dimension as it is concerned with relationships both among members of the present generation, and between the present and future generations.<sup>488</sup> The primary concern

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<sup>479</sup> Anthropocentrism is the valuing of nature because of the material or physical benefits it can provide for humans, Thompson S., (1994), *Ecocentric and Anthropocentric Attitudes toward the Environment*, Journal of Environmental Psychology, Vol. 14, Issue 2, Page 149.

<sup>480</sup> Langhelle O., (1999), *Sustainable Development: Exploring the Ethics of Our Common Future*, *International Political Science Review / Revue internationale de science politique*, Vol.20, No. 2, Page 131.

<sup>481</sup> Ecocentrism is the valuing of nature for its own sake, Thompson S., (1994), *Ecocentric and anthropocentric attitudes toward the environment*, Journal of Environmental Psychology, Volume 14, Issue 2, Page 149.

<sup>482</sup> Carter N., (2007), *The Politics of the Environment*, Cambridge, Cambridge University Press, Page 212.

<sup>483</sup> United Nations General Assembly, *World Charter for Nature* (1982), A/RES/37/7.

<sup>484</sup> The Gross National Product is the total value of all final goods and services produced within a nation in a particular year, plus income earned by its citizens (including income of those located abroad), minus income of non-residents located in that country, <http://www.investorwords.com/2186/GNP.html#ixzz2e7HRt1TP>, (last accessed 7/02/18).

<sup>485</sup> Langhelle O., (1999), *Sustainable Development: Exploring the Ethics of Our Common Future*, *International Political Science Review / Revue internationale de science politique*, Vol.20, No. 2, Page 136.

<sup>486</sup> Drexhage J. and Murphy D., (2010), *Sustainable Development: 'From Brundtland to Rio 2012'*, International Institute for Sustainable Development (IISD), New York, Page 2.

<sup>487</sup> Geisinger A., (1999), *Sustainable Development and the Domination of Nature: Spreading the Seed of the Western Ideology of Nature*, Boston College Environmental Affairs Law Review, Vol. 27, Page 45.

<sup>488</sup> Beyerlin U., (2006), *Bridging the North-South Divide in International Environmental Law*, Heidelberg International Law Journal, Vol. 66, Page 275.

of sustainable development in both instances is the concern of sustained human development.<sup>489</sup> It rather gives meaningful direction to the process of bridging the North-South divide by reminding all actors in international environmental and developmental relations, coming both from the industrialised and developing world, to administer and conserve the earth's ecosystem as an indispensable natural resource basis for the good of present and future humans. It hinders actions that give intra-generational<sup>490</sup> needs undue predominance over intergenerational<sup>491</sup> ones, as well as actions that are designed to meet human needs at the expense of nonhuman natural goods.<sup>492</sup> Sustainable development also proves to be a source from which terms such as 'sustainable use of natural resources,' may be derived.<sup>493</sup> This idea calls upon states owning valuable resources on their territories, as well as third states seeking access to these resources for exploiting them, to use those resources in a sustainable manner, thereby ensuring their survival. This will indeed ensure the preservation of biological diversity and the common-interest of mankind.<sup>494</sup> Thus, sustainable use of natural resources does not only reflect the idea of distributive justice, but also that of international solidarity. It helps preserve the Earth's ecosystem, for the sake of present and future generations.<sup>495</sup> The South (division) has from the start regarded sustainable development with suspicion, with some vindication, considering the way that it has been used by the North (division) as a vessel for special interests. Although on the surface sustainable development is positive conceptually, and incorporates the concerns of the South in some respects, it has since been 'emasculated' by a failure to implement positive action programmes that produce results.<sup>496</sup> So if the South's interests are not taken into account, then the concept of sustainable development's meaning for the South becomes radically different from that of the North.

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<sup>489</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 275.

<sup>490</sup> 'Occurring or existing between members of one generation,' <http://www.merriam-webster.com/dictionary/intragenerational>, (last accessed 7/02/18).

<sup>491</sup> 'Being or occurring between generations,' <https://www.merriam-webster.com/dictionary/intergenerational>, (last accessed 7/02/18).

<sup>492</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 276.

<sup>493</sup> Sands P. and Peele J., (2012), Principles of International Environmental Law, 3<sup>rd</sup> ed., Cambridge University Press, Cambridge, Page 253.

<sup>494</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 276.

<sup>495</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 276.

<sup>496</sup> Nayar K.R., (1994), Politics of Sustainable Development, *Economic and Political Weekly*, Vol. 29, No. 22, Page 1327.

The vague terms of sustainable development in the Brundtland report combined with a prioritisation of areas such as the poverty-environmental degradation hypothesis, and focus on the issues raised by rapid population growth was seen by some to reflect the North's dominance in interpreting sustainable development.<sup>497</sup> The poverty-environment hypothesis suggests that the poor are both the agents and victims of environmental degradation.<sup>498</sup> Even though the hypothesis may have been necessary to avoid a North-South confrontation on environmental issues, its validity can be questioned.<sup>499</sup> It is argued that the coexistence of poverty and environmental disruption could more appropriately be seen as the joint consequence of limited opportunities for some groups, uneven processes of development, an unequal distribution of rights and power, and misguided policies.<sup>500</sup> Higher income in many cases increases the pressure on the environment. This will in particular be the case when investments and purchased inputs are used to increase the capacity to exploit natural resources. The poverty-environmental degradation hypothesis outlined in the report gained far more prominence than the inequalities of a globalised world and the actions of developed industries which many argued had a far more direct link to environmental degradation, especially since much of their effects resulted from the 'out-sourcing' of the environmental costs of 1st world patterns of consumption. Sustainable development's sincerity in equity has been interpreted as hollow, disguising developed countries concern with preserving the natural capital of developing nations in order to sustain their own living standards and patterns of consumption.<sup>501</sup> These concerns, although overblown at times, also reflect sustainable development's meaning for many, and as such, they have persisted to the present day and become more developed. The North-South divide is still key to the environmental discourse that is presented with regards to sustainable development and breaching the North-South divide.<sup>502</sup> There is indeed an increasing readiness to accept that global environmental protection is a common concern of humankind. However, the international community do not, as yet, constitute a community that, in the spirit of international solidarity and justice, act

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<sup>497</sup> Nayar K.R., (1994), Politics of Sustainable Development, *Economic and Political Weekly*, Vol. 29, No. 22, Page 1328.

<sup>498</sup> Angelsen A., (1997), The Poverty-Environment Thesis: Was Brundtland Wrong?, *Forum For Development Studies*, Vol. 24, Issue 1, Page 135.

<sup>499</sup> Angelsen A., (1997), The Poverty-Environment Thesis: Was Brundtland Wrong?, *Forum For Development Studies*, Vol. 24, Issue 1, Page 135.

<sup>500</sup> Angelsen A., (1997), The Poverty-Environment Thesis: Was Brundtland Wrong?, *Forum For Development Studies*, Vol. 24, Issue 1, Page 138.

<sup>501</sup> Nayar K.R., (1994), Politics of Sustainable Development, *Economic and Political Weekly*, Vol. 29, No. 22, Page 1328.

<sup>502</sup> Najam A. and Robins N., (2001), Seizing the Future: The South, Sustainable Development and International Trade, *International Affairs*, Royal Institute of International Affairs, Vol. 77, No. 1, Page 49.

together in order to achieve this common goal.<sup>503</sup> States are still far from taking joint protective and remedial environmental action that suffices to achieve the aim of preserving and administering our common natural heritage for the benefit of the present and future generations.<sup>504</sup> The last decade of UN summits propagated the myth that sustainable development can promote international harmony through ‘global action plans’ and ‘universal principles.’<sup>505</sup> Whilst sustainable development’s meaning may be clear in theory, it is still nebulous in practice.<sup>506</sup> The basic ideas of international solidarity and justice should constitute the theoretical starting-point for constructing an international legal framework of environmental and developmental cooperation between the North and South.<sup>507</sup>

There are indeed many concepts that form part of the concept of sustainable development. Sustainable development plays a very important role in ensuring the best survival of mankind, not only for this generation, but for future generations as well. As previously mentioned, international solidarity and international justice play an important role in ensuring that the North-South divide can be bridged. Sustainable development emanates from these two aforementioned concepts as a concept that can indeed bridge the North-South divide. Sustainable development can be understood as an emanation of solidarity and a specification of the idea of distributive justice, which is instrumental in the context of the North-South divide and bridging that particular divide.<sup>508</sup> It induces states to refrain from taking any environmental action that does not take into account the necessities of economic and social development and is calls for the full integration of both environmental and developmental interests.<sup>509</sup> Sustainable development ensures that states first look at how their actions will affect the environment, their generation, as well as future generations to come, and whether there is in fact a need to further exploit environmental resources at the expense of the South in order to achieve even more economic prowess for the North. By bringing attention to the

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<sup>503</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 293.

<sup>504</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 293.

<sup>505</sup> Victor D.G., (2006), Recovering Sustainable Development, *Foreign Affairs*, Vol. 85, No. 1, Page 95.

<sup>506</sup> Drexhage J. and Murphy D., (2010), Sustainable Development: ‘From Brundtland to Rio 2012’, International Institute for Sustainable Development (IISD), New York, Page 6.

<sup>507</sup> Drexhage J. and Murphy D., (2010), Sustainable Development: ‘From Brundtland to Rio 2012’, International Institute for Sustainable Development (IISD), New York, Page 6.

<sup>508</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 294.

<sup>509</sup> Beyerlin U., (2006), Bridging the North-South Divide in International Environmental Law, Heidelberg International Law Journal, Vol. 66, Page 294.

common interest of mankind, which affects both the North and the South, sustainable development can ensure that both the North and the South come together in order to conserve the natural resources that remain and in order to ensure that the current inequalities are rectified and that the North-South divide is actually bridged.

### **5.2.3. Integration of Sustainable Development**

Since the formal recognition of sustainable development, it has been endorsed at almost all levels of governance. At the United Nations Conference on Environment and Development (The Rio Earth Summit), in the 1992, it was stated in the Rio Declaration that human beings are at the centre of concerns for sustainable development and that they are entitled to a healthy and productive life in harmony with nature.<sup>510</sup> The Declaration also mentions that States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in the actual Declaration and in the further development of international law in the field of sustainable development.<sup>511</sup> This explicit reference to the development of the concept of sustainable development can be seen as a major driving force in how this concept has evolved. The Rio Declaration placed a great amount of emphasis on the concept and ultimately placed the onus once again in the political governance sphere. States were conscious that the principles were non-binding in nature and thus difficult to meet. Also, the possibility of the gradual hardening of political commitments into legal obligations was something to be approached with caution.<sup>512</sup>

In the 1992 Agenda 21,<sup>513</sup> sustainable development became an issue that could no longer be ignored. It was a full-scale concept that required full-scale attention. Agenda 21 begins by stating that humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill

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<sup>510</sup> Rio Declaration on Environment and Development (1992), UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992), at Principle 1.

<sup>511</sup> Rio Declaration on Environment and Development (1992), UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992), at Principle 27.

<sup>512</sup> French D., (2010), Sustainable Development, in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 53.

<sup>513</sup> Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment, available at <https://sustainabledevelopment.un.org/outcomedocuments/agenda21>, (last accessed 10/01/18).

health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being. However, integration of environment and development concerns and greater attention to them will lead to the fulfillment of basic needs, improving living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own but together we can, in a global partnership for sustainable development.<sup>514</sup> In no uncertain terms, sustainable development was made to be the solution to all issues plaguing humanity at that time.

In the 1997 Programme of Action for Further Implementation of Agenda 21, it was stated that it is necessary to continue the progressive development and, as and when appropriate, codification of international law related to sustainable development. Relevant bodies in which such tasks are being undertaken should cooperate and coordinate in this regard.<sup>515</sup> This further indicates that the call for sustainable development to be developed was great. Also, it indicated a possible codification, which would mean a political commitment being transformed into law. This was a major indicator of how serious this concept is and how the international community viewed this concept as the saviour for issues plaguing mankind.

The 2002 World Summit on Sustainable Development allowed for the creation of the Johannesburg Declaration which specifically commits to assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development, namely economic development, social development and environmental protection at the local, national, regional and global levels.<sup>516</sup> Thus, this inter-dimensional concept was placed on the shoulders of inter-related governance. This is indeed tough for various role-players because on the most fundamental issues of sustainable development, the international community remains divided.<sup>517</sup>

In 2012, the United Nations Conference on Sustainable Development (Rio +20) Summit took place and in it there was a renewal of the commitment to sustainable development and to ensuring the promotion of an economically, socially and environmentally sustainable future for the planet and for present and future generations by the Heads of State and Governments present.<sup>518</sup> This then culminated into the commitment not only to achieve the Millennium

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<sup>514</sup> U.N. GAOR, 46th Sess., Agenda Item 21, UN Doc A/Conf.151/26 (1992).

<sup>515</sup> A/RES/S-19/2, Page 44 at 109.

<sup>516</sup> World Summit on Sustainable Development, A/CONF.199/20, at Note 5.

<sup>517</sup> French D., (2010), Sustainable Development, in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 53.

<sup>518</sup> A/RES/66/288 - The Future We Want, Pages 1 – 3.

Development Goals, but also to develop a new set of Sustainable Development Goals. Hence, the sustainable development agenda was given more impetus as a new way forward was being planned.

Sustainable development as a concept has gradually gained international recognition over a period of time, and it is not hard to wonder why. It encompasses ideals that seem also mandatory for humankind, it focuses on issues that have constantly plagued mankind, and it brings to the fore initiatives to work together in order to eradicate the said issues in society. However, its multi-faceted approach creates issues but it must be noted that there are and always will be mutual linkages between environment and development and the issues themselves are inseparable in terms of their causes and ultimately, their resolution.<sup>519</sup> Thus, it is important to establish proper mechanisms to implement proper sustainable development, in order to achieve its intended aims. The aim of delving into the concept of sustainable development is to ensure a historical understanding of the concept itself, because this concept is of utmost importance when it comes to water. Sustainable water development requires the use of the principles of sustainable development, and it requires that the understanding between nations is in place in order to achieve the common goal of a common good. It is important to understand the historical context so that there is a platform to move forward from and hopefully to improve upon. The culmination of the development of sustainable development has led society to the Sustainable Development Goals (SDGs). In it, there is a goal specifically dedicated to water.<sup>520</sup> Hence, the importance of sustainable development itself cannot be undermined when it comes to the management of water itself.

### **5.3. The Content of Sustainable Development**

The Brundtland Report identified critical objectives for environment and development policies. These objectives are reflected within the concept of sustainable development itself. The Report calls for reviving growth and quality; meeting essential needs for jobs, food, energy, water and sanitation; ensuring a sustainable level of population; conserving and enhancing the resource base; re-orientating technology and managing risk; and merging the

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<sup>519</sup> A/RES/66/288 - The Future We Want, Page 52.

<sup>520</sup> Sustainable Development Goal 6.

environment and economics in the decision-making process.<sup>521</sup> These objectives indeed remain the core of the concept of sustainable development however many ambiguities still remain in terms of its legal status and application.<sup>522</sup> According to Sands and Peel, the legal elements of the concept of sustainable development include the need to preserve natural resources for the benefit of future generations (the principle of intergenerational equity); the aim of exploiting natural resources in a manner which is sustainable, prudent, rational, wise or appropriate (the principle of sustainable use); the equitable use of natural resources, which implies that use by one State must take into account the needs of other States (the principle of equitable use or intra-generational equity); and the need to ensure that environmental considerations are integrated into economic and other developmental plans, programmes and projects, and that development needs are taken into account in applying environmental objectives (the principle of integration).<sup>523</sup> Sustainable development as a concept incorporates a myriad of ideals. It is regarded as something that seems inherently embedded in human-nature. It calls for 'good' things, in a 'good' way, in order to produce a 'good' outcome, for the present and future of humankind. In fact, every bit of the ideal seems, 'good.' Unfortunately, the intricacy of implementation stands in the way of this 'good' cause. This intricacy is further compounded by the fact that sustainable development is inter-disciplinary, inter-related and inter-twined. As previously mentioned, the Brundtland Report defines sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.<sup>524</sup> It contains within it two key concept, namely, the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.<sup>525</sup> The first part of this definition relates to conventional economic and social objectives of development, the second part incorporates a long-term view, including consideration of environmental issues.<sup>526</sup> Development can be defined as a

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<sup>521</sup> WCED (World Commission on the Environment and Development), (1987), *Our common Future*, Oxford University Press (The Brundtland Report), Pages 49 – 65.

<sup>522</sup> Sands P. and Peel J., (2012), *Principles of International Environmental Law*, 3<sup>rd</sup> Edition, Cambridge University Press (United Kingdom), Pages 9 – 10.

<sup>523</sup> Sands P. and Peel J., (2012), *Principles of International Environmental Law*, 3<sup>rd</sup> Edition, Cambridge University Press (United Kingdom), Page 207.

<sup>524</sup> United Nations., (1987), Report of the World Commission on Environment and Development. General Assembly Resolution 42/187, Pages 16 – 17 at 27 – 30.

<sup>525</sup> United Nations., (1987), Report of the World Commission on Environment and Development. General Assembly Resolution 42/187, Page 36, Note 3.

<sup>526</sup> Asadi A. and Others., (2008), Poverty Alleviation and Sustainable Development: The Role of Social Capital, *Journal of Social Sciences*, Vol. 4(3), Page 207.

collective process of change toward improvements in quality of life for human beings and their communities, and sustainability can be seen to refer to the need for development to be integrated, socially, economically and environmentally sound, oriented to the long-term, and hence, able to last.<sup>527</sup> As Verschuuren points out, ‘our task is to create a society which is sustainable and which will give the fullest possible satisfaction to its members. Such a society by definition would depend not on expansion but on stability.’<sup>528</sup> Sustainable development is said to be the driving force for said stability in the spheres of development. The concept ensures that moral and ethical considerations are made in order to allow for equitable use.

### **5.3.1. Sustainable Development as an Ideal**

Sustainable development as an ideal is an interesting analogy and another component of this multi-faceted concept. An ideal is regarded as a value that is implicit or latent in the law or the public and moral culture of a society or group that usually cannot be fully realized, and that partly transcend contingent, historical formulations, and implementations in terms of rules and principles.<sup>529</sup> In essence, an ideal is something that human-beings strive for, something that seems socially-accepted and something that brings contentment. In this case, it is fair to liken sustainable development to an ideal, especially when the overall objective of sustainable development is to eradicate poverty through equitable sharing and use of resources and to ensure that each and every human-being is given his or her due from planet earth. Based on this, it can be said that this ideal has a moral and ethical dimension attached to it as well, something inherently associated with fair practice and procedure from a legal standpoint. The issue with the aforementioned is that morals and ethics differ from man to man. There are many grey-areas which ultimately impedes proper growth and the thriving of human-kind. Mankind must use the earth and the resources found on the earth in order to survive and thrive. It is thus important to note that the common heritage of mankind, as a concept, can be linked to sustainable development as well. The common heritage of mankind

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<sup>527</sup> Cordonier Segger M.C. and Khalfan A., (2004), *Sustainable Development Law: Principles, Practices and Prospects*, Oxford: Oxford University Press.

<sup>528</sup> Verschuuren J., (2006), *Sustainable Development and the Nature of Environmental Legal Principles*, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. (9)1, Page 215.

<sup>529</sup> Van Der Burg W. and Taekema S., (2004), *The Importance of Ideals: Debating their Relevance in Law, Morality and Politics*, P.I.E. Peter Lang SA Publishing, Page 97.

is understood to involve the genuine ‘internationalisation’ of a resource for the benefit of humanity generally.<sup>530</sup> The issue here is that the aforementioned ‘grey-area’ crops up again. Naturally, any such regime would most likely require elaborate institutional arrangements in order to ensure effective implementation.<sup>531</sup> Also, sustainable development is linked to the common interest or common concern of mankind. This concept concerns itself with all mutual, shared or joint interests of man.<sup>532</sup> Again, this would require proper institutional arrangements, for effective implementation. It is clear to see that sustainable development is a combination of these aspects. It contains the same underlying principles and has expanded at a greater rate, especially because of the international importance afforded to it via the global community.

### **5.3.2. Environmental Protection, Economic Development and Sustainable Development**

Sustainable development implies two main objectives, which are environmental protection and economic development. It is also regarded as a political and socio-economic concept aiming to bring together environmental concerns with these political and socio-economic concerns.<sup>533</sup> The economic development can also be referred to as a mean of poverty alleviation. It is understood that alleviation could be achieved through the economic development but should be reconciled with the environmental protection.<sup>534</sup> It is important to note that economic progress is unthinkable without the preservation of natural resources and an environment worthy of humanity, thus, environmental protection requiring large investments is impossible without economic development. Hence, it is important to find balanced solutions, without resorting to extremes.<sup>535</sup> Poverty eradication is a major talking-

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<sup>530</sup> Baslar K., (1998), *The Concept of the Common Heritage of Mankind in International Law*, The Hague: Martinus Nijhoff Publishers.

<sup>531</sup> Bowman M., (2010), *Environmental Protection and the Concept of Common Concern of Mankind*, in in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 500.

<sup>532</sup> Bowman M., (2010), *Environmental Protection and the Concept of Common Concern of Mankind*, in in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Pages 501 – 502.

<sup>533</sup> French D., (2010), *Sustainable Development*, in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 51.

<sup>534</sup> Viriyo A., (2012), *Principle of Sustainable Development in International Environmental Law*, *International Legal Materials*, Vol. 1 (37) 161, Page 2.

<sup>535</sup> Veinla H., (2005), *Sustainable Development as the Fundamental Principle of Europe’s Environmental Ius Commune*, *Juridica International*, Page 117.

point on the global agenda and this has been the case for numerous years. The Brundtland Report states that poor people are forced to overuse environmental resources to survive from day to day, and their impoverishment of their environment further impoverishes them, making their survival ever more difficult and uncertain. The prosperity attained in some parts of the world is often precarious, as it has been secured through farming, forestry, and industrial practices that bring profit and progress only over the short term.<sup>536</sup> This is reminiscent of an on-going, never-ending impoverished cycle, which is not a good situation to be in. The stigma of the 'poor remaining poor' is clearly indicated by the Report here. Poverty is more than the lack of income and resources to ensure a sustainable livelihood. Its manifestations include hunger and malnutrition, limited access to education and other basic services, social discrimination and exclusion as well as the lack of participation in decision-making.<sup>537</sup> However, the proposed solution offered by the Report itself was the concept of sustainable development, hence its importance. The then Millennium Development Goals, which brought the common interests and concerns of mankind to the fore, began with the goal of eradicating extreme poverty and hunger.<sup>538</sup> The magnitude of having the first global goal aimed at eradicating poverty speaks volumes. The inter-connectedness of sustainable development to poverty alleviation is indeed apparent. The current Sustainable Development Goals also begin by aiming to eradicate poverty in all its forms everywhere.<sup>539</sup> As per the *goals*, it is stated that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development. The 2030 Agenda for Sustainable Development resolves to free the human race from the tyranny of poverty and to heal and secure our planet.<sup>540</sup> The *goals* essentially link poverty reduction with progressive sustainable development. This then places a lot of pressure in order to ensure that there is actual progressive sustainable development, as this is seen as the way to eradicate the most severe scourge facing humankind today. However, this pressure so to speak is indeed warranted. As per recent statistics, an estimated 767 million people lived below the international poverty line of \$1.90 a day in 2013. This figure is

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<sup>536</sup> United Nations., (1987), Report of the World Commission on Environment and Development, General Assembly Resolution 42/187, at Page 37, Note 1.

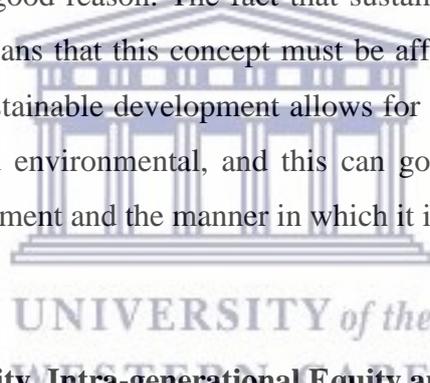
<sup>537</sup> Sustainable Development Goal 1, available at <http://www.un.org/sustainabledevelopment/poverty/>, (last accessed 12/01/18).

<sup>538</sup> Millennium Development Goal 1, available at <http://www.un.org/millenniumgoals/poverty.shtml>, (last accessed 12/01/18).

<sup>539</sup> Sustainable Development Goal 1, available at <https://sustainabledevelopment.un.org/topics/povertyeradication>, (last accessed 12/01/18).

<sup>540</sup> Sustainable Development Goal 1, available at <https://sustainabledevelopment.un.org/topics/povertyeradication>, (last accessed 12/01/18).

considerably less than the 1.7 billion people living below the international poverty line in 1999. That figure reflects a decrease in the global poverty rate from 28 per cent in 1999 to 11 per cent in 2013.<sup>541</sup> Also, in 2016, just under 10 percent of the world's workers were living with their families on less than \$1.90 per person per day, down from 28 percent in 2000. In the least developed countries, nearly 38 percent of workers in 2016 were living below the poverty line.<sup>542</sup> These statistics prove that setting global goals to meet global targets for the betterment of humanity does work. The decline in the global poverty rate is a step in the right direction and it could have only been achieved through this concept of sustainable development. The fact that sustainable development incorporates economic and social elements means that there is a considerable impact on poverty alleviation. Economic growth is a key in providing the means to meet basic needs, to ease poverty and to generate employment. It nearly always reduces absolute poverty, but it can have varied impact on inequality and not everybody benefits from it.<sup>543</sup> The alleviation of poverty is placed at the top of the global agenda for good reason. The fact that sustainable development can play a role in decreasing poverty means that this concept must be afforded even more recognition. The inter-related nature of sustainable development allows for inter-related considerations to be made, be it economic and environmental, and this can go a long way in ensuring and preserving our natural environment and the manner in which it is used for growth.



### **5.3.3. Intergenerational Equity, Intra-generational Equity and Sustainable Development**

Another aspect that forms the content of the concept of sustainable development is that of intergenerational equity and intra-generational equity. The principle of intergenerational equity underlies sustainable development.<sup>544</sup> Since the concept of sustainable development deals with *future generations*, it is important to note what this actually entails. As members of

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<sup>541</sup> United Nations Economic and Social Council, (2017), Progress Towards the Sustainable Development Goals, Document E/2017/66, available at [http://www.un.org/ga/search/view\\_doc.asp?symbol=E/2017/66&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=E/2017/66&Lang=E), (last accessed 12/01/18).

<sup>542</sup> United Nations Economic and Social Council, (2017), Progress Towards the Sustainable Development Goals, Document E/2017/66, available at [http://www.un.org/ga/search/view\\_doc.asp?symbol=E/2017/66&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=E/2017/66&Lang=E), (last accessed 12/01/18).

<sup>543</sup> Asadi A., and Others, (2008), Poverty Alleviation and Sustainable Development: The Role of Social Capital, *Journal of Social Sciences* 4 (3): 202-215, Page 207.

<sup>544</sup> Weiss E.B., (2010), Implementing Intergenerational Equity, in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar, Page 100.

the present generation, we hold the earth in trust for future generations.<sup>545</sup> The quality of the natural environment has been severely depleted, especially during the last fifty years.<sup>546</sup> The term equity mainly refers to fairness. Equity derives from a concept of social justice. It represents a belief that there are some things which people should have, that there are basic needs that should be fulfilled, that burdens and rewards should not be spread too divergently across the community, and that policy should be directed with impartiality, fairness and justice towards these ends.<sup>547</sup> Indeed, every generation has the right to have access to the environment and its natural resources, as well as to use those said resources. On the one hand, too much attention to the needs of the future generation could prevent the present generation from thriving. On the other hand, too much attention on the present generation could have adverse effects on the future generation, especially when the natural resources are rapidly depleting.<sup>548</sup> Thus, a conundrum is evident. The idea behind not reducing the ability of future generations to meet their needs is that, although future generations might gain from economic progress, those gains might be more than offset by environmental deterioration. Most people would acknowledge a moral obligation to future generations, particularly as people who are not yet born can have no say in decisions taken today that may affect them.<sup>549</sup> It must be understood that each generation is both a trustee for the earth with obligations to care for it and a beneficiary of the earth with rights to use from it.<sup>550</sup> This would thus entail equitable or non-discriminatory access to the earth and its resources. The concept of sustainable development definitely implies this. To go a step further, its explicit mention of future generations implies equity and equitable sharing. Each generation is a member of a community of generations; it is in partnership with past and future generations.<sup>551</sup> This would then infer that there is an obligation. Hence, the 'rights' of the future generations extends beyond the sphere of traditional human rights. It can be regarded as theoretical rights that are needed in order for the survival of the next generation. Indeed, that is only possible if the next

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<sup>545</sup> Weiss E.B., (1990), *Our Rights and Obligations to Future Generations for the Environment*, American Journal of International Law, Vol. 84, Page 199.

<sup>546</sup> Weiss E.B., (2010), *Implementing Intergenerational Equity*, in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 101.

<sup>547</sup> Falk and Others., (1993), *Social Equity and the Urban Environment*, Report to the Commonwealth Environment Protection Agency, AGPS, Canberra, Page 2.

<sup>548</sup> Weiss E.B., (2010), *Implementing Intergenerational Equity*, in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 102.

<sup>549</sup> Beder S., (2000), *Costing the Earth: Equity, Sustainable Development and Environmental Economics*, New Zealand Journal of Environmental Law, Vol. 4, Pages 227 – 228.

<sup>550</sup> Weiss E.B., (1989), *In Fairness to Future Generations*, New York: United Nations University and Transnational Publishers, Page 17.

<sup>551</sup> Weiss E.B., (2010), *Implementing Intergenerational Equity*, in Fitzmaurice M., Ong DM., and Merkouris P., *Research Handbook on International Environmental Law*, Edward Elgar Publishing, Page 108.

generation has a planet to thrive off, and that can only be ensured by sustainable use of said planet by the current generation. Also, it should be noted that International Declarations often make reference to intergenerational equity as an important aspect of the concept of sustainable development. The 1972 Stockholm Declaration states that man bears a solemn responsibility to protect and improve the environment for present and future generations.<sup>552</sup> The UN General Assembly Resolution 35/8 affirmed that the responsibility to present and future generations is a historic one for the preservation of nature.<sup>553</sup> Principle 4 of the Rio Declaration mentions that the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.<sup>554</sup> Intra-generational equity deals with fairness in utilisation of resources among human members of the present generations, both domestically and globally.<sup>555</sup> The intra-generational aspect is directed at the serious socio-economic imbalance in resource access and use within and between societies and nations that has exacerbated environmental degradation and the inability of a large part of humanity to meet adequately basic needs.<sup>556</sup> Sustainability is the process suggested to prove the quality of human life within the limitations of the global environment. It involves solutions for improving human welfare that does not result in degrading the environment or impinging on the well-being of other people. Although there is no general agreement about the precise meaning of sustainability, there seems to be a general consensus that three basic concepts are involved in sustainable measures: living within certain limits of the earth's capacity to maintain life; understanding the interconnections among economy, society, and environment; and maintaining a fair distribution of resources and opportunity for this generation and the next.<sup>557</sup> Intra-generational equity has an inter-State dimension, and requires co-operation between States in order to achieve equitable use of natural resources. In addition to the inter-state dimension, intra-generational equity also encompasses what is now referred to as environmental justice or intra-generational justice. This concept refers to fairness in utilization and enjoyment of resources as well as in

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<sup>552</sup> Principle 1 of the 1992 Stockholm Declaration.

<sup>553</sup> (1980), dealing with Historical Responsibility of States for the Preservation of Nature for Present and Future Generations, available at <http://www.un.org/documents/ga/res/35/a35r8e.pdf>, (last accessed 15/01/18).

<sup>554</sup> UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992).

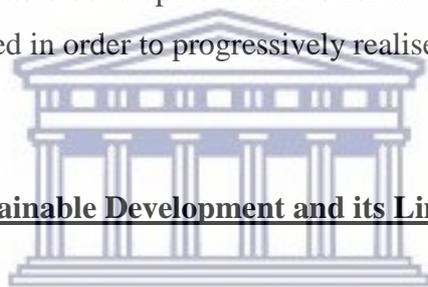
<sup>555</sup> Maggio G.F., (1997), Inter/Intra-Generational Equity: Current Applications under International Law for Promoting the Sustainable Development of Natural Resources, Buffalo Environmental Law Journal, Vol. 4, Pages 163 – 164.

<sup>556</sup> Maggio G.F., (1997), Inter/Intra-Generational Equity: Current Applications under International Law for Promoting the Sustainable Development of Natural Resources, Buffalo Environmental Law Journal, Vol. 4, Pages 164.

<sup>557</sup> Mensah A.M. and Castro L.C., (2004), Sustainable Resource Use and Sustainable Development: A Contradiction?!, Center for Development Research, University of Bonn, Page 4.

enduring the costs for degradation, disposal, and rehabilitation of resources, among all persons and groups both domestically and internationally.<sup>558</sup>

Sustainable development is indeed a very complex concept, made up of inter-dimensional criteria as well. It focuses not only on the now, but on the future as well. This expansion means that there are various facets to this concept, and each facet must be properly adhered to, in order to achieve progressive sustainable development. In essence, the concept of sustainable development is a good concept, however, because of its inter-disciplinary nature, it is often tough to correctly realise. The various facets and role-players involved in progressively realising sustainable development is indeed a hindrance to what in essence is a concept that is ideal for human sustainability. Human society requires a harmonisation of integral aspects of social and economic development with concerns and consideration given to the environment. This surely follows a common good or common benefit approach. However, even though sustainable development allows for an ideal functioning society and planet, the mechanisms required in order to progressively realise it, is not so ideal.



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#### **5.4. The Legal Status of Sustainable Development and its Links to International Law**

Since sustainable development is used as a saviour for global humanitarian and environmental issues, it would be safe to assume that this concept has some sort of legal basis or standing. The concept is widely promoted by the United Nations and it is central to a vast number of Resolutions, Declarations, Conventions, and international judicial decisions.<sup>559</sup> Sustainable development has, over the last 30 years, received wide support in a vast array of non-binding international legal documents. It finds expression in countless Declarations of states, resolutions of international organizations, programmes of action, and codes of conduct.<sup>560</sup> Sustainable development as a concept has garnered international recognition yes, but it is important to determine whether or not it is a legally binding rule. Even though the concept of sustainable development is ever-present and visible in International Environmental

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<sup>558</sup> Mensah A.M. and Castro L.C., (2004), Sustainable Resource Use and Sustainable Development: A Contradiction?!, Center for Development Research, University of Bonn, Page 193.

<sup>559</sup> Barral V., (2012), Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm, European Journal of International Law, Volume 23, Issue 2, Pages 377 – 378.

<sup>560</sup> Barral V., (2012), Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm, European Journal of International Law, Volume 23, Issue 2, Page 383.

Resolutions and agreement, it has not solidified itself into a legal binding rule. Rather, it can be argued that the concept of sustainable development has a dual nature in international law. It can be considered a norm of international environmental law, which serves to reconcile other conflicting norms related to the environment, the economy and social development, and also simply the object and purpose of many international treaties and legal instruments.<sup>561</sup> As a point of reference, it is important to determine where and when the concept of sustainable development has been mentioned, or even used, in more formalised law. As per article 38 of the International Court of Justice Statute, international conventions, international customs and general principles of law recognised by civilised nations are applied to international disputes.<sup>562</sup>

In international treaty law, sustainable development as a concept has been consistently referred to. Sustainable development is an agreed objective of many international trade treaties, both at the global and regional levels.<sup>563</sup> In particular, the concept of sustainable development can be considered part of the object and purpose of many international treaties. In the 1992 *UN Convention on Biological Diversity* it is stated that States are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner,<sup>564</sup> clearly indicating the preservation of natural resources, a component of sustainable development. In the 2000 *Cartagena Protocol*, based on the aforementioned Convention, the concept was again mentioned. It was stated that trade and environment agreements should be mutually supportive with a view to achieving sustainable development.<sup>565</sup> The 1992 *UN Framework Convention on Climate Change* and its 1997 *Kyoto Protocol* also refers to the promotion of sustainable development when dealing with emissions limitations.<sup>566</sup> The 1994 *UN Convention to Combat Desertification and Drought* states that the preparation of national action programmes shall be closely interlinked with other efforts to formulate national policies for sustainable development.<sup>567</sup> the 1994 *North American Free Trade Agreement*, the 1995 *Straddling Fish Stocks Agreement* of the 1982 *UN*

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<sup>561</sup> Cordonier Segger M.C. and Khalfan A., (2004), *Sustainable Development Law: Principles, Practices and Prospects*, Oxford: Oxford University Press, Page 45.

<sup>562</sup> Statute of the International Court of Justice, Article 38.

<sup>563</sup> French D., (2005), *International Law and Policy of Sustainable Development*, Manchester: Manchester University Press, Page 168.

<sup>564</sup> United Nations Convention on Biological Diversity 1760 UNTS 79; 31 ILM 818 (1992).

<sup>565</sup> United Nations Cartagena Protocol, 2226 U.N.T.S. 208; 39 ILM 1027 (2000); UN Doc. UNEP/CBD/ExCOP/1/3, at 42 (2000), Page 2.

<sup>566</sup> United Nations Kyoto Protocol, UN Doc FCCC/CP/1997/7/Add.1, Dec. 10, 1997; 37 ILM 22 (1998), Article 2.

<sup>567</sup> United Nations Convention to Combat Desertification and Drought, 1954 UNTS 3; 33 ILM 1328 (1994), Article 9.1.

*Convention on the Law of the Sea*, the 2000 *Cotonou Partnership Agreement* between the European Union and the African Caribbean and Pacific countries, the 2001 *International Treaty on Plant Genetic Resources for Food and Agriculture*, and many others also reference the term sustainable development in one form or another. Indeed, sustainable development has widely penetrated treaty law. However, unlike in non-binding instruments such as the Rio Declaration, the formulation of provisions relating to sustainable development in formally binding international treaties can be rather flexible. The wording can be vague and imprecise, characterized by the use of the conditional, and the provisions are often closer to setting out an incentive than purporting to be strictly constraining. For some, because of their softness, such provisions would be incapable of giving rise to valid rules of international law.<sup>568</sup>

It is also not clear that sustainable development has, as yet, the character of a customary norm of international law.<sup>569</sup> In the absence of clear judicial recognition of its customary nature, one can still test whether sustainable development meets customary requirements which, according to Article 38(1)(b) of the International Court of Justice Statute, are the existence of a general practice (state practice), accepted as law (*opinio juris*).<sup>570</sup> Whereas traditionally customs come to be formed because the constancy of the conduct of states results in their belief that such conduct has become obligatory, as far as sustainable development is concerned, as well as most modern international environmental law, states first come to believe in the necessity to create the rule, rather than in its existence.<sup>571</sup> According to Lowe, there is, in the catalogue of treaty provisions, declarations and so on that use the term “sustainable development”, a lack of clear evidence that the authors regarded the concept as having the force of a rule or principle of customary international law.<sup>572</sup> He goes further to state that that is because ‘the concept of sustainable development is inherently incapable of having the status of a rule of law addressed to States and purporting to constrain their

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<sup>568</sup> Barral V., (2012), Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm, *European Journal of International Law*, Volume 23, Issue 2, Pages 384 – 385.

<sup>569</sup> Lowe V., (1999), Sustainable Development and Unsustainable Arguments, in A. Boyle and D. Freestone, *International Law and Sustainable Development: Past Achievements and Future Challenges*, Oxford: Oxford University Press, at Page 36.

<sup>570</sup> United Nations, Statute of the International Court of Justice, 18 April 1946, Article 38(1)(b), available at: <http://www.refworld.org/docid/3deb4b9c0.html>, (last accessed 15/01/18).

<sup>571</sup> Barral V., (2012), Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm, *European Journal of International Law*, Volume 23, Issue 2, Page 386.

<sup>572</sup> Lowe V., (1999), Sustainable Development and Unsustainable Arguments, in A. Boyle and D. Freestone, *International Law and Sustainable Development: Past Achievements and Future Challenges*, Oxford: Oxford University Press, at Page 24.

conduct'.<sup>573</sup> Lowe reaches this conclusion because treaty and other provisions relating to sustainable development lack fundamentally norm-creating character and cannot, as such, form the basis of a general rule of international law. In his view only a formula such as 'states must develop sustainably' would have this character.<sup>574</sup>

In the *Gabcikovo – Nagymaros* case,<sup>575</sup> the International Court of Justice (ICJ) referenced the concept itself. It stated that 'throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past, this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of the risks for mankind - for present and future generations of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development.'<sup>576</sup> By invoking the concept of sustainable development, the ICJ essentially indicated that the term has a legal function and both a procedural or temporal aspect and a substantive aspect. However, the ICJ did not provide any further details as to the practical consequences of the sustainable development concept.<sup>577</sup> Nevertheless, Judge Weeramantry in a separate opinion mentioned that it is the correct formulation of the right to development that the right does not exist in the absolute sense, but is relative always to its tolerance by the environment.<sup>578</sup> In the *Shrimp/Turtle*<sup>579</sup> case, the World Trade Organization (WTO) Appellate Body noted that the Preamble to the WTO Agreement explicitly acknowledges the objective of sustainable development and thus it came to the conclusion that sea turtles (as per the case) are an exhaustible natural resource,

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<sup>573</sup> Lowe V., (1999), *Sustainable Development and Unsustainable Arguments*, in A. Boyle and D. Freestone, *International Law and Sustainable Development: Past Achievements and Future Challenges*, Oxford: Oxford University Press, at Page 23.

<sup>574</sup> Lowe V., (1999), *Sustainable Development and Unsustainable Arguments*, in A. Boyle and D. Freestone, *International Law and Sustainable Development: Past Achievements and Future Challenges*, Oxford: Oxford University Press, at Page 25.

<sup>575</sup> *Gabčikovo-Nagymaros Project, Hungary v Slovakia, Judgment, Merits, ICJ GL No 92, [1997] ICJ Rep 7, (1997)*.

<sup>576</sup> *Case Concerning the Gabčikovo-Nagymaros Dam (25 September 1997) (Hungary v Slovakia) I.C.J. Rep., 37 I.L.M. (1998)* at 162.

<sup>577</sup> Sands P. and Peel J., (2012), *Principles of International Environmental Law*, 3<sup>rd</sup> Edition, Cambridge University Press (United Kingdom), Page 208.

<sup>578</sup> Report of the International Court of Justice, (1997), A/53/4, Page 92, available at <http://www.icj-cij.org/files/annual-reports/1997-1998-en.pdf>, (last accessed 3/03/18).

<sup>579</sup> WTO Appellate Body Report on U.S. – Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/AB/R (October 12, 1998).

and therefore there was a sufficient nexus to justify the latter State's conservation measures (in principle).<sup>580</sup> In the *Pulp Mills*<sup>581</sup> case, the Parties were in agreement to the 1975 Statute of the River Uruguay<sup>582</sup> the Court noted that the object and purpose of the 1975 Statute, set forth in Article 1, is for the Parties to achieve the optimum and rational utilization of the River Uruguay by means of the joint machinery for co-operation. The Court observed that such use should allow for sustainable development which takes account of the need to safeguard the continued conservation of the river environment and the rights of economic development of the riparian States.<sup>583</sup> Also, regarding Article 27 of the 1975 Statute,<sup>584</sup> it is the view of the Court that its formulation reflects not only the need to reconcile the varied interests of riparian States in a trans-boundary context and in particular in the use of a shared natural resource, but also the need to strike a balance between the use of the waters and the protection of the river consistent with the objective of sustainable development. The Court wishes to add that such utilization could not be considered to be equitable and reasonable if the interests of the other riparian State in the shared resource and the environmental protection of the latter were not taken into account. Consequently, it is the opinion of the Court that Article 27 embodies this interconnectedness between equitable and reasonable utilization of a shared resource and the balance between economic development and environmental protection that is the essence of sustainable development.<sup>585</sup> The Court in *Pulp Mills* also made mention of the *Gabčíkovo-Nagymaros* case and recalled its use of the term sustainable development.<sup>586</sup> As per these cases, there can be little doubt that the concept of

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<sup>580</sup> Sands P. and Peel J., (2012), *Principles of International Environmental Law*, 3<sup>rd</sup> Edition, Cambridge University Press (United Kingdom), Pages 208 – 209.

<sup>581</sup> *Pulp Mills on the River Uruguay, Argentina v Uruguay, Order, Provisional Measures, ICJ GL No 135, (2006) ICJ Rep 113, (2006) 45 ILM 1025, ICGJ 2 (ICJ 2006), 13th July 2006, International Court of Justice (ICJ).*

<sup>582</sup> No. 21425, available at [https://www.internationalwaterlaw.org/documents/regionaldocs/Uruguay\\_River\\_Statute\\_1975.pdf](https://www.internationalwaterlaw.org/documents/regionaldocs/Uruguay_River_Statute_1975.pdf), (last accessed 15/01/18).

<sup>583</sup> *Pulp Mills on the River Uruguay, Argentina v Uruguay, Order, Provisional Measures, ICJ GL No 135, (2006) ICJ Rep 113, (2006) 45 ILM 1025, ICGJ 2 (ICJ 2006), 13th July 2006, International Court of Justice (ICJ), at Para. 75.*

<sup>584</sup> Article 27 states: The right of each Party to use the waters of the river, within its jurisdiction, for domestic, sanitary, industrial and agricultural purposes shall be exercised without prejudice to the application of the procedure laid down in articles 7 to 12 when the use is liable to affect the regime of the river or the quality of its waters.

<sup>585</sup> *Pulp Mills on the River Uruguay, Argentina v Uruguay, Order, Provisional Measures, ICJ GL No 135, (2006) ICJ Rep 113, (2006) 45 ILM 1025, ICGJ 2 (ICJ 2006), 13th July 2006, International Court of Justice (ICJ), at Para. 177.*

<sup>586</sup> *Pulp Mills on the River Uruguay, Argentina v Uruguay, Order, Provisional Measures, ICJ GL No 135, (2006) ICJ Rep 113, (2006) 45 ILM 1025, ICGJ 2 (ICJ 2006), 13th July 2006, International Court of Justice (ICJ), at Para.76 and 185.*

sustainable development has entered the corpus of international customary law.<sup>587</sup> This can be justified mainly because of the fact that the term sustainable development is always considered when dealing with these international environmental cases, even though its content is not always clear. As per Sands and Peel, sustainable development is indeed recognised as a principle or concept. However, the term needs to be taken in the context of its historic evolution as reflecting a range of procedural and substantive obligations. These obligations are primarily recognising the need to take into consideration the needs of present and future generations; the acceptance of limits placed upon the use and exploitation of natural resources; the role of equitable principles in the allocation of rights and obligations; the need to integrate all aspects of environment and development; and the need to interpret and apply rules of international law in an integrated and systematic manner.<sup>588</sup>

Hence, it is clear to see that even though the concept of sustainable development has characteristics of international law or custom, it is not always explicitly regarded as either. However, sustainable development itself requires various types of conduct to be adopted, because it is an objective, because it is a concept capable of evolving over time, and because as an obligation of means it requires a series of different types of effort towards the fulfilment of the objective it lays down.<sup>589</sup> Thus, it is imperative that this concept be viewed as just that, an objective with the aim of achieving a progressive result for all of humanity, not only the current generation, but the future generation as well. Barral has even gone so far as to say that despite clear judicial confirmation, it can be concluded that sustainable development, as an objective, already constitutes a principle of customary law, even if this principle is a very general one, with a high degree of abstraction and which requires case by case substantiation.<sup>590</sup> Such an assessment is indeed understandable and warrants some support. The concept of sustainable development is used so regularly these days that it is hard to not classify it as having some sort of binding status or nature. It is regarded as the cornerstone of most treaties and international agreements, it is constantly referenced and even the current goals of the United Nations are referred to as the sustainable development goals. Surely this highlights its importance in the global sphere. An explicit recognition might be long overdue,

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<sup>587</sup> Sands P. and Peel J., (2012), *Principles of International Environmental Law*, 3<sup>rd</sup> Edition, Cambridge University Press (United Kingdom), Page 208.

<sup>588</sup> Sands P. and Peel J., (2012), *Principles of International Environmental Law*, 3<sup>rd</sup> Edition, Cambridge University Press (United Kingdom), Page 217.

<sup>589</sup> Barral V., (2012), *Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm*, *European Journal of International Law*, Volume 23, Issue 2, Page 388.

<sup>590</sup> Barral V., (2012), *Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm*, *European Journal of International Law*, Volume 23, Issue 2, Page 388.

especially when looking at the foundations of the concept and what it aims to achieve at its core.

### **5.5. Sustainable Development in the African Context**

It is important to understand how sustainable development has actually been implemented within the African continent as this region was marked as a major region of poverty, inequality and underdevelopment. The overall aim of sustainable development is to ensure actual human development while also taking into account environmental considerations. It is important to link the water aspect here as well, as human development is dependent on water access and water use. Thus, human development is pinned on the progressive realisation of sustainable development and sustainable water management, which is Sustainable Development Goal 6. In terms of human development, the African continent is plagued with issues ranging from poverty, illiteracy, malnutrition, inadequate water supply and sanitation and poor health.<sup>591</sup> From an environmental perspective, the African continent is plagued with issues ranging from deforestation, desertification, loss of fertile soil, loss of biodiversity, water pollution, water scarcity and the effects of climate change. In an ideal world, the concept of sustainable development should be able to lessen the impacts of these issues. The African Charter on Human and Peoples' Rights of 1981 (Banjul Charter) is the regional human rights instrument of Africa.<sup>592</sup> Article 24 of the Banjul Charter states that all peoples shall have the right to a general satisfactory environment favourable to their development. Furthermore, Article 22 of the Banjul Charter states that all peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind. These two Articles are synonymous with the characteristics of the concept of sustainable development itself, hence the incorporation and integration of sustainable development as a concept in theory is indeed evident. The importance of sustainable development therefore reconfigures the right to development in order to ensure that environmental protection constitutes an integral part of

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<sup>591</sup> United Nations Environment Programme (UNEP), (2013), Africa Environment Outlook Summary for Policy-Makers, available at <http://wedocs.unep.org/handle/20.500.11822/8653>, (last accessed 15/01/18).

<sup>592</sup> Draft African Charter prepared for the Meeting of Experts in Dakar, Senegal from 28 November to 8 December 1979 CAB/LEG/67/3/Rev.1.

the developmental process.<sup>593</sup> The wording of Articles 22 and 24 reflects the specific circumstances of the African continent, but in conjunction with the realisation that development must meet the requirements of intergenerational equity.<sup>594</sup> The African continent exemplifies the importance of the conceptual nexus between development and ecological considerations captured by the need to pursue sustainable development.<sup>595</sup> Indeed, the linkage between development and ecological imperatives is especially clear in Africa due poverty and hunger. Poverty and hunger results in environmental degradation and in turn, environmental degradation results in decreasing food production and a lowered agricultural output.<sup>596</sup> This then results in the continuation of the poverty cycle and this is adverse to the actual principles of sustainable development. The linkages between these two Articles and the concept of sustainable development allude to the inter-connectivity of sustainable development itself. Sustainable development must be seen as an ‘umbrella concept,’ which connects various facets of development in a region-specific manner.

Also, the New Partnership for Africa’s Development (NEPAD) of 2001 provides a framework for development on the continent and aims to pursue sustainable growth and development.<sup>597</sup> Hence, this instrument also affirms the vital role of sustainable development on the African continent and may be viewed as the blueprint of sustainable development in Africa, as the NEPAD Programme for Action it identifies various conditions for sustainable development including peace and security, economic and political governance, and sub-regional and regional approaches to government.<sup>598</sup>

In addition, the African Convention on the Conservation of Nature and Natural Resources (1968) recognised the linkage between environmental concerns and the need for development in Africa as it stated that the utilization of the natural resources must aim at satisfying the

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<sup>593</sup> Scholtz W., (2015), Human Rights and the Environment in the African Union Context, in Scholtz W. and Verschuuren V., *Regional Environmental Law: Trans-regional Comparative Lessons in Pursuit of Sustainable Development*, (2015), Edward Elgar Publishing, United Kingdom, Page 118.

<sup>594</sup> Scholtz W., (2015), Human Rights and the Environment in the African Union Context, in Scholtz W. and Verschuuren V., *Regional Environmental Law: Trans-regional Comparative Lessons in Pursuit of Sustainable Development*, (2015), Edward Elgar Publishing, United Kingdom, Page 118.

<sup>595</sup> Maluwa T., (1999), *International Law in Post-Colonial Africa*, Brill Publishing, Pages 307 – 332.

<sup>596</sup> Scholtz W., (2015), Human Rights and the Environment in the African Union Context, in Scholtz W. and Verschuuren V., *Regional Environmental Law: Trans-regional Comparative Lessons in Pursuit of Sustainable Development*, (2015), Edward Elgar Publishing, United Kingdom, Page 119.

<sup>597</sup> Paragraph 1 of the NEPAD Declaration (2001), available at <http://www.nepad.org/system/files/NEPAD%20Framework%20%28English%29.pdf>, (last accessed 16/01/18).

<sup>598</sup> Scholtz W., (2015), Human Rights and the Environment in the African Union Context, in Scholtz W. and Verschuuren V., *Regional Environmental Law: Trans-regional Comparative Lessons in Pursuit of Sustainable Development*, (2015), Edward Elgar Publishing, United Kingdom, Page 119 – 120.

needs of man according to the carrying capacity of the environment.<sup>599</sup> The revised version of the African Convention on the Conservation of Nature and Natural Resources (2003) then explicitly embraced the concept of sustainable development and stated that implementation will be guided by Articles 22 and 24 of the Banjul Charter, again showing the scope for inter-connection.<sup>600</sup> Article XIV of the African Convention on the Conservation of Nature and Natural Resources (2003) deals with sustainable development and natural resources and states that parties shall ensure that conservation and management of natural resources are treated as an integral part of national and/or local development plans and that full consideration is given to ecological, economic, cultural and social factors in the formulation of all development plans, in order to promote sustainable development.<sup>601</sup>

Indeed, the evidence of the footprint of sustainable development on African soil is apparent. The concept has been integrated into African Conventions and Protocols and with good reason too. The African continent is in major need of development, on an economic and social level. However, the attractiveness of the reconciliatory and integrative nature of sustainable development may also result in a major disadvantage, as the vagueness surrounding the trade-offs between economic and environmental interests could hamper the pursuit and implementation of clear environmental priorities.<sup>602</sup> Nevertheless, in the African context, the existence of a justiciable environmental right ensures that a ‘synergy’ may be more readily achieved between economic development and environmental considerations.<sup>603</sup> Sustainable development as a concept has integrated itself well in the African context, but its implementation still requires work. Africa is still faced with crippling poverty and famine and sustainable development as a concept is good in theory to partially solve this issue. The fact that the concept is integrated in Africa means that its implementation too can be developed and thus sustainable use of natural resources can become an ever-increasing reality within the region. This is especially important when dealing with the natural resource of water,

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<sup>599</sup> Preamble of the African Convention on the Conservation of Nature and Natural Resources (1968).

<sup>600</sup> Scholtz W., (2015), Human Rights and the Environment in the African Union Context, in Scholtz W. and Verschuuren V., *Regional Environmental Law: Trans-regional Comparative Lessons in Pursuit of Sustainable Development*, (2015), Edward Elgar Publishing, United Kingdom, Page 120.

<sup>601</sup> Article XIV of the African Convention on the Conservation of Nature and Natural Resources (2003).

<sup>602</sup> Scholtz W., (2015), Human Rights and the Environment in the African Union Context, in Scholtz W. and Verschuuren V., *Regional Environmental Law: Trans-regional Comparative Lessons in Pursuit of Sustainable Development*, (2015), Edward Elgar Publishing, United Kingdom, Page 121.

<sup>603</sup> Scholtz W., (2015), Human Rights and the Environment in the African Union Context, in Scholtz W. and Verschuuren V., *Regional Environmental Law: Trans-regional Comparative Lessons in Pursuit of Sustainable Development*, (2015), Edward Elgar Publishing, United Kingdom, Page 121.

something which is generally regarded as scarce in Africa. Coupled with dire poverty and underdevelopment, the situation in Africa needs immediate redress, and the ideal of sustainable development provides the perfect platform for this to occur. Since water is required for food production and human development as a whole, the sustainable management of precious water resources becomes even more imperative in Africa. Thus, sustainable development in terms of the African water regime is increasingly pivotal in order for growth to take place within the region. Since Articles 22 and 24 of the Banjul Charter refer to sustainable development, it is indeed inferred that sustainable water management and development must occur, since this will then ensure economic, social and cultural development and a general satisfactory environment favourable to human development through an improvement of the quality of life by way of access to water for the purposes of drinking and food production. Food production in turn creates economic development which therefore allows for growth within Africa itself.

## **5.6. Sustainable Development and its Influence on Water**

All types of water resources are renewable, although recharge rates differ. On average, water present in rivers is renewed every sixteen days; while renewal periods for groundwater can reach hundreds of thousands of years. In basic terms, the challenge of sustainable use is to ensure that human uses of a particular water resource do not endanger the natural recharge rates of that water resource.<sup>604</sup> The linkage between the concept of sustainable development and water is indeed apparent. Water is the essence of life and it is an essential component of health, food, growth and overall human development. Chapter Two of this composition highlighted the severe scarcity of water that humankind is facing. It is thus necessary to explore how water can be used and managed in a sustainable manner and also to explore the influence that the concept of sustainable development has on international water law. It must be noted that there is a symbiotic relationship between water and a society. Economic and social activities can have a severe impact on the quality of the water resource, through direct and diffuse pollution that affects its availability to other users. The water environment is a

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<sup>604</sup> Rieu-Clarke A., (2004), Sustainable Use and the EU Water Framework Directive: From Principle to Practice? in Schrijver N. and Weiss F., International Law and Sustainable Development: Principles and Practice, Martinus Nijhoff Publishers, Page 559.

resource in itself, underpinning a variety of activities, notably nature conservation and tourism, as well as other local livelihoods.<sup>605</sup>

The overall aim of sustainable development is to alleviate the world from poverty. It is important to note that poverty should also include water poverty. Water poverty is a term that has garnered much attention over the last few years and is different from water scarcity itself. Water poverty is also multi-faceted, much like sustainable development, hence it seems fitting that these concepts are inter-related as one can be used as a solution for the other. Water poverty is defined as a situation where a nation cannot afford the cost of sustainable clean water to all people at all times.<sup>606</sup> An interesting thing to note is that this concept factors in economic considerations and links it to water much; like sustainable development considers economic considerations and links it to development as well. Hence, the distinction between water scarcity and water poverty becomes clear. Whereas scarcity deals with a lack of access as a result of there not being any water, water poverty relates to a lack of access as a result of there not being enough funds to pay for clean water. Water poverty thus includes a quality and economic component, something which water scarcity does not.<sup>607</sup>

The sustainable use of water can go a long way in ensuring that water as a resource is still present for use for future generations. Thus the impact of sustainable development on international water law and principles must be looked at. There are two important international water law principles that must be considered, namely, the equitable utilisation principle<sup>608</sup> and the no significant harm rule.<sup>609</sup> A principle is considered to be a special kind of norm, characterized by a rather general meaning, differentiating it from the more concrete

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<sup>605</sup> Muller M. and Others., (2009), Water Security in South Africa, Development Planning Division, Working Paper Series No. 12, Page 8.

<sup>606</sup> Feitelson, E. and Chenoweth J., (2002), Water poverty: Towards a meaningful indicator, Water Policy, Vol. 4(3), Page 268.

<sup>607</sup> Feitelson, E. and Chenoweth J., (2002), Water poverty: Towards a meaningful indicator, Water Policy, Vol. 4(3), Page 279.

<sup>608</sup> Article 5 of the United Nations watercourses Convention states that: Watercourse States shall in their respective territories utilise an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilisation thereof and benefits therefrom, taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse, available at <https://www.unwatercoursesconvention.org/documents/UNWC-Fact-Sheet-4-Equitable-and-Reasonable-Utilisation.pdf>, (last accessed 16/01/18).

<sup>609</sup> Article 7 of the UN Watercourses Convention codifies and clarifies the scope of the duty ‘*not to cause significant harm*.’ This obligation, otherwise known as the ‘no significant harm’ rule requires that States, ‘in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States,’ available at <https://www.unwatercourseconvention.org/documents/UNWC-Fact-Sheet-5-No-Significant-Harm-Rule.pdf>, (last accessed 16/01/18).

legal rules. However, principles go beyond concrete rules or policy goals. Principles say something about a group of rules or policies and they denote what a collection of rules has in common, or what the common goal is of a collection of rules (for instance a statute). Principles usually contain a high moral and/or legal value.<sup>610</sup> There is no doubt that sustainable development has influenced the international law of watercourses and that traditional approaches to water law and water management are encapsulated in the principle of sustainable development.<sup>611</sup> However, the impact may not be as significant as it seems. For example, the principle of equitable and reasonable utilisation is the cornerstone of the United Nations Watercourses Convention<sup>612</sup> and the fundamental doctrine guiding water-sharing for international watercourses. It entitles a watercourse State to an equitable and reasonable share of the uses and benefits of the particular watercourse, and also creates the reciprocal obligation not to deprive other States of their respective rights in this regard.<sup>613</sup> It refers to sustainable use, which reflects the need to balance economic, social and environmental values in the use of natural resources and to take into account the carrying capacity of international watercourses.<sup>614</sup> Also, the term optimum utilisation is used, which means the most economically feasible and, if possible, the most efficient use.<sup>615</sup> There have been many attempts to link sustainable development to the law of international watercourses however such an approach largely ignores the principle of equitable utilisation.<sup>616</sup> By linking an international water law principle to a global concept, the principle must then be adjusted to suit the outcomes of the goal of sustainable development. As stated by Rieu-Clarke, sustainable water management can be attained under the auspices of sustainable development when attempting to implement one of the following concepts, namely; an integration of economic, social and environmental needs, viewing water as an economic good, a river basin

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<sup>610</sup> Verschuuren J., (2006), Sustainable Development and the Nature of Environmental Legal Principles, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. (9)1, Page 211.

<sup>611</sup> Decleris M., (2000), The Law of Sustainable Development: General principles, (A Report produced for the European Commission), Luxemburg.

<sup>612</sup> Convention on the Law of the Non-navigational Uses of International Watercourses 1997, Article 5.

<sup>613</sup> Convention on the Law of the Non-navigational Uses of International Watercourses 1997, Article 5.

<sup>614</sup> <https://www.unwatercoursesconvention.org/documents/UNWC-Fact-Sheet-4-Equitable-and-Reasonable-Utilisation.pdf>, (last accessed 19/01/18).

<sup>615</sup> <https://www.unwatercoursesconvention.org/documents/UNWC-Fact-Sheet-4-Equitable-and-Reasonable-Utilisation.pdf>, (last accessed 19/01/18).

<sup>616</sup> Hilderling A., (2004), International Law, Sustainable Development and Water Management, Delft: Eburon Academic Publishers, Page 57.

approach, an ecosystem approach, continuous water resource assessment and public participation.<sup>617</sup>

Indeed sustainable development is made up of its social, economic and ecological components.<sup>618</sup> Thus, if we view water in this light, as an economic, social and ecological good, then we give rise to conforming water with sustainable development. Treating water as an economic good involves taking into account the full cost of utilising water resources, including the environmental costs.<sup>619</sup> This would entail users paying for water, provided that access to clean water and sanitation services are given at an affordable price. However, such an approach can be conflicting on human rights instruments relating to water being viewed as a human right and can open up even more avenues to debates on what constitutes affordable access to water. This would then add to the difficulties currently faced by the underprivileged when it comes to the attainment of water. Thus, it seems better to view water as a social good instead. Water as a social good would mainly deal with access to water and the legal status of water and the access thereto,<sup>620</sup> however, this too will give rise to many practical issues, especially when looking at the legal content of most of the issues.<sup>621</sup> When viewing water as an economic good, the problem is that this would signify that there is control over water, and that one can claim ownership of water over access to water. This will not necessarily be compatible with sustainable development either.<sup>622</sup> From an ecological perspective, there seems to be more in common. Water is a natural element found as part of our ecological system, thus, it can be linked to the ideals of sustainable development easily, as sustainable development is concerned with protecting the environment. Therefore, an integrated approach that incorporates economic, social and environmental considerations is imperative when trying to ensure sustainable use of water.

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<sup>617</sup> Rieu-Clarke A., (2004), Sustainable Use and the EU Water Framework Directive: From Principle to Practice? in Schrijver N. and Weiss F., International Law and Sustainable Development: Principles and Practice, Martinus Nijhoff Publishers, Pages 560 – 562.

<sup>618</sup> Hilderling A., (2004), International Law, Sustainable Development and Water Management, Delft: Eburon Academic Publishers, Page 57.

<sup>619</sup> Rieu-Clarke A., (2004), Sustainable Use and the EU Water Framework Directive: From Principle to Practice? in Schrijver N. and Weiss F., International Law and Sustainable Development: Principles and Practice, Martinus Nijhoff Publishers, Page 561.

<sup>620</sup> Fitzmaurice M., (2010), The Relationship Between the Law of international Watercourses and Sustainable Development, in in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 609 – 610.

<sup>621</sup> The exploration of water as a human right was dealt with in Chapter Four of this composition and elaborates on the complexities of this issue.

<sup>622</sup> Fitzmaurice M., (2010), The Relationship Between the Law of international Watercourses and Sustainable Development, in in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar Publishing, Page 610.

A river basin approach calls for the need to manage the water systems at a river basin level, which can lead to pin-pointing of issues that may arise.<sup>623</sup> This can be an effective tool on a more localised level, and its benefits in ensuring sustainable use and management seems evident. However, the issue arises when it comes to a more global outlook, and the collation of all said river-basin data, which seems like a difficult task.

In addition, an ecosystems approach involves recognising and safeguarding water within both aquatic and terrestrial ecosystems.<sup>624</sup> Also, continuous water resource assessments constitute the practical way by which to implement the concept of sustainable use within the water resource context. However, this would require the use of common methods between parties and would require frameworks for collections, storage, analysis and dissemination of data and information, as well as regular exchange between parties.<sup>625</sup> Finally, public participation involves providing all interested parties with effective access to information, decision-making procedures and judicial procedures. This will ensure that all interested parties are included within the decision-making process for sustainable use of water resources.<sup>626</sup> These methods seem to be a step in the right direction for ensuring the proper implementation of sustainable water management mechanisms. However, these approaches all call for time, effort and commitment, which must be given in order for sustainability to occur. The unfortunate part is that many parties are not timeously showing it's effort and commitment, which causes the sustainable management of water resources to be delayed.

As shown here, sustainable development as a concept has the ability to influence existing principles of water law, but the issue comes in the practicality of doing so. The main issue is the lack of clear understanding of the legal content of the concept of sustainable development

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<sup>623</sup> Rieu-Clarke A., (2004), Sustainable Use and the EU Water Framework Directive: From Principle to Practice? in Schrijver N. and Weiss F., International Law and Sustainable Development: Principles and Practice, Martinus Nijhoff Publishers, Page 561.

<sup>624</sup> Brunnee J. and Toope S.J., (1997), Environmental Security and Freshwater Resources: Ecosystem Regime Building, American Journal of international Law, Vol. 26, Page 91.

<sup>625</sup> Rieu-Clarke A., (2004), Sustainable Use and the EU Water Framework Directive: From Principle to Practice? in Schrijver N. and Weiss F., International Law and Sustainable Development: Principles and Practice, Martinus Nijhoff Publishers, Page 562.

<sup>626</sup> Rieu-Clarke A., (2004), Sustainable Use and the EU Water Framework Directive: From Principle to Practice? in Schrijver N. and Weiss F., International Law and Sustainable Development: Principles and Practice, Martinus Nijhoff Publishers, Page 562.

and the rights and obligations of States that ensue from this concept.<sup>627</sup> As Dellapenna put it, the concept of sustainability was always implicit in the law relating to water resources, for the right to use water equitably is a 'usufactory' right rather than absolute ownership. The right to use water and the fruits of that use simply never included the right to waste, destroy or fully consume the resource. This legal tradition, as well as the fact that the hydrological cycle operates on a time-scale that is meaningful for humans, suggest that the proper standard for water usage is sustainable use, rather than sustainable development.<sup>628</sup> This critical analysis seems to hold a lot of weight. Upon examination, it is clear that the main principle of international water law does not fully conform to the principles entrenched in the actual concept of sustainable development. However, consideration must be given to the fact that there are commonalities between the two. Based on the nature of water itself, it must be used in a sparing manner in order to be preserved for generations to come. Thus, the sustainable use and preservation of water is more fitting than the sustainable development of water. In essence, it would be correct to state that development requires waters, and that sustainable development requires sustainable use of water. If no usable water exists, progressive sustainable development will be hard to ensure. Therefore, the natural resource of water holds far too much weight and the law governing it cannot merely be re-conformed to meet the standards of sustainable development, especially when so much uncertainty remains over the concept itself. Indeed this analysis ties in with the overall concept of equitable utilisation as referred to in the Watercourses Convention. It must be noted that equitable utilisation does not necessarily mean an equal portion of the resource or equal share of uses and benefits. The application of equitable and reasonable utilisation in a particular watercourse will not prohibit a use that causes damage unless it exceeds the limits of the using State's equitable share of the watercourse. Equitable utilisation is governed by the principle of sovereign utilisation of the watercourse which stipulates that every riparian State has a right to the utilisation of the watercourse which is qualitatively equal to the rights of the co-riparians. However, this must not be mistaken for the right to an equal share of the uses and benefits; nor does it imply that the water itself has to be divided into equal shares.<sup>629</sup>

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<sup>627</sup> Fitzmaurice M., (2010), The Relationship Between the Law of international Watercourses and Sustainable Development, in in Fitzmaurice M., Ong DM., and Merkouris P., Research Handbook on International Environmental Law, Edward Elgar, Page 610.

<sup>628</sup> Dellapenna J., (2004), Is Sustainable Development a Serviceable Legal Standard in the Management of Water?, Water Resources Update 127, accessible at: <http://www.ucowr.siu.edu/updates/127/Dellapenna.pdf>, (last accessed 19/01/18).

<sup>629</sup> <https://www.unwatercoursesconvention.org/documents/UNWC-Fact-Sheet-4-Equitable-and-Reasonable-Utilisation.pdf>, (last accessed 16/01/18).

## **5.7. Concluding Remarks**

Sustainable development is an important concept. It has, at its core, principles and ideals that can benefit the manner in which mankind lives and evolves. The concept of sustainable development must gain some concrete legal relevance and significance if it is to be linked correctly to water law and international policy in general. Legally speaking, there is still debate as to the nature and content of sustainable development itself. This is unfortunate as its ever-increasing use in the legal sphere, despite this uncertainty then causes more confusion to the concept itself. The overall success of the then Millennium Development Goals, which was rooted on the foundations of sustainable development, shows that this concept has the ability to change perceptions and ensure actions. The current Sustainable Development Goals is following the same trend as its predecessor, it is ultimately steering mankind in a direction that facilitates the common-good approach and takes into consideration the good for all of mankind, present and future. Sustainable development can indeed have an impact on water use and management, especially since these two principles are based on preservation for effective growth and utilisation. This common-nexus encapsulates a move towards a more sustained future for all of humanity alike. It is thus important to ensure that the concept of sustainable development gains more steam and that we use its principles, where applicable, to the effective management and utilisation of water resources. Indeed it must be noted that there are various facets that sustainable development is made up of. This can add to extended confusion and failure of co-operation, as sustainable development requires the efforts of various parties in order to be progressively realised, let alone achieved. The idea of looking out for the current and future generations creates obligations upon all States and parties, and some of these obligations may even be unwanted, especially when taking into consideration the current situation in Africa and many other arid regions. Sustainable development calls for a harmony and synergy of various pillars, including environmental, economic, social and cultural, however the issue here is that even though this is an ideal objective, the manner in which to achieve these objectives are far from ideal. The ever-increasing use of the term sustainable development in international law and decisions cannot merely be ignored. Its continued use in environmental matters hints at its actual importance in environmental law and life in general. Sustainable development provides the platform for human development, through the protection and sustainable use of natural resources, of which water is one. Thus, the sustainable use and management of water is integral as a part of sustainable development

itself. The idea of using water in a sustainable manner, for food production and even for conserving for the future generations to come has its many merits and warrants its discourse. The link between sustainable development and water cannot be undermined. Sustainable development has as one of its branches sustainable water use and management. This has thus culminated into Sustainable Development Goal 6 on water. Indeed, it is within an ideal society that there is no wastage and that natural resources are used sparingly and within means. It is in an ideal society where the environment is considered when taking development into account. It is within an ideal society where everyone is entitled to equal benefits of natural resources. Indeed, without sustaining natural resources, there will be no environment left for which to have an ideal society to live in.



## **CHAPTER SIX – MDGS, SDGS AND ITS LINKAGES TO INTERNATIONAL ENVIRONMENTAL AND FRESHWATER LAW**

*The Sustainable Development Goals (SDGs) seek to build upon the widely acknowledged success of the Millennium Development Goals (MDGs), which for the first time established at the global level a set of quantifiable, ambitious, yet realistic targets for sustainable development, which were non-binding in character and relied solely upon the political commitment of States and other actors.*<sup>630</sup>

### **6.1. Introduction**

On August 12<sup>th</sup> 2014, the United Nations General Assembly received the Report of the Open Working Group of the General Assembly on Sustainable Development Goals (UN A/68/970). After the ‘Rio+20’ conference on Sustainable Development in June 2012, the United Nation aimed to establish an inclusive and transparent intergovernmental process on sustainable development goals that is open to all stakeholders, with a view to developing global sustainable development goals to be agreed by the General Assembly.<sup>631</sup> The global agenda on development goals had been brought to the fore via the previous Millennium Development Goals (MDGs) and its enhancement was required to sustain humanity for future generations and to address new problems that arose. This was done in accordance with the outcome document of ‘Rio + 20.’<sup>632</sup> As per the aforementioned document, a pledge was made to renew the commitment to sustainable development and to ensuring the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations.<sup>633</sup> The Sustainable Development Goals (SDGs) came into effect on the 1<sup>st</sup> of January 2016 and are intended to stimulate a collective action and guide the developmental decisions of State actors over the next fifteen years, by allowing for an

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<sup>630</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 173.

<sup>631</sup> A/RES/66/288 - The Future We Want, available at <https://sustainabledevelopment.un.org/futurewewant.html>, (last accessed 19/02/18).

<sup>632</sup> Palmer E., (2015), The Sustainable Development Goals, Journal of Global Ethics, Vol. 11, No. 3, Page 2.

<sup>633</sup> A/RES/66/288 - The Future We Want, available at <https://sustainabledevelopment.un.org/futurewewant.html>, (last accessed 19/02/18).

extensive and participative process that aims to achieve a set of 169 sustainable development targets.<sup>634</sup> The SDGs are made up of targets aiming to ensure no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice and strong institutions, and partnerships for the goals.<sup>635</sup> Indeed, these 17 individual SDGs span across various sectors, from poverty alleviation and better education, to environmental concerns, implementation and governance issues. As per the environmental concerns, water is categorized as a SDG by way of SDG6. SDG6 involves a commitment to ensure availability and sustainable management of water and sanitation for all and it is one of the most significant goals in terms of its potential impact on development outcomes.<sup>636</sup> The SDGs play an important role in highlighting and fast-tracking the global agenda to focus on the current humanitarian issues that the world is facing. It provides a platform to bring forward an agenda that aims to eradicate these issues and to ensure sustainability for humanity as a whole.

The then Millennium Development Goals (MDGs) and the current Sustainable Development Goals (SDGs) are widely regarded as a global effort to recognise basic human rights and needs and to ensure the enjoyment of these said needs. Before delving into the content of these *goals* in relation to water, it is pertinent to understand its legal status within the international community. The fact that these *goals* are so widely accepted cannot be ignored and its impact is pivotal in awakening the global conscience with regard to key issues within human and ecological society. This chapter delves into the world of SDGs as well as MDGs. The aim of this chapter is introduce the reader to the aims and objectives of the MDGs and SDGs in general and especially focus on those pertaining to water. The MDGs, now defunct, will be looked at and there will be an analysis of how and why the goals were not fully realised in order to gain insight and generate lessons for the SDGs. The SDGs will then be explored and the main objectives of these goals as a whole will be detailed, especially in

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<sup>634</sup> McIntyre O., (2018), *International Water Law and SDG 6: Mutually Reinforcing Paradigms*, in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 173.

<sup>635</sup> Sustainable Development Goals 1 – 17 as per the official SDG United Nations website, available at <https://sustainabledevelopment.un.org/sdgs>, (last accessed 19/02/18).

<sup>636</sup> McIntyre O., (2018), *International Water Law and SDG 6: Mutually Reinforcing Paradigms*, in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 173.

relation to water. The chapter will also explore the impact that the emergence of these SDGs has had in relation to overall sustainable development and International Freshwater Law.

## **6.2. The Millennium Development Goals (MDGs)**

World conferences on global challenges organized under the auspices of the United Nations were plentiful from the early 1990s. Many resulted in brief outcome documents or declarations, listing a few priority areas and challenges with general policies to tackle them. Some had enormous influence over the development of international law and policy-making, such as the Declaration on Environment and Development (Rio de Janeiro, 1992) and the Vienna Declaration of the World Conference on Human Rights (1993). This long series of global summits demonstrated that it was possible to reach global agreements, and collectively define grand challenges with a limited set of commitments to tackle them.<sup>637</sup> At the beginning of the new millennium, world leaders gathered at the United Nations to outline a wide-ranging vision against poverty. The vision was translated into eight goals called Millennium Development Goals (MDGs) which became the most significant commitment ever made by world leaders for international development.<sup>638</sup> Achieving strong sustainability and development would imply no trade-offs between the economic, social and ecological goals. However, this is rare in practice because politics tend to make trade-offs in favour of the economy at the cost of social and ecological issues.<sup>639</sup> Unfortunately, autonomous processes of globalization allocate resources through a poorly regulated market, resulting in a ‘one dollar one vote’ approach, rather than a ‘one person one vote’ system at the national level, or a ‘one country one vote’ system at the global level.<sup>640</sup> The MDGs aimed to compensate for this autonomous concentration of wealth by focusing on ensuring dignity for the very poorest people. It aimed at mobilizing people in different parts of the world and in different capacities to implement the MDGs in order to achieve some form of uniformity. The Goals were

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<sup>637</sup> Honniball A. and Spijkers O., (2014), Lessons Learnt from Global Public Participation in the Drafting of the UN Development Goals, Vereinte Nationen - German Review on the United Nations, Vol. 62, No. 6, Page 252.

<sup>638</sup> Assefa Y. and Others, (2017), Successes and Challenges of the Millennium Development Goals in Ethiopia: Lessons for the Sustainable Development Goals, *BMJ Glob Health* 2:e000318. doi:10.1136/bmjgh-2017-000318.

<sup>639</sup> Lorek S. and Spangenberg J.H., (2014), Sustainable Consumption Within a Sustainable Economy: Beyond Green Growth and Green Economies, *Journal of Cleaner Production*, Vol. 62, Pages 33–44.

<sup>640</sup> Karabarbounis L., (2011), One Dollar, One Vote. *The Economic Journal*, Vol. 121, 621 – 651. doi:10.1111/j.1468-0297.2010.02406.

intended not only to mark the coming of the second millennium, but also to set out a strategic vision for the United Nations to pursue for the first part of the twenty-first century and to breathe life into efforts to realize a number of fundamental goals that had been endorsed by a series of world conferences over the preceding decade or more.<sup>641</sup>

These eight goals included the eradication of extreme poverty and hunger, the achievement of universal primary education, the promotion of gender equality and empowerment of women, the reduction of child mortality, the improvement of maternal health, the combating of HIV/AIDS, malaria, and other diseases, the ensuring of environmental sustainability and the development of a global partnership for development itself.<sup>642</sup> As stated by Alston, the MDGs represented a major departure from previous efforts to set development objectives, and these differences help in part to explain why the Goals have succeeded in capturing both the imagination and a great deal of the energy of the international development agencies, as well as the governments of many developing countries.<sup>643</sup> Encompassed in Goal 7, was a right to access to water as per MDG 7.C. The MDGs were put into place in order to promote global and sustainable development. Based on the values and principles agreed upon by Member States in the 2010 Millennium Summit, the MDGs have served as a global framework for collective action to reduce poverty and improve the lives of poor people. Across eight clear goals, the MDGs included 21 time bound targets to measure progress in poverty reduction and hunger as well as improvements in health, education, living conditions, environmental sustainability and gender equality.<sup>644</sup> Indeed the conception of developmental goals on a scale as grand as this was something to behold as it placed human rights issues at the forefront of the international agenda. The human rights framework is comprised of internationally recognized human rights, and the institutions and procedures to facilitate and monitor their implementation. There are also legally binding human rights obligations upon governments, which inform international cooperation. The Universal Declaration of Human Rights (UDHR) was adopted by the United Nations General Assembly (UNGA) in 1948.<sup>645</sup> Human rights recognition has been codified in certain spheres within the international agenda, and

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<sup>641</sup> Alston P., (2005), *Ships Passing in the Night: The Current State of the Human Rights and Development Debate Seen Through the Lens of the Millennium Development Goals*, 27 *Human Rights Quarterly*, Page 756.

<sup>642</sup> <https://www.un.org/millenniumgoals/bkgd.shtml>, (last accessed 19/02/18).

<sup>643</sup> Alston P., (2005), *Ships Passing in the Night: The Current State of the Human Rights and Development Debate Seen Through the Lens of the Millennium Development Goals*, 27 *Human Rights Quarterly*, Page 756.

<sup>644</sup> The Millennium Development Goals Report (2015), Page 10, available at <http://www.un.org/en/development/desa/millennium-development-goals.html>, (last accessed 19/02/18).

<sup>645</sup> Universal Declaration of Human Rights, adopted 10 Dec. 1948, G.A. Res. 217A (III), U.N. GAOR, 3rd Session, U.N. Doc. A/RES/3/217A (1948).

calls for the protection of children, women, the disabled, as well as the eradication of racism and the prevention of inhumane punishment. The nine core international human rights instruments are the International Convention on the Elimination of All Forms of Racial Discrimination, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the Convention on the Elimination of All Forms of Discrimination against Women, the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, the Convention on the Rights of the Child, the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, the International Convention for the Protection of All Persons from Enforced Disappearance, and the Convention on the Rights of Persons with Disabilities.<sup>646</sup> The MDGs follow suit in the sense that it attempts to address most of these human rights issues. MDG1 that calls for the eradication of poverty is linked to the right to social security, the right to food, the right to health and the right to an adequate standard of living, all of which is linked to the various core human rights conventions, especially the International Covenant on Economic, Social and Cultural Rights and the Convention on the Rights of the Child. Hence, each MDG is aligned to a global human right, which shows the importance of the content which it aims to address. Though human rights and the MDGs are clearly linked and constitute shared global commitments, in practice there is surprisingly little that connects them.<sup>647</sup> This is because the goals are limited and selective and thus prioritize certain objectives over the many others endorsed every year by the international community. Also, they are deliberately designed to be measured and thus to provide a basis for accountability and they are time-bound, thereby bringing greater precision to goals that might otherwise be said only to be subject to progressive realization. Finally, an extensive institutional apparatus has been set up to promote them.<sup>648</sup> Indeed, the MDGs were aligned with international policy, and aimed at sustainable development in the sense that it tried to ensure specific targets for the delivery of certain basic human rights and to ensure that those targets can reach generations to come as well.

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<sup>646</sup> Center for Economic and Social Rights, The Nine Core Human Rights Conventions, available at <http://archive.cesr.org/article.php?id=271>, (last accessed 19/02/18).

<sup>647</sup> Kuruvilla S. and Others., (2012), The Millennium Development Goals and Human Rights: Realizing Shared Commitments, Human Rights Quarterly Vol.34, 144 – 177, The Johns Hopkins University Press, Page 148.

<sup>648</sup> Alston P., (2005), Ships Passing in the Night: The Current State of the Human Rights and Development Debate Seen Through the Lens of the Millennium Development Goals, 27 Human Rights Quarterly, Page 755.

### **6.2.1. The Status of the MDGs**

While the MDGs were successful in redirecting the focus for the United Nations system and reversing aid flows from donors at the global level, it were less successful in framing development targets at the country level.<sup>649</sup> The evolutionary process for the MDGs shows that the leadership was initially with United Nations and since the goals were devoid of country-specific realism and did not link to country-specific goals, it was not surprising that countries cared little on implementation of goals that they were not fully engaged with. The lack of accountability also undermined the overall aims and essence of the MDGs. This is due to the soft means of enforcement in case of non-compliance with soft law. In fact, due to the non-legally binding nature, compared with hard law, soft law requires even more political will, good faith, and national ownership for its implementation. It is thus of particular importance to get States' involvement in the law-making process.<sup>650</sup> The reality of the situation is that the non-binding nature of resolutions plays a major factor in its implementation and enforcement. The MDGs were not legally binding agreements or law on an international level; it was seen as global goals that were aimed at achieving global needs. The positive aspect is that it was able to bring these matters to the global attention, and thus later allowed for the development of the SDGs as the next wave of goals to be achieved.

Even though the MDGs were ambitious in nature, it can be regarded as the first step in the right direction when looking at it from a 'common-good' perspective. The MDGs generated new and innovative partnerships, galvanized public opinion, and showed the immense value of setting ambitious goals. By putting people and their immediate needs at the forefront, the MDGs reshaped decision-making in the developed and developing countries alike. It helped to lift more than one billion people out of extreme poverty, to make inroads against hunger, to enable more girls than ever before to attend school, and to protect our planet.<sup>651</sup> Indeed, the goal on water was the first MDG target to be met and this showed the influence the MDGs could have in bringing parties together and achieving set targets related to basic human needs. Yet inequalities persist and the progress has been uneven. The world's poor remain

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<sup>649</sup> Klasen S., (2012), Poverty, Equity and Growth in Developing and Transition Countries: Statistical Methods and Empirical Analysis, Discussion Papers, No. 123.

<sup>650</sup> Li X., (2013), Soft Law-Making on Development: The Millennium Development Goals and Post-2015 Development Agenda, Manchester Journal of International Economic Law, Vol. 10, Pages 375 – 376.

<sup>651</sup> Kumar S. and Others., (2016), Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs): Addressing Unfinished Agenda and Strengthening Sustainable Development and Partnership, Indian Journal of Community Medicine, Vol. 41(1), Page 1.

overwhelmingly concentrated in some parts of the world. Several women continue to die during pregnancy or from childbirth-related complications. Progress tends to bypass women and those who are lowest on the economic ladder or are disadvantaged because of their age, disability, or ethnicity. Disparities between rural and urban areas remain pronounced.<sup>652</sup> The glaring success and failures of the MDGs provided a stepping-stone to allow for improvement to take place when the next set of goals came into force. This furthered the call for goals that met present needs and in relation to water, goals that allowed for better access to safer drinking water, as it indeed links to the survival as human beings as we know it.

### **6.3. The Sustainable Development Goals (SDGs)**

In order to build on the momentum garnered by the previous MDGs, the global community set forth on a new venture in order to allow for the furtherance and development of new goals to attain and sustain the future we want and need. To create a new, people-centred, development agenda, a series of global consultations were conducted both online and offline. Civil society organizations, citizens, scientists, academics, and the private sectors from around the world were all actively engaged in the process.<sup>653</sup> As a result, and in order to re-address the aforementioned issues and extend the scope of the previous MDG targets, the Sustainable Development Goals were implemented. On 1 January 2016, the 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development, along with its 169 targets, adopted by world leaders in September 2015, officially came into force. Over the next fifteen years, countries will mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.<sup>654</sup> In terms of the SDGs, governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals.<sup>655</sup> The targets are aspirational and global and each

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<sup>652</sup> The United Nations Millennium Development Goals Report (2015), Page 3, available at [http://www.un.org/millenniumgoals/2015\\_MDG\\_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf), (last accessed 19/02/18).

<sup>653</sup> Kumar S. and Others., (2016), Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs): Addressing Unfinished Agenda and Strengthening Sustainable Development and Partnership, Indian Journal of Community Medicine, Vol. 41(1), Page 3.

<sup>654</sup> UN General Assembly, Transforming our World: the 2030 Agenda for Sustainable Development, 21 October 2015, A/RES/70/1.

<sup>655</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

government will set its own national targets taking into account the national circumstances.<sup>656</sup> The 17 goals include a call for no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation, and infrastructure, reducing inequality, sustainable cities and communities, responsible consumption and production, climate action, life under water, life on land, peace, justice, and strong institutions and finally partnership for the goals.<sup>657</sup> These SDGs take on a dimension that extends far beyond government actors. It includes all actors relevant to the upholding of international environmental law. The pillars of human development, human rights and equity are deeply rooted in SDGs and several targets explicitly refer to people with disabilities, to people in vulnerable situations, and to non-discrimination and communicable diseases.

The SDGs encompass a more moral dimension in the fact that it highlights the common needs of humanity for basic survival and existence. It can therefore be maintained that these SDGs play a significant role in the achievement of a common identity for humanity at large. This was reiterated by the words of United Nations Secretary General Ban Ki Moon, when he described the SDGs as a kind of panacea, telling the 70<sup>th</sup> session of the United Nations General Assembly that, *'our destination is in our sights: an end to extreme poverty by 2030; a life of peace and dignity for all.'*<sup>658</sup> The SDGs are described, as per the document preamble, as a comprehensive, far-reaching and people-centred set of universal and transformative goals and targets which will stimulate action over the next 15 years in areas of critical importance for humanity and the planet.<sup>659</sup> The SDGs are concerned with mobilizing efforts at the international, national and subnational level around a set of common priorities relating to sustainable development, and by doing so it seeks to address challenges as diverse and ambitious as ending poverty and hunger, combating inequalities, building peaceful and inclusive societies, promoting human rights, and ensuring the protection of the planet and its natural resources.<sup>660</sup> The 2030 Agenda for Sustainable Development contains a Declaration outlining the vision, principles and objectives that must guide the behaviour of UN Member

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<sup>656</sup> UN General Assembly, Transforming our World: the 2030 Agenda for Sustainable Development, 21 October 2015, A/RES/70/1.

<sup>657</sup> UN General Assembly, Transforming our World: the 2030 Agenda for Sustainable Development, 21 October 2015, A/RES/70/1.

<sup>658</sup> Ki Moon B., (2015), Opening Speech at 70<sup>th</sup> General Assembly, September 28, available at <http://www.voltairenet.org/article188865.html>, (last accessed 20/02/18).

<sup>659</sup> United Nations (2016), General Assembly Resolution 70/1: Transforming Our World: the 2030 Agenda for Sustainable Development. 25 September 2016. UN Doc A/RES/70/1. 2016, Preamble.

<sup>660</sup> United Nations (2016), General Assembly Resolution 70/1: Transforming Our World: the 2030 Agenda for Sustainable Development. 25 September 2016. UN Doc A/RES/70/1. 2016, Preamble.

States in the post-2015 development, 17 aspirational Goals and 169 quantitative and qualitative targets that represent the output of at least three years of intergovernmental negotiations and several work streams across the three dimensions of sustainable development, a section on means of implementation and the revitalization of the Global Partnership for Sustainable Development and a section on follow-up and review processes.<sup>661</sup>

### **6.3.1. Implementation and Monitoring of the SDGs**

Since the SDGs are made up of specific goals as well as targets that are attached to those goals, it is important to identify how the progress of these goals and targets are being monitored and how strategies are being implemented in order to achieve the attainment of these goals and targets. Indicators will be the backbone of monitoring progress towards the SDGs at the local, national, regional, and global levels. A sound indicator framework will turn the SDGs and their targets into a management tool to help countries and the global community develop implementation strategies and allocate resources accordingly. They will also serve as a report card to measure progress towards sustainable development and to help ensure the accountability of all stakeholders for achieving the SDGs.<sup>662</sup> An emerging consensus suggests that the focus of SDG monitoring will be at the national level. Complementary monitoring will occur at regional and global levels. Moreover, each major thematic community, such as health, education, agriculture, and so forth, will mobilize, analyse, and communicate data on progress towards achieving its objectives. Such thematic monitoring and review will be an important complement to official monitoring and review at national, regional, and global levels.<sup>663</sup> The sheer magnitude of the goals and the targets, and what it seeks to achieve, can present its own set of challenges and complexities, especially when it comes to monitoring and implementation. Upon referring to the MDG monitoring process, it was seen that there have been great improvements in data gathering under the MDGs, but it has been insufficient for the goals to serve as either a management tool or a

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<sup>661</sup> United Nations (2016), General Assembly Resolution 70/1: Transforming Our World: the 2030 Agenda for Sustainable Development. 25 September 2016. UN Doc A/RES/70/1. 2016.

<sup>662</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>, (last accessed 20/02/18).

<sup>663</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>, (last accessed 20/02/18).

real-time report card. MDG data comes with too great a time lag (often three or more years), and too often is incomplete and of poor quality. MDG monitoring also gave too little attention to what should be measured, so, to this day, we lack some important metrics for key development priorities. Similarly, there was too little investment in strengthening statistical capacity to ensure effective real-time monitoring of the MDGs and to establish statistical standards and quality requirements.<sup>664</sup> However, in order to combat this, the United Nations Report provides an extensive plan as to monitoring and implementation, and asserts that an integrated monitoring process is to be implemented. Since these are global goals, it is important to ensure that each party plays its part or role in the process to allow for cumulative data to be brought to the fore. In order to allow for such a harmonization to take place, the levels of monitoring will include national, regional, global and thematic.<sup>665</sup> National monitoring is the most important level of monitoring and will rely on nationally defined sets of indicators. National ownership at all levels of the SDGs is critical, and national monitoring must respond to national priorities and needs.<sup>666</sup> The focus of SDG monitoring must be at the national level. It is envisioned that each country will choose the national SDG indicators that are best suited to track its own progress. Success will require international coordination and collaboration, which in turn requires accountability and monitoring at the global level. Unless an effective global monitoring framework complements national efforts, the SDGs cannot be achieved in time. Global monitoring requires a harmonized and universal set of indicators.<sup>667</sup> Global monitoring is a vital complement to national monitoring to ensure global coordination, support strategies for managing global public goods, and to indicate which countries and thematic areas are in need of greatest assistance.<sup>668</sup> Regional monitoring can play an important role in fostering knowledge-sharing, reciprocal learning, and peer review across countries in the same region. It will also promote shared accountability for regional

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<sup>664</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>, (last accessed 20/02/18).

<sup>665</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, Page 10, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>, (last accessed 20/02/18).

<sup>666</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, Page 10, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>, (last accessed 20/02/18).

<sup>667</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, Page 9, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>, (last accessed 20/02/18).

<sup>668</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, Page 11, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>, (last accessed 20/02/18).

priorities, such as shared watersheds, regional conflicts, or regional infrastructure.<sup>669</sup> To achieve the SDGs, complex challenges must be addressed across a broad range of sectors and thematic areas, such as health, education, agriculture, nutrition, the water-energy nexus, sustainable consumption and production patterns, or infrastructure design. Lessons learned in one country can inform progress in other countries. Similarly, implementation challenges and technology gaps are often common across countries, so major thematic communities need to be mobilized globally in support of the SDGs. These thematic or epistemic communities should focus on monitoring progress and challenges in implementation. Thematic communities – often under the leadership of specialized international organizations –develop specialist indicators for monitoring and accountability that are tracked in countries across the globe. Often these indicators include input and process metrics that are helpful complements to official indicators, which tend to be more outcome-focused.<sup>670</sup> It is evident that a multi-faceted, multi-actor approach is essential in order to allow for proper implementation and monitoring. This multi-faceted, multi-actor approach can bring with it the same issues that the previous monitoring strategy brought with it for the MDGs, especially when it comes to collating the data from the vast amounts of actors involved. The endless possibility of non-responsiveness and paper-trail issues can result in a rather time-consuming and frustrating process, and could result in data that is not precise. However, it must be noted that the SDGs and its targets are indeed ambitious; hence an ambitious system to monitor it is also required. To put it into perspective, the SDGs cannot be achieved or progress in the achievement of the SDGs cannot take place if there is no instrument of monitoring. Thus, the United Nations Report is a step in the right direction, as it provides a map and plan for the success of this expedition.

### **6.3.2. Differences between the SDGs and the MDGs**

It is important to note how the SDGS differ from the MDGs in order to track progression. One of the benefits of the SDGs is the fact that valuable lessons were learned from the

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<sup>669</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, Page 13, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>. (last accessed 20/02/18).

<sup>670</sup> United Nations Report (2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, Page 14, available at <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>. (last accessed 20/02/18).

implementation of the actual MDGs. This allowed a platform of sorts that is indeed essential in the overall development of human sustainability. The benefit of the SDGs is that it can still ensure the completion of any ‘unfinished’ business of the MDGs. This allows for continuity and sustains the momentum generated while addressing the additional challenges of realising the global goals. The SDGs have evolved after a long and extensive consultative process including 70 Open Working Groups, Civil Society Organizations, thematic consultations, country consultations, participation of general public through face-to-face meetings and online mechanisms and door to door survey,<sup>671</sup> whereas the previous MDGs were drawn up by only a few key civil servants and development experts.<sup>672</sup> The United Nations had conducted the largest consultation programme in its history to gauge opinion on what the SDGs should include.<sup>673</sup> This is truly beneficial as public and open participation allows for a plethora of views, ideas and comments to come to the fore. This also allows for the development of a more inclusive and comprehensive set of global ideals and goals to be achieved. The input from civil society was important in the drafting of the SDGs as it is civil society and the general population who is truly aware of what is needed and wanted. This is encapsulated by the public-participation process initiated before the actually SDGs came into being. As per Honniball and Spijkers, the opportunities given for public participation beyond stand-alone conferences and stock-taking events fell into three categories, namely, the UN Secretary-General led initiatives, including the High Level Panel of Eminent Persons on the Post-2015 Development Agenda (HLP), the Sustainable Development Solutions Network (SDSN), and the UN Global Compact (UNGC); the intergovernmental Open Working Group on Sustainable Development Goals (OWG), which drafted proposed SDGs (mandated by Rio+20); and the United Nations Development Group (UNDG) led the so-called ‘Global Conversation’ which provided input into all the above. It has since expanded to provide implementation consultations for the upcoming interstate negotiations.<sup>674</sup> The breadth of different audiences allows invitation of various fragments of civil society. As global goals, to be implemented at the national level, representation is required across both the global (e.g. people, thematic communities, regions, sub-regions and nations) and national (e.g. youth,

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<sup>671</sup> Kumar S. and Others., (2016), Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs): Addressing Unfinished Agenda and Strengthening Sustainable Development and Partnership, Indian Journal of Community Medicine, Vol. 41(1), Page 4.

<sup>672</sup> Wisor S., (2012), After the MDGs: Citizen Deliberation and the Post-2015 Development Framework, Ethics and International Affairs, Vol. 26(1), Page 123.

<sup>673</sup> <https://www.theguardian.com/global-development/2015/jan/19/sustainable-development-goals-united-nations>, (last accessed 19/02/18).

<sup>674</sup> Honniball A. and Spijkers O., (2014), Lessons Learnt from Global Public Participation in the Drafting of the UN Development Goals, Vereinte Nationen - German Review on the United Nations, Vol. 62, No. 6, Page 254.

NGOs, workers and experts) level—which the consultations have in some way tried to capture.<sup>675</sup> This process truly sets the SDGs apart from the MDGs as it seized on the ‘shortcomings’ of the MDG drafting process and it ensured that the voices of many were heard instead of the voices of a select few. This societal integration provides the feeling of common-consensus on what the SDGs should entail and what humanity at large is in need of. The SDG participatory process represents the true birth of global public participation in setting the UN development agenda, however expected participation versus actual participation still leaves a lot to be desired.<sup>676</sup> It is also important to note that while the MDGs were focused with only 8 goals, 21 targets and 63 indicators, SDGs include 17 goals with 169 targets. An expert analyses by noble laureates at Copenhagen consensus, suggest that if the UN concentrates on 19 top targets, it can get \$20 to \$40 in social benefits per dollar spent, while allocating it evenly across all 169 targets would reduce the figure to less than \$10.<sup>677</sup> Also, the expansion of the goals and targets is a clear indicator of the benefits of having an open forum when developing goals intended for human sustainability and environmental sustenance. The expansion of the ‘list’ also indicates the changes in human needs and the effects of human activity on the planet as well. The pillars of human development, human rights and equity are deeply rooted in SDGs and several targets seven explicitly refer to people with disabilities, six to people in vulnerable situations, and two to non-discrimination. These were not even mentioned in the MDGs; the MDGs had 3 direct health goals, 4 targets and 15 indicators with emphasis on child, maternal mortality and communicable diseases. The SDGs have one comprehensive goal emphasizing well-being and healthy living.<sup>678</sup> A greater transition is the fact that MDGs had a focus on developing countries with funding coming from the richer countries. With the SDGs, all countries, developed or developing, are expected to work towards achieving SDGs. Indeed, while the MDGs were primarily concerned with the promotion of development and the alleviation of poverty and focused on remedying developmental issues of developing nations, the SDGs focus strongly on the role of both developed and developing nations in the achievement of the global objective of

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<sup>675</sup> Honniball A. and Spijkers O., (2014), Lessons Learnt from Global Public Participation in the Drafting of the UN Development Goals, Vereinte Nationen - German Review on the United Nations, Vol. 62, No. 6, Page 255.

<sup>676</sup> Honniball A. and Spijkers O., (2014), Lessons Learnt from Global Public Participation in the Drafting of the UN Development Goals, Vereinte Nationen - German Review on the United Nations, Vol. 62, No. 6, Page 255.

<sup>677</sup> Kydland F., Stokey N. and Schelling T., (2015), Smart Development Goals, available at <http://www.copenhagenconsensus.com/post-2015-consensus/nobel-laureates-guide-smarter-global-targets-2030>, (last accessed 20/02/18).

<sup>678</sup> Kumar S. and Others., (2016), Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs): Addressing Unfinished Agenda and Strengthening Sustainable Development and Partnership, Indian Journal of Community Medicine, Vol. 41(1), Page 4.

sustainable development.<sup>679</sup> This allows for a common-good to be achieved through a common human effort.<sup>680</sup> This further allows the strengthening of international relations, which is indeed essential when trying to ensure global sustainability. This is in direct correlation with trying to achieve SDG17, which aims to strengthen the means of implementation and revitalise the global partnership for sustainable development. Also, the SDGs include a vision of building vibrant and systematic partnerships with private sector to achieve sustainable development, whereas the MDGs had no concrete role for the Civil Society Organizations (CSOs), SDGs have paid attention to this right from the framing stage itself with significant engagement of civil society actors. The CSOs can play an important role to hold governments accountable at the local level, which provides some sort of legal legitimacy to the process.<sup>681</sup>

#### **6.4. Legal Classification of the Goals**

It is important to firstly classify the legal status of the *goals* in order to determine the legal context within which it falls. It is also important to determine the legal status of the *goals* because this will give rise to the implications and consequences that these goals have on a legal scale. The SDGs are regarded as global goals, aiming to be achieved on an international scale. Much like the MDGs as previously discussed, the SDGs are also ambitious goals aimed at ensuring human needs. Governing world affairs is a difficult business. Due to the lack of a central authority with decision-making powers, agreements on how to save our common interests can only be reached through debate and the development of a broad consensus.<sup>682</sup> International law is imperative to the cohesive functioning of the global world, as it has the ability to allow for structure and procedure when guidance is needed or when disputes arise at

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<sup>679</sup> Scholtz W. and Barnard M., (2018), *The Environment and the SDGs: 'We are on a Road to Nowhere,'* in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 222.

<sup>680</sup> Scholtz W. and Barnard M., (2018), *The Environment and the SDGs: 'We are on a Road to Nowhere,'* in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 222.

<sup>681</sup> Scholtz W. and Barnard M., (2018), *The Environment and the SDGs: 'We are on a Road to Nowhere,'* in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 222.

<sup>682</sup> Brus, M., (2017), *Soft Law in Public International Law: A Pragmatic or a Principled Choice? Comparing the Sustainable Development Goals and the Paris Agreement*, available at SSRN: <https://ssrn.com/abstract=2945942> or <http://dx.doi.org/10.2139/ssrn.2945942>, (last accessed 20/02/18).

an international level. The International Court of Justice (ICJ) also highlights the important nature of international law in terms of Article 38 of the ICJ Statute. Article 38 states that international conventions, whether general or particular, establishing rules expressly recognized by the contesting states; international custom, as evidence of a general practice accepted as law; and the general principles of law recognized by civilized nations shall be applied when dealing with international disputes set before it.<sup>683</sup> Therefore, the categorisation of the SDGs in a legal context in general is of utmost importance, as this can provide for better clarity on its practical application.

Law is usually categorised into soft law and hard law. Soft law refers to international norms that are deliberately non-binding in character, but are of great legal relevance. This has unique policies that lie between law and politics. Noticeable examples include resolutions by international organizations and global plans of actions of conduct, much like the United Nations and its *goals* respectively. Soft laws operate under a different model from ‘hard law.’ Hard law is law that is associated with legally binding obligations. It is referred to as legal rules in the traditional sense and understanding. Furthermore, soft laws are characterized with less degrees of precision when compared with hard laws.<sup>684</sup>

It is often argued that soft law is ambiguous because its legal effects and its implication are often difficult to identify. Once soft law is resorted to, it leaves large amounts of discretion to States. The standards are often so vague that third-party adjudication would be impossible even if it were provided for.<sup>685</sup> Soft law mainly constitutes various parts of the modern law-making process.<sup>686</sup> It is common that Resolutions of the United Nations General Assembly (UNGA) may contain soft law norms that may have normative relevance.<sup>687</sup> It is thus important to determine whether the SDGS (and MDGs alike) may be characterised as soft law which may have a normative influence on international environmental law.<sup>688</sup> International organizations have increasingly placed normative statements in non-binding

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<sup>683</sup> Statute of the International Court of Justice, Article 38, available at [http://legal.un.org/avl/pdf/ha/sicj/icj\\_statute\\_e.pdf](http://legal.un.org/avl/pdf/ha/sicj/icj_statute_e.pdf), (last accessed 20/03/18).

<sup>684</sup> Li X., (2013), Soft Law-Making on Development: The Millennium Development Goals and Post-2015 Development Agenda, *Manchester Journal of International Economic Law*, Vol. 10, Pages 362 – 364.

<sup>685</sup> Palmer G., (1992), New Ways to Make International Environmental Law, *American Journal of International Law*, Vol. 86, Page 269.

<sup>686</sup> Carolyn A., (2001), Controlling Environmental Agency Discretion: A Public Law Perspective, *Environmental Law and Management*, Vol. 13(5), Page 232.

<sup>687</sup> Friedrich J., (2013), *International Environmental Law Soft Law: The Functions and Limits of Nonbinding Instruments in International Environmental Governance and Law*, Springer Publishing, Page 23.

<sup>688</sup> Scholtz W. and Barnard M., (2018), *The Environment and the SDGs: ‘We are on a Road to Nowhere,’* in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Pages 225 – 226.

political instruments such as declarations, resolutions, and programs of action, and have signalled that compliance is expected with the norms that these texts contain. Commentators refer to these instruments as ‘soft law.’ States, however, appear clearly to understand that such ‘soft law’ texts are political commitments that can lead to law, but they are not law, and thus give rise only to political consequences.<sup>689</sup> Soft law has a wide range of possible meanings, but there are three distinct characteristics of soft law that must be noted, namely, that soft law is not binding, soft law consists of general norms or principles and not rules, and soft law is law that is not readily enforceable through binding dispute resolution.<sup>690</sup> Reliance on soft law as part of the law-making process takes a number of different forms, including declarations of intergovernmental conferences, resolutions of the United Nations General Assembly, and recommendations of international organisations. While the legal effect of these different soft law instruments is not necessarily the same, it is characteristic of all of them that they are carefully negotiated, and often carefully drafted statements, which are in some cases intended to have some normative significance despite their non-binding, non-treaty form.<sup>691</sup> Soft law however does make it easier to press dissenters into conforming behaviour, because States are free to use political pressure to induce others to alter their policies, although generally they cannot demand that others conform to legal norms the latter have not accepted.<sup>692</sup> There is at least an element of good faith commitment, and in many cases, a desire to influence state practice and an element of law-making intention and progressive development. In this sense non-binding soft law instruments are not fundamentally different from those multilateral treaties which serve much the same law-making purposes. In this respect they may be both an alternative to and a part of the process of multilateral treaty-making.<sup>693</sup> These non-binding instruments and commitments may be entered into precisely to reflect the will of the international community to resolve a pressing

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<sup>689</sup> Shelton D., (2008), *Soft Law*, George Washington University Law School: Publications and Other Works, available at [scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=2048&context=faculty](http://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=2048&context=faculty), (last accessed 21/04/2017).

<sup>690</sup> Boyle A., (1999), *Some Reflections on the Relationship of Treaties and Soft Law*, *International and Comparative Law Quarterly*, Vol. 48, Pages, 901 - 913. DOI: 10.1017/S0020589300063739, Page 901.

<sup>691</sup> Boyle A., (1999), *Some Reflections on the Relationship of Treaties and Soft Law*, *International and Comparative Law Quarterly*, Vol. 48, Pages, 901 - 913. DOI: 10.1017/S0020589300063739, Pages 902 – 903.

<sup>692</sup> Anton D.K. and Shelton D.L., (2011), *Environmental Protection and Human Rights*, Cambridge University Press, Page 63.

<sup>693</sup> Boyle A., (1999), *Some Reflections on the Relationship of Treaties and Soft Law*, *International and Comparative Law Quarterly*, Vol. 48, Pages, 901 - 913. DOI: 10.1017/S0020589300063739, Pages 902 – 903.

global problem over the objections of one or a few States causing the problem while avoiding the doctrinal barrier of their lack of consent to be bound by the norm.<sup>694</sup>

Soft law has played a major role in the development of modern international environmental law.<sup>695</sup> Scholars believe that soft law outweighs the classical and familiar legal categories of law that form a platform of international regulations. Soft law may be associated with various concerns but it does have strategic mechanisms for imposing its proposals. The law is primarily structural in nature because it includes the existence and development of an organized network of permanent institutions at international and regional levels.<sup>696</sup> More importantly, soft law solutions change the political thinking on an issue. They alter the circumstances in which an issue is considered; they cause opinion to coalesce. These changes can be a very important catalyst in securing an agreement with a harder edge later. Soft law solutions can thus be useful steps on a longer journey. Soft law is where international law and international politics combine to build new norms.<sup>697</sup> The United Nations has spearheaded legislation and adoption of international environmental regulations that inclines toward the dimension of soft law. Institutions of this nature provide the global community with a standing structure of organization that controls permanent and ongoing political, economic and essential negotiations among the member States of the international community.<sup>698</sup> Moreover, the important role of non-governmental institutions offers an effective complement to the present intergovernmental framework by creating a dynamic inter-state diplomacy and global public opinion. Typically, a benefit of soft international norms is that they can induce wider participation by parties, by offering lower contracting costs and facilitating compromise. It has been suggested in international relations theory that increased participation may lead to a reduction of 'depth', in that substantive commitments become less deep or ambitious with the addition of more participants with heterogeneous preferences.<sup>699</sup> Also, the need of including developing countries on the international environmental plans has made it necessary to adapt and re-examine the diverse international traditional norms that had

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<sup>694</sup> Anton D.K. and Shelton D.L., (2011), *Environmental Protection and Human Rights*, Cambridge University Press, Page 63.

<sup>695</sup> Palmer G., (1992), *New Ways to Make International Environmental Law*, *American Journal of International Law*, Vol. 86, Page 259.

<sup>696</sup> Carolyn A., (2001), *Controlling Environmental Agency Discretion: A Public Law Perspective*, *Environmental Law and Management*, Vol. 13(5), Page 232.

<sup>697</sup> Palmer G., (1992), *New Ways to Make International Environmental Law*, *American Journal of International Law*, Vol. 86, Page 269.

<sup>698</sup> Carolyn A., (2001), *Controlling Environmental Agency Discretion: A Public Law Perspective*, *Environmental Law and Management*, Vol. 13(5), Page 232.

<sup>699</sup> Abbott K.W. and Snidal D., (2003), *Hard and Soft Law in International Governance*, *International Organization*, Vol. 54(3), Page 421.

not been elaborated when these countries were not part of the global environmental protection team.<sup>700</sup> Furthermore, these new states have teamed up to lobby for the utilization of soft instruments like resolutions and recommendations of global bodies with the intention of adjusting various regulations and principles of the global legal order. The developing states prefer soft law regulations because they seem friendly especially when compared with the hard law principles.<sup>701</sup> As stated by Palmer, environmental soft law needs to be kept as far as possible toward the high end of the spectrum. It is a vital part of the continuous process of building norms.<sup>702</sup>

Environmental strategists have opted for soft law because of the diversification of the components of the world community. The *goals* have a close proximity to international law and at least some of the SDGs, especially SDG6 have the potential to contribute to the development of international law. It is this interplay with international law that increases the normative influence of soft law instruments.<sup>703</sup> Indeed, it is mentioned that the SDGs are endowed with some form of normative value as it could be placed at the 'softest' end in the 'hard-to-soft' continuum. This is because the SDGs do not contain binding legal commitments to be achieved and furthermore present vague and aspirational targets rather than define specific outcomes.<sup>704</sup> It is important to understand that the *goals* are not legally binding in nature. The SDGs are not a negotiated treaty and therefore will be, at best, a form of soft law as previously mentioned.<sup>705</sup> The *goals* carry significant weight and influence in the international spectrum however at best it can only be classified as principles of soft law. The issue that becomes evident is the governance of meeting the said targets within the *goals*.

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<sup>700</sup> Cass S., (2003), Preferences and Rational Choice: New Perspectives and Legal Implications: Beyond the Precautionary Principle, University of Philadelphia Law Review, Page 1003.

<sup>701</sup> Lynton C., (1997), Environmental Policy: Transnational Issues and National Trends, Westport, Quorum Books.

<sup>702</sup> Palmer G., (1992), New Ways to Make International Environmental Law, American Journal of International Law, Vol. 86, Page 270.

<sup>703</sup> Scholtz W. and Barnard M., (2018), The Environment and the SDGs: 'We are on a Road to Nowhere,' in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 227.

<sup>704</sup> Persson A., Weitz N. and Nilsson M., (2016), Follow-up and Review of the Sustainable Development Goals: Alignment vs. Internalization, Review of European, Comparative and International Environmental Law (RECIEL), Vol. 25(1), Pages 59 – 60.

<sup>705</sup> Miller-Dawkins M., (2014), Global Goals and International Agreements: Lessons for the Design of the Sustainable Development Goals, available at: [www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinionfiles/9295.pdf](http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinionfiles/9295.pdf), (last accessed 25/02/18).

It is also argued that the SDGs do not amount to soft law norms at all because it is a political declaration that gives rise to political commitments and that there is an absence of exhibiting a sense of movement towards formal legality in order to facilitate the progressive evolution of international law and the intention to regulate in the absence of hard law.<sup>706</sup> Despite the non-binding character of the SDGs, it appears that in the adoption of the 2030 Agenda, the international community was aware of the potential legal significance of this solemn universal statement of formal support for what in many cases would amount to emerging and contested rules and principles of international law.<sup>707</sup> Indeed, where the Declaration states that *'we reaffirm our commitment to international law and emphasise that the Agenda is to be implemented in a manner that is consistent with the rights and obligations of States under international law,'* it can indeed be noted that principles of international law was used as a basis for the composition of SDG6 and the SDGs in general.<sup>708</sup> Since the targets are not legally binding, it can be argued that there is some sort of moral obligation in achieving the said *goals*. However, countries and members must be so morally inclined as well. The legal status of achieving global *goals* can result in an endless 'un-legal' gyre. The fact remains, no legal consequence automatically infers that there is no legal obligation, and this causes issues in relation to the achievement of global *goals*. However, if the SDGs are soft law in nature, it would infer normative legal consequence. The *goals* have, at best soft law characteristics which means that it should be regarded as legally relevant. One should never underestimate the power of the global collective force that exists when it comes to the recognition and delivery of basic human needs. It is ultimately through this awakening that the international community must at least recognise the plight at hand and not plead ignorance when the overall situation regarding the environment, development and water becomes dire.

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<sup>706</sup> French D., (2017), The Global Goals: Formalism Foregone, Contested Legality and Re-Imaginings of International Law, Ethiopian Yearbook of International Law, Pages 164 – 165.

<sup>707</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 176.

<sup>708</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 177.

## **6.5. The Goals and Water**

The then MDGs and the current SDGs both expressly mentioned water as part of its goals and targets, indicating the acknowledgement of the importance of water to sustaining human life and development, and the formal acknowledging of the importance of all of humanity having access to water. It is important to show how the MDG on water differs to the SDG on water and what the evolution of this goal means in the global perspective. The recognition of water as an important global human need, and as a resource that must be conserved and properly managed indeed elevates this natural resource to the status of essential for the purposes of growth and human development. Water plays an important role in most facets of human life. It is a component in the food production process as well as a component in the human development process. Therefore, the lack of water and the lack of access to water can have dire consequences of human life and sustainability. Thus, an exploration of the goals on water is indeed imperative.

### **6.5.1. Millennium Development Goal 7.C**



MDG7 called for ensuring environmental sustainability and dealt with water through MDG7.C. MDG 7.C aimed to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation.<sup>709</sup> This provision is in line with the ‘right’ to water and sanitation as mentioned in the International Covenant on Economic, Social and Cultural Rights and the Convention on the Rights of the Child.<sup>710</sup> Since 1990, the proportion of the population without access to improved drinking water has been cut in half in Eastern Asia, Latin America and the Caribbean, South-Eastern Asia, Southern Asia and Western Asia. This is regarded as a visible improvement in terms of the achievement of the goal as well as a legitimate acceptance of the positive effects the goals can have in the global

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<sup>709</sup> <http://www.un.org/millenniumgoals/>, (last accessed 19/02/18).

<sup>710</sup> The International Covenant on Economic, Social and Cultural Rights through Article 11 and 12 implicitly mentions the right to a good standard of health and living, which would call for access to safe drinking water for its realisation; and the Convention on the Rights of the Child through Article 24(C) explicitly mentions clean drinking water to attain a highest standard of health.

spectrum.<sup>711</sup> It alludes to the fact that the collective human network to fulfil basic human rights and needs can sometimes reap tremendous results, even on as grand a world scale as this. The acceptance of so-called ‘soft-law’ principles has an overall impact in the greater scheme of things. It allows for positive results if human beings are willing to ensure the fulfilment of human needs, as evidenced by the success of an improved access to water via MDG 7.C. As per the MDG findings, the world has met the target of halving the proportion of people without access to improved sources of water, five years ahead of schedule. Between 1990 and 2015, 2.6 billion people gained access to improved drinking water sources. Also, worldwide, 2.1 billion people have gained access to improved sanitation. Despite progress, 2.4 billion are still using unimproved sanitation facilities, including 946 million people who are still practicing open defecation.<sup>712</sup>

Sub-Saharan Africa fell short of the MDG target. In 2015, it was estimated that 663 million people worldwide still used unimproved drinking water sources, including unprotected wells and springs and surface water. Nearly half of all people using unimproved sources live in sub-Saharan Africa, while one-fifth live in South Asia.<sup>713</sup> Also, MDG 7.C did not consider water quality, which relates to pathogens and chemicals that can cause disease. Rather, safe drinking water was defined as an ‘improved source,’ which includes piped water on premises and channels, such as public taps and hand pumps.<sup>714</sup> Access to safe water and sanitation is essential to all development outcomes across the life course. It ensures healthy growth and prevention of water-borne and food-borne diseases causing diarrhoea, which contributes to stunting in children. Contaminated and stagnant water also contribute to the global burden of trachoma, and vector-borne diseases. 165 million children worldwide with stunted growth risk compromised cognitive development, physical capabilities, and future school performance; resulting in a less productive generation, with unfulfilled potential to contribute to the workforce and the economy.<sup>715</sup>

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<sup>711</sup> MDG 7.C. Findings, <http://www.un.org/millenniumgoals/environ.shtml>, (last accessed 19/02/18).

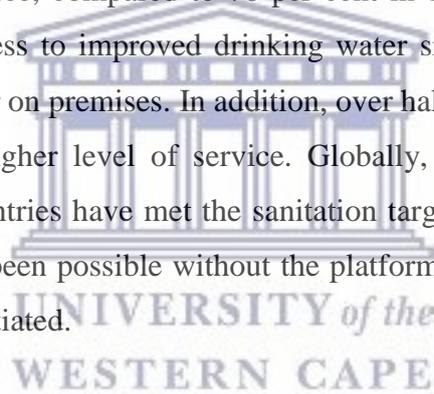
<sup>712</sup> MDG 7.C. Findings, <http://www.un.org/millenniumgoals/environ.shtml>, (last accessed 19/02/18).

<sup>713</sup> The Millennium Development Goals Report (2015) Page 58, available at <http://www.un.org/en/development/desa/millennium-development-goals.html>, (last accessed 19/02/18).

<sup>714</sup> WHO/UNICEF, Progress on sanitation and drinking water 013 update, available at [http://apps.who.int/iris/bitstream/10665/81245/1/9789241505390\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/81245/1/9789241505390_eng.pdf), (last accessed 20/02/18).

<sup>715</sup> Water and Sanitation: Addressing Inequalities, (2014), [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(14\)60665-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)60665-6/fulltext), (last accessed 20/02/18).

MDG 7 prompted authors to argue that the goal placed too ‘little emphasis on environmental issues’, in particular, climate-change.<sup>716</sup> Some suggest that MDG 7.C overlooked local challenges, including infrastructure, distance, security, costs, contamination as well as a basic understanding of hygiene and sanitation.<sup>717</sup> The goals were called ‘overambitious’ or ‘unrealistic’ and it was believed that the MDGs ignored the limited local capacities, particularly missing governance capabilities.<sup>718</sup> The MDGs were regarded as ‘unambitious when viewed against the sheer volume of unmet basic human needs’. Goal 7 in particular, makes no mention of the human rights dimensions of the issue of water, either in relation to the status of the human right to clean water or to the role of human rights in securing such access.<sup>719</sup> Global goals for low- and middle-income countries fall short because they are too ambitious for some countries and not challenging enough for other countries. However, one must consider the good of these goals as well. As per the official United Nations Millennium Development Goals Report, in 2015, 91 per cent of the global population is using an improved drinking water source, compared to 76 per cent in 1990. Also, of the 2.6 billion people who have gained access to improved drinking water since 1990, 1.9 billion gained access to piped drinking water on premises. In addition, over half of the global population (58 per cent) now enjoys this higher level of service. Globally, 147 countries have met the drinking water target, 95 countries have met the sanitation target and 77 countries have met both.<sup>720</sup> This could not have been possible without the platform of the MDGs and the global collective effort that it had initiated.



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<sup>716</sup> McMichael A.J. and Butler C.D., (2006), Climate Change, Health, and Development Goals, *Lancet*, 364:2004–2006. doi:10.1016/S0140-6736(04)17529-6.

<sup>717</sup> Dar O.A. and Khan M.S., (2011), Millennium Development Goals and the Water Target: Details, Definitions and Debate, *Tropical Medicine and International Health*, 16:540–544. doi:10.1111/j.1365-3156.2011.02736.x.

<sup>718</sup> Mishra U.S., (2004), Millennium Development Goals: Whose Goals and for Whom? *British Medical Journal* 329:742. doi:10.1136/bmj.329.7468.742-b.

<sup>719</sup> Alston P., (2005), Ships Passing in the Night: The Current State of the Human Rights and Development Debate Seen Through the Lens of the Millennium Development Goals, 27 *Human Rights Quarterly*, Page 792.

<sup>720</sup> The United Nations Millennium Development Goals Report (2015), available at [http://www.un.org/millenniumgoals/2015\\_MDG\\_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf), (last accessed 19/02/18).

## **6.5.2. Sustainable Development Goal 6 (SDG6)**

SDG6 on water, sanitation<sup>721</sup> and hygiene holds significant promise and addresses many of the shortcomings of the former MDGs. Whereas the MDG target called for halving the proportion of people without access to water and sanitation, the new SDG6 requires achieving universal access.<sup>722</sup> SDG6 has been divided into various sub-categories, each aiming to achieve various goals in relation to water access and sustainability. SDG6(1) aims to achieve universal and equitable access to safe and affordable drinking water for all.<sup>723</sup> It is thus much more ambitious than the water target set out in MDG 7, which called only for improvements in the access to improved water supply.<sup>724</sup> SDG6(1) has therefore extended the scope of its predecessor to include concepts such as quality of water and affordability of water. It is important to deconstruct the wording of SDG 6(1) in order to provide a better understanding of what is imposed. The term ‘*universal*’ implies all exposures and settings including households, schools, health facilities, workplaces.<sup>725</sup> This means that the goal has set out to include every single human being on a global scale. ‘*Equitable*’ implies progressive reduction and elimination of inequalities between population sub-groups. This term links to the equitable utilization concept as per the 1997 Watercourses Convention that has its basis in International Freshwater Law, and ensures that much needed attention is given to the fact that water itself is a human need for all. ‘*Access to water*’ implies sufficient water to meet domestic needs is reliably available close to home. Access would also refer to physical accessibility, economic accessibility, non-discrimination and information accessibility.<sup>726</sup> Physical accessibility means that there should be adequate water facilities and services within a safe physical reach for all sections of the population. In addition, economic accessibility

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<sup>721</sup> For the purposes of this dissertation, the concept of ‘sanitation’ will not be dealt with.

<sup>722</sup> Winkler I., and Roaf V., (2015), SDG Series: Progress on Water, Sanitation and Hygiene through SDG 6? Only if the Focus Shifts to Eliminating Inequalities, Health and Human Rights Journal, available at <https://www.hhrjournal.org/2015/09/sdg-series-progress-on-water-sanitation-and-hygiene-through-sdg-6-only-if-the-focus-shifts-to-eliminating-inequalities/>, (last accessed 24/02/18).

<sup>723</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

<sup>724</sup> Dar O. A. and Khan M. S., (2011), Millennium Development Goals and the Water Target: Details, Definitions and Debate, Tropical Medicine and International Health, Pages 540 – 544.

<sup>725</sup> Hoosain R. and Slaymaker T., (2014), Methodological Note: Proposed Indicator Framework for Monitoring SDG Targets on Drinking-Water, Sanitation, Hygiene and Wastewater, Pages 9 – 10, Prepared by the World Health Organisation and UNICEF, 68th General Assembly document: A/68/970, available at <http://undocs.org/A/68/970>, (last accessed 19/02/18).

<sup>726</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 179.

means that water and water facilities and services must be affordable to all while the requirement of non-discrimination dictates that water should and water facilities and services must be accessible to all, including the most vulnerable or marginalized sections of society.<sup>727</sup> The term ‘safe’ drinking water refers to water that is free from pathogens and elevated levels of toxic chemicals at all times. In order for water to be ‘affordable,’ payment for services of water should not present a barrier to access or a preventative measure for people meeting other basic human needs. ‘Drinking’ water refers to water used for drinking, cooking, food preparation and personal hygiene and the fact that water must be ‘for all’ means that it must be suitable for use by men, women, girls and boys of all ages including people living with disabilities, thus all of mankind.<sup>728</sup> The various elements as contained in SDG6(1) already serves as an indication of the various complexities that can arise in realising this goal. Indeed an effective water governance system is the best way to progressively realise the goal, as its sole purpose would be the over-seeing and running of all water-related matters, on a global scale, with proper procedures and protocols as implemented.

SDG6(2) aims to allow for access to adequate and equitable sanitation and hygiene for all individuals and to end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.<sup>729</sup> SDG6(3) aims to improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.<sup>730</sup> This is an important goal as it aims to address one of the main scourges being faced when it comes to global water reserves. It is a promising sign that a goal dealing with the eradication of water pollution exists, as it indicates that the global agenda has taken cognisance of global water issues, and is aiming to address it proactively. SDG6(4) aims to substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially

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<sup>727</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 179.

<sup>728</sup> Hoosain R. and Slaymaker T., (2014), Methodological Note: Proposed Indicator Framework for Monitoring SDG Targets on Drinking-Water, Sanitation, Hygiene and Wastewater, Pages 9 – 10, Prepared by the World Health Organisation and UNICEF, 68th General Assembly document: A/68/970, available at <http://undocs.org/A/68/970>, (last accessed 19/02/18).

<sup>729</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

<sup>730</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

reduce the number of people suffering from water scarcity.<sup>731</sup> Indeed this is an imperative step in ensuring proper water conservation for the present and the future. It is also a goal that attempts to address the issue of water scarcity that plagues many. Hence, once again, it is evident that these goals are attached and seek to address global water issues that have stood for some time, by mentioning it and by ensuring some form of collective effort to eradicate it. This goal can be said to be in line with the overarching concept of sustainable development and sustainable water management as well. The term ‘water-use efficiency’ implies that water will be used in a manner that takes its own reserves into consideration. It implies that the supply of water will be in line with practices of sustainable development, ensuring that there is not only enough for the present, but for the future as well. SDG6(5) aims to implement integrated water resources management at all levels, including through trans-boundary cooperation as appropriate.<sup>732</sup> This goal is important in the sense that it too is aligned with the overarching principles of sustainable development. Integrated water resources management will ensure cohesion and uniformity in information and in ensuring equitable use and access of water. It will also allow for mutual cooperation in realizing the actual objective of the goal itself, and it will allow for mechanisms to be developed that will sustain water resources for the future as well. Since water is already a scarce commodity, the effective and sustainable management of this resource is of vital importance. SDG6(6) aims at expanding international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies by 2030 and to protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes by 2020.<sup>733</sup> It is important to note that the progressive realization of the SDGs in general requires cooperation by States involved in the undertaking. This goal further re-iterates that point and acknowledges that assistance must be given to those countries that are more in need than others. It allows for and encourages the use of water-related programmes to ensure that access to water is achieved and it goes a step further in trying to fast-track the protection and restoration of natural water sources and resources, as these are indeed sources of water for humanity and the earth at large. SDG6(7) aims to support and strengthen the participation of local communities in improving water and

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<sup>731</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

<sup>732</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

<sup>733</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

sanitation management.<sup>734</sup> Thus, this goal is proactive in the sense that it aims to ensure that management responsibilities is not only at the global level (as these global goals suggest), but also at a localised level, whereby most people can be educated about water conservation and management and whereby mechanism for ensuring water conservation and management can be implemented from the ground-up so to speak. In relation to the goals and water, SDG6 can be seen as more comprehensive and in-depth when it comes to setting its targets over its predecessor. MDG7, which aimed at ensuring environmental sustainability, had merely one target dedicated to water, namely MDG7.C, whereas SDG6 has eight dedicated targets, with seven of those targets expressly mentioning water. Indeed, MDG7.C aimed at halving the proportion of the population without sustainable access to safe drinking water and basic sanitation,<sup>735</sup> whereas SDG6.1 aims at achieving universal and equitable access to safe and affordable drinking water for all.<sup>736</sup> The shift in the magnitude of the target is apparent and can be considered as ambitious. However, considering the success of achieving MDG7.C, it is a good sign of progression that SDG6.1 has gone for an all-inclusive approach to the achievement of accessible safe water for all. The use of the term ‘universal’ access for ‘all’ is indicative of the importance set to water and its necessity for humankind. Ensuring access to water for all is a sign that water is indeed required by all for survival and thus this natural resource is an integral part of human life, development and progression. In addition, SDG6 tackles issues of water quality, water-use efficiency, integrated water resources management, protection of water resources, building international cooperation in water related matters and supporting participation of local communities in improving water management.<sup>737</sup> MDG7.C had not touched on any of these aspects and was merely concerned with access to water. The shift to include all facets of water by way of these SDG6 target is indeed refreshing as cognisance has been taken of the various factors affecting water itself. Indeed, the overall aim is ensuring that each and every human being has access to water, but the type of water that is being accessed is of great importance. The focus on the quality of water is a progressive sign, as MDG7.C did not address this issue. Access to polluted or tainted water can be just as harmful as having no access to water, especially with the ingestion of water-borne diseases. Thus, ensuring and improving water quality by way of SDG6.3 allows for better quality of

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<sup>734</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

<sup>735</sup> <http://www.un.org/millenniumgoals/>, (last accessed 19/02/18).

<sup>736</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

<sup>737</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

life as the water itself would be of a good quality fit for human consumption. Incorporating efficient management and water usage mechanisms also ensures the longevity of use of this natural resource and can in turn allow for sustainable water management mechanisms to be developed and implemented. This is especially important when fulfilling the obligation of ensuring that there is enough for future generations through the concept of sustainable development. In addition, by developing and increasing international cooperation in water-related matters, especially for developing countries, progressive realisation of not only water management, but sustainable development can occur. Indeed, this would bode well for the future, as this natural resource is an essential part of not only human development, but human life as well.

#### **6.5.2.1. SDG6 Linkages**

It is important to note that the SDGs have inter-dependency in order for its realisation to be progressively achieved. Hence, because of the nature and aims of the SDGs in general, the achievement of one could be dependent or have an impact on the other. As suggested by McIntyre, SDG6 is an important stand-alone goal, but it is also important due to its pervasive impact on almost all other SDGs.<sup>738</sup> McIntyre suggests that SDG6 has an impact on SDG1 (the eradication of extreme poverty), SDG2 (the eradication of extreme hunger), SDG3 (the improving of health and well-being), SDG4 (inclusive and quality education), SDG5 (gender equality), SDG7 (affordable and clean energy), SDG11 (sustainable cities and communities), SDG12 (responsible consumption and production), SDG13 (climate action), SDG14 (marine and coastal pollution) and SDG15 (land-based ecosystems).<sup>739</sup> In terms of eradicating extreme poverty, it can be deduced that food and water for the purposes of consumption is required so that poverty itself can be ended. Poverty infers a lack of access to human needs that are essential for living and human sustainability. Indeed, this also ties in with the eradication of extreme hunger as well. This can further be linked to health and well-being. If health and well-being is considered, the deduction that access to clean and safe water for

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<sup>738</sup> McIntyre O., (2018), *International Water Law and SDG 6: Mutually Reinforcing Paradigms*, in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 173.

<sup>739</sup> McIntyre O., (2018), *International Water Law and SDG 6: Mutually Reinforcing Paradigms*, in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 173.

drinking purposes is essential in realising good health and well-being. This is further evidenced by the mention of ‘water’ in these other SDGs and their targets as well. For example, SDG3 which deals with improving health and well-being aims to achieve this goal by also combatting water-borne diseases and by substantially reducing the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.<sup>740</sup> Also, SDG11 which aims at making cities and human settlements inclusive, safe, resilient and sustainable, aims to do this by also significantly reducing the number of deaths and the number of people affected and substantially decreasing the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations as one of its targets.<sup>741</sup> In addition, SDG12 which aims at ensuring sustainable consumption and production patterns aims to do this by significantly reducing the release of chemicals and wastes to water as one of its targets.<sup>742</sup> Finally, SDG15 which aims at protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss, aims to do this by seeking to ensure conservation, restoration, and sustainable use of inland freshwater ecosystems, including in particular wetlands, in line with obligations under international agreements as one of its targets.<sup>743</sup> These targets show how SDG6 has an impact on the progressive realisation of other SDGs, which thus alludes to the overall importance of SDG6 and the preservation of water in general. Also, it must be noted that the realisation of SDG6 is also dependent on the realisation of other SDGs as well. For instance, SDG16, which aims to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels, is of utmost importance for the realisation of SDG6 mainly due to the good governance values and arrangements inherent within it.<sup>744</sup> Similarly, advances in responsible consumption and production in line with the values of SDG12 will play a significant role in the achieving of sustainable water management.<sup>745</sup> Thus, the inter-related nature of the SDGs is indeed evident

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<sup>740</sup> SDG3, available at <http://www.un.org/sustainabledevelopment/health/>, (last accessed 19/02/18).

<sup>741</sup> SDG11, available at <https://sustainabledevelopment.un.org/sdg11>, (last accessed 19/02/18).

<sup>742</sup> SDG12, available at <https://sustainabledevelopment.un.org/sdg12>, (last accessed 19/02/18).

<sup>743</sup> SDG15, available at <https://sustainabledevelopment.un.org/sdg15>, (last accessed 19/02/18).

<sup>744</sup> McIntyre O, (2018), *International Water Law and SDG 6: Mutually Reinforcing Paradigms*, in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 174.

<sup>745</sup> McIntyre O, (2018), *International Water Law and SDG 6: Mutually Reinforcing Paradigms*, in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 174.

and each of the goals is somehow dependent on another or makes mention of another. This shows how linked the SDGs are in general, especially when observing the aims of each. Hence, a collective effort at progressively realising all SDGs will indeed be required, in order for the effective progressive realisation of individual SDGs to occur.

### **6.5.2.2. Implementation of SDG6**

The UN-Water body has suggested certain mechanisms for the effective implementation of SDG6. UN-Water is the United Nations inter-agency coordination mechanism for all freshwater related matters, including sanitation.<sup>746</sup> There is no single UN entity dedicated exclusively to water issues. Over 30 UN organizations carry out water and sanitation programmes, reflecting the fact that water issues run through all of the UN's main focus areas. UN-Water's role is to coordinate so that the UN family 'delivers as one' in response to water related challenges.<sup>747</sup> UN-Water has mentioned that complex challenges are faced in ensuring everyone has access to sustainably-managed water and sanitation services. To meet this aim, UN-Water informs policy processes by identifying emerging issues and developing effective, collaborative responses. Landmark agreements in recent years on disaster risk reduction, financing, climate change, and the overarching 2030 Agenda for Sustainable Development have created a global framework that is intrinsically connected and mutually reinforcing.<sup>748</sup> Hence, the UN-Water body is of utmost importance, as it provides a form of coherence and structure for all global water matters. As per the body, it was stated that systematic effort will be required in order to generate the means (economic, social, human and environmental resources) needed to support the implementation of an ambitious water and sanitation goal (Goal 6). Also, cost-effective technological solutions for water supply, sanitation and hygiene are readily available and implementable and the challenge is to ensure that sound practice and services are sustained within an enabling environment. Accompanied by adequate human, institutional and financial arrangements for long term operation and maintenance, this requires adopting behavioural approaches, scaling up services that are appropriate within the local context and broadening the scope of funding for water projects.

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<sup>746</sup> <http://www.unwater.org/>, (last accessed 19/02/18).

<sup>747</sup> <http://www.unwater.org/about-unwater/>, (last accessed 19/02/18).

<sup>748</sup> <http://www.unwater.org/what-we-do/>, (last accessed 19/02/18).

Also, the enabling environment clearly needs to include not only the mobilization of adequate and targeted investments but address other crucial other enabling factors, such as policies, capacity-building and other requirements.<sup>749</sup> It is evident that even the UN-Water body has targeted a multi-cooperative approach in order to ensure applicability and success however this is a tough realisation to achieve. This approach is indeed in-line with the multi-faceted nature of the SDGs in general, and links to the inter-connected nature of the SDGs as previously mentioned. SDG6 is an important goal to realise, as it directly affects many of the other SDGs as well. Hence, this alludes to the actual importance of water and access to water for all human beings. Water is essential for life and it is essential in achieving a healthy life and a good standard of living. Its overall nature ensures life not only for human beings, but for the earth as well. Therefore, SDG6 is one of the core goals and the progressive realisation of SDG6 is imperative.

### **6.5.2.3. SDG6 and International Water Law Linkages**

SDG6 provides for a unique opportunity for the recognition, development and integration of mutually supportive legal and international measures in line with various international water law provisions.<sup>750</sup> This means that SDG6 has the potential to bring together the current laws and policies on international freshwater and allow for some form of cohesion going forward, especially when trying to achieve the aim of access to clean and safe water for all. As stated by Scholtz and Barnard, despite the existence of a number of legal instruments on freshwater and sustainable water management, SDG6 does not contain any explicit reference to any of these international legal instruments. Instead, the targets related to the achievement of SDG6 implicitly refer to international human rights law and international water law. International human rights law provides for access to water and international water law regulates the use of

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<sup>749</sup> UN-Water., (2015), A Compilation of Aspects on the Means of Implementation: Water and Sanitation: A Look at Goal 6 and 17, available at [https://sustainabledevelopment.un.org/content/documents/1746UN-Water%20draft%20MOI%20compilation\\_4%2024%202015.pdf](https://sustainabledevelopment.un.org/content/documents/1746UN-Water%20draft%20MOI%20compilation_4%2024%202015.pdf). (last accessed 19/02/18).

<sup>750</sup> Spijkers O., *et al*, Rules and Practices of International Law for the Sustainable Management of Fresh Water Resources towards SDG 6 on Ensuring Water and Sanitation for All' in International Law Association Committee on the Role of International Law in Sustainable Natural Resource Management for Development, Sustainable Natural Resource Management for Development Final Draft 6, Page 9.

freshwater resources.<sup>751</sup> The SDGs has the potential to further extend the scope of international freshwater law and it has the ability to realise and recognise the status of water as a human right. The common purpose philosophy upon which the SDGs are based is vital in furthering various facets of international law and relations, not just with regard to water. The fact that the SDGs require co-operative measures in order to ensure its implementation and success is important as it allows for more opportunity to expand international policy. Indeed, ‘the SDGs will be elevated from purely political commitments to legally relevant obligations when they can be attached to the norms of international water law’.<sup>752</sup> This carries great weight in the sense that it shows the overall effect that the realisations of SDGs can have on the international community. The attachment of SDGs to its corresponding international law policies can go a long way in ensuring the legitimacy and implementation of the SDGs as a whole, as well as achieving the actual said goals and targets.

The goals and targets of SDG6 are reminiscent of various rights or declarations within international law instruments that make mention or deal with water in some form or another. For instance, the Committee on Economic, Social and Cultural Rights, the independent body of experts elected by States to interpret the International Covenant on Economic Social and Cultural Rights (hereafter referred to as ICESCR), determined that the right to water is derived from the right to an adequate standard of living found in Article 11(1) of the ICESCR. This is reminiscent of SDG6 which calls for universal access to water as well as safe quality of water which can then allow for an adequate standard of living to be achieved. The human right to safe drinking water and sanitation is derived from the right to an adequate standard of living, and inextricably related to the right to the highest attainable standard of physical and mental health, as well as the right to life and human dignity.<sup>753</sup> SDG6 commits to ensure availability and sustainable management of water and sanitation for all. It thus emphasizes on the global need to ensure access to water and sanitation, and to care for the

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<sup>751</sup> Scholtz W. and Barnard M., (2018), *The Environment and the SDGs: ‘We are on a Road to Nowhere,’* in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 232.

<sup>752</sup> Spijkers O., (2016), *The Cross-fertilization between the Sustainable Development Goals and International Water Law*, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol 25(1), Page 39.

<sup>753</sup> Spijkers O. and Others, (2016), *The Role of Sustainable Natural Resources Management International Law*, Johannesburg Conference, Page 11.

water resources necessary for sustainable development upon which all countries depend.<sup>754</sup> This ‘right’ to water is also included in other international treaties, including the UN Convention on the Rights of the Child and the UN Convention on the Elimination of All Forms of Discrimination against Women as previously mentioned. Thus it is evident that SDG6 gets its basis from various international treaties and that it is aimed at extending these norms and principles. Also, in terms of General Comment Number 15 of the UN Committee on Social, Cultural and Economic Rights,<sup>755</sup> the right to water is essential for securing an adequate standard of living, a statement which has been affirmed by the UN General Assembly and the Human Rights Council.<sup>756</sup> Also, and of great importance, Target 6.1 is supported by the core values inherent to international water resources law, which are the body of rules of international law that is primarily concerned with the utilisation and protection of shared international water resources, which is largely codified in the 1997 United Nations Water Convention (UNWC).<sup>757</sup> One of the core aspects of the UNWC deals with vital human needs<sup>758</sup> which established a practice confirming that water for drinking and domestic purposes is indeed essential and that a shared watercourse to provide this access must be utilised for this purpose. Target 6.1 of SDG6 would appear to correspond closely with this objective of the UNWC, as well as with the corresponding human need or ‘right’ to water, mainly because of the fact that it calls for access to water for all. In determining the concept of vital human needs, the UN General Assembly Working Group, which finalised the drafting of the UNWC, stated that special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for the production of food in order to prevent starvation.<sup>759</sup> This is reflected in SDG6, Target 6.1, which calls for said access for all human beings. In addition to this aspect, the International Law Association (ILA), in its Report of the 71<sup>st</sup> Conference on International Water Law (2004), afforded clear

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<sup>754</sup> Spijkers O. and Others, (2016), *The Role of Sustainable Natural Resources Management International Law*, Johannesburg Conference, Page 4.

<sup>755</sup> United Nations Committee on Economic, Social and Cultural Rights, General Comment No 15: The Right to Water (UN Doc E/C.12/2002/11) Paragraph 3.

<sup>756</sup> UN Human Rights Council Resolution 15/9 (2010) Para 3; UN General Assembly Resolution 68/157 (2013) Para 2; UN General Assembly Resolution 70/169 (2015): Note that the General Assembly and Council referred to the right to safe drinking water and sanitation as a single right until the adoption of UN General Assembly resolution 70/169 in 2015 which recognizes them as two rights – a right to safe drinking water and a right to sanitation.

<sup>757</sup> McIntyre O., (2018), *International Water Law and SDG 6: Mutually Reinforcing Paradigms*, in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 182.

<sup>758</sup> United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (1997), 37 ILM 700, Article 10(2).

<sup>759</sup> Oral Report of the coordinator of the informal consultations on Article 10(2), UN Doc A/C.6/51/SR.57 (1997) at 3.

and formal priority to vital human needs, and mentioned water as an essential component for human survival, and defined this vital human need as waters used for immediate human survival, including drinking, cooking and sanitary needs.<sup>760</sup> Hence, it can be deduced that SDG6 has Targets that are founded upon international water principles. There is a significant influence of international water laws and trends on the composition of SDG6 and the human rights elements of incorporating a 'right' to water so to speak is indeed evident by the wording of the targets of SDG6. Also, General Comment Number 15 sets the criteria for the full enjoyment of the right to water by addressing certain facets relating to water. These facets include availability, quality, and accessibility which comprises of affordability, as well as physical access and information relating to water.<sup>761</sup> 'Availability' refers to a supply of water that is sufficient and continuous for personal and domestic uses; 'quality' refers to the safety of the water supply in terms of being free from micro-organisms, chemical substances, and radiological hazards that constitute a threat to a person's health; and accessibility comprises of water within a reasonable physical distance and water that is affordable.<sup>762</sup> Again, we come across a direct correlation between SDG6 and a previous international water law convention. This correlation further enhances the status of global water policy, as it brings the agendas of previous commitments to the fore as well. SDG6 truly has the potential to further international water law because by actually setting goals and targets that need to be met, better urgency will in turn follow, which will allow for success in achievement of the said goals and targets. McIntyre suggests that the universal adoption of SDG6 might do much to make this presumption of priority to water accorded to the requirements of vital human needs irrebuttable in any circumstances and their safeguarding even more of an essential condition in international water resource law.<sup>763</sup>

In addition, target 6.3 on reducing water pollution and increasing water quality implies the applicability of Agenda 21,<sup>764</sup> the Johannesburg Declaration,<sup>765</sup> the UNEP Manila

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<sup>760</sup> International Law Association (ILA), Report of the 71<sup>st</sup> Conference on International Water Law (2004), Article 3(20).

<sup>761</sup> UN CESCR, General Comment No 15, at paragraph 2.), UN Document A/C.6/51/SR.57 (1997) at 3.

<sup>762</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 179.

<sup>763</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 184.

<sup>764</sup> UN Conference on Environment and Development, Report of the United Nations Conference on Environment and Development, Vol I: Resolutions Adopted by the Conference (United Nations 1993) resolution 1, annex II.

Declaration<sup>766</sup> and the Future We Want (Rio+20)<sup>767</sup> with relation to water pollution reduction. Chapter 18 of Agenda 21 deals with the protection of the quality and supply of freshwater resources, as well as the application of integrated approaches to the development, management and use of water resources. Paragraph 18 of the Johannesburg Declaration aimed at speedily increasing access to basic requirements such as clean water and sanitation. The Manila declaration acknowledged that despite extraordinary gains made toward the Millennium Development Goals, universal sustainable access to safe water and basic sanitation has not been fully achieved and the Declaration aimed at substantially reducing the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.<sup>768</sup> The Rio+20 Declaration also mentions water is at the core of sustainable development as it is closely linked to a number of key global challenges. It also reiterated the importance of integrating water sustainable development.<sup>769</sup> Also, the Basel,<sup>770</sup> Rotterdam<sup>771</sup> and Stockholm<sup>772</sup> Conventions are implicated with reference to the release and transportation of hazardous chemicals.<sup>773</sup> Thus, the environmental and ecosystems protection objectives included under Target 6.3 strengthens the central importance long accorded to environmental values in modern international water law. Pollution control of water resources has been a long-standing international issue that was dealt with by way of Article 21(2) of the UNWC which provides that ‘watercourse States shall, individually and, where appropriate, jointly, prevent, reduce and control the pollution of an international watercourse that may cause significant harm to other watercourse States or their environment. This further indicates the inter-relation of various international policies and laws that have been used as a foundation for SDG6. It must be noted that the mention of water throughout the years and the

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<sup>765</sup> Johannesburg Declaration on Sustainable Development, Report of the World Summit on Sustainable Development, 2002 (UN Doc A/CONF.199/20).

<sup>766</sup> Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, 2012 (UNEP/GCSS.XII/INF/10).

<sup>767</sup> UN General Assembly, The Future We Want (UN Doc A/RES/66/288) (27 July 2012).

<sup>768</sup> Manila Declaration on Health and Environment, at 7D, available at [http://www.wpro.who.int/entity/apac\\_rfhe/manila\\_declaration.pdf](http://www.wpro.who.int/entity/apac_rfhe/manila_declaration.pdf), (last accessed 24/02/18).

<sup>769</sup> United Nations Conference on Sustainable Development, Rio+20, (2012), The Future We Want, at 119, Page 32, available at <https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf>, (last accessed 19/02/18).

<sup>770</sup> Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989 (1673 UNTS 126; 28 ILM 657 (1989)).

<sup>771</sup> Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 1999 (2244 UNTS 337; 38 ILM 1 (1999)).

<sup>772</sup> Stockholm Convention on Persistent Organic Pollutants, 2001 (2256 UNTS 119; 40 ILM 532 (2001)).

<sup>773</sup> Spijkers O., *et al*, Rules and Practices of International Law for the Sustainable Management of Fresh Water Resources towards SDG 6 on Ensuring Water and Sanitation for All’ in International Law Association Committee on the Role of International Law in Sustainable Natural Resource Management for Development, Sustainable Natural Resource Management for Development Final Draft 6.

mention to protect and preserve water has now culminated into SDG6. SDG6 carries on from where these frameworks left off, in an attempt to extend these well-established principles and also in an attempt to achieve set goals as a result of action to alleviate these issues.

Many international treaties are directly relevant to targets 6.4 (Water use and scarcity), 6.5 (Water resources management) and 6.6 (Water-related ecosystems) reflect the provisions of a wide number of international, regional and bilateral legal instruments.<sup>774</sup> The first is the Ramsar Convention<sup>775</sup> which aims to facilitate the conservation and sustainable use of natural resources in specifically wetlands.<sup>776</sup> Under the Ramsar Convention the establishment of a domestic monitoring framework as well as information sharing on changes in wetland ecologies are prescribed after Parties have designated suitable wetlands for inclusion on the List of Wetlands of International Importance.<sup>777</sup> The second and third international treaties related to the SDG6 targets are the New York Convention and the Helsinki Convention.<sup>778</sup> The New York Convention focuses on the harmonisation of terms and principles relating to watercourse agreements,<sup>779</sup> cooperation and consultation on the protection and management of international watercourses<sup>780</sup> and dispute resolution.<sup>781</sup> Also, the New York Convention requires riparian states to protect the ecosystem and relevant watercourse, prevent the introduction of pollution and alien species and to mitigate any significant adverse environmental impacts.<sup>782</sup> The Helsinki Convention<sup>783</sup> aims to strengthen international cooperation on combatting the pollution of the marine environment thereby protecting trans-boundary watercourses and lakes.<sup>784</sup> The Helsinki Convention also primarily aims to prevent, control and reduce the trans-boundary impacts of water pollution and prescribes the use of environmental impact assessments, joint measures, cooperative monitoring and public

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<sup>774</sup> Scholtz W. and Barnard M., (2018), *The Environment and the SDGs: 'We are on a Road to Nowhere,'* in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 234.

<sup>775</sup> The Ramsar Convention 996 UNTS 245; TIAS 11084; 11 ILM 963 (1972), was agreed on 2 February 1971 in Ramsar, Iran, and includes the 1982 amendments and a 1987 protocol., Ramsar Convention Secretariat, *The Ramsar Convention Manual* (6th edn, Ramsar Convention Secretariat 2013) 21.

<sup>776</sup> The Ramsar Convention 996 UNTS 245; TIAS 11084; 11 ILM 963 (1972), was agreed on 2 February 1971 in Ramsar, Iran, and includes the 1982 amendments and a 1987 protocol., Ramsar Convention Secretariat, *The Ramsar Convention Manual* (6th edn, Ramsar Convention Secretariat 2013) 21.

<sup>777</sup> Articles 2 and 3(2) of the Ramsar Convention.

<sup>778</sup> UN Treaty Collection, Chapter XXVII Environment: Convention on the Law of the Non-Navigational Uses of International Watercourses (New York 1997).

<sup>779</sup> Article 3(2) of the New York Convention.

<sup>780</sup> Preamble and Article 6(2) of the New York Convention.

<sup>781</sup> Article 33 of the New York Convention.

<sup>782</sup> Articles 11-16, 20, 21(2), and 22-27 of the New York Convention.

<sup>783</sup> UN Treaty Collection, Chapter XXVII Environment: Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki 1992)

<sup>784</sup> Preamble to the Helsinki Convention.

participation in policy making.<sup>785</sup> The regional cooperation efforts in terms of the Helsinki and New York Conventions to prevent adverse health and socio-economic impacts from environmental damage to trans-boundary rivers may be seen to embody good practices for the realization of Target 6.5 and may even further Target 6a ('capacity building, international cooperation and support').<sup>786</sup> The active institutional framework arising from the cooperative and precautionary mechanisms provided for in the Helsinki and New York Conventions further empowers parties to achieve core aspects of SDG6, most notably Targets 6.3 through 6.6 and 6a.<sup>787</sup> It is indeed evident that all three Conventions mandate and prescribe measures to be introduced and enforced to protect water ecosystems and prevent pollution. It is thus clear that the three water Conventions provide a normative framework to guide international, regional and sub-regional agreements on watercourses and actively engage achievement on SDG 6.<sup>788</sup> These inter-linkages bode well for the future of environmental goals and policy. It is clear that the SDGs aim to uphold provisions of previous international law treaties and that it aims to ensure the realisation and achievement of those provisions through the setting of targets. SDG6 provides a perfect platform for water-related matters to be properly addressed and within a reasonable amount of time as well. SDG6 has its principles well-rooted in international treaties, laws and obligations related to water, and this gives it some form of legitimacy that it deserves. The fact that SDG6 deals with water and access to it is a furtherance of the long-standing human rights issue of access to water being a human right. SDG6 aims for this and in essence further extends the global call and global need for universal and equitable access to the human need of water. The SDGs, with its emphasis on ecosystems, could very well encourage the further development of the ecosystems approach in international water law.<sup>789</sup> An 'ecosystem approach' requires consideration of the whole system rather than individual components. Living species and their physical environments must be recognised as interconnected, and the focus must be on the interaction between different sub-systems and their responses to stresses resulting from human activity. Not only

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<sup>785</sup> Articles 3 and 15-16 of the Helsinki Convention.

<sup>786</sup> McIntyre O., (2013), *International Water Law: Concepts, Evolution and Development* in Earle A *et al* (eds), *Transboundary Water Management: Principles and Practice*, Earthscan, Page 62.

<sup>787</sup> Articles 1.1 and 2(1) of the Ramsar Convention read in conjunction, defines wetlands as a naturally occurring or manmade, permanent or temporary areas of marsh, fen, peatland or water with adjacent marine water deeper than six meters at low tide.

<sup>788</sup> Scholtz W. and Barnard M., (2018), *The Environment and the SDGs: 'We are on a Road to Nowhere,'* in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 234.

<sup>789</sup> Spijkers O., *et al*, *Rules and Practices of International Law for the Sustainable Management of Fresh Water Resources towards SDG 6 on Ensuring Water and Sanitation for All'* in International Law Association Committee on the Role of International Law in Sustainable Natural Resource Management for Development, *Sustainable Natural Resource Management for Development Final Draft 6*, Page 11.

does interconnectedness imply management approaches that are broad-based in a spatial sense; it requires as well that human interaction with and use of the environment respect the need for maintaining ‘ecosystem integrity,’ in other words, the system’s capacity for self-organisation.<sup>790</sup> Spijkers is also of the view that the SDG process makes ample references to the need to protect ecosystems, including freshwater ecosystems. It has been shown how international water law can provide clarity as to the exact meaning of ‘ecosystems’, and the rights and obligations that follow from the adoption of a so-called ‘ecosystems approach’ to international water law.<sup>791</sup> Article 20 of the Watercourses Convention proclaims that ‘watercourse States shall, individually and, where appropriate, jointly, protect and preserve the ecosystems of international watercourses.’<sup>792</sup> The duty to protect such ecosystems ‘requires that watercourse States shield the ecosystems of international watercourses from harm or damage.’ Also, the duty to preserve ‘requires that these ecosystems be protected in such a way as to maintain them as much as possible in their natural state.’<sup>793</sup> The SDG process could serve as a catalyst for the much needed conceptual development and subsequent adoption and implementation of the ecosystems approach, through SDG6 Targets 6.3, 6.4 and 6.6, dealing with the reduction of water pollution, the substantial increase in water-use efficiency, and the protection and restoration of water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes respectively. The SDG6 Targets also call for co-operation by way of Targets 6.5, 6A and 6B. these include the implementation of integrated water resources management at all levels, including through trans-boundary cooperation as appropriate, the expansion of international cooperation and capacity-building support to developing countries in water and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies, and the supporting and strengthening of the participation of local communities in improving water and sanitation management respectively. An explicit reference to an obligation to ‘restore and maintain ecosystems to provide water-related services’ in the targets of the SDG on water was proposed by UN-Water with the desired outcome of ‘ensuring ecosystem health and capacity to be able to

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<sup>790</sup> Brunnee J. and Toope S.J., (1994), Environmental Security and Freshwater Resources: A Case for International Ecosystem Law, *Yearbook of International Environmental Law*, Vol. 5(41), Page 55.

<sup>791</sup> Spijkers, O. (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 125.

<sup>792</sup> Article 20 of the Convention on the Law of the Non-navigational Uses of International Watercourses, 1997.

<sup>793</sup> Spijkers, O. (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 123.

supply water of a sufficient amount and quality for human uses.<sup>794</sup> Indeed, all these international water law linkages upon which SDG6 is based clearly reflect a growing recognition in general international water law of a human right to access to water. Thus, while the universal adoption of SDG6 serves to enhance the legitimacy and significance of the increasingly firmly established human right to water paradigm in international water law, the primacy afforded to vital human needs in international water law serves to assist the realisation of SDG6 itself.<sup>795</sup> Conservation and sustainable use of global water resources provides a wide range of benefits to ecosystem health and the welfare of current and future generations. It is stated that SDG6 can be viewed as a catalyst for the progressive development of the ecosystems approach in international water law.<sup>796</sup> Also, The SDGs could potentially influence the interpretation of the UN Watercourses Convention.<sup>797</sup> It is mentioned that the SDG process encourages the *sustainable* use of freshwater resources. Thus, it is recommended for all states to unambiguously embrace a ‘sustainable’ interpretation of water law’s fundamental principles. It has been shown how the cornerstone of international water law – the principle of equitable and reasonable use of water resources – can be interpreted in a more sustainable development friendly way.<sup>798</sup> ‘Sustainable use’ means the integrated management of resources to assure efficient use of and equitable access to waters for the benefit of current and future generations while preserving renewable resources and maintaining non-renewable resources to the maximum extent reasonably possible.<sup>799</sup> Many scholars have suggested that sustainable use is part of the obligation to use the water resources equitably and reasonably.<sup>800</sup> Owen McIntyre, for example, refers to a legal regime of ‘equitable and sustainable utilization’.<sup>801</sup> Patricia Wouters has proposed that, ‘given our present knowledge of the effects of economic development on the environment, it

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<sup>794</sup> Spijkers, O. (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 124.

<sup>795</sup> McIntyre O., (2018), *International Water Law and SDG 6: Mutually Reinforcing Paradigms*, in French D. and Kotze L., *Sustainable Development Goals: Law, Theory and Implementation*, Edward Elgar Publishing United Kingdom, Page 185.

<sup>796</sup> SDG 6.6 and SDG 15 includes references to this approach, McIntyre O., (2004), The Emergence of an ‘Ecosystem Approach’ to the Protection of International Watercourses under International Law, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol. 13(1), Page 1.

<sup>797</sup> *Convention on the Law of the Non-navigational Uses of International Watercourses*, 1997.

<sup>798</sup> Spijkers O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 125.

<sup>799</sup> *International Law Association Reports of Conferences (2004)*, Vol 71 pt II: Water Resources Law 334–421 [http://internationalwaterlaw.org/documents/intldocs/ILA\\_Rules-2004.pdf](http://internationalwaterlaw.org/documents/intldocs/ILA_Rules-2004.pdf), article 3(19), (last accessed 20/02/18).

<sup>800</sup> Spijkers O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 122.

<sup>801</sup> McIntyre O., (2007), *Environmental Protection of International Watercourses under International Law*, Ashgate, Page 315.

is extremely unlikely that a use, which endangers the long-term potential of renewable resources such as water, would today be considered reasonable'.<sup>802</sup> Article 5 of the Watercourses Convention obliges states to use and develop an international watercourse equitably and reasonably, and 'with a view to attaining optimal and *sustainable utilization* thereof and benefits therefrom, taking into account the interests of the watercourse states concerned, consistent with adequate protection of the watercourse'.<sup>803</sup> This provision is regarded as the bedrock of international water law.<sup>804</sup> Through the SDG process, states can explicitly and unequivocally embrace this 'sustainable' interpretation of the general principles of international water law. They can do so, first, by unambiguously accepting a 'green' interpretation of the bedrock principle of equitable and reasonable use (Article 5), and subsequently by integrating this new approach in the bilateral or regional agreements they make with states with whom they share a water resource.<sup>805</sup> With the potential to create such a major impact in international water law and relations, the impact of SDG6 on the international community cannot and should not be ignored. SDG6 is in line with the concept of sustainable development, as it calls for access to water for all human beings and it also calls for actual conservation and management of scarce water resources. SDG6 allows for the conservation and management of water which will allow for resources to be available not only to the current generation, but to the future generation as well. SDG6, in it calls for access, maintenance, water-pollution eradication and general water sustainability, furthers and promotes sustainable development and sustainable water resources management, and thus ensures that this resource can be properly used and conserved for all of humanity for generations to come. SDG6 thus bolsters the current agenda of sustainable development and it bolsters the current precedents set out in international freshwater law, especially because of the fact that it finds its basis upon these principles. SDG6 has been constructed in such a manner that it is in line and it attempts to further the content of long-standing international water law instruments. It has compacted the major issues plaguing water-resources and water-resource management and has set targets in order to proactively address these issues that too have been long-standing. SDG6 thus has the potential to be a core component of

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<sup>802</sup> Wouters P. and Rieu-Clarke A., (2001), The Role of International Water Law in Promoting Sustainable Development, Review and Analysis of Aquatic Environmental Law and Economic Regulation in the UK and EU, *Journal of Water Law*, Vol. 12(5), Page 282.

<sup>803</sup> Article 5 of the Convention on the Law of the Non-navigational Uses of International Watercourses, 1997.

<sup>804</sup> Spijkers, O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 123.

<sup>805</sup> Spijkers, O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 123.

international water law and international water management, as it comprises of a variety of goals and targets that can only be for the betterment of international water law, water conservation and humanity at large.

## **6.6. Concluding Remarks**

SDG6 creates the potential to bring international water issues back to the fore and for it to be properly addressed and realized. However, it must be noted that there are a range of policy obstacles of particular relevance to the achievement of the Targets of SDG6. These include the exclusion of particular groups such as the poor and marginalized in planning and decision-making, the lack of culturally sensitive and pro-poor policies for the allocation of water resources between the different sectors of water use, insufficient allocation of resources for water and urbanization that is dramatically increasing the populations of urban informal settlements that are frequently not politically accepted.<sup>806</sup> Few would deny that reliable access to fresh water supplies has become a pressing global problem as estimates suggest that by 2030, the global water supply will be nearly double than it was in 2005, and this estimate will exceed current reliable water supply levels by 40 per cent.<sup>807</sup> Thus, as the fresh water crisis has been recognized as the new environmental crisis of the 21<sup>st</sup> century,<sup>808</sup> the recognition of policy to address this matter must occur. This goal should be viewed as an ambitious aspiration that will be very challenging to achieve given that it may require major changes in water management among many nations to harmonize governance, data collection and sharing policies, and the use of models and tools. To do so would require a full commitment from every nation, state and county and all the stakeholders within them, as well as changes in infrastructure and policies that would have large financial and political costs.<sup>809</sup> In essence, this would mean that governance policies would have to be explored in order to ensure that water resources are properly utilized, be it for access, drinking or agriculture. The

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<sup>806</sup> Spijkers O., *et al*, Rules and Practices of International Law for the Sustainable Management of Fresh Water Resources towards SDG 6 on Ensuring Water and Sanitation for All' in International Law Association Committee on the Role of International Law in Sustainable Natural Resource Management for Development, Sustainable Natural Resource Management for Development Final Draft 6., Page 10.

<sup>807</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 200.

<sup>808</sup> Weiss E.B., (2013), International Water Law for a Water-Scarce World, Martinus Nijhoff Publishing, Page 1.

<sup>809</sup> Stevanve A.S., (2015), Review of the Sustainable Development Goals: The Science Perspective, Paris: International Council for Science (ICSU), Pages 33 – 34.

exercise of political, economic and administrative authority in the management of a country's affairs at all levels must be done in unison with other countries as well.<sup>810</sup> Thus, a change in mind-set is important. If uniform mechanisms are implemented in relation to global freshwater law, then the intention of SDG6 becomes feasible. Uniformity in terms of mechanisms and process for freshwater law links to uniform governance procedures itself. Essentially, the optimistic view is that SDG6 can play a pivotal role in ensuring the enhancement of current international water law and norms and can allow for its actual achievement. SDG6 can provide for a basis of action to once and for all come together as an international community and address water issues that affect most of humanity. With its links to sustainable development and its intentions geared towards achieving the common-good for humanity, SDG6 can go a long way in ensuring access to water for the current generation now and the future generations to come. As stated by Spijkers, the underlying idea is that the concrete political commitments relating to water contained in the SDGs, and SDG6 in particular, can add substantive flesh to the otherwise abstract skeleton of general international water law. At the same time, the SDGs will be elevated from purely political commitments to legally relevant obligations when they can be so 'attached' to the norms of international water law. In short, there is potential for true cross-fertilization, with a global legal framework and global environmental policy strengthening each other.<sup>811</sup> Indeed, this 'attachment' will ensure progression within the international water law sphere. The issue that arises is that this may indeed cause further complications to the hard-soft law debate that the SDGs stir up. The SDGs hold enough weight on its own to grant it soft-law status, as it does call for obligations, commitments, implementation and monitoring. The comprehensiveness of the goals as a whole indicates the ability of these goals to wake the collective conscience of mankind and bring these humanitarian and environmental issues to the fore. As a result of its basis upon existing international legal instruments, especially when dealing with water, the crux of the matter remains that the SDGs are a much needed development that can aid in ensuring sustainable human development. The SDG's dedication to one goal specifically for water shows the importance that water itself is being afforded. The evolution from MDG7.C to SDG6 is indicative of the realisation of the various factors that affect water, not merely access. Access to safe drinking water remains the most essential, as it is imperative for

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<sup>810</sup> Pierre J., (2000), *Debating Governance, Authority, Steering and Democracy*, Oxford University Press, Page 2.

<sup>811</sup> Spijkers O., (2016), *The Cross-fertilization between the Sustainable Development Goals and International Water Law*, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol. 25, Issue No. 1, Page 39.

human survival, but the protection and conservation of all other elements attached to water is just as essential as well. The fact that SDG6 has extended to include matters of quality, conservation, management and co-operation of water is indicative of the fact that SDG6 aims to ensure long-term measures to handle the impending water crisis. MDG7.C can be seen as a good stepping-stone when it came to the access issue to water, however, SDG6 has ensured that more is to be done and can be done in relation to the protection and delivery of this essential human need, this essential natural resource. This can therefore be viewed as progression within this sphere. SDG6, with its potential to shape current international water law and its ability to further contribute to international water law itself is indeed a goal worth striving for. It is indeed a goal that can ensure human progression as essentially, humanity and the earth as a whole is dependent on water for survival.



## **CHAPTER SEVEN – WATER GOVERNANCE AND ISSUES SURROUNDING WATER GOVERNANCE**

*The effective realisation of SDG6 also requires greater policy coherence across all governance mechanisms at all levels, and across applicable industry sectors. The development of national, regional, local and sector-based water and sanitation strategies allows for domestic policy harmonisation and enhancement of interfaces with related strategic planning modalities. Further emphasis must be placed on increased complementarity across the relevant international treaties, and at the national level, through implementation and enforcement of environmental legal norms as applied by the domestic judiciary.*<sup>812</sup>

### **7.1. Introduction**

In order to truly see the progressive implementation and realisation of SDG6, water governance structures must become uniform in the sense that there should be coherency and cooperation between all role-players in achieving what ultimately is the same objective. This would require coherency and transparency in terms of policy adoption, implementation and actual drive in order to achieve the goals and targets that are set out. McIntyre states that it is apparent that SDG6 will shine an important spotlight on the need to improve transboundary water governance in order to render it fit for purpose in the 21<sup>st</sup> century.<sup>813</sup> There is growing recognition that the scope and complexity of water-related challenges extend beyond national and regional boundaries and therefore cannot be adequately addressed solely by national or regional policies. In a recent report, the United Nations notes that water has long ceased to be solely a local issue.<sup>814</sup> Over the past sixty years, a number of efforts have sought to address

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<sup>812</sup> Spijkers O., *et al*, Rules and Practices of International Law for the Sustainable Management of Fresh Water Resources towards SDG 6 on Ensuring Water and Sanitation for All, in International Law Association Committee on the Role of International Law in Sustainable Natural Resource Management for Development, Sustainable Natural Resource Management for Development Final Draft 6, Page 11.

<sup>813</sup> McIntyre O., (2018), International Water Law and SDG 6: Mutually Reinforcing Paradigms, in French D. and Kotze L., Sustainable Development Goals: Law, Theory and Implementation, Edward Elgar Publishing United Kingdom, Page 200.

<sup>814</sup> United Nations (UN), (2012), World Water Development Report 4: Managing Water under Uncertainty and Risk. Paris, France: UNESCO, Page 40.

the many challenges facing the water sector. Early efforts to address these challenges were almost entirely based on developing large-scale physical infrastructure, such as dams and reservoirs, to produce new water supplies.<sup>815</sup> Amid a growing recognition that technology and infrastructure alone were not sufficient to address persistent water management concerns, discourse about water governance began to emerge in the early 1990s. In its first World Water Development Report, the United Nations strongly stated that the water crisis is essentially a crisis of governance and societies are facing a number of social, economic and political challenges on how to govern water more effectively.<sup>816</sup> Thus, it is evident that governance has a major role to play in the progressive realisation and legitimisation of SDG6 on a national and global level. Harmonized governance structures can allow for water issues to be dealt with in unison, and for uniformed methods to be implemented in order to ensure progressive realisation. This will then ensure that the targets as set out in SDG6 can indeed be progressively realised. As previously alluded to, the realisation of SDG6 should be viewed as an ambitious aspiration that will be very challenging to achieve given that it may require major changes in water management among many nations to harmonize governance, data collection and sharing policies, and the use of models and tools. To do so would require a full commitment from every nation, state and county and all the stakeholders within them, as well as changes in infrastructure and policies that would have large financial and political costs.<sup>817</sup> In essence, this would mean that governance policies would have to be explored in order to ensure that water resources are properly utilized, be it for access, drinking or agriculture. The exercise of political, economic and administrative authority in the management of a country's affairs at all levels must be done in unison with other countries as well.<sup>818</sup> If uniform mechanisms are implemented in relation to global freshwater law, then the intention of SDG6 becomes feasible. Harmonisation in terms of mechanisms and process for freshwater law will allow for harmonised governance procedures itself. SDG6.5 itself aims to implement integrated water resources management at all levels, including through trans-boundary cooperation as appropriate by 2030.<sup>819</sup> The fact that one of the Targets of SDG6 directly refers to management shows the importance of this sphere. It alludes to the fact that better

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<sup>815</sup> Cooley H. and Others., (2013), *Global Water Governance in the 21<sup>st</sup> Century*, Pacific Institute, available at <http://www.pacinst.org/publication/global-water-governance-in-the-21st-century/>, (last accessed 1/03/18).

<sup>816</sup> United Nations (UN), (2003), *Water: A Matter of Life and Death: Fact Sheet*, International Year of Freshwater 2003, Page 370.

<sup>817</sup> Stevanve A.S., (2015), *Review of the Sustainable Development Goals: The Science Perspective*, Paris: International Council for Science (ICSU), Pages 33 – 34.

<sup>818</sup> Pierre J., (2000), *Debating Governance, Authority, Steering and Democracy*, Oxford University Press, Page 2.

<sup>819</sup> SDG6, <https://sustainabledevelopment.un.org/sdg6>, (last accessed 19/03/18).

management can ensure better access for now and for the future. Better management policies would thus require better governance policies in terms of water, and this is where the complexities lie. Since water and the SDGs are global in nature, global environmental and global water governance strategies must be addressed in order to determine whether it can conform and be used to implement the ideals as set out in SDG6.

An important facet of effective implementation of legal policy is good governance. This is also true in the case of environmental law, whereby global environmental policy can effectively be implemented and achieved by way of good environmental governance. When it comes to matters regarding water access, international water governance also plays an important role. This chapter deals with water governance and will analyse how effective water governance can play an important role in ensuring that the issues that currently plague water internationally can be better managed and controlled. This chapter will deal with the issues surrounding current global water governance and it will look at how these issues can be dealt with. The chapter will then focus on how global water governance can theoretically be a solution to ensuring effective water access, management and distribution. I will deal with the political, social and legal dimension of this form of governance in order to show how it can be a suitable mechanism to ensure proper water management, which in turn, ensures progressive sustainable development. In addition, the SDGs have a global dimension to them, especially requiring cooperation in implementation and enforcement. Hence, SDG17 will also be explained and linked to global environmental governance and global water governance as well. SDG17 deals with revitalizing the global partnership for sustainable development, by revitalizing partnerships between governments, the private sector and civil society.<sup>820</sup> Thus, since international water governance requires co-operation on a global scale, this particular SDG must also be looked at.

## **7.2. Global Environmental Governance**

From local to global levels, environmental institutions have been created to improve our management of the natural environment by helping to develop policies, and to ensure that

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<sup>820</sup> <http://www.un.org/sustainabledevelopment/globalpartnerships/>, (last accessed 19/03/18).

said policies are implemented and complied with by member States.<sup>821</sup> Environmental governance is synonymous with interventions aiming at changes in environment-related incentives, knowledge, institutions, decision making, and behaviours. More specifically, the term environmental governance is used to refer to the set of regulatory processes, mechanisms and organizations through which political actors influence environmental actions and outcomes.<sup>822</sup> The term ‘governance’ is a very versatile one and it is used in connection with several contemporary social sciences, especially economics and politics.<sup>823</sup> Governance is not the same as government. It includes the actions of the state and, in addition, encompasses actors such as communities, businesses, and Non-Governmental Organisations (hereafter referred to as NGOs).<sup>824</sup> According to the Organisation for Economic Co-operation and Development (OECD), ‘government’ is no longer an appropriate definition of the way in which populations and territories are organised and administrated. In a world where the participation of businesses and civil society is increasingly the norm, the term ‘governance’ better defines the process by which we collectively solve our problems and meet our society’s needs, while government is rather the instrument we use.<sup>825</sup> According to the United Nations Development Programme (UNDP) the concept of governance should be related to the principles of sustainable development and it believes that governance indicates a framework of public management based on the rule of law, a fair and efficient system of justice, and broad popular involvement in the process of governing and being governed. It is a broad concept that encompasses the organizational structures and activities of central, regional and local government, the parliament and the judiciary and the institutions, organizations and individuals that comprise civil society and the private sector.<sup>826</sup> This definition entails a multi-faceted, multi-actor approach and involvement in governance issues that could open a new world of complexities and intricacies. Global governance infers that there is a global collective, managing global issues in harmony and with some sort of uniformity. The concept of global governance requires a ‘common’ approach for achieving what essentially is the same result. In essence, the core meaning of governance, regardless of the context to which it

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<sup>821</sup> Aggarwal-Khan S., (2011), *The Policy Process in International Environmental Governance*, Palgrave Macmillan Publishing, Page 1.

<sup>822</sup> Lemos M. and Agarwal A., (2006), *Environmental Governance*, School of Natural Resources and Environment, University of Michigan, Pages 298 – 299.

<sup>823</sup> Postiglione A., (2010), *Global Environmental Governance – The Need for an International Environmental Agency and an International Court of the Environment*, Bruylant Bruxelles Books, Page 113.

<sup>824</sup> Lemos M. and Agarwal A., (2006), *Environmental Governance*, School of Natural Resources and Environment, (University of Michigan), Pages 298 – 299.

<sup>825</sup> OECD, (2001), *Governance in the 21<sup>st</sup> century*, available at <https://www.oecd.org/futures/17394484.pdf>.

<sup>826</sup> UNDP, (1995), *Public Sector Management, Governance and Sustainable Human Development*, New York, NDP.

is applied, is the need for a common vision and the involvement and participation of all the stakeholders, for achieving better results.<sup>827</sup> Within the context of the evolution of global environmental politics and policy, the end goal of global environmental governance is to improve the state of the environment and to eventually lead to the broader goals of sustainable development.<sup>828</sup> In the international context, it must be noted that governance takes on a unique meaning because there is no single government of implementation and the international community is governed by a large number of States and international organisations.<sup>829</sup> Thus, international governance involves the activities of a number of international initiatives and regimes. It will involve the aggregation of laws and policies, rules, norms and institutions that work to achieve a common international objective.<sup>830</sup> The efficacy of global environmental governance will ultimately depend on implementation at global and domestic levels. National implementation is the ultimate key, both to the efficacy of the global environmental governance (GEG) system and to meaningful environmental improvements.<sup>831</sup> This is significant as it ties in with SDG17 which calls for a strong commitment to global partnership and cooperation. SDG17 can be seen as not only a goal itself, but a mechanism to facilitate the implementation of the other goals.

Global environmental governance describes an interconnected world across environments, societies, and economies. Multiplicity, diversity, interdependence, and flows of influence and materials are common themes associated with global governance.<sup>832</sup> Hence, it is the rules, organisations and machinery for the integrated management (by all stakeholders), of environmental protection issues, and the solution of the related disputes, consistently with development.<sup>833</sup> From an environmental perspective, global governance produces both negative and positive pressures on governance. Economic globalisation produces tremendous impacts on environmental processes at the local, regional, national, and global levels by integrating far-flung markets and increasing demand. Global governance may intensify the

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<sup>827</sup> Postiglione A., (2010), *Global Environmental Governance – The Need for an International Environmental Agency and an International Court of the Environment*, Bruylant Bruxelles Books, Page 115.

<sup>828</sup> Najam A., Papa M. and Taiyab N., (2006), *Global Environmental Governance: A Reform Agenda*, International Institute for Sustainable Development, Winnipeg, Canada, Page 9.

<sup>829</sup> Postiglione A., (2010), *Global Environmental Governance – The Need for an International Environmental Agency and an International Court of the Environment*, Bruylant Bruxelles Books, Page 116.

<sup>830</sup> DiMento J.F.C. and Hickman A.J., (2012), *Environmental Governance of the Great Seas, Law and Effect*, New Horizons in Environmental and Energy Law, Edward Elgar Publishing UK, Page 8.

<sup>831</sup> Lemos M. and Agarwal A., (2006), *Environmental Governance*, School of Natural Resources and Environment, University of Michigan, Pages 298 – 299.

<sup>832</sup> Anderson D. and Grove R., ed. (1984), *Conservation in Africa: People, Policies and Practice*, Cambridge, UK: Cambridge University Press.

<sup>833</sup> Postiglione A., (2010), *Global Environmental Governance – The Need for an International Environmental Agency and an International Court of the Environment*, Bruylant Bruxelles Books, Page 117.

use and depletion of natural resources, increase waste production, and lead to a 'race to the bottom' as capital moves globally to countries and locations that have less stringent environmental standards.<sup>834</sup> Observers of global governance also argue in favour of its potentially positive impacts on economic equity and environmental standards through a virtuous circle and the diffusion of positive environmental policy initiatives. Clearly, the globalisation of environmental problems has contributed to the creation and development of new global regimes, institutions, and organizations dedicated to environmental governance.<sup>835</sup> The law continues to play a fundamental role in environmental governance, but a more integrated vision between environmental protection, economic and social development and stakeholders is required. However, this interrelatedness is exactly what has led to the complexities in global environmental governance. As per the adage, 'too many cooks spoil the broth,' it is imperative that a proper global functioning comes to the fore that can take all interests into account and provide some sort of harmonization. Therefore, because of the complexity of global environmental issues and their interrelatedness with various spheres of life, global environmental governance must seek a balance.<sup>836</sup> As per Postiglione, the aim of environmental governance is to ensure the effective implementation of the principle of sustainable development, by means of the balanced satisfaction of the needs of the present generations, without jeopardising the opportunities of the future generations.<sup>837</sup> This is an interesting analysis, as it links environmental governance to one of the most important, if not the most important concepts of environmental law. The analysis made seems to indicate that an environmental governance structure can be good if it conforms to the principles of sustainable development and when it has sustainable development as its base. This ideology holds some weight as the environment is a natural resource that allows for the sustenance of human life. It is necessary for human development to thrive, hence governing these resources in a manner that places this reality at the fore, seems like a good idea.

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<sup>834</sup> Anderson D. and Grove R., ed. (1984), *Conservation in Africa: People, Policies and Practice*, Cambridge, Cambridge University Press, United Kingdom.

<sup>835</sup> Lemos M. and Agarwal A., (2006), *Environmental Governance*, School of Natural Resources and Environment, University of Michigan, Page 301.

<sup>836</sup> Postiglione A., (2010), *Global Environmental Governance – The Need for an International Environmental Agency and an International Court of the Environment*, Bruylant Bruxelles Books, Page 117.

<sup>837</sup> Postiglione A., (2010), *Global Environmental Governance – The Need for an International Environmental Agency and an International Court of the Environment*, Bruylant Bruxelles Books, Page 117.

### **7.2.1. The Themes of Global Environmental Governance**

The core themes of global environmental governance include decentralised environmental governance, market and individual-focused instruments, and governance across scales. Decentralised environmental governance refers to the devolution of state powers or assets to local decision-making bodies, including non-state associations.<sup>838</sup> It is especially intricate because it is not only about providing services efficiently, but it also requires the devolution of real powers over the disposition of productive resources and it requires the resolution of divergent interests among a host of actors.<sup>839</sup> Decentralisation of natural resource management is especially intricate because it is not only about providing services efficiently, but it also requires the devolution of real powers over the disposition of productive resources. In addition, it requires the resolution of divergent interests among a host of actors so that externalities are not disproportionately borne by any subgroup.<sup>840</sup>

Market and individual-focused instruments aims to mobilise individual incentives in favour of environmentally positive outcomes through a careful calculation and modulation of costs and benefits associated with particular environmental strategies. In terms of Market and agent-focused instruments (MAFIs), instead of relying on hierarchically organized, regulatory control or even purely participatory structures, MAFIs aim to mobilize individual incentives in favour of environmentally positive outcomes through a careful calculation and modulation of costs and benefits associated with particular environmental strategies.<sup>841</sup> MAFIs encompass a broad range, namely, eco-taxes and subsidies based on a mix of regulation and market incentives, voluntary agreements, certification, eco-labelling, and informational systems are some of the major examples. MAFIs differ from more conventional regulatory mechanisms along a number of dimensions, including the source of their legitimacy and authority. It is suggested that the strength of these instruments lies in

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<sup>838</sup> Ribot J.C., (1999), Decentralisation, Participation and Accountability in Sahelian Forestry: Legal Instruments of Political-Administrative Control in Africa, Vol. 69(1), Page 23.

<sup>839</sup> Agrawal A. and Ribot J., (1999), Accountability in Decentralization: A Framework with South Asian and West African Cases, The Journal of Developing Areas, Vol. 33, Page 474.

<sup>840</sup> Agrawal A. and Ribot J., (1999), Accountability in Decentralization: A Framework with South Asian and West African Cases, The Journal of Developing Areas, Vol. 33, Page 474.

<sup>841</sup> Lafferty W. and Meadowcroft J., (2000), Implementing Sustainable Development, Oxford, Oxford University Scholarship.

their utilisation of market exchanges and incentives to encourage environmental compliance.<sup>842</sup>

Governance across scales is understood more as linkages between various levels of governing bodies, local, national, and global, that is used to further their own interests.<sup>843</sup> These are among the most important emerging trends that are shaping environmental governance. They are generating pressures for innovative ways to address environmental and natural resource crises and challenging existing forms of governance.<sup>844</sup> Institutional interplay at different levels can be highly asymmetric or relatively balanced.<sup>845</sup> In terms of cross-scale environmental governance, cross-scale environmental problems affect and are affected by institutionalized decision making at local, sub-national, national, and transnational levels. A common prescription to address the multilevel character of environmental problems is to design governance mechanisms across levels of social and institutional aggregation.<sup>846</sup> In essence, the effective realisation of SDG6 as a whole would require a form of governance across various scales which include various actors as well. Thus, the philosophy of co-operative governance is instrumental in the achievement of most, if not all, global goals. However, this form of governance should not be confused with the principle of ‘good-neighbourliness’ and the principle of co-operation. The principle of ‘good-neighbourliness’ places a responsibility on States not to harm the environment and it places an obligation on States to prohibit activities within the State’s territory that are contrary to the rights of other States and which could harm other States and their inhabitants.<sup>847</sup> The principle of co-operation is enunciated in Article 74 of the United Nations Charter in relation to social, economic and commercial matters has been translated into the development and application of rules promoting international environmental co-operation.<sup>848</sup> Principle 27 of the Rio Declaration states that States and people shall co-operate in good faith and in a spirit of

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<sup>842</sup> Cashore B., (2002), Legitimacy and the Privatization of Environmental Governance: How Non-State Market Driven (NSMD) Governance Systems Gain Rule-Making Authority, *Governance* Vol. 15, Page 503.

<sup>843</sup> Adger W., Brown K. and Tompkins E.L., (2005), The Political Economy of Cross-scale Networks in E-Source Co-management, *Ecology and Society Journal*, Vol. 10(2), Page 9.

<sup>844</sup> Lemos M. and Agarwal A., (2006), *Environmental Governance*, School of Natural Resources and Environment, University of Michigan, Page 299.

<sup>845</sup> Adger W., Brown K. and Tompkins E.L., (2005), The Political Economy of Cross-scale Networks in E-Source Co-management, *Ecology and Society*, Page 9.

<sup>846</sup> Adger W., Brown K. and Tompkins E.L., (2005), The Political Economy of Cross-scale Networks in E-Source Co-management, *Ecology and Society*, Page 10.

<sup>847</sup> Soto MV., (1996), General Principles of International Environmental Law, *ILSA Journal of International and Comparative Law*, Vol. 3(1), Page 197.

<sup>848</sup> Sands P. and Peel J., (2012), *Principles of International Environmental Law*, 3<sup>rd</sup> Edition, Cambridge University Press, United Kingdom, Page 203.

partnership in the fulfilment of the principles embodied within the Rio Declaration and in the further development of international law in the field of sustainable development.<sup>849</sup> The principle of co-operation and the obligation to co-operate is affirmed in virtually all international environmental agreements of bilateral and regional application and its practical significance is reflected just the same.<sup>850</sup> The duty to co-operate can be extended into investigating, identifying and avoiding environmental harm and this exchange of general information can be critical in monitoring the domestic implementation of international obligations.<sup>851</sup> The idea of global cohesion is idealistic, but it is indeed optimistic to say the least. However, it should be remembered that global uniformity can be a ‘work-in-progress,’ much like the SDGs themselves and the attainment of the targets set out. It is thus important to pay attention to the last of the SDGs, SDG17. This goal in many ways is attached to the achievement of all of the other SDGs that exist. SDG17 aims to strengthen the means of implementation and revitalize the global partnership for sustainable development.<sup>852</sup> The Global Partnership for Sustainable Data is a global network of governments, NGOs and businesses working together to strengthen the inclusivity, trust and innovation in the way that data is used to address the world’s sustainable development efforts. It works to bring the resources of national governments, independent non-profits, and private companies to bear on the world’s development data poverty. Official statistical systems are the building block for understanding poverty and how to address it. The global partnership seeks to map data gaps at a national level, the channel funding to strengthen those systems. Thus, the partnership aims to bring the best data, analytical skills and ideas to solve data problems from using satellites capture to monitor agriculture efforts, to citizen engagement tools to understand sanitation requirements in villages in remote parts of the world. It works to ensure that governments are given the tools they need to ensure they leave no-one behind in these development efforts.<sup>853</sup> It is indeed evident through this that the ideal of a global partnership is essential to the realisation of the goals. A global partnership is essential when trying to attend to a global cause and cooperation between actors is essential for overall success to be achieved. Therefore, overall environmental governance should be re-examined to include a

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<sup>849</sup> The Rio Declaration, UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992), Principle 27.

<sup>850</sup> Sands P. and Peel J., (2012), *Principles of International Environmental Law*, 3<sup>rd</sup> Edition, Cambridge University Press (United Kingdom), Page 204.

<sup>851</sup> Soto MV., (1996), *General Principles of International Environmental Law*, *ILSA Journal of International and Comparative Law*, Vol. 3 : Issue, Page 198.

<sup>852</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

<sup>853</sup> United Nations Development Programme: Sustainable Development Goals, available at <http://www.un.org/sustainabledevelopment/water-and-sanitation/>, (last accessed 19/02/18).

more co-operative model. Water governance, which is a subset of environmental governance, will then automatically require re-examination as well.

### **7.3. Global Water Governance**

Water plays a pivotal role in sustainable development, including poverty reduction. The use and abuse of increasingly precious water resources has intensified dramatically over the past decades, reaching a point where water shortages, water quality degradation and aquatic ecosystem destruction are seriously affecting prospects for economic and social development, political stability and ecosystem integrity.<sup>854</sup> Given the importance of water to poverty alleviation, human and ecosystem health, the management of the water resources becomes of central importance.<sup>855</sup> The regulation of freshwater systems requires an exploration of water governance. As stated by Rieu-Clarke, the effective implementation of a flexible substantive rule which takes into account all relevant factors and circumstances will only be possible if a sound framework for governance is established.<sup>856</sup> Water governance relates to the 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.<sup>857</sup> It is thus concerned with the manner in which water-related decisions are made as it allows for a system that controls decision-making with regard to water resource development and management.<sup>858</sup> Water governance covers the manner in which regulatory politics are exercised in the management of water and other natural resources and broadly embraces the formal and informal institutions by which authority is exercised. There is a profoundly political element to water governance and as such systems of water governance usually reflect the political realities at international, national, provincial and local levels.<sup>859</sup> The fact that proper water governance can be used in order to effectively manage global water is

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<sup>854</sup> UNDP. 2007, *Effective Water Governance: The Key to Sustainable Water Management and Poverty Eradication*, <http://www.undp.org/water/>, (last accessed 19/02/18).

<sup>855</sup> Batchelor C., (2007), *Water Governance Literature Assessment*, International Institute for Environment and Development, Page 1.

<sup>856</sup> Rieu-Clarke A., (2005), *International Law and Sustainable Development: Lessons from the Law of International Watercourses*, Water Law and Policy Series, IWA Publishing, London, Page 159.

<sup>857</sup> Rogers P. and Hall A.W., (2003), *Effective Water Governance*, TEC Background Papers No.7, Global Water Partnership, Stockholm, Pages 15 – 16.

<sup>858</sup> Hoekstra A.Y., (2006), *The Global Dimension of Water Governance: Nine Reasons for Global Arrangements in Order to Cope with Local Water Problems*, Value of Water Research Report Series No. 20, Page 9.

<sup>859</sup> Hoekstra A.Y., (2006), *The Global Dimension of Water Governance: Nine Reasons for Global Arrangements in Order to Cope with Local Water Problems*, Value of Water Research Report Series No. 20, Page 10.

indeed cemented by the link between environmental governance and sustainable development. The connection between environmental governance and sustainable development is regarded as a management process executed by institutions and individuals in the public and private sector to holistically regulate human activities and the effects of human activities on the total environment (including all environmental media, and biological, chemical, aesthetic and socio-economic processes and conditions) at international, regional, national and local levels; by means of formal and informal institutions, processes and mechanisms embedded in and mandated by law, so as to promote the present and future interests human beings hold in the environment.<sup>860</sup> When looking at international watercourses, the link between the law of international watercourses and sustainable development becomes apparent, mainly due to the common-thread of focussing on economic, social and environmental issues.<sup>861</sup> The world's finite and renewable supply of water resources is fundamental to social and economic development, ecological sustenance and poverty alleviation.<sup>862</sup> Although water is renewable, regional variability, increased demand and misuse have placed significant stress on this finite resource. All types of economic and ecological development requires the use of water, be it from agriculture, mining, energy production; to the maintenance of biodiversity, fisheries and soil fertility.<sup>863</sup> Thus, the link between effective water governance and sustainable development becomes more and more apparent, as water is essential for the continuation of human life on earth and the earth in general for present and future generations. The unique nature of water ensures overall sustainability for humankind. Indeed, water governance is rooted in the fundamentals of environmental governance which adheres to values such as transparency, accountability, public participation in decision-making and freedom of association. These are values that are indispensable in implementing and enforcing substantive environmental law as they ensure that citizens are aware and involved in the abovementioned decision-making processes and have the ability to effectively advocate for environmental protection.<sup>864</sup>

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<sup>860</sup> Kotzé L., (2009), in Paterson and Kotzé (eds) *Environmental Compliance and Enforcement in South Africa Legal Perspectives*, Juta Cape Town, Pages 107 - 108.

<sup>861</sup> Rieu-Clarke A., (2005), *International Law and Sustainable Development: Lessons from the Law of International Watercourses*, Water Law and Policy Series, IWA Publishing, London, Pages 5 – 6.

<sup>862</sup> United Nations, Report of the Secretary-General, (2001), *Water: A Key Resource for Sustainable Development*, UN Commission on Sustainable Development, UN Doc. A/CN.17/2001/PC/17.

<sup>863</sup> Rieu-Clarke A., (2005), *International Law and Sustainable Development: Lessons from the Law of International Watercourses*, Water Law and Policy Series, IWA Publishing, London, Page 6.

<sup>864</sup> Feris L.A., (2010), *The Role of Good Environmental Governance in the Sustainable Development of South Africa*, Potchefstroom Electronic Law Journal, Vol. (13)1, Page 76.

### **7.3.1. Issues Surrounding Global Water Governance**

Global water governance is currently diffuse and web-like in character. A lack of strong motivation on the part of United Nations agencies and states to push water management has encouraged the rise of pluralistic bodies that try to deal with these issues. However, it is not clear that these polycentric governance frameworks can be more successful in generating the necessary political will for global action.<sup>865</sup> It is important to note that there is a difference between water management and water governance. Where government is more about actions (decisions) of a single organisation in charge of a part of the water challenge, governance is about the interactions between a variety of actions and whether these interactions lead to future-proof water protections. This ‘multitude of everything’ illustrates that complexity is a key notion when it comes to water governance. Where government is often about creating *one* policy, *one* organisational structure (often a bureaucratic one) and *one* order, governance is more about understanding the complex interactions between a variety of governments and other organisations active in a joint domain.<sup>866</sup> Water management is about achieving goals, preferably in a functionally and socially responsive and efficient manner, with given means, and largely within given conditions and constraints. Water governance is about identifying, choosing or adhering to values and translating these values (water, safety, agriculture, urban space, natural beauty or artistic design) into goals, standards and institutional structures and processes. These are achieved in a context of public external accountability. Governance is about establishing the appropriate means and setting limits and constraints within which operational action in terms of water management can take place.<sup>867</sup> At the global level, outputs of these systems include framing policy, setting standards, and mobilizing, allocating, and coordinating resources and responsibilities.<sup>868</sup>

It is important to keep in mind that the intrinsic multilevel character of governance implies that the global level does not act independently and cannot be studied separately from the

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<sup>865</sup> Pahl-Wostl C., Gupta J. and Petry D., (2008), Governance and the Global Water System: A Theoretical Exploration, *Global Governance* Vol. 14, Pages 419 – 435.

<sup>866</sup> Teisman G., van Buuren A. and Gerrits L., (2009), *Managing Complex Governance Systems, Dynamics, Self-organisation and Coevolution in Public Investments*, Routledge, London.

<sup>867</sup> Toonen T., (2011), *The (Changing) Role of National Government in Multilevel (Water) Governance, Principles of Good Governance at Different Water Governance Levels Workshop Document*, Page 14.

<sup>868</sup> Conca K., (2005), *Governing Water: Contentious Transnational Politics and Global Institution Building*, MIT Press, Cambridge, Massachusetts, USA.

lower levels, as it is enacted through the interplay of actors working on all levels across the local–global spectrum.<sup>869</sup> Also, the scope of the global governance of water cannot be limited to water in a narrow sense. Global water governance frameworks must be adaptive and create links across policy fields such as energy, trade, and agriculture; given that water challenges cannot be addressed by remaining within the ‘water box.’<sup>870</sup> Thus, the SDGs should be seen as a network of targets and goals that are not completely separate from each other, but rather inter-connected to each other in order to achieve the overall goal at hand. Thus, a governance mechanism that is able to deliver on the targets or at least ensure its implementation can go a long way in actually achieving the goals.

It is evident that water governance is complex because of the nature of the subject itself. Water is not confined to borders, water flows freely through borders and hemispheres. Water flows freely through different counties, past and below different governments and legislation. The fact that water is to be controlled or governed in a sense is quite a difficult task to achieve. Relations between all actors need to be redefined and strengthened for the common-good and the common purpose of the achievements of the SDGs. However, the problem with global water governance is the lack of will and commitment from all actors. Once again referring to the fact that some commentators have referred to the SDGs as soft-law at best, it then becomes tough to govern something where normative consequences exist or something that is not seen as hard-law and thus has no sanctions or consequences. Developed countries lack political will, not finance, to tackle environmental issues.<sup>871</sup> Politicians who almost universally claim to be so well-informed that they can run countries, cannot also claim to be so ill-informed that they do not appreciate the gravity of the unfolding environmental crisis threatening the safety, security and economy of every nation on the planet.<sup>872</sup> If the reasons for non-performance lie primarily in the lack of collective political will to effectively address environment challenges, including that of water management, then institutional design will not of itself solve the problems. At the same time, lack of political will is no good excuse for non-action as it is not a given factor but one that can be influenced. It can indeed be

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<sup>869</sup> Urueña R., (2009), Expertise and Global Water Governance: How to Start Thinking about Power Over Water Resources? *Anuario Mexicano de Derecho Internacional*, Vol. 9, Pages 117 – 152.

<sup>870</sup> Baumgartner, T., and Pahl-Wostl C., (2013), UN–Water and its Role in Global Water Governance, *Ecology and Society*, Vol. 18(3), Page 1.

<sup>871</sup> Newmarch J., (2012), ‘COP-17’ Lack of ‘Political Will’ to Tackle Climate Change, Business Day Live at <http://www.bdlive.co.za/articles/2011/12/01/cop-17-lack-of-political-will-to-tackle-climate-change;jsessionid=73E3EA3E95096890DF01F6F26C7B41EB.present1.bdfm>, (last accessed 3/03/18).

<sup>872</sup> Grigg R., (2013), Climate Change a Failure of Political will, *The Common-Sense Canadian* at <http://commonsensecanadian.ca/climate-change-a-failure-of-political-will/>, (last accessed 3/03/18).

influenced by those in charge of the political institutions itself, especially when they are trying to implement their own agendas not even related to environmental matters. Urgency is required when dealing with environmental protection on a political level, and elected officials of political organisations that run countries must ensure that they place environmental protection on their agendas of concern. All these factors pose a fundamental challenge to the effectiveness and efficiency of the current international environmental regime when it comes to water governance. This leads to a lack of coordination, cooperation and synergies among relevant international actors. It also leads to duplications, overlaps, inefficiencies, turf battles, inconsistencies, contradictions and conflicts; to a lack of an overarching vision, of a common orientation and strategy, and of coherence and focus; to a lack of visibility; and finally to inadequate goals and measures.<sup>873</sup> As a result, the traditional approach to governance (and water governance) reform often overlooks the tremendous contribution and increasing involvement of civil society actors and the private sector in international policy-making, capacity building and implementation.<sup>874</sup> Non-Governmental Organisations (NGOs) are playing an increasingly large role, not just as stakeholders, but as ‘motors’ of international environmental policy-making through setting agendas, drafting treaties, providing scientific information and monitoring implementation.<sup>875</sup> Local and international NGOs also engage in implementation and capacity building. In addition to the achievements of civil society, great strides have been made in engaging the private sector as partners in development and environmental protection rather than as culprits of environmental degradation.<sup>876</sup> Commitment is imperative in ensuring effective global water governance and the realisation of SDG6. It can be opined that SDG6 can act as a catalyst to ensure that governance policies are reformed, or at least, re-looked at in order to ensure that it can act as a vehicle to allow for the realisation of the global goals and targets. Unfortunately, the ‘soft-law’ status of these goals is a hindering factor. The idealistic nature of the goals is hard to ignore. It not only requires change within a specific sector, but it requires changes within a myriad of sectors in order for actual achievement to take place. This creates a sort of ‘domino-effect,’ which can leave many actors reluctant to pursue the said goals.

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<sup>873</sup> Roy J. and Ivanova M., (2007), *The Architecture of Global Environmental Governance: Pros and Cons of Multiplicity*, available at: <http://www.centerforunreform.org/system/files/Ivanova+and+Roy+GEG.pdf>, (last accessed 3/03/18).

<sup>874</sup> Banuri T. and Najam A., (2002) *Civic Entrepreneurship: A Civil Society Perspective on Sustainable Development*.

<sup>875</sup> Najam A., (1999), *Citizen Organizations as Policy Entrepreneurs*, *International Perspectives on Voluntary Action: Reshaping the Third World*, edited by David Lewis, London, Earthscan, Pages 142 – 181.

<sup>876</sup> Najam A., (1999), *Citizen Organizations as Policy Entrepreneurs*, *International Perspectives on Voluntary Action: Reshaping the Third World*, edited by David Lewis, London, Earthscan, Pages 142 – 181.

#### **7.4. Implementation of SDG6 through Global Environmental Governance**

It is important to explore the issue of there not being a centralised agency to properly facilitate SDG6. There seems to be major missing links between knowledge generation and policy framing and between knowledge generation and rulemaking. There seems to be a clear role for flexible global multi-actor networks for issue integration, agenda setting, and open (re)framing processes. But for rulemaking in governance settings, it is important to move from mobilizing action to formalizing commitments.<sup>877</sup> United Nations Environment (UN-Environment)<sup>878</sup> is intended to be regarded as the focal centre of environmental governance on a global scale. UN-Environment was in essence the result of a negotiation process in which Sweden and the United States took the lead and largely designed the blueprint for the organizational structure and functions. The key premise of the institutional negotiations was that the work in the field of environment needed a common outlook and direction.<sup>879</sup> What was necessary was a central co-ordinating mechanism in the United Nations to provide political and conceptual leadership in the United Nations system, to contemplate methods of avoiding or reducing global environmental risks, methods of working out joint norms, where there is agreement that such are needed, and methods of avoiding or settling conflicts between states on environmental matters. Such a mechanism should be given enough authority and resources to ensure effective co-ordination of ongoing and planned activities.<sup>880</sup>

In relation to water, the United Nations has its own sector dealing with water and sanitation, referred to as UN-Water.<sup>881</sup> UN-Water is the United Nations inter-agency coordination mechanism for all freshwater related matters, including sanitation. Building on a long history of coordination in the UN system, UN-Water was formalized in 2003 by the UN System Chief Executives Board for Coordination. It provides the platform to address the cross-cutting nature of water and maximize system-wide coordinated action and coherence.<sup>882</sup> UN-Water was created as an interagency mechanism to coordinate action for achieving water-

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<sup>877</sup> Pahl-Wostl C., Conca K., Kramer A., Maestu J., and Schmidt F., (2013), Missing Links in Global Water Governance: A Processes-Oriented Analysis, *Ecology and Society*, Vol. 18(2), <http://dx.doi.org/10.5751/ES-05554-180233>.

<sup>878</sup> Formerly known as the United Nations Environment Programme – UNEP.

<sup>879</sup> Ivanova M., (2005) Assessing UNEP as Anchor Institution for the Global Environment: Lessons for the UNEO Debate, Yale Center for Environmental Law and Policy, Yale University, Page 4.

<sup>880</sup> Ivanova M., (2005) Assessing UNEP as Anchor Institution for the Global Environment: Lessons for the UNEO Debate, Yale Center for Environmental Law and Policy, Yale University, Page 5.

<sup>881</sup> <http://www.unwater.org/>, (last accessed 19/02/18).

<sup>882</sup> <http://www.unwater.org/about-unwater/governance/>, (last accessed 19/02/18).

related targets set by the UN Millennium Declaration, specifically, Target 7.C of the Millennium Development Goals.<sup>883</sup> It was also to be a mechanism for implementing decisions concerning water from the 2002 World Summit on Sustainable Development in Johannesburg in particular concerning four major objectives contained in the Johannesburg Plan of Implementation.<sup>884</sup> These included halving, by the year 2015, the proportion of people who are unable to reach or to afford safe drinking water and the proportion of people who do not have access to basic sanitation, to develop integrated water resources management and water efficiency plans by 2005, to develop programs for mitigating the effects of extreme water-related events and to establish and/or develop national monitoring networks and water-related databases.<sup>885</sup>

The creation of UN–Water reflects a kind of paradigm shift in global water governance and ushered in the era of partnerships so to speak. The partnership approach was seen by many as a blueprint solution for addressing duplication issues resulting from institutional and organizational overlap within the multilateral system. They advocated heavily for the establishment of UN–internal partnerships, which also inspired the setup of several interagency coordination mechanisms, including UN–Water, UN–Oceans, UN–Energy, the UN Environment Management Group (EMG), and the UN Development Group (UNDG).<sup>886</sup> Despite these various outreach efforts, UN–Water has just started to scratch on the surface of the issue and its direct influence on the discourse is still minimal. Within the UN system, the responsibilities and competencies relating to freshwater governance are highly fragmented among different organizations, programs, and funds. Consequently, coordination among the different actors is difficult, but all the more essential.<sup>887</sup> Fragmentation of international law, treaties and policies has moved from the periphery to the centre of international legal debate over the past few decades.<sup>888</sup> It emphasises the isolation and disconnect between regimes and institutions and has particular resonance within international environmental law. International

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<sup>883</sup> ‘Halve by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation,’ MDG7.C.

<sup>884</sup> United Nations Chief Executives Board for Coordination (UNSCEB), (2003), Report of the High-Level Committee on Programmes on its Fifth Session, United Nations, New York, New York, USA.

<sup>885</sup> United Nations Chief Executives Board for Coordination (UNSCEB), (2003), Report of the High-Level Committee on Programmes on its Fifth Session, United Nations, New York, New York, USA.

<sup>886</sup> Baumgartner T., and Pahl-Wostl., (2013), UN–Water and its Role in Global Water Governance, Ecology and Society, Vol. 18(3), Page 3.

<sup>887</sup> Baumgartner T., and Pahl-Wostl., (2013), UN–Water and its Role in Global Water Governance, Ecology and Society, Vol. 18(3), Page 3.

<sup>888</sup> Van Asselt H., (2011), Managing the Fragmentation of International Environmental Law: Forests at the Intersection of the Climate and Biodiversity Regimes, New York University Journal of International Law and Politics (JILP), Vol. 44 (4), Page 1207.

environmental law is a complex regulatory field comprising multiple regimes and institutions giving rise to overlapping and, occasionally, conflicting legal and policy mandates.<sup>889</sup> There has been a growing fragmentation of the international regulatory order as an ever-increasing number of regulatory institutions with overlapping jurisdictions compete for influence. Progress in connection with the democratisation of international institutions has been all but negligible.<sup>890</sup> Fragmentation is more serious than it is commonly assumed to be because it functions to maintain and even extend the disproportionate influence of a handful of powerful states and the domestic interests that shape their foreign policies on the international regulatory order, and it tends to undermine the operation of the decentralized processes of the governing of international environmental law.<sup>891</sup> It is clear that UN–Water, as an interagency coordination mechanism that lacks direct control by an intergovernmental governing body and, thus, lacks formal decision-making power, is constrained to operate in the background of global water governance. It is recognised that output of foreground politics are regimes, laws, ministerial events, and new organizations, the UN-Water organisation mainly produces discourses, norms, and values that influence foreground decisions which is not enough to influence proper water governance.<sup>892</sup> As a result, UN–Water might rather act like a kind of ‘bridging organization’ between background and foreground.<sup>893</sup> There is indeed a great need for clarification, and many participants expect UN–Water to be providing some leadership and helping to create coherence and build understanding around this discourse. However, once again the mechanism's direct influence is limited by a number of internal and external barriers. Therefore, UN–Water does not play a powerful role as a leader and reformer of the global water governance system but, rather, that it operates in the background where it exerts indirect influence, mainly through its member organizations and their member states. UN–Water does not shape the substance of global water governance so much either. UN-Water primarily influences the procedural aspects of global water governance such as legitimacy, accountability, efficiency, awareness, but it largely fails to improve the output of the global

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<sup>889</sup> Scott K.N., (2011), *International Environmental Governance: Managing Fragmentation through Institutional Connection*, Melbourne Journal of International Law, Vol. 12, Page 3.

<sup>890</sup> Benvenisti V. and Downs G.W., (2007), *The Empire’s New Clothes: Political Economy and the Fragmentation of International Law*, The Berkeley Electronic Press, Page 2.

<sup>891</sup> Benvenisti V. and Downs G.W., (2007), *The Empire’s New Clothes: Political Economy and the Fragmentation of International Law*, The Berkeley Electronic Press, Page 2.

<sup>892</sup> Baumgartner T., and Pahl-Wostl C., (2013), *UN–Water and its Role in Global Water Governance*, *Ecology and Society* 18(3), Page 5.

<sup>893</sup> Baumgartner T., and Pahl-Wostl C., (2013), *UN–Water and its Role in Global Water Governance*, *Ecology and Society* 18(3), Page 5.

water governance system, which is, foreground institutions and financial resources.<sup>894</sup> Although all experts in principle approve of an integrated-management approach, some have also pointed out that there are a lot of people challenging the whole concept of integrated water resources management and questioning its practicability. Thus, it can be stated that international organisations have transformed from pure transaction mechanisms assisting countries in achieving collective goals to autonomous entities shaping preferences and delivering results.<sup>895</sup> However, their legitimacy is being openly challenged as they are increasingly seen as unelected elites with no sense of common peoplehood and trust.<sup>896</sup> In the absence of direct elections at the international level, legitimacy cannot be granted through the traditional democratic representation channel. It is instead attained through expertise and the ability to generate ‘right answers,’ through a systemic design of checks and balances, or through fair and transparent rulemaking procedures that instil confidence in the process and subsequent acceptance of the decision.<sup>897</sup> International organizations are therefore likely to regain their legitimacy when they begin to effectively deliver results and to enact transparent, accountable and participatory rules and processes. To this end, five root causes of institutional dysfunction need to be addressed.<sup>898</sup>

#### **7.4.1. SDG6, Co-operation and Global Environmental Governance**

It is noted that the SDG process emphasises the importance of public participation in water governance at all levels, be it local, national or even global.<sup>899</sup> This would infer that there is at least some level of awareness of global trends in international environmental law. UN-Water suggested that ‘all countries must strengthen equitable, participatory and accountable water

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<sup>894</sup> Baumgartner T., and Pahl-Wostl C., (2013), UN–Water and its Role in Global Water Governance, *Ecology and Society* 18(3), Page 10.

<sup>895</sup> Barnett M. and Finnemore M., (2004), *Rules for the World: International Organizations in Global Politics*, Ithaca, Cornell University Press.

<sup>896</sup> Barnett M. and Finnemore M., (2004), *Rules for the World: International Organizations in Global Politics*, Ithaca, Cornell University Press.

<sup>897</sup> Barnett M. and Finnemore M., (2004), *Rules for the World: International Organizations in Global Politics*, Ithaca, Cornell University Press.

<sup>898</sup> Ivanova M., (2005) *Assessing UNEP as Anchor Institution for the Global Environment: Lessons for the UNEO Debate*, Yale Center for Environmental Law and Policy, Yale University, Page 14.

<sup>899</sup> Spijkers, O., (2015), *The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources*, *Journal of Water Law*, Vol. 24, Page 125.

governance.<sup>900</sup> In the view of UN-Water, any system of water management should include ‘participatory decision-making’. At least, including the public in the decision-making will make the public at large more aware of the urgency of the problem, and it will make them feel jointly responsible for meeting the challenge of developing water resources in a ‘greener’ fashion.<sup>901</sup> There are far too many issues regarding co-ordination, transparency and legitimacy when it comes to global water governance and actors that are seen as key role-players in this field. The United Nations provides idealistic solutions however a lot is left to be desired when it comes to the realistic scale of achieving these solutions. SDG6 can revive the discourse in global water governance, and the SDGs can revive the discourse in global environmental governance itself, however, it is very unlikely that proper solutions can be met on a governance level, given all the issues presented previously. SDG6 and its targets provide an opportune moment for legal reform, as it can guide water policy to deal with the core issues related to water currently and globally. Thus, the targets of SDG6 can serve as the path to ensuring that policy becomes aligned with the most important water-related matters and this can surely be good guiding principles in ensuring that water-related matters are dealt with. Unfortunately, the many issues in global water governance and global environmental governance can cause some hindrance to achieving the targets. As mentioned before, the multi co-operative approach required in realising SDG6 requires role-players from across the globe to work in unison and harmonise their policies and goals so to speak. In essence, a centralised body dealing with these issues could be a better idea, one that would reap better results and be more productive in general. However, that would then entail and open up the long-standing debate for a centralised global environmental agency, which too comes with its own set of issues as well. It must be remembered that the SDGs as a whole can only be properly achieved if there is some sort of co-ordination, co-operation and partnership, and this can only take place when the relevant actors are willing to ‘give-and-take’ in this process, especially since it is for the ‘greater-good.’ In essence, the true realisation of SDG6 would require a ‘multiple actors model’ to be created. This model argues that the system of governance is made up of multiple actors whose actions need to be mutually reinforcing and better co-ordinated in order to ensure coherence and structure in global environmental governance. Without better integration of these multiple actors, organisational re-

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<sup>900</sup> Proposed Goal, detailed illustrative targets and associated indicators, annexed to UN-Water A Post-2015 Global Goal for Water: Synthesis of Key Findings and Recommendations from UN-Water (2014), Page 7.

<sup>901</sup> Spijkers, O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, Journal of Water Law, Vol. 24, Page 125.

arrangement cannot resolve institutional problems.<sup>902</sup> A multiplicity of actors and interactions form a multi-dimensional system of global environmental governance. It includes states, international environmental organizations, related international organizations, civil society organizations, and public concern and action.<sup>903</sup> Focus on organisations as a single dimension of governance distracts attention from the fact that institutional will is required to affect decision-making procedures and change institutional boundaries.<sup>904</sup> One must also be cognisant of the fact that various actors play various roles in global environmental governance. It would therefore be of the best interest to not exclude them, but to rather include their points of view in the global spectrum of environmental governance. The multiple actors model mainly calls for the co-operation of all the relevant parties involved in global environmental law and governance. If all parties are on the same page, it will then allow for better coherence and structure in the global system as a whole because all the relevant actors will be aware of what the other is thinking and how they can move forward together. This model calls for the interaction and transaction of all the various actors' involved in global environmental governance as well as global water governance. It calls for the integration of the environment into the larger context of sustainable development and also calls for allowing multiple organisations to flourish together. This model also calls for the creation of multiple channels of implementation, which has been shown to be a major issue with regard to the SDGs. Indeed the quality of global water governance will be determined by the interaction of the various actors involved.<sup>905</sup> Parties would be tackling the same issues at the same time and differences in opinion can be easily sorted out if the parties get together and discuss their various views. Co-operation by all the actors is of the utmost importance in order to achieve the goal of global environmental protection and global water governance. This model however cannot stand on its own. It can be regarded as an aspect or facet that must be integrated into a much larger regime-changing model for global environmental governance. The ideologies envisaged in this model must be used in order to achieve total co-

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<sup>902</sup> Sanwal, M., (2004), Trends in Global Environmental Governance: The Emergence of a Mutual Supportiveness Approach to Achieve Sustainable Development, *Global Environmental Politics*, Vol. 4, Number 4, November, Pages 16 – 22.

<sup>903</sup> Najam A., (2004), Neither Necessary, Nor Sufficient: Why Organizational Tinkering Will Not Improve Environmental Governance, in Biermann F. and Bauer S., (2004), *A World Environment Organization: Solution or Threat for Effective International Environmental Governance?* London, Ashgate, Page 223.

<sup>904</sup> Oberthur S. and Gehring T., (2005), Reforming International Environmental Governance, in Biermann F. and Bauer S., (2004), *A World Environment Organization: Solution or Threat for Effective International Environmental Governance?* London, Ashgate, Page 203.

<sup>905</sup> Najam A., (2004), Neither Necessary, Nor Sufficient: Why Organizational Tinkering Will Not Improve Environmental Governance, in Biermann F. and Bauer S., (2004), *A World Environment Organization: Solution or Threat for Effective International Environmental Governance?* London, Ashgate, Page 223.

operation and structure for global water governance. There should be a realisation that there are indeed many actors involved in global environmental law and global water governance. This is something that will not change as the environment is the concern of every human being. The fact that so many actors exist in global environmental law makes it quite challenging to keep track of what every single actor is doing at any given time. There must be some balance, conformity and uniformity in global environmental law and global environmental governance. Current disunity must be converted into future unity, in order to ensure the future of the environment as we know it. If all actors work together under one authoritative body, global water governance can only become better and more efficient, and this in turn will combat pressing water issues that we are currently faced with today. This will also ensure that the pathway to achieving SDG6 is smoothed and an actual legitimate effort can be made in relation to the achievement of specific global goals. This model also enforces the call of SDG17, which aims to strengthen the means of implementation and revitalize the global partnership for sustainable development.

### **7.5. Environmental Governance and Water Governing In South Africa: An Example of Practical Implementation**



It is important to take into consideration how certain countries have implemented environmental policy within their local levels. This is done so that an understanding is created as to the various facets global environmental governance comprises of. The call for harmonisation in global environmental governance is important as most countries will then be on a similar plain when tackling environmental issues and trying to achieve environmental goals on a global level. However, this realisation must start on a national level as well. Countries will be more inclined to be part of an international environmental agenda and governance structure if they themselves have environmental policy and governance structures at a local level. Thus, a country with sound environmental policy or environmental policy at all, can be of a benefit on the global scale.

South Africa, for example, has a comprehensive governance framework underpinned by an extensive array of environmental laws.<sup>906</sup> However, the issue in South Africa is the need to balance competing socio-economic needs with pressing environmental imperatives,<sup>907</sup> given the history of oppression and poverty within the country. The Constitution (1996)<sup>908</sup> is the supreme law of South Africa and it contains South Africa's environmental right<sup>909</sup> as well as a right to water.<sup>910</sup> The Constitution (1996) is particularly relevant to environmental governance as it entrenches an environmental right together with an array of associated rights, it determines the status of various sources of law; and it prescribed governance mandates and entrenches the dictate of co-operative governance.<sup>911</sup> South Africa also gives due regard to international environmental law and gives high priority to enforcing commitments under these agreements.<sup>912</sup> In terms of governance, the governance system mandates a form of co-operative governance, and the government itself is divided into three separate but interdependent spheres, namely national, provincial and local.<sup>913</sup> These spheres must ensure that policy is enforced within their designations and that it conforms throughout the country. In terms of environmental governance policy, South Africa is not only governed by section 24 of the Constitution, but by framework legislation as well. The National Environmental Management Act<sup>914</sup> (NEMA) is the core framework for environmental law in South Africa, and governs this facet of law within the country. NEMA is extremely broad and includes national environmental management principles with which the actions of all organs of State must comply.<sup>915</sup> It also includes institutions, mechanisms and procedures for facilitating co-operative environmental governance and fair decision-making and conflict-management procedures.<sup>916</sup> NEMA is further complimented by many national laws which seek to regulate sector-specific environmental issue. For the purposes of water, the National

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<sup>906</sup> Kidd M., (2011), *Environmental Law*, 2<sup>nd</sup> Edition, Juta and Company, Pages 3 – 4.

<sup>907</sup> Kotze LJ. and Paterson A., (2009), South Africa, in Kotze LJ. And Paterson A., *The Role of the Judiciary in Environmental Governance: Comparative Perspectives*, Kluwer Law International, Wolters Kluwer International Books, The Netherlands, Page 558.

<sup>908</sup> The Constitution of the Republic of South Africa (1996), Section 2.

<sup>909</sup> The Constitution of the Republic of South Africa (1996), Section 24, discussed in Chapter 4 of this dissertation.

<sup>910</sup> The Constitution of the Republic of South Africa (1996), Section 27, discussed in Chapter 4 of this dissertation.

<sup>911</sup> Kotze LJ. and Paterson A., (2009), South Africa, in Kotze LJ. And Paterson A., *The Role of the Judiciary in Environmental Governance: Comparative Perspectives*, Kluwer Law International, Wolters Kluwer International Books, The Netherlands, Page 560.

<sup>912</sup> Glazewski J., (2005), *Environmental Law in South Africa*, 2<sup>nd</sup> Edition, Durban: LexisNexis Butterworths, Pages 67 – 70.

<sup>913</sup> Kidd M., (2011), *Environmental Law*, 2<sup>nd</sup> Edition, Juta and Company, Pages 26 – 27.

<sup>914</sup> 107 of 1998.

<sup>915</sup> NEMA, Section 2.

<sup>916</sup> NEMA, Chapters 2 – 4.

Water Act 36 of 1998 (NWA) and the Water Services Act 108 of 1997 (WSA) are used. Thus, environmental issues in terms of water are governed through the various pieces of law and frameworks that have been implemented in South Africa. Therefore, in terms of water governance in South Africa, the Constitution of the Republic of South Africa is the point of departure, and this right is then linked to the framework legislation of NEMA, which is then further promulgated under the NWA and the WSA, which provides a comprehensive legislative framework for water issues within the country. The effective implementation of these laws however requires proper interpretation and analysis by the courts, should disputes arise. The governance structure on water law in South Africa requires that a court (judiciary) make necessary judgements in line with these principles, and interpretation of these laws is where issues can arise. However, it must be noted that the judiciary has embarked on the road to becoming an integral role-player in the promotion of environmental governance for sustainability in South Africa. There have been many environmental cases that have been adjudged by the courts in South Africa<sup>917</sup> but the judiciary still remains chequered in its application of environmental laws in the courts.<sup>918</sup> This would suggest that there is room for improvement, but it must be noted that since dispute resolution falls to the ‘ordinary’ courts of South Africa, the judges presiding over these courts are traditionally generalists.<sup>919</sup> However, several initiatives have been undertaken to allow for environmental legal training,<sup>920</sup> which seems to be a step in the right direction for effective implementation and governance of environmental laws in South Africa. What is impressive about the South African governance system in terms of environmental law is that it includes an environmental right and a right to water within its highest and most authoritative piece of legislation, the Constitution (1996), and this status gives these rights an extremely high standing within the country, especially in terms of its governance.

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<sup>917</sup> Most notably the *Mazibuko and Others v City of Johannesburg and Others* (CCT 39/09) (2009) ZACC 28; 2010 (3) BCLR 239 (CC) ; 2010 (4) SA 1 (CC) (8 October 2009) case in terms of water law, as dealt with in Chapter 4 of this dissertation.

<sup>918</sup> Kidd MA., (2006), *Greening the Judiciary*, Potchefstroom Electronic Law Journal/Potchefstroomse Elektroniese Regsblad (PER/PELJ), Vol. 3, Page 1.

<sup>919</sup> Kotze LJ. and Paterson A., (2009), *South Africa*, in Kotze LJ. And Paterson A., *The Role of the Judiciary in Environmental Governance: Comparative Perspectives*, Kluwer Law International, Wolters Kluwer International Books, The Netherlands, Page 594.

<sup>920</sup> Kotze LJ. and Paterson A., (2009), *South Africa*, in Kotze LJ. And Paterson A., *The Role of the Judiciary in Environmental Governance: Comparative Perspectives*, Kluwer Law International, Wolters Kluwer International Books, The Netherlands, Page 594.

## **7.6. Governance through Goals and the Way Forward**

It has been noted that there exists many long-standing issues with global environmental governance as well as global water governance. Sometimes, there are even issues with the implementation of legal environmental policy at a national level, as the critique in the South African cases of the manner in which environmental cases are dealt with indicates. However, this begs the question as to how exactly implementation and governance of SDG6 and the goals in general can properly and progressively be realised. Biermann and others suggest that the global goals actually feature a built-in governance mechanism and this mechanism should be used in order to implement and achieve the SDGs. It is stated that governance through goals, are indeed exemplified by the SDGs, and it is new and unique for a number of characteristics such as the inclusive goal-setting process which has set targets, the non-binding nature of the goals which allow for some form of flexibility, the reliance on weak institutional arrangements, and the extensive leeway that States enjoy. While the SDGs hold a great potential, their collective success will depend on a number of institutional factors such as the extent to which states formalize their commitments, strengthen related global governance arrangements, translate the global ambitions into national contexts, integrate sectoral policies, and maintain flexibility in governance mechanisms. Research communities also have an important role to play, especially with regard to measuring genuine progress, aligning the goals with existing governance arrangements, and integrating the economic, social, and environmental dimensions.<sup>921</sup> This seems to be an embrace of the soft-law non-binding nature of the goals, and it seems to be an interpretation that uses the status of the goals as not being a hindrance, but rather an advantage due to the flexibility it provides. While past global governance efforts have relied largely on regulation or market-based approaches and the use of rigid principles, the SDGs promise a novel type of governance that make use of non-legally binding, global goals set by the United Nations member States. The approach of governance through goals is marked by a number of key characteristics, none of which is specific to this type of governance. These characteristics amount to a unique and novel way of steering a distinct type of institutional arrangement in global governance.<sup>922</sup>

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<sup>921</sup> Biermann F., Kanie N. and Kim R.E., (2017), Global Governance by Goal-Setting: The Novel Approach of the UN Sustainable Development Goals, *Current Opinion in Environmental Sustainability*, Vol. 26, Page 26.

<sup>922</sup> Kanie N., Bernstein S., Biermann F., Haas P.M., (2017), Introduction: Global Governance Through Goal Setting, in *Governing Through Goals: Sustainable Development Goals as Governance Innovation*, edited by Kanie N. and Biermann F., MIT Press.

However, the issue at hand with this ideology is that the status of the SDGs could in fact prove to be an issue as governments are under no legal obligation to formally transfer the goals into their national legal systems.<sup>923</sup> Also, governance through goals functions through weak institutional arrangements at the intergovernmental level.<sup>924</sup> However, Biermann and other believe that the new approach of governance through goals works through global inclusion and comprehensiveness of the global goal-setting process and it provides much leeway to national choices and preferences for governments to determine their own ambitions in implementing the goals.<sup>925</sup> It is believed that the success of governance through goals depends on the increasing formalization of commitments, the establishment of clear benchmarks, and the issuance of measurable pledges by governments, all of which may cause embarrassment or loss of face in case of non-compliance.<sup>926</sup> Hence, it is this paradigm shift that provides the legal legitimacy to the SDGs as per this manner of thinking. The more commitment to the goals would mean more implementation taking place, which would mean that oversight and reporting initiatives are put into place in order to ensure that the SDGs are actually being properly implemented and that there is progress being made. It seems fair to deduce that if there is more widespread commitment to the SDGs, then indeed there will be governance mechanisms put into place, because countries will not utilise that much effort and that much money in activities that would not yield results or be of no significance. Also, since the goals have built-in targets, governance mechanisms would or should automatically be built around these said targets. Hence, in order to achieve SDG6.1, mechanisms would have to be put into place in order to allow for its realisation, with proper compliance and monitoring mechanisms initiated as well. Thus, these targets have inherent governance mechanisms within it so to speak. Biermann and other are of the view that the strengthening of global governance arrangements by devising effective procedures to track the goals; ensuring effective policy integration in implementation; adapting global ambitions to national circumstances and priorities; and improving the adaptability of governance mechanisms can all go a long way in ensuring that the success of governance through goals is realised. Indeed, a final condition for the successful implementation of the SDGs is the adaptability of the

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<sup>923</sup> Biermann F., Kanie N. and Kim R.E., (2017), Global Governance by Goal-Setting: The Novel Approach of the UN Sustainable Development Goals, *Current Opinion in Environmental Sustainability*, Vol. 26, Page 26.

<sup>924</sup> Biermann F., Kanie N. and Kim R.E., (2017), Global Governance by Goal-Setting: The Novel Approach of the UN Sustainable Development Goals, *Current Opinion in Environmental Sustainability*, Vol. 26, Page 26.

<sup>925</sup> Biermann F., Kanie N. and Kim R.E., (2017), Global Governance by Goal-Setting: The Novel Approach of the UN Sustainable Development Goals, *Current Opinion in Environmental Sustainability*, Vol. 26, Page 26.

<sup>926</sup> Young O.R., (2017), Conceptualization: Goal-Setting as a Strategy for Earth System Governance, in *Governing Through Goals: Sustainable Development Goals as Governance Innovation*, edited by Kanie N, Biermann F., MIT Press.

related governance arrangements to deal with social-ecological changes that are likely to take place over the next fifteen years. Governance through goals in this regard will have to be flexible enough to adjust to changing conditions.<sup>927</sup> Yet the character of the SDGs as non-binding global aspirations with weak institutional oversight arrangements and high levels of national discretion does not imply an outright negative, pessimistic assessment. Instead, there is potential for a global governance strategy through goals, as represented by the SDGs, to advance public policy and private efforts towards an ambitious sustainability agenda.<sup>928</sup> Indeed, this novel way of looking at the implementation and governance of the SDGs seems ambitious, especially because of the hard and fast rule that law is law and anything that is not hard law is not 'real' law. However, one must consider the changing of the times and accept that the issues being faced currently were issues that were not faced even ten to fifteen years ago. Thus, the law must adapt and with it governance too must adapt. The SDGs provide a good platform for this to take place and it places the global community at a point where it has the ability to fast-track and put into motion this new way of thinking in order to achieve goals that are pertinent to human development and sustainability. In essence, the SDGs have at its core the human being and joint environment at heart, whereby it aims to resolve matters that can prolong and ensure human life and sustainability for current and future generation. One must take into consideration that the principles of global environmental governance as a basis can allow for the actual governance of the SDGs to take place, and that the principles of global water governance can allow for the governance of SDG6 to take place. However, the many issues within these spheres could fuel the debate of a centralised environmental agency for the SDGs or an SDG-specific agency only dealing with one particular SDG. This would seem costly and time-consuming to set-up, but the results can ensure actual progressive realisation of the SDGs. For example, if there was a central international agency dealing solely with SDG6, this agency can serve as a point of departure and a point of reference for member States, it can collate the various data given by member States and it can ensure effective reporting by member States. The United Nations as a governing body for and of the SDGs cannot deal with the SDGs alone, as it has many other commitments and issues to deal with as well. If there are SDG-specific agencies created through the auspices of the United Nations, it can ensure that data, updates, issues, progress and implementations are centralised to one agency, and assistance can be sought from one agency. In essence, an approach like

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<sup>927</sup> Biermann F., Kanie N. and Kim R.E., (2017), *Global Governance by Goal-Setting: The Novel Approach of the UN Sustainable Development Goals*, *Current Opinion in Environmental Sustainability*, Vol. 26, Page 29.

<sup>928</sup> Stevens C. and Kanie N., (2016), *The Transformative Potential of the Sustainable Development Goals (SDGs)*, *International Environmental Agreement* 2016, Vol. 16, Pages 393 – 396.

this can allow for better tracking of SDG6 and can ensure that each State is pulling its weight in terms of its commitments. It can also ensure that SDG6 is progressively being realised. This could also allow for the better development of SDG17, which calls for the strengthening of the global partnership and this could indeed allow for an effective way of governing the SDGs and their separate targets as a whole. Hence, the set targets built within the SDGs provides a good platform for the creation of governance mechanisms in order to achieve those said targets. In essence, the SDGs ambitious goals and targets are indeed worth pursuing, especially since it has the current and future good of mankind at heart.

## **7.7 Concluding Remarks**

It is indeed evident that global environmental governance has an integral role to play in the progressive realisation of the SDGs as a whole. In terms of SDG6, the principles of global water governance must be looked at and adapted for the purposes of the targets the SDG seeks to achieve. The unfortunate reality is that there remain many flaws with the global governance system and the global water governance system, and these flaws will inevitably serve as a hindrance, especially when taking into account the legal nature of the SDGs. It seems somewhat idealistic to infer that the SDGs and SDG6 can be progressively achieved through the current structures, but there has been novel ideas coming through for its proper implementation, especially by way of governance through the goals itself as opined by Biermann. Novel approaches to global environmental governance and global water governance should indeed be sought and this can allow for the international community to come together and decide on the best way to move forward. This should be done because the purposes of the SDGs are inherently good and are beneficial to the sustenance of humankind, as well as the earth itself. Thus, existing governance structures can be adapted to move with the times and to combat current issues. As stated by DiMento and Hickman, although idealistic, it is important for policymakers, academics, the media and other leaders to act to change the understanding that the regional seas are something inexhaustible, exotic, out there, unknown, controlled by others.<sup>929</sup> This is indeed important as the perception surrounding the abundance of water and water reserves must change. As a result, better awareness can ensure

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<sup>929</sup> DiMento J.F.C. and Hickman A.J., (2012), *Environmental Governance of the Great Seas - Law and Effect*, New Horizons in Environmental and Energy Law, Edward Elgar Publishing UK, Page 181.

better mobilization of ideas and mechanisms in order to allow for the efficient management of water resources. This shares the same sentiments of global co-operation in order to achieve these SDGs. Global participation and co-operation fundamentally allows for the international community to come together in order to invent new ways to overcome these current issues. To have the seas recover, that understanding must be one quite different: a resource owned in common, by communities, something we can manage, something shared by the people of the region, something we steward and that can provide for sustainable natural and human life. International law can help to channel this change, in promoting public participation, sustainable development, and in articulating the responsibilities of government.<sup>930</sup> Indeed, governance remains the core component of the proper functioning and implementation of any law, and since this is the case, it is pertinent that global governance structures accommodate for the implementation of the SDGs, because the purpose and achievement of these goals carry a fair amount of weight in overall human development and sustainability. Therefore, realising these goals would require a conforming of current governance structures to facilitate the current global environmental needs, especially when it comes to water access, management and conservation. In essence, the idealistic approach would be for each SDG to have a designated global base, which can allow for better coherency, transparency and tracking. Indeed, this will require a lot of co-ordinated effort and resources however sight of the bigger picture should not be lost. A water governance institution solely focussed on SDG6 and the achievement of the SDG6 targets can go a long way in ensuring that the targets are given due attention and are met timeously. Global water governance is at a stage where evolution is required to keep up with the increase in demand of water and the decrease in supply of water. If this trend continues, the global water crisis will be here all too soon. The best way to ensure that this does not happen is to allow for co-ordinated efforts in management and conservation of water, through new governance structures; structures that take the goals and targets of SDG6 to heart.

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<sup>930</sup> DiMento J.F.C. and Hickman A.J., (2012), *Environmental Governance of the Great Seas - Law and Effect*, New Horizons in Environmental and Energy Law, Edward Elgar Publishing UK, Page 181.

## **CHAPTER EIGHT – CONCLUSION AND RECOMMENDATIONS**

*Throughout human history, in any great endeavour requiring the common effort of many nations and men and women everywhere, we have learned - it is only through seriousness of purpose and persistence that we ultimately carry the day. We might liken it to riding a bicycle. You stay upright and move forward so long as you keep up the momentum.*<sup>931</sup>

### **8.1. General**

Water resource management remains one of the most critical areas in need of legal reform today. It is evident that the world is on the verge of a water crisis, which could lead to even more inter-relational complexities between nations if the world eventually runs out of usable water for human needs. Water is at the very core of sustainable development, critical for a thriving people, planet and prosperity. Since water is essential for human life, it seems to be convention that human beings will do everything in their power to conserve and preserve this natural resource. Unfortunately, a myriad of factors are affecting the global water situation. One of the main issues is how bureaucratic water relations have become. Since water is essential to life, more and more role-players are moving towards self-preservation, instead of the common-good approach that can be beneficial to all instead of a select few. Factors such as the non-recognition of water as an international human right, the unwillingness from nations to act as a global coalition on water-related matters and the nonchalant attitude of governments are driving society into increased water-scarcity situations. This is further compounded by the fact that there still exist issues such as non-access to water, pollution of water and scarcity of water resources itself. The combination of natural issues as well as management issues has led society into this well of uncertainty when it comes to water. The emergence of SDG6 has the ability to shine some much needed light on a somewhat bleak picture. The SDGs provides for a ‘light-at-the-end-of-the-tunnel,’ which gives nations and role-players something to work towards. The fact that SDG6 is not legally binding does pose

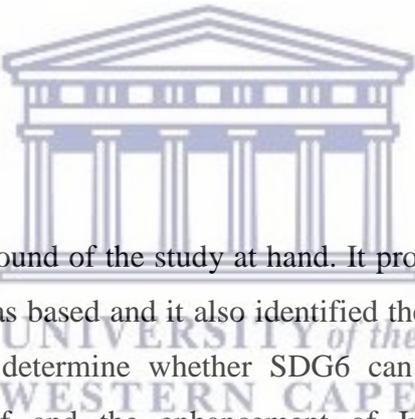
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<sup>931</sup> Ki Moon, B. (2015), Building a Better Future for All: Selected Speeches of UN SG Ban Ki-moon 2007-2012, Published by the United Nations (New York), available at [https://issuu.com/unpublications/docs/9789210559959\\_issuu](https://issuu.com/unpublications/docs/9789210559959_issuu), (last accessed 10/04/18).

many implementation and regulation issues, but the purpose of the goals, as well as the common-good which it intends to bring about should be given some weight. As stated by Spijkers, the underlying idea is that the concrete political commitments relating to water contained in the SDGs, and SDG6 in particular, can add substantive flesh to the otherwise abstract skeleton of general international water law. Hence, SDG6 can move from a purely political commitment to a legally relevant obligation if it can be attached to current international freshwater law, thus elevating its status in the process as well.<sup>932</sup> Indeed, the SDGs are at best soft-law obligations that have normative consequences attached, but an attachment of these targets to current hard-law water principles can allow for more legal legitimacy when it comes to the goals and can allow for better action to take place.

## **8.2. Chapter Recommendations**

### **8.2.1. Introduction**



Chapter one set out the background of the study at hand. It provided the actual context upon which the research question was based and it also identified the aims and significance of the study. The study set out to determine whether SDG6 can promote the furtherance of sustainable development itself and the enhancement of International Freshwater Law pursuant to the promotion of access to quality water, under the auspices of sustainable development.

### **8.2.2. Issues Surrounding Water**

The main issue regarding water itself is the actual access to and the quality of water that human beings enjoy. SDG6 sets out to achieve universal and equitable access to water for all, as well as to improve water quality and allow for better water management. However, it is

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<sup>932</sup> Spijkers O., (2016), The Cross-fertilization between the Sustainable Development Goals and International Water Law, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol. 25, Issue No. 1, Page 39.

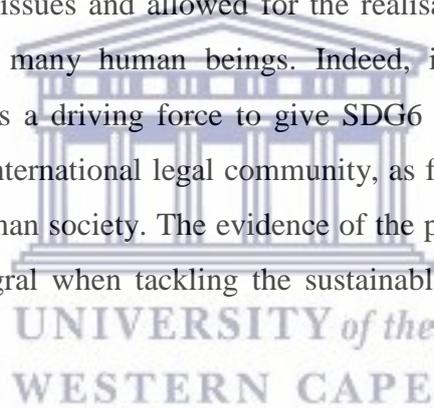
important to note why this goal was established in the first place. Chapter two of this composition dealt with the various issues currently found in international freshwater law, namely, access to water, pollution and quality of water and the scarcity of water. An investigation was done into how these issues have emerged and how these issues affect water access and quality, essential for sustainable human development. This chapter painted a dire picture of the current global water situation. More than a billion people lack access to safe drinking water. Two and a half billion people live without access to adequate sanitation systems necessary to reduce exposure to water-related diseases. Indeed, pollution of water itself is a major factor and must be addressed. Pollution of river bodies has become a major problem that is becoming critical because of inadequacy or non-existence of surface water quality protection measures and sanitation. Lagoons, rivers and streams are sinks for wastes. Wastes are most often discharged into the receiving water bodies with little or no regard to their assimilative capacities. The discharge of raw sewage, garbage, as well as oil spills are threats to the diluting capabilities of the lagoons and rivers in the major cities.<sup>933</sup> On a positive note, by achieving SDG6, these issues surrounding water can gradually disappear as well. SDG6 has the ability to ensure that matters of access and pollution can be curbed. For instance, if we take into consideration the predecessor of the SDGs, it is noted that the MDGs showed good signs of gradual progress. In terms of the objectives of the MDGs, the results were that the world had met the target of halving the proportion of people without access to improved sources of water, five years ahead of its intended schedule and that between the years 1990 and 2015 2.6 billion people gained access to improved drinking water sources.<sup>934</sup> This is good and shows that progress is possible if these issues are brought to the attention of the international community and given significance on the international agenda. As per the progress report on SDG6, 71 per cent of the global population (5.2 billion people) used a safely managed drinking water service; that is, one located on premises, available when needed and free from contamination. Also, estimates for safely managed drinking water were available for 96 countries (representing 35 per cent of the global population), and for four out of eight SDG regions. One out of three people using safely managed drinking water services (1.9 billion) lived in rural areas and eight out of ten people (5.8 billion) used improved sources with water available when needed. Three quarters of the global population (5.4 billion) used improved sources located on premises and three out of four people (5.4 billion)

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<sup>933</sup> Halder J.M. and Islam M.N., (2015), Water Pollution and its Impact on the Human Health, Journal of Environment and Human, Vol. 2, No. 1, Page 36 – 37.

<sup>934</sup> MDG 7.C Outcomes, <http://www.un.org/millenniumgoals/enviro.html>, (last accessed 19/02/18).

used improved sources free from contamination.<sup>935</sup> However, 89 per cent of the global population (6.5 billion people) used at least a basic service; that is, an improved source within 30 minutes' round trip to collect water. 844 million people still lacked even a basic drinking water service, 263 million people spent over 30 minutes per round trip to collect water from an improved source (constituting a limited drinking water service) and 159 million people still collected drinking water directly from surface water sources, 58% lived in sub-Saharan Africa.<sup>936</sup> These statistics are an indicator of the successes that can be brought about as a result of the emergence of the SDGs. This is because the SDGs have essentially created global awareness to a global issue. It has put into motion progressive steps in achieving progressive targets the world over. The increase in access to water is a clear result of the good that can come out of the SDGs when all parties take the time and effort to firstly recognise the importance of the goals, and then implement steps in order to achieve the targets of the goals. Even though there are still problems, the emergence of SDG6 has allowed for a gradual progression of water issues and allowed for the realisation of access to safe water, which was not a reality to many human beings. Indeed, it is recommended that this progression should be seen as a driving force to give SDG6 (and SDGs in general) more weight and relevance in the international legal community, as fulfilling the SDG targets will have a positive impact on human society. The evidence of the progression through the SDGs itself should be seen as integral when tackling the sustainable development agenda going forward.



### **8.2.3. International Freshwater Law**

The aim of the research was to determine how SDG6 promotes the furtherance of sustainable development and the enhancement of International Freshwater Law. In order to determine whether or not SDG6 plays a role, it was important to deal with the various facets of water law on an international scale. In chapter three of this composition, I dealt with the various International Conventions and Treaties regulating International Freshwater Law currently.

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<sup>935</sup> World Health Organisation., (2017), Progress on Drinking Water, Sanitation and Hygiene: Updates and SDG Baselines, available at <http://www.who.int/mediacentre/news/releases/2017/launch-version-report-jmp-water-sanitation-hygiene.pdf>, (last accessed 19/02/18).

<sup>936</sup> World Health Organisation., (2017), Progress on Drinking Water, Sanitation and Hygiene: Updates and SDG Baselines, available at <http://www.who.int/mediacentre/news/releases/2017/launch-version-report-jmp-water-sanitation-hygiene.pdf>, (last accessed 19/02/18).

Particular emphasis was placed on the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, as this is considered the main instrument for international watercourses. The chapter allowed for an idea of how water is regulated on an international scale. This chapter also dealt with the relationship between international freshwater law and sustainable development, as well as its potential link in terms of access to quality water. It is indeed clear that international treaties and conventions can play a major role in the development of water law. However, the issue revolves around the binding nature of the said treaties or conventions. Countries are not forced to be a party to an international agreement and this is where most of the issues arise. Water law has been debated upon for decades, and the emergence of SDG6 is another addition to this ever-expanding debate. The reality remains that non-binding agreements remain just that, non-binding. Since SDG6 in itself is not legally binding as well, it somewhat merely adds to the list of literature on this matter. The best thing to do is to look at a different approach, namely, a ‘common-good’ approach. This recommendation ensures that Nations must start to realise that natural resources are essential to life. Once a natural resource becomes diminished, efforts should be made to ensure that the remainder of the natural resource is properly used, managed and distributed for the greater good and survival of all of humanity. This ensures a coming together of States, which in turn will allow for better global relations and better environmental conservation. This sounds idealistic, however, it should be noted that expanding and increasing awareness and dialogue on current water law policies and its connection to or with SDG6 in particular can open the gateway for the expansion, evolution and development of international freshwater law doctrine that has been in existence for far too long. This evolution is essential, as law must develop with the ever-changing times that humanity is facing. Hence, it can be said that SDG6 adds value to the global water management and regulations agenda as it contains targets that are admirable in ensuring proper access to water for all. In essence, it can be said that SDG6 is based on many of the provisions within these international agreements, and it brings to the fore issues that have been part of the global water agenda for decades. It contributes to international freshwater law by ensuring set targets that must be met in order to allow for access of water for all as well as the conservation of water for all, while also ensuring better co-operation between States when dealing with water issues for all. Thus, this contribution provided by SDG6 has led Spijkers to recommend a cross-fertilization of current international freshwater law and

SDG6 in order to allow for better legal legitimacy,<sup>937</sup> and this deduction is indeed correct. Spijkers makes an interesting point and it is indeed worth noting that this way of attaching SDG6 to current existing hard-law water principles can properly legitimise the SDGs from a legal standpoint, or at best, try to do so. Therefore, it is recommended that SDG6 is viewed within the framework of current international water law principles, as SDG6 has allowed for the creation of awareness of the current global water issue being faced by humankind, and has set out targets in order to properly manage this issue. It can be viewed that SDG6 does indeed enhance international freshwater law by way of sustainable development, as it has allowed for a resurgence of these policies to be viewed within the global context.

#### **8.2.4. Explicit International Recognition of Water as a Human Right**

Since water has been afforded so much international attention, chapter four explored the prevalence of classifying water as a human right. A link with various international treaties and conventions was made in order to establish the importance of water to mankind itself. There have been various calls for ensuring that water receives its due status, and this chapter explored the progression of the relevance and importance of water on the international scale. Since water is integral to the survival of man, it was indeed warranted to determine whether this necessity is part of our core necessity of basic human rights. Some parts of the SDG on water appear to encourage all states to acknowledge a universal human right of access to water of sufficient quality and quantity. International water law does not approach the management of trans-boundary waters from such a human rights perspective, although it does emphasise the importance of vital human needs. What the SDG process could do is to bring the human rights discourse and international water law closer together.<sup>938</sup> It would seem that the recognition of water as a human right would be elementary, since water is critical to our existence as human beings. The international attention garnered by a ‘right’ to quality and accessible water has indeed been significant, and it is therefore imperative that this ‘right’ is progressively realized in order to allow for the progressive sustainable development to

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<sup>937</sup> Spijkers O., (2016), The Cross-fertilization between the Sustainable Development Goals and International Water Law, *Review of European, Comparative and International Environmental Law (RECIEL)*, Vol. 25, Issue No. 1, Page 39.

<sup>938</sup> Spijkers, O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 120.

gradually occur. Indeed, SDG6 bolsters the recognition of this right to water through its calls for universal human access to water, as well as through its recognition of good quality water and effective water management and conservation. The quality and quantity of water must be of proper standards to allow for human beings to be able to sustain themselves and the land around them. This 'proper' standard entails water that is fit for human consumption and productivity. A 'right' to access water is not truly fulfilled if that water is of sub-standard quality or is of too little in quantity. The progressive realization of the importance of water on a global scale must have an international effect if a 'right' is ever to be recognized. The emergence of SDG6 brings this 'right' debate to the forefront once more. Since water is recognized as a global goal, its importance is again highlighted. This seems to follow a continued trend that has been growing over the decades. There is no doubt that water is important, however, the continued non-recognition of water as a human right has converse effects on achieving the objectives of the goal itself. Without water, there can be no human life, thus water should be regarded as a universal human right. By elevating the status of water, effectively, there will be more recognition and serious attention given to water-related matters on a global scale. This recognition could even allow for better collaborative efforts to be made and for all nations to be party to water-related agreements so that this precious resource can be sustained and properly maintained. Thus, it is recommended that in light of the targets of SDG6 and in light of the universal importance of water to human kind, the dialogue regarding the explicit recognition of water as a universal human right must be re-opened and the acknowledgement of water as an essential human right must be recognized.

#### **8.2.5. Sustainable Development and Water**

Sustainable development is a concept synonymous with environmental law and it has been a concept around which many international treaties, agreements, laws and obligations have dealing with the environment has been formed. In Chapter five of this composition, a link was made between sustainable development and water law and how SDG6 can allow for sustainable water management to occur. Sustainable development focuses on using the earth's natural resources in a manner that ensures use not only for the current generation, but for the future generations as well. It was found that sustainable development as a concept and a principle is indeed essential when it comes to international water law, water access, water

use and water sustainability. Sustainable water management can ensure that mechanisms are implemented that can allow for water to be used and conserved in a manner that will be beneficial to all of humankind, for generations to come. Ensuring sustainability in water essentially ensures life and growth itself, mainly due to the important nature of water for human existence. Therefore, it can be concluded that SDG6 will indeed be beneficial to the international water agenda and can indeed promote the furtherance of sustainable development and sustainable water management. This is because SDG6 expressly calls for the increase in water-use efficiency and sustainable withdrawals and supply of freshwater to address water scarcity issues, as well as the implementation of integrated water resources management at all levels. This will ensure that sustainable mechanisms for water conservation are put in place which can therefore allow for better sustainable development in relation to water. In addition to this, SDG6 calls for integrated water resource management as well as for the protection of water-related ecosystems, mountains, forests, wetlands, rivers, aquifers and lakes, which indicates the concern shown for future generations and for ensuring their equitable use of these precious natural resources. Therefore, it is recommended that SDG6 and the SDGs in general be linked with the overall concept of sustainable development, especially since the SDGs aim to ensure a progressively sustainable future for all. SDG6 is based upon principles of sustainable development, and the attachment of SDG6 to the sustainable development concept can go a long way in crystallising SDG6 in international freshwater law. The targets of SDG6 have sustainable development at heart and therefore the linkage must indeed be made in order for there to be a sustainable future in relation to water access and water conservation.

#### **8.2.6. The Use of Sustainable Development Goals to Further the Water Agenda**

Chapter six dealt with the SDGs as well as the MDGs. The aim of this chapter was to introduce the reader to the aims and objectives of the MDGs and SDGs in general and especially focus on those pertaining to water. The MDGs, now defunct, and the SDGs were explored and the main objectives of these goals as a whole were detailed, especially in relation to water. The chapter also explored the impact that the emergence of these SDGs has had in relation to overall sustainable development and International Freshwater Law. From the offset, it must be noted that the SDGs are not legally binding as a conventional instrument

of law. At best, it can be seen as ‘soft law,’ which again causes issues of implementation, enforcement and consequences. Hence, it would be in good stead to ensure global acceptance of water as a human right, as this will allow for SDG6 to have more weight since it will then deal with a ‘human rights’ issue. This will in turn solidify the legal status of water in the global context and will leave no room for ambiguity. The SDGs are an idealistic approach that is based on human values and needs to ensure that the ‘common-good’ is achieved. Idealistic approaches often succumb to the realistic situations of society. The crux of the matter is that SDG6 is a vehicle to address problems plaguing water on a global scale. However, the issue remains the actual status of the SDGs. As shown before, 71 per cent of the global population (5.2 billion people) used a safely managed drinking water service and three quarters of the global population (5.4 billion) used improved water sources located on premises and three out of four people (5.4 billion) used improved sources free from contamination.<sup>939</sup> This proof shows the capability and power that a united global community can have. It shows that averting water-related crises is possible if the collective is ready to band together. The SDG process can be used to encourage the evolution towards a ‘greener’ or more sustainable international water law.<sup>940</sup> If it were not for SDG6 highlighting these issues and setting global goals related to water, we might not have had these successes in this span of time. SDG6 provides a critical juncture in current water law, as it has highlighted the problems plaguing humanity in relation to water, and has provided us with guidelines and timelines as to how to address these problems. This shows the value and importance of SDG6 and the SDGs as a whole. It has allowed for humanity to move forward in relation to water-issues and it should be treated with more respect in the international legal fraternity. In addition, SDG6 does have the power to further sustainable development and international freshwater law. SDG6 has acted as a catalyst that has speedily brought water-issues to the fore and it has allowed for these matters to be addressed in a manner that is pursuant to the principles of sustainable development. It is centred upon the principles of access and quality and ensures that water is to be managed not only for the present generation, but for future generations as well. SDG6 can be viewed as human-centric with goals centred on the common-good of all of humanity. Indeed, the importance of water is paramount, and SDG6 has gone a long way in ensuring that this importance is properly recognised, as water is a

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<sup>939</sup> World Health Organisation., (2017), Progress on Drinking Water, Sanitation and Hygiene: Updates and SDG Baselines, available at <http://www.who.int/mediacentre/news/releases/2017/launch-version-report-jmp-water-sanitation-hygiene.pdf>, (last accessed 20/03/18).

<sup>940</sup> Spijkers, O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 125.

source of life for all of humanity. As per Spijker's analysis, he mentions key attributes that SDG6 brings to the international water law debate. It is mentioned that the SDG process encourages the sustainable use of freshwater resources. Thus, it is recommended for all states to unambiguously embrace a 'sustainable' interpretation of water law's fundamental principles. It has been shown how the cornerstone of international water law – the principle of equitable and reasonable use of water resources – can be interpreted in a more sustainable development friendly way. Also, the SDG process makes ample references to the need to protect ecosystems, including freshwater ecosystems. It has been shown how international water law can provide clarity as to the exact meaning of 'ecosystems', and the rights and obligations that follow from the adoption of a so-called 'ecosystems approach' to international water law.<sup>941</sup> SDG6 is an admirable goal with targets that are beneficial to the existence and development of mankind, and it aims at ensuring a favourable outcome for all of humankind. SDG6 has brought to the fore the global water agenda once more, and it is indeed a necessary step in the evolution of international water laws and policy. It has provided a new stepping-stone for water-related matters to be dealt with, and has opened up new targets that are necessary for human existence, hence, it can only further the international agenda on water law and further the fight for ensuring that water is protected and managed in a sustainable manner. Thus, the recommendation is for SDG6 to be integrated into the international freshwater law agenda so that it can add more value to this sphere of law, especially since it is aimed at addressing issues that are current to humankind today. Indeed, SDG6 allows for current co-ordination of water issues and provides for an ideal platform that integrates aspects of international law, human rights law, international freshwater law and sustainable development. This platform further re-iterates the fact that these aspects cannot be viewed in isolation when it comes to water and water management, and thus SDG6 has provided an opportune gateway to allow for better goal-orientated water resource management and conservation through its integrative nature.

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<sup>941</sup> Spijkers, O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 125.

### **8.2.7. Water Governance and SDG6**

An important facet of effective implementation of legal policy is good governance. When it comes to matters regarding water access, international water governance also plays an important role. Chapter seven dealt with water governance and analysed how effective water governance can play an important role in ensuring that the issues mentioned in chapter four can be better managed and controlled. This chapter dealt with the issues surrounding current global water governance and it looked at how these issues can be dealt with. The chapter then focused on how global water governance can theoretically be a solution to ensuring effective water access, management and distribution. Governance is linked to enforcement and implementation hence SDG 17 was also explained and linked here. SDG 17 deals with revitalizing the global partnership for sustainable development, by revitalizing partnerships between governments, the private sector and civil society.<sup>942</sup> Thus, since international water governance requires co-operation on a global scale, this particular SDG must also be looked at. It is noted that the SDG process emphasises the importance of public participation in water governance at all levels, be it local, national or even global.<sup>943</sup> Policies on effective planning, investment and operation of access to water require accurate data based on precise indicators and monitoring processes that generate and analyse gender and geographically disaggregated data on service performance. This includes accurate data on levels of access, quality, reliability, the levels of investment and operating costs and cost recovery, conditions of water and sanitation infrastructure, and economic status of water service users analysed to evaluate measures taken and adjust planning.<sup>944</sup> The overall success of SDG6 and SDGs in general, is dependent upon global cooperation. SDG6 requires that every Nation be on the same page when it comes to water-management issues and that a transparent process is followed. SDG6 can only be truly realised if governance structures dealing with water are re-looked at and are standardised. The advantage of SDG6 and the goals in general, is that it provides a common checklist for all of humanity, not only for specific countries. This ensures that progression occurs together and that everyone can play a part in the achievement of the global goals. This inter-dependence allows for stronger ties to be built between the various role-players within

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<sup>942</sup> <http://www.un.org/sustainabledevelopment/globalpartnerships/>, (last accessed 19/02/18).

<sup>943</sup> Spijkers, O., (2015), The Sustainable Development Goals as Catalyst for the Sustainable Management of Water Resources, *Journal of Water Law*, Vol. 24, Page 125.

<sup>944</sup> Budapest Water Summit, (2016), Policy Recommendations for the Implementation of the SDG-6 Areas, available at [https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016\\_PR\\_v1129.pdf](https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016_PR_v1129.pdf), (last accessed 3/03/18).

the global cause. It enhances political relations as well as inter-personal relations, and is a driving vehicle for good global governance on the larger scale. Ensuring that nations work together to achieve a common purpose can only enhance the manner in which those nations deal with each other. The common goals highlight the fact that we are a common humanity, in need of the same common goals, in order to ensure our common human survival. It is imperative that the global community acts as one, in order to achieve the goals, and in order to ensure one common front for achieving sustainable development. It is important to keep in mind that water is required for food production as well, and food production requires energy. Good governance can assist in ensuring that this nexus is properly managed and attained. Water, energy and food are integral elements of sustainable development, and have many interconnections and interdependencies within each other. A 50% increase in energy consumption by 2035 and a 60% more demand for food by 2050, respectively, are estimated. The combined effect of these changes can lead to a 55% increase in global water demand by 2050. Water infrastructure has synergetic impacts, such as producing hydropower and storing water for irrigation and urban uses, contributes to climate change adaptation and coping with water scarcity yet potentially adverse impacts on downstream areas, ecosystems and food systems, and on communities that have to resettle.<sup>945</sup> The water, energy and food nexus offers the very useful possibility for a coherent and systemic approach to natural resources management for the attainment of the SDGs. The broad implications of food loss and waste on the water, energy, and climate change dimensions provide a very good example on how the nexus approach can help society recognize the broad picture and address multiple facets of the same problems effectively.<sup>946</sup> Thus, the management and conservation of water is essential to life itself. It is therefore recommended that global water governance must evolve in order to keep up with the increase in demand of water and the decrease in supply of water. A water governance institution solely focussed on SDG6 and the achievement of the SDG6 targets can go a long way in ensuring that the targets are given due attention and are met timeously. This has the potential to allow for co-ordinated efforts in management and conservation of water, through new governance structures that will have the goals and targets of SDG6 at its core. Thus, it is of utmost importance that co-ordinated efforts are made in line with the goals of SDG6, as this can ensure that the ‘common-good’ is progressively achieved.

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<sup>945</sup> Budapest Water Summit (2016), Policy Recommendations for the Implementation of the SDG-6 Areas, available at [https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016\\_PR\\_v1129.pdf](https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016_PR_v1129.pdf), (last accessed 3/03/18).

<sup>946</sup> Budapest Water Summit (2016), Policy Recommendations for the Implementation of the SDG-6 Areas, available at [https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016\\_PR\\_v1129.pdf](https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016_PR_v1129.pdf), (last accessed 3/03/18).

The enforcement of better and updated governance structures, mechanisms and protocols in relation to water can go a long way in ensuring that water-related matters are firstly properly brought to the fore and secondly properly managed and dealt with. A good water governance policy is indeed essential in ensuring the enforcement and progressive realisation of SDG6 itself.

### **8.3. Recommendations**

Drinking water is too important to remain within the confines of water policies. It needs to be a high priority in allocation of effort and resources in ways that recognise the human rights to water.<sup>947</sup> The study recommends that by elevating the status of water first, automatically we will have more attention and prevalence placed on water-related matters. Hence, applying a ‘human rights’ based approach to access safe drinking water will ensure that overall legal importance is then afforded to water itself. Universal, safe and reliable access to drinking water is a key objective of SDG6 and of the human right to drinking water. The study further recommends for SDG6 to be integrated into the international freshwater law agenda so that it can add more value to this sphere of law, especially since it is aimed at addressing issues that are current to humankind today. Thus, an attachment of these soft-law SDG principles to hard-law water policies can further legitimise and strengthen the force of SDG6 itself, allowing for actual enforcement and adherence to the policy itself. Also, since SDG6 is based upon principles of sustainable development, this study recommends that the targets of SDG6 must have sustainable development at heart and thus a linkage must indeed be made between SDG6 and sustainable development, in order for there to be a sustainable future in relation to water access and water conservation. The study also recommends that national governments must ensure that all necessary efforts are made to fulfil the targets of SDG6. Thus, it is of utmost importance that co-ordinated efforts are made in line with the goals of SDG6, as this can ensure that the ‘common-good’ is progressively achieved. This requires increased efforts both in terms of investments and implementation. National governments should develop human rights based national roadmaps to achieve these, incorporating the normative and

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<sup>947</sup> Budapest Water Summit (2016), Policy Recommendations for the Implementation of the SDG-6 Areas, available at [https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016\\_PR\\_v1129.pdf](https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016_PR_v1129.pdf), (last accessed 3/03/18).

legislative framework at national levels.<sup>948</sup> National governments must also ensure that policy and regulations are properly updated and enforced in line with the goals and targets of SDG6 itself. SDG6 has provided an ideal platform in ensuring that current water issues are brought to the fore and it is up to governments to align their policies in order to combat the water-related issues that is plaguing mankind. This can then further enhance the global agenda in relation to water, and it can allow for the development of international water governance policies and mechanisms to be created and implemented. This will then ensure that co-operation between nations take place when it comes to water-related matters and it can also allow for some form of transparency and coherence in relation to water policy. Good governance structures in relation to water will indeed allow for SDG6 to have more international legal standing and for proper attention to be given to water-related issues, instead of merely just identifying issues and not actually implementing strategies for the alleviation of those said issues. Therefore, a good water governance policy is indeed essential in ensuring the enforcement and progressive realisation of SDG6 itself.



#### **8.4. Concluding Remarks**

SDG6 plays a vital role in the furtherance of sustainable development and international freshwater law. It plays an important role in ensuring access to quality water under the auspices of sustainable development itself. Since the targets of SDG6 deal directly with access, quality, management and cooperation, it truly encompasses all elements of international freshwater law. It highlights the current issues surrounding water, which have been highlighted on previous occasions. What it does differently is the set of targets it aims to achieve, and the time-frame within which these targets are to be achieved. This provides a purpose to ensure that the goal itself is realised, within a reasonable period, so that the benefits can be enjoyed by all. This also allows for better management practices and policies, which further ensures proper sustainable development to take place. The management and conservation of current water resources will be beneficial for the generations to come, as effective planning and policies will ensure the proper distribution of water for them as well. It

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<sup>948</sup> Budapest Water Summit (2016), Policy Recommendations for the Implementation of the SDG-6 Areas, available at [https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016\\_PR\\_v1129.pdf](https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016_PR_v1129.pdf), (last accessed 3/03/18).

is recommended that water issues be placed highly on the international agenda and that SDG6 becomes the forefront of water governance and policy. SDG6 has the potential to create a water-law network as it links to both international freshwater law and sustainable development. This indeed has the potential to create a designated co-ordinated effort to manage the impending global water crisis. This can only happen once the status of the goals is changed to hold more international legal weight and prominence. Proper enforcement and consequences must be implemented in order to ensure true cooperation. SDG6 is definitely an accelerant for the global water agenda. It comprises of goals and targets that is geared towards the common-good of humanity at large. Water is the vital natural resource that forms the essential platform of all dimensions of sustainable development, including ecosystem services. Healthy freshwater ecosystems are global reserves for life on earth.<sup>949</sup> Without integrated management of land, water and air, which in themselves encompass energy and food, none of the objectives of the 2030 Agenda can be accomplished. SDG6 contains idealistic principles for an idealistic societal-structure that must be given a chance to bloom. Its core values are centred on the longevity of human life, by providing sustenance through water. With this as its bedrock, surely SDG6 can go a long way in ensuring better water policy, practices, management and access. SDG6 allows for an opportunity to re-visit international water law and policy, to enhance said policy and to provide a uniform agenda for the world to follow in relation to water matter. It provides transparency that has so desperately been lacking. It provides uniformity that is so much needed in the political agenda. Most of all, it provides a platform to address so many of water-related issues that keeps on plaguing humanity, and will continue to plague based on the scarcity of this precious resource. SDG6 can indeed further the discourse on international water law and it can do so pursuant to sustainable development. Surely, SDG6 can be a revival for the international water agenda. Surely, SDG6 must be given its proper due and precedence, in the on-going battle for equal access of water for all of humanity. The simple and profound equation is indeed this: Water is life.<sup>950</sup>

**Word Count:** 95 900

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<sup>949</sup> Budapest Water Summit (2016), Policy Recommendations for the Implementation of the SDG-6 Areas, available at [https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016\\_PR\\_v1129.pdf](https://www.budapestwatersummit.hu/data/images/Statement%202016/BWS2016_PR_v1129.pdf), (last accessed 3/03/18).

<sup>950</sup> Lake O.O., (2010), Uprisings for the Earth: Reconnecting Culture with Nature, Ashland, OR: White Cloud Press, Page 1.

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