A COMPILATION OF ALL THE INTERNATIONAL FRESHWATER AGREEMENTS ENTERED INTO BY SOUTH AFRICA WITH OTHER STATES

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WRC Report No. 1515/1/06

Water Research Commission

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Report to the

Water Research Commission

by

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WRC Report No. 1515/1/06
ISBN No. 1-77005-406-5

JANUARY 2006

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Executive Summary

This Final Report introduces the background and rationale for the project, followed by a discussion of the core outputs and findings, arguing that the availability of data and knowledge for decision-making is an important step towards good governance of international watercourses. South Africa is party to several international freshwater agreements that confer both rights and responsibilities. Easy access to these agreements will help South Africa's water resource managers to exercise these rights and comply with the responsibilities.

South Africa shares four rivers with its six neighbours – the Incomati, Orange, Limpopo and Maputo. The water in these rivers is increasingly under pressure due to increased water demands in South Africa as well as in the neighbouring states. South Africa has ratified the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (United Nations, 1997), which calls for the exchange of data and information, the protection and preservation of shared water bodies, the creation of joint management mechanisms, and the early settlement of disputes (UNEP, 2002).

Essential tools for achieving the objectives of the UN Convention are the various treaties, protocols, memoranda and agreements entered into between basin states (collectively referred to as agreements). South Africa is party to a range of bilateral, multilateral and regional agreements on issues of quantity, quality, infrastructure and management of shared freshwater resources (e.g. SADC, 2001). These include agreements entered into as a colony of Britain with various other colonial powers as well as those agreed to with neighbouring states.

The overall goal of this research project was to contribute to the good governance of South Africa's shared watercourses, by making available copies of the agreements the country is party to and analysing selected treaties. To achieve this, the project had four objectives:

- Compile a list of all freshwater agreements to which South Africa is a signatory;
- Update the Transboundary Freshwater Dispute Database (TFDD);
- Store the agreements in a database, and make it available in CD Rom format; and
- Using the Legal Assessment Model (LAM) of the International Water Law Research Institute (IWLRI) to determine how effective current agreements are.

The initial challenge for the project team was to develop a methodology for the inclusion of agreements in the final list and the database. After consultation with the project steering committee and the Department of Foreign Affairs (DFA), it was decided to include all agreements that the Government of South Africa had entered into with another *sovereign state* since 1910 with a direct impact on the *management* of freshwater resources.

These agreements cover a variety of issues and were sourced principally from the Department of Water Affairs and Forestry (DWAF) and DFA archives. The final list of agreements contains 59 entries that were included in the database entitled *International Freshwater Agreements Database.tha* and distributed with this report. The database is fully searchable using a variety of fields. The hard copy agreements were then scanned and saved as PDF files, viewable from the database. The final list of agreements was used to update the TFDD, housed on an Oregon State University website, once permission was granted by the WRC. This is important as the TFDD is used extensively as an authoritative source of data and information on global freshwater agreements.

The database analysis showed that the rate at which South Africa enters into agreements with other countries is increasing. This is linked partly to the normalisation of South Africa's relationship with the international community and partly to the global trend of concluding more multilateral treaties on water resources and management. There are indications that this will continue, making it important to keep the database up to date.

The original project proposal would have used the Legal Assessment Model (LAM) to analyse a selection of agreements. However, once the LAM became available, it became clear that it is more useful for determining if a proposed water use is permissible, rather than as an overall analytical tool. International agreements tend to have an evolutionary aspect, increasing their range, scope and complexity over time. In order to draft agreements that will work effectively in practice, and to support that evolutionary process by bringing in scientific processes to support future negotiating teams, it is necessary to understand which components to include in such agreements, and which matters should be regulated by such agreements.

The project analysed two key agreements of regional importance to which South Africa is a party: the "Tripartite Interim Agreement Between The Republic Of Mozambique And The Republic Of South Africa And The Kingdom Of Swaziland For Co-operation On The Protection And Sustainable Utilisation Of The Water Resources Of The Incomati And Maputo Watercourses", signed on 29 August 2002 (hereafter called the Incomaputo Agreement), and the "Treaty On The Lesotho Highlands Water Project Between The Government Of The Republic Of South Africa And The Government Of The Kingdom Of Lesotho", signed on 24 October 1986 (hereafter called the LHWP-Treaty).

The analysis showed that these two agreements meet the requirements for effective operation. While the LHWP-Treaty contains important elements of "modern" international water law, the Incomaputo Agreement reflects the developments of international water law to a higher degree. With its comprehensive basin-wide management regime, the Incomaputo Agreement is well suited to function as a model agreement for other, future basin-wide water agreements that may be considered in the SADC region. Importantly, the analysis has shown that certain

improvements to the Incomaputo Agreement are desirable and indeed possible.

This study revealed the intricacy of international agreements – both in terms of the domestic ratification process that must be followed, and on an international level with other states. Importantly, older agreements that were entered into while South Africa was still a British colony or with other colonial powers prior to those territories gaining independence, are still valid, and their provisions – both rights and responsibilities – are still in place, unless they had been specifically revoked by the country concerned after independence.

The degree of legal predictability that agreements provide contributes to a spirit of cooperation and collaboration over shared water resources. However, the long-term effectiveness of these agreements depends on their regular upkeep; in this case ensuring that they are readily accessible to present day decision-makers, planners and managers.

Two key recommendations are made. The first is to distribute the database widely to a broad range of stakeholders, and ensure that it is maintained regularly to include the latest agreements. The second recommendation is that a similar project should be conducted for the entire SADC region – to provide a centralised register of all the international freshwater agreements to which SADC states are party.

Acknowledgements

The project team are grateful to the Water Research Commission for funding this research and thank the following project Steering Committee members for their guidance:

Dr Heather MacKay	Water Research Commission (Chair)
Dr Dirk Roux	Council for Scientific and Industrial Research
Prof Robyn Stein	Law Department, University of the Witwatersrand
Mr Niel J van Wyk	Department of Water Affairs & Forestry
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Adv MK Mathipa	Department of Water Affairs & Forestry
Mr Fawcett Ngoatje	Department of Water Affairs & Forestry
Prof Peter Vale	Rhodes University
Prof Charles Breen	University of KwaZulu-Natal
Mr Jean Boroto	Source Strategic Focus (Pty) Ltd

The project team also thank the following government officials from South Africa and neighbouring states for their inputs, guidance and assistance:

Ms Marie Jacobs	Department of Foreign Affairs
Mr Louis Pautz	Department of Water Affairs & Forestry
Mr Peter van Niekerk	Department of Water Affairs & Forestry
Mr Piet Heyns	Ministry of Agriculture Water and Rural Development (Namibia)
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Ms Michaela Alexandre	National Directorate of Water (Mozambique)
Mr Bernard Khupe	Ministry of Minerals Energy and Water (Botswana)

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1. Introduction

1.1. Background

South Africa shares four rivers with its five neighbours – the Incomati, Orange, Limpopo and Maputo (**Figure 1**). The quantity and quality of the water in these international rivers is under increasing pressure due to growing water demands in South Africa and in the neighbouring states. These pressures will increase as the region develops. South Africa has signed and ratified the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (United Nations, 1997), which promotes the principles of equitable and reasonable utilization and the obligation not to cause significant harm (to downstream states). Additionally, the convention calls for the establishment of a framework for the exchange of data and information, the protection and preservation of shared water bodies, the creation of joint management mechanisms, and the settlement of disputes (UNEP, 2002).

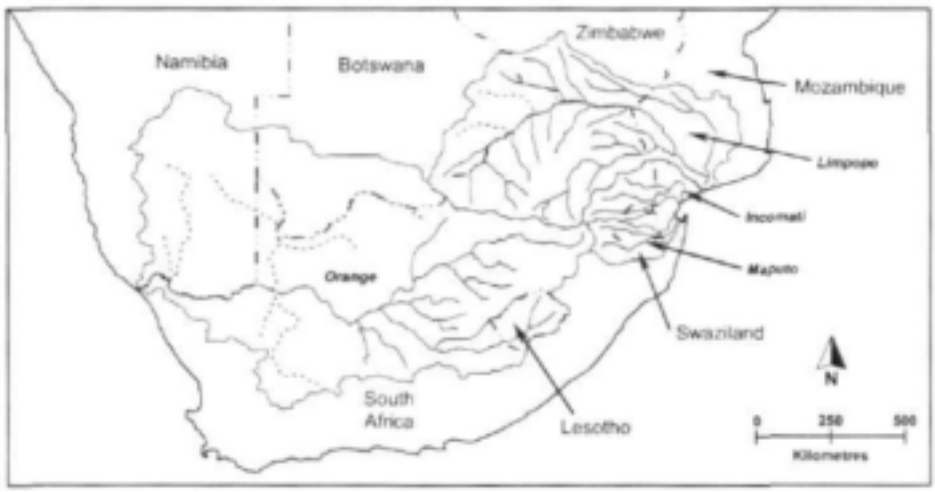

Figure 1. Map showing the positions of the four river basins that South Africa shares with her six neighbours.

Essential tools in the pursuit of the objectives of the UN Convention are the various treaties, protocols, memoranda and agreements entered into between basin states (collectively referred to as agreements in this project). South Africa is also a signatory to a range of bilateral, multilateral, regional and international agreements that guide issues of quantity, quality, infrastructure and management of shared freshwater resources (e.g. SADC, 2001). These include agreements entered into as a colony of Britain with various other colonial powers, as well as those established more recently with neighbouring states. Prior to this project, there was no easily accessible central

repository of these agreements; some were housed at the Department of Water Affairs and Forestry (DWAF) offices and others at the Department of Foreign Affairs (DFA). This lack of a central repository of agreements hampers the ability of water resources planners to manage and develop the water resources of the country in accordance with what has been agreed to with other states.

In an effort to record all international freshwater agreements, the United Nations Environment Programme (UNEP) published the Atlas of International Freshwater Agreements in 2002 (UNEP, 2002). The atlas is based on the Transboundary Freshwater Dispute (TFD) Database based at Oregon State University (OSU). It also draws on agreements lodged with FOLEX, FAO's legal database. Although the atlas does an admirable task of listing freshwater agreements between countries, certain oversights have been noted, specifically related to agreements that include South Africa. Turton (2003) lists 28 South African international freshwater agreements, of which 13 do not appear on the TFD Database. In addition, Turton (2003) noted that several agreements pertaining to international freshwaters are not on record with either DWAF or DFA. Subsequent work by Conca (2006: 361) identified 12 South African agreements, again underestimating the actual number of these agreements.

If these agreements are the primary tools to promote cooperation between basin states over shared water resources, any oversights or omissions can hinder the ability of South Africa and the region to uphold the objectives of the UN Convention. If the Government of South Africa is unaware of its commitments and their ramifications because these agreements are not readily available, it might neglect to carry out any duties that are stipulated under those agreements.

1.2. Research Objectives

The overall goal of the research project was to contribute to the good governance of South Africa's shared watercourses, by making available the various agreements that the country has entered into and conducting an analysis of a selection of treaties. In an effort to achieve this goal, the project had four objectives:

- Produce a complete list of all freshwater agreements to which South Africa is signatory;
- Update the Transboundary Freshwater Dispute Database (TFDD) with the missing agreements;
- Store the agreements digitally as a database in South Africa and make it available in CD Rom format; and
- Using the Legal Assessment Model (LAM) of the International Water Law Research Institute (IWLRI) determine how effective current agreements are.

1.3. Report Outline

As this project proposed to build a database and conduct analysis that had not been conducted before, the project team had to develop and refine a working methodology. Section 2 provides an overview of the methodology adopted by the team for the various project tasks. Deciding which agreements to include and which to exclude proved a difficult task in the absence of a definition of what constitutes an international freshwater agreement. The project team were guided by members of the steering committee and a seminar presented by DFA officials. The DFA seminar covered a variety of issues and explained the differences between the various types of international legal instruments (treaty, agreement, memorandum of understanding, etc). The notes from the DFA presentation are listed in *Appendix E: Department of Foreign Affairs Presentation on Treaties*. Based on this input the project team adopted the term "agreement" to encompass the full range of international legal instruments that states can enter into.

Once it was decided that an agreement should form part of the list, it was entered into the database. When deciding which fields to include in the database the project team looked at other databases constructed to deal with international freshwater agreements and refined these to reflect the specific issues of interest in the South African context.

Section 3 of this report discusses the issues raised in the development of the project methodology in Section 2. This includes an overview of the treaty formation process in South Africa, the status of older treaties (such as those entered into during colonial times or with so-called "homeland" governments), and the various elements commonly included in international agreements (such as dispute resolution mechanisms, water allocations and monitoring systems). Two agreements were analysed in detail, although not using the approach of the LAM, but rather a hybrid system more suited to the goal of the project. The analysis of the two treaties identifies some of the issues to be taken into account when developing agreements in the future and serves as a policy recommendation to decision makers.

This report concludes with a list of appendices that provide extensive details on specific aspects of components of this study. These appendices are:

A List of International Freshwater Agreements
B. Treaty Analysis Report
C. International Freshwater Agreements (IFA) Database Report
D. Detailed Methodology for Selecting Agreements
E. Department of Foreign Affairs Presentation on Treaties
F. Agreements Identified by the Project Team but Excluded From the Final Database.

2. Methodology

2.1. Identification and Collection of Agreements

The first step of the project was to assess critically the accuracy of the Transboundary Freshwater Dispute Database (TFDD) and the Atlas of International Freshwater Agreements (UNEP, 2002) that was based upon it, identifying those agreements that appeared to be replicated and possibly leading to double counting. This replication may stem from the various different spellings used on different agreements leading to confusion, such as *Incomati* and *Komatie* referring to the same river. These replications were verified by making a comparison with the hard copy records of agreements lodged with DWAF and DFA.

Once the "base-line" was established, the next step was to identify and obtain hardcopies of all the international freshwater agreements entered into by South Africa. Here, the net was cast wide to include any international agreement with reference to water. To start with, the relevant ministries were approached – DWAF, DFA and the Department of Environmental Affairs and Tourism (DEAT). At DWAF, members of the project team worked with officials in the Directorate of International Waters and other officials to compile a list of known agreements. This included contacting staff who were previously employed by DWAF prior to 1994 and who may have had knowledge of agreements not officially listed. A similar process was followed at DFA, working with the various officials in charge of archiving agreements.

The third step was to decide which agreements to include in the final list and the database, and which to exclude. The final list can be viewed in *Appendix A: List of International Freshwater Agreements*. The list was intensively discussed amongst the project team, as well as with DFA and DWAF officials. The project team adopted a broad approach regarding the selection of agreements to include in the database. For example, several international agreements were signed while South Africa was still a colony of Britain; most of these involved other colonial countries. The year of the formation of the Union of South Africa, 1910, served as the earliest cut-off date for the inclusion of agreements. However, it was agreed that if through the course of the project members of the team found out about pre-1910 agreements that were readily available and relevant, these would be included.

Overall, it was decided not to make decisions on whether on not an agreement had been superseded. Thus, agreements signed with former colonial governments, colonies, protectorates and Homelands (if they have an impact on an international level) would all be included. Some of the treaties involving former Homelands (TBVC states) are with South Africa, while others are with neighbouring states.

Agreements between former Homelands and South Africa would be excluded (as they are now essentially internal agreements), while treaties involving these former Homelands and foreign states would be included if they were subsequently recognized by the South African Government.

For the purposes of this project, any agreement that has been entered into between any sovereign state and South Africa, that either deals expressly with freshwater or that has an impact on the management of South Africa's freshwater resources, was included. In addition to freshwater agreements, the project included international agreements that have an impact on freshwater, such as international conventions on climate change, biodiversity and the protection of wetlands. Agreements with non-state bodies (such as private companies or development agencies or donor organizations) that are not subject to international law were excluded. Agreements that focussed on an issue to which water was only an incidental component were also excluded. These included agreements on financing capacity building in the water sector or the funding of development initiatives. See *Appendix D: Detailed Methodology for Selecting* for a more detailed overview of the process followed.

A second list, containing the names of treaties that were identified by the project team, but which for one of the above reasons were not included in the final list and database, can be viewed in *Appendix F: Agreements Identified by the Project Team But not Included in the Final Database.*

The final list of agreements was entered into the database and sent to Oregon State University to enable the TFDD to be updated. This was duly done by the curator of the TFDD after permission had been obtained from the WRC.

2.2. Database Development

The next component of the project was the design of the database. All members of the project team were engaged in the design and development of the database – this process became a model for further collaboration between team members. The software package DBTextWorks© was chosen as the preferred database software that was used to store, sort and display the relevant agreements.

At the project inception meeting, the team discussed which input data fields should be included in the list of treaties, and these then formed the first version of the database. This first version was then compared with other available databases on international water agreements, including:

- The Transboundary Freshwater Dispute Database (TFDD, 2004);
- The Hydropolitical Vulnerability Database (UNEP, no date);

- The Development and Extent of Transboundary Water Law in Africa (Lautze and Giordano, 2004);
- The IWMI database (IWMI, no date); and
- The LAM analysis framework (IWLRI, 2003).

A synopsis of the data fields employed in each of the above studies was reviewed by the project team and specific fields that were identified as being relevant to this project were included for consideration as possible fields to be used in the current study. Once a comprehensive list of input fields was agreed upon, they were used as a template for the design of the final database structure. More information on the development of the database can be found in *Appendix C: International Freshwater Agreements* Database Report. The database was populated with the entries of the various agreements, capturing their key provisions such as geographical area, implementation mechanisms, ratification status, river basins involved and whether or not the agreement has explicitly been superseded. Depending on when the agreement was written, and by which country, there is a variety of spellings used to refer to rivers – e.g. Kunene vs. Cunene, the former being more common in the Afrikaans language used in South Africa, while the latter is the standard Portuguese and Angolan spelling. The database has, as far as possible, captured all the various forms of these words, thus allowing searches to be performed using any of them.

Scanned copies of each of the agreements are linked to the database entries. The project team aimed to secure the final signed versions wherever this was possible. The documents were scanned in as raster images using the Joint Photographic Experts Group (JPEG) compression algorithm and then converted to Portable Document Format (PDF), viewable with the Adobe Acrobat Reader free software. When scanning the agreements and forming the PDF files a balance was selected that optimised small file size and good image quality. The final database entitled *International Freshwater Agreements Database.tba* was copied onto CD for distribution by the WRC.

2.3. Legal assessment of selected agreements of regional importance

The original project proposal included an analysis of selected agreements using the Legal Assessment Model (LAM) of the International Water Law Research Institute (IWLRI) of the University of Dundee (IWLRI, 2003). Using the LAM various factors related to the agreements, such as scope of powers, duties of signatories, implications for basin communities and time-span of agreements, would have been investigated. The impact of those factors was to be assessed at the regional, national and local

level. From this analysis a working hypothesis was to be developed listing what makes for "good" or "weak" agreements.

The LAM is an output of the DFID - funded Knowledge and Research (KaR) project "Transboundary Water Resource Management: Using the Law to Develop Effective National Water Strategy: Poverty Eradication through Enforceable Rights to Water" (IWLRI, 2003). When the proposal for this WRC project (the subject of this report) was submitted, the development of the LAM was not yet complete and the KaR project reports were unpublished. The available information at the time suggested that the LAM would be an appropriate tool to enable the user to analyse the effectiveness of a treaty. After the publication of the KaR reports and the LAM user's guide, it became clear that this objective was simply not attainable as the primary objective of the LAM. Instead, the LAM has evolved into a tool designed to assist a Transboundary Watercourse (TWC) state to determine whether its current or planned use of a specific freshwater resource is "equitable and reasonable". Stated differently, the LAM allows a state to assess whether or not its (the state's) water use complies with its international obligations. This is important in terms of South Africa's National Water Act (Act No. 36 of 1998), which stipulates in Article (2) (i) that one of the purposes of the Act is "meeting international obligations" and therefore needs to be fully understood by water resource managers with no formal legal training. Based on this determination, the LAM enables the user (usually a TWC state) to develop various legal options for the utilisation of a shared resource.

Although meeting international obligations is important, the project team, in consultation with the project steering committee, decided that an analysis of whether or not South Africa was indeed meeting its international obligations in terms of the agreements entered into was beyond the scope of the current project. Of more use would be an analysis based on an assessment of the completeness of agreements – do they cover the various issues of importance in their specific setting? The number of freshwater agreements is growing and it is likely that South Africa will become a party to new international freshwater agreements in the future, particularly basin-wide agreements. International agreements also tend to have an evolutionary aspect to them, generally increasing in their range, scope and complexity over time. Thus, in order to meet the challenges of negotiating and drafting (basin-wide) agreements that will work effectively in practice, and to support that evolutionary process by bringing in scientific processes to support future negotiating teams, it is necessary to understand which key components should be included in such agreements, and which matters should be regulated by such agreements.

This component of the project contributed to this understanding by analysing, as examples, two key agreements of regional (i.e. SADC) importance to which South Africa is a party. The first agreement was the "Tripartite Interim Agreement Between

The Republic Of Mozambique And The Republic Of South Africa And The Kingdom Of Swaziland For Co-operation On The Protection And Sustainable Utilisation Of The Water Resources Of The Incomati And Maputo Watercourses", signed on 29 August 2002 (hereafter called the Incomaputo Agreement). This agreement was the first basin-wide agreement concluded in the Southern African Development Community (SADC) region that established a comprehensive basin-wide management regime. It was regarded as a potential model agreement along the lines of which future basin-wide agreements in the SADC region could be drafted. This is also an example of the evolution of an agreement, leading to a greater scope, depth and legal sophistication than earlier treaties.

The second agreement for analysis was the "Treaty On The Lesotho Highlands Water Project Between The Government Of The Republic Of South Africa And The Government Of The Kingdom Of Lesotho", signed on 24 October 1986 (hereafter called the LHWP-Treaty). This agreement is an important example of regional cooperation over shared water resources and one that is of great strategic importance for both states. This is also an example of an agreement that was negotiated during times of heightened political tension in the southern African region, that has gone on to provide the platform for additional agreements in other basins. It is also a good instance of the use of water resource management as a foundation for promoting peaceful co-existence between riparian states.

Although the objectives of the LAM and those of this project differ substantially, elements of the LAM, or more specifically its Legal Audit Scheme (LAS), can be used for the analytical purposes of this project. In order to generate a better understanding of the LAM and its application for this analysis, it is useful to refer to *Appendix B: Treaty Analysis Report* for a more detailed description of the LAM.

3. Discussion, recommendations and conclusions

3.1. Introduction

From the outset, the main aim of this project was to contribute to the good governance of transboundary water resources in South Africa. As the most economically powerful state in the southern African region, South Africa has a marked impact on the levels of cooperative development amongst neighbouring states (Lautze and Giordano, 2004; Turton, 2004). If South Africa is seen to observe both the spirit and the letter of the law in terms of its shared watercourses, there is a positive "ripple effect" on relations between other states in the region. Additionally, cooperation over shared watercourses can "spill over" into other areas of cooperative development between states, such as cross-border migration, transport, tourism, health, etc.

Having the full set of South Africa's international freshwater agreements available to decision makers, planners, researchers and other stakeholders makes it more likely that they will be observed and implemented. It is thus hoped that the International Freshwater Agreements Database produced in this project will be disseminated widely and accessed by many researchers. In addition, it became evident during the course of the project that South Africa has a long and rich history of entering into agreements with other states. This is a process that started during colonial times and which continued during the Cold War period. The pace of agreement formation has increased over the past decade, with every indication that this trend will continue. The net result is that any list or database of these agreements will rapidly become outdated, unless provision is made for its maintenance and upkeep. However, the value of the database would remain, even if it becomes outdated, as it contains many of the obscure, older agreements that are not easily accessible through other channels.

3.2. Identification and Collection of Agreements

The process of identifying and collecting the agreements was the most time consuming project activity, and required project team members to visit several government departments and research centres, and conduct considerable desktop research. The process of deciding which agreements to include in the final list added to the overall time spent on this component of the project. As part of this activity, the project team needed to gather information on the process of International Agreement formation and the various types of agreements in existence. According to the DFA the definition of an International Agreement "includes any written agreement between South Africa and another state or international organization that is governed by

international law, whatever its designation". Section 231 of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) applies to these agreements.

Agreements can have various designations, as shown below, though these are not listed in any order of increasing or decreasing formality:

- Treaty: normally used for more formal agreement dealing with matters of gravity;
- Convention: usually used for multilateral agreements
- Agreement: less formal agreements with limited scope and fewer Parties; Most popular e.g. Project agreements.
- Protocol: Usually an ancillary agreement to the original agreement;
- Memorandum of Understanding: a less formal agreement, usually of an administrative nature;
- Exchange of Notes: Less formal agreement. Concluded through two or more diplomatic notes.
- Declaration of Intent: Normally used for non-binding/ informal arrangements;

It is important to recognise that the designation of an Agreement will not determine its legal status - it is an indication only. The legal status is determined by factors such as the language used (to what extent do the states commit themselves to actions) and the accession process followed. In terms of Section 231 of the Constitution, certain agreements require Parliamentary approval before they can be entered into. These include agreements that:

- Require ratification or accession (usually multilateral agreements);
- Have financial implications which require an additional budgetary allocation from Parliament; and
- Have legislative or domestic (i.e. internal) implications (e.g. require new national legislation or legislative amendments).

The procedure to obtain Parliamentary approval in terms of section 231(2) of the Constitution includes the provision that all agreements that need to be ratified or acceded to also need Presidential approval (i.e. the President's Minute). After the President's signature, the process to obtain Parliamentary approval begins. First, Cabinet needs to make a recommendation regarding accession or ratification of the agreement to Parliament. Cabinet makes their decision based on legal opinions of the State Law Advisers at the Department of Justice and the State Law Advisers (IL) at the Department of Foreign Affairs. From here, the draft instrument is tabled in Parliament, with the reports of the portfolio committees considered by the National Assembly and National Council of Provinces sitting separately. Only when both Houses have adopted these reports is Parliament considered to have taken a decision.

After a positive decision by Parliament, an Instrument of Ratification or Accession is prepared by the line function department in consultation with the Department of Foreign Affairs. A copy of the Minutes of both Houses reflecting the decision of the Houses must be submitted to the Department of Foreign Affairs with the request that the Minister of Foreign Affairs should sign the Instrument. Arrangements are made by the line function desk of the Department of Foreign Affairs for the binding of the Instrument before submitting it for signature to the Minister of Foreign Affairs. The Instrument of Ratification or Accession is deposited by the relevant line function desk of the Department of Foreign Affairs with the depository as prescribed in the agreement. The date of depositing must be communicated to the Treaty Section (at DFA) and recorded. See *Appendix E: Department of Foreign Affairs Presentation on Treaties* for more information on the treaty processes in South Africa.

Thus, only agreements that have followed the path described above and which are lodged with the DFA can be considered legally binding on South Africa. Provinces, departments or ministries may not unilaterally enter into agreements with other sovereign states. The project team had to look for evidence that the above process was followed when considering agreements for inclusion in the final list and the database. Clearly, agreements that came into effect prior to the South Africa's new Constitution of 1996 had a different ratification process from the one followed today, but these are still considered legally binding on the state. For the purposes of this project these earlier agreements were included irrespective of whether or not they followed the current ratification processes.

Initially the project team looked at all water related agreements into which South Africa had entered. Through a process of discussion and consultation, many of these agreements were excluded from the final list and the database (although most of them are included in *Appendix F*). Examples of excluded agreements and their reason for exclusion are shown in **Table 1**.

In some cases the decision as to whether or not to include an agreement was straightforward (such as when it is with a non-state actor, or water is not mentioned), while in others it was more complicated requiring a subjective judgement. For this reason, the project team included the list of 'excluded' agreements in Appendix F so that they can be referred to by interested parties. They may also potentially be useful to future research activities on the topic.

Table 1: Examples of excluded agreements.

Agreement	Reason for exclusion
Agreement on the Establishment and Operation of a Common Works Area at the Caledon River for the Purpose of the Implementation of the Lesotho Highlands Water Project (1989).	Not strongly linked with water management.
Declaration and Treaty of the Southern African Development Community (1992)	Although seen as an "enabler" of other agreements this one does not deal with water.
Agreement Between the Government of The Republic of South Africa and the Government of The Republic of Finland on Technical and Financial Assistance for the Water Law Review Project of The Republic of South Africa (1996).	This was a short-term project which terminated prior to the inception of this (WRC) project.
Contract between Department of Water Affairs and Forestry of the Republic of South Africa and Dai Nippon Construction for the Project for Rural Water Supply in the Eastern Cape Province (2003).	Non-state actor.
Agreement Relating to the Construction of the Taung Dam and the Operation of the Dam in Conjunction with the Operation of Certain Other Water Works Between the Government of the Republic of South Africa and the Government of the Republic of Bophuthatswana (1990).	Agreement was between SA & former Homeland & has thus become an internal agreement.

According to legal practice, agreements entered into by colonial powers on behalf of their subject territories remain in force, unless they have specifically been repealed. Thus the provisions of an agreement such as the 1964 "Agreement Between The Government Of The Republic Of South Africa And The Government Of The Republic Of Portugal In Regard To Rivers Of Mutual Interest 1964 – Massingirdam" would still be in operation. This specific agreement contains far-reaching provisions still in force today, such as:

- "...the Government of the Republic of South Africa has no objection to the inundation of its territory subject to certain conditions."
- "No restriction is placed on the Government of South Africa in regard to its use of the water of the Olifants River in its territory, ..."

Obviously, such provisions have a significant impact on today's water resources managers in South Africa as well as in Mozambique.

3.3. Database

The primary purpose of the database is to provide a centralised register of the international agreements that South Africa has entered into and which relate specifically to international (shared) water resources and their management. The list is not intended to be an exhaustive record that reflects every agreement that mentions water. Instead, the database lists only those agreements that play a direct role in the definition and management of those international water resources that South Africa shares with its neighbours.

For completeness, the database also includes all the treaties and agreements related to water resources shared by South West Africa (now Namibia) and its neighbouring territories, which the South African authorities entered into while they administered that country. These treaties span the period between 1916, when South Africa first occupied the former territory of South West Africa under the auspices of the League of Nations, until 1990 when that country became the independent state of Namibia.

The database entries provide selected sets of information on the content of each agreement in terms of its current status, scope and provisions. Users of the database are able to search for agreements using, amongst others, countries, rivers, issue areas or allocation mechanisms as search terms. The database contains 59 records or agreements that South Africa has entered into and which are related to international (shared) water resources. The earliest agreement signed by South Africa is the "Agreement Between The Union Of South Africa And Portugal On The Settlement Of The Boundary Between The Union Of South Africa And The Province Of Mozambique", signed on 8 February 1926; the most recent agreement is the "Agreement Between The Government Of The Republic Of South Africa And The Government Of The Kingdom Of Swaziland On The Operation Of The Lavumisa Government Water Supply Scheme", signed on 6 June 2004.

A brief decadal analysis of the database entries, from 1920 to 2009, reveals that most agreements were signed in the 1990s, after South Africa's first democratic elections (**Figure 2**). Of the 20 agreements signed during the 1990s, 12 were bilateral agreements that focus on a range of issues such as the establishment of commissions of co-operation and the utilization of water, as well as several agreements with the Kingdom of Lesotho on the Lesotho Highlands Project. The remaining eight consist of multilateral agreements and international treaties. In many ways, the agreement formation process tracked political developments at the time. During the 1960's, when South Africa became a republic and several of the other states in the region gained independence from their former colonial powers, there was an increase in the formation of treaties. During the final years of the Cold War, in the decade up until 1990, a surprisingly large number of agreements were entered into. This was largely

an attempt by South Africa to normalize its relations with neighbouring states (Turton & Earle, 2005). During this time most of the agreements entered into were bilateral, while post-1994 there was a marked increase in the number of multilateral agreements, reflecting South Africa's post-apartheid acceptance by the international community.

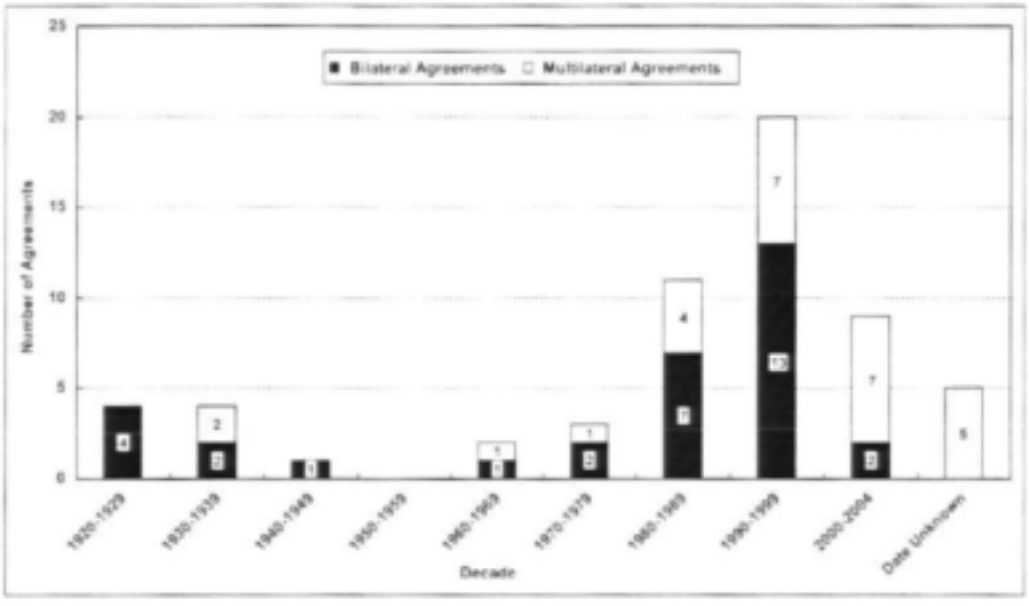

Figure 2: Number of agreements relating to international (shared) water resources signed by South Africa, per decade, from 1920 to 2004.

The numbers of multi-lateral and bilateral agreements are shown in **Table 2**. Multi-lateral agreements include all agreements that are signed by more than two states, and include the various SADC treaties and protocols (4 in total) and international conventions (a total of 10). The balance comprises agreements that have a regional focus, for example river basin state agreements that establish formal technical commissions or commissions of co-operation. Bilateral agreements include all those agreements that are signed by two parties. Most of the agreements that fall within this group include agreements on water utilization, development of shared water resources and border demarcation.

Table 2: Number of agreements per agreement type.

Type of Agreement	Number of Agreements
Multilateral	27
Bilateral	32

One of the fields of entry within the database is labelled 'Explicitly Quantified Allocation'. This criterion allows the differentiation between agreements that list specific water allocation requirements of neighbouring states from those that do not. Only ten of the 59 agreements in the database list specific water allocation details.

Maintaining the database

It is important to note that the database will only remain a useful tool if it is regularly updated and maintained. As new international water-related treaties are signed by South Africa, these should be analysed and their details entered into the database. The African Water Issues Research Unit, based in the Centre for International Political Studies at the University of Pretoria, has offered to host a live version of the database on its website and to make periodic updates of the database as needed. This offer was endorsed by the Project Steering Committee on condition of approval by the DWAF. The designated custodian of the database should allow researchers to access the information as required. On an administrative note, the custodian needs to possess a copy of the full licence for DBTextWorks and needs to be familiar with the procedures required to maintain the database.

3.4. Legal assessment of selected agreements of regional importance

The project team analyzed two key agreements that South Africa has entered into with neighbouring states. The analysis aims to contribute to meeting the challenges of negotiating and drafting (basin-wide) agreements that will work effectively in practice, and to support an evolutionary process by bringing in scientific legal methodology to support future negotiating teams.

It is necessary to understand which key components should be included and which matters need to be regulated by these types of agreements. Naturally, the matters that need to be regulated will depend largely on the nature of the specific agreement in question. Multilateral agreements that have a large number of parties, such as the UN Convention and the Revised SADC Protocol, seek to define general principles and provide a framework for subsequent agreements with a geographically defined application, such as basin-wide agreements. Usually, the geographically defined agreements are drafted with a view to establishing a detailed management regime for a particular river basin. Thus, international freshwater agreements need to function in different contexts and consequently have to be drafted with due consideration of the specific requirements expressed by each party.

In practice, water policy makers are responsible for ensuring that an agreement is necessary, and meets the interests of the state and its people (Vinogradov *et al.*, 2003). Yet, it is also important that there is effective cooperation between technical experts, policymakers and legal experts to make sure that the agreement reflects the real intentions of parties and is devoid of contradictions and technical errors. As Vinogradov *et al.* (2003) put it: "in such a highly specialised field as transboundary water resources, drafting and implementing legal rules requires a concentrated effort of international law, science, economics and other disciplines. In other words, it is a process of melding the legal, technical and policy elements".

Against this background, it is difficult to identify a generic set of matters that international freshwater agreements should regulate. Each agreement needs to provide a solid framework of rules that can be implemented effectively in their specific context. What should be done, and indeed has been done in the international literature on the subject, is to identify a generic set of prerequisites that an agreement should meet in order to ensure that it can be implemented effectively in practice. These prerequisites have also been described as broad categories that give an agreement its basic structure. Within this basic structure, attention can be directed to developing more detailed elements of the agreement in response to the specific situation. For this basic structure, six broad categories were identified:

1. The scope of the agreement;
2. Substantive rules;
3. Procedural rules;
4. Institutional mechanisms;
5. Dispute avoidance / settlement mechanisms; and
6. Compliance assurance mechanisms.

It is important for a "good" agreement to contain provisions in all these categories for the following reasons:

- The scope of an agreement usually determines the geographical (and/or hydrological or hydrographical parameter) limits of the agreement's application. This then determines the types and limits of water resources to be regulated by the agreement, the states who are eligible to participate in the treaty (*ratione personarum*), and the uses or activities governed by the agreement (*ratione materiae*) (IWLRI, 2004). A clear definition of the scope of an agreement helps to prevent disputes because legal controversies often result from different interpretations of the treaty provisions that determine its scope (Vinogradov *et al.*, 2003).

- Substantive rules are those rules of international agreements that establish the material rights and obligations of states vis-à-vis each other. These rules

therefore determine what the parties to an agreement must do (or not do) in order to achieve the purposes of the particular agreement (IWLRI, 2004). These obligations are often distinguished as "obligations of conduct" and "obligations of result". The former require a state to act in conformity with a particular standard of conduct, whereas the latter require a state to undertake certain actions in order to achieve certain specified results, or prevent a given event (Vinogradov *et al.*, 2003). Substantive rules are the core of an agreement and regulate the substance matter at stake.

- Procedural rules provide the means through which the substantive rules are implemented and the watercourse regime is managed (Vinogradov *et al.*, 2003). They are as important as substantive rules since they prescribe the processes for the management of the watercourse regime. Well-drafted procedural rules that function effectively in practice are likely to avoid disputes and ensure cooperation between the parties to the agreement.

- The establishment of a functioning institutional mechanism is an important element of a "good" watercourse agreement. Joint management bodies for example are important fora for the identification of competing interests and to make recommendations on potentially controversial issues (Vinogradov *et al.*, 2003). An institutional mechanism that functions effectively and efficiently can thus help to prevent disputes and fulfils an important role in ensuring the day-to-day implementation of the substantive rules "on the ground".

- In addition to the indirect dispute avoidance mechanism mentioned above (clearly defined scope, procedural rules, functioning institutional mechanism), it is important for an agreement to provide a clear, formalised mechanism for dispute settlement. Since disputes cannot always be avoided, a clear set of rules that regulate the process by which a dispute should be settled helps to prevent further escalation of the dispute and restores a climate of trust and cooperation.

- A compliance assurance mechanism comprises a set of rules and procedures aimed at assessing, regulating and ensuring compliance. The implementation practice of international agreements has shown over time that non-compliance is often not a wilful act, but rather the result of a lack of capacity and resources to properly implement an agreement (Vinogradov *et al.*, 2003). In this context, compliance assurance mechanisms that enable the parties to an agreement to exercise some form of monitoring and mutual control, usually lead to improved outcomes as far as treaty implementation is concerned, compared to an instrument that aims to "punish" an offender by means of international law relating to state responsibility. In the context of watercourse

agreements, compliance is greatly enhanced where a set of measurable rules and targets exist, such as water quality objectives, lists of prohibited substances and fixed water allocation volumes. Elements outside the agreement text, such as public access to information and equal access to justice, are also considered important aspects of a compliance regime (Vinogradov *et al.*, 2003).

The extent to which an agreement is implemented effectively does not only depend on the inclusion of these six broad categories in the agreement. It also relies on how the detailed provisions of the agreement are able to regulate the issues at stake within the framework of the basic structure provided by the six categories. The way in which this is done ultimately determines whether the agreement provides a solid legal basis for effective implementation in practice. Some substantive and procedural rules have been identified for basin-wide agreements that aim to establish comprehensive management regimes; these should be included to regulate the detailed matters at stake. For example, these could include clear water allocation rules, rules that establish specific water quality standards (substantive rules), or rules on data sharing and information exchange (procedural rules). However, while these rules are useful guidelines for filling the basic structure with more detail, the specific issues that need to be regulated must be determined on a case-by-case basis. This can be achieved in practice by using the six categories described above as guidelines. The project team therefore analyzed the two agreements against the background provided by the six categories.

The two agreements analyzed were the "Tripartite Interim Agreement Between the Republic of Mozambique and the Republic of South Africa and the Kingdom of Swaziland for Co-operation on the Protection and Sustainable Utilisation of the Water Resources of the Incomati and Maputo Watercourses", signed on 29 August 2002 (hereafter called the Incomaputo Agreement) and the "Treaty on the Lesotho Highlands Water Project Between the Government of the Republic of South Africa and the Government of the Kingdom of Lesotho", signed on 24 October 1986 (hereafter called the LHWP-Treaty). A summary of the results follows, with the detailed report available as *Appendix B: Treaty Analysis Report*.

As mentioned earlier, the Incomaputo Agreement was not only the first basin-wide agreement in the SADC region to establish a comprehensive basin-wide management regime. It was also the first regional watercourse agreement concluded after the signing of the SADC Revised Protocol on Shared Watercourses (hereafter referred to as the Revised Protocol). The SADC member states signed the Revised Protocol in 2000 and this agreement now functions as a framework agreement for all watercourse agreements that may be concluded in the SADC region. It states "watercourse states may enter into agreements, which apply the provision of this Protocol to the

characteristics and uses of a particular shared watercourse or part thereof". In other words, it provides the general direction and principles for any future watercourse agreements concluded in the SADC region, while at the same time allowing for the consideration of certain characteristics that may be specific to the watercourse in question. Although the Revised Protocol only entered into force in 2003, after the conclusion of the Incomaputo Agreement in 2002, the latter agreement has clearly been drafted in the spirit of the former.

The analysis has shown that the Incomaputo Agreement meets all essential prerequisites for an effectively functioning international watercourse agreement. The identified "weakness" of certain individual provisions (e.g. non-binding nature of decisions on interim measures and lack of a joint fact-finding procedure) are not of such a magnitude that they might jeopardise this general result of the analysis. Thus, the Incomaputo Agreement is considered a "good" agreement in the sense that its text provides a solid basis for effective implementation. Whether or not it is indeed effective in relation to its objectives depends on a number of additional factors, most notably national compliance. This becomes clear in an example described by Van der Zaag and Vaz (2003), where these authors allege that a dispute occurred between Mozambique and South Africa in 1992. In this example, Mozambique alleged that South Africa had violated the then recently signed Piggs Peak Agreement, by not preventing sugarcane farmers from building a weir that reduced the stream flow of the Incomati River, with the consequence that the agreed stream flow into Mozambique was not met. Without judging the correctness of the allegations at that time, the example clearly shows the linkage between international and domestic law.

On its own, the Incomaputo Agreement does not provide a party with the means to, for example, prevent the building of a weir or dam on a shared river. These means need to be provided by the domestic law within each of the respective countries. Only when the domestic law recognises international obligations (as the South African National Water Act (Act No. 36 of 1998) does in Article 2 (i)) and provides the necessary means for implementing and enforcing the provisions of international agreements that are binding on the respective country, can an international watercourse agreement be considered to be effective. The International Freshwater Agreements Database Project cannot, for the reasons mentioned (see paragraph 2.2.2 in *Appendix B*), evaluate whether or not the **domestic** South African law in practice allows for the effective implementation of international agreements on the ground. However, based on the analysis carried out in this study, it is clear that the Incomaputo Agreement provides a solid basis of **international** law for effective implementation on the ground, if the domestic law within each country is in place to achieve this. The critical analysis of the Incomaputo Agreement by water managers and drafters of future watercourse agreements in the region could therefore contribute to informing the future evolution of international law in the SADC water sector. In

this regard, additional research is encouraged, specifically with respect to future cooperation with other SADC Member States.

The LHWP-Treaty was concluded in an entirely different political and legal context to that which prevailed during negotiations around the Incomaputo Agreement. While the latter was concluded in a time of increasing regional co-operation and political stability, the former was concluded in a time of heightened political tensions in the southern African region. Analytically, the LHWP-Treaty pre-dates important legal developments such as the Revised Protocol (SADC, 2001) and the United Nations Watercourse Convention (United Nations, 1997). Thus, the LHWP-Treaty is not embedded in a broader regional initiative of co-operation over shared water resources under a regional instrument, in the way that the Incomaputo Agreement is embedded within the Revised SADC Protocol. Instead, it is an example of bilateral co-operation driven by the specific needs of the two riparian states.

The analysis showed that the LHWP-Treaty meets the prerequisites that have been identified as essential for an effectively functioning watercourse agreement, at least as far as the first level of analysis is concerned (i.e., by using the six identified general categories as filters). As far as the second level of analysis is concerned (i.e., the specific substantial provisions that today are considered essential for an effective water management regime), a certain dichotomy can be noticed. On the one hand, the LHWP-Treaty excludes two of the four Orange River basin states and thus does not establish a basin-wide management regime. On the other hand, the LHWP-Treaty contains very "modern" elements of international water law, such as the provision instituting what is in effect a joint fact-finding procedure, as part of the dispute settlement mechanism.

In conclusion, the analysis of existing regional international watercourse agreements can critically inform the negotiation and drafting process of future watercourse agreements that may be concluded in the SADC region. Using elements of the LAM, most notably the LAS, the analysis carried out in this study has shown that the two selected key agreements of regional importance meet the prerequisites for effective implementation on the ground. While the LHWP-Treaty contains important elements of "modern" international water law, the Incomaputo Agreement reflects the developments of international water law to a higher degree. As it establishes a comprehensive basin-wide management regime, the Incomaputo Agreement is well suited to function as a model agreement for other, basin-wide water agreements that may be contemplated in the SADC region. Importantly, the analysis conducted here has shown that certain improvements to the Incomaputo Agreement are desirable and indeed possible. The scheduled conclusion of a "final" Incomaputo Agreement could possibly provide the opportunity to incorporate such changes.

3.5. Recommendations

The project team makes two recommendations. The first relates to the need for distributing and maintaining the database. A broad a spectrum of water managers and decision-makers need to be able to access the database. One of the project partners, AWIRU, has offered to host a live version of the database on their website. However, it is very important to realize that, for the database to remain useful, it needs to be updated regularly to incorporate new agreements entered into by South Africa.

Further research needs to be carried out to incorporate agreements signed by all SADC states. The SADC region has taken steps to promote the equitable and sustainable use of its shared water resources through the Revised SADC Protocol on Shared Watercourses signed in 2000. This agreement is based on the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (1997). The SADC Protocol commits parties to respect the existing international laws governing the utilisation and management of shared watercourses and to promote the harmonisation of national water law between signatory counties. Additionally, the SADC Water Sector Coordinating Unit (based in Gaborone, Botswana) is mandated with the function of keeping an inventory of all shared watercourse management institutions and agreements on shared watercourse in the SADC Region (SADC Protocol, 2000: 23). The project team recommends that a new project should be initiated to develop a database of all international freshwater agreements entered into by SADC states. This would need to be carried out in co-operation with the SADC Water Sector Coordinating Unit in an effort to assist them to fulfil their obligations under the SADC Protocol.

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5. Appendices

A: List of International Freshwater Agreements

Freshwater Agreements, Protocols & Treaties signed by South Africa				
B = Bilateral agreement signed by two countries; M = Multilateral agreement signed by more than two countries; [S] = Signed copy of agreement on database disc.				
Year	**Record No.**	**Full Name**	**Basin**	**Type of Agreement**
1926	62	Agreement Between the Government of the Union of South Africa and the Government of the Republic of Portugal in Relation to the Boundary Between the Mandated Territory of South-West Africa and Angola	Okavango & Cunene	B
1926	63	Agreement Between the Government of the Union of South Africa and the Government of the Republic of Portugal Regulating the Use of the Water of the Kunene River for the Purposes of Generating Hydraulic Power and of Inundation and Irrigation in the Mandated Territory of South-West Africa and Angola	Cunene	B
1926	64	Agreement Between the Union of South Africa and Portugal on the Settlement of the Boundary Between the Union of South Africa and the Province of Mozambique		B
1928	56	South-West Africa – Angola Boundary Delimitation Commission	Okavango & Cunene	B
1931	49	Exchange of Notes Between His Majesty's Government in the Union of South Africa and the Portuguese Government Respecting the Boundary Between the Mandated Territory of South-West Africa and Angola	Okavango & Cunene	B
1931	66	South West Africa, Angola, and Northern Rhodesia Boundary Delimitation Commission [S]	Zambezi	M
1933	67	Exchange of Notes Between the Government of the Union of South Africa and the Government of Northern Rhodesia Regarding the Boundary Between the Caprivi Zipfel and Northern Rhodesia and the Grant of Privileges to Natives of Northern Rhodesia on Islands Belonging to the Caprivi Zipfel	Zambezi	B
1933	68	Convention Relative to the Preservation of Fauna and Flora in the Nature State (SA ratified 19/11/1935; Entered into force 14/01/1936)		M
1943	69	Exchange of Notes Between the Governments of the Union of South Africa and Portugal Respecting the Boundary Between the Mandated Territory of South West Africa and Angola	Okavango & Cunene	B
1964	18	Agreement Between the Government of the Republic of South Africa and the Government of the Republic of Portugal in Regard to Rivers of Mutual Interest and the Cunene River Scheme	Cunene	M
1969	50	Agreement Between the Government of the Republic of South Africa and the Government of Portugal in Regard to the First Phase Development of the Water Resources of the Kunene River Basin	Cunene	B

1971	43	Agreement Between the Government of the Republic of South Africa and the Government of the Republic of Portugal in Regard to Rivers of Mutual Interest 1964 – Massingirdam	Limpopo	B
1971	72	Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Entered into force 2/02/1971)		M
1972	73	Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter with Annexures (SA acceded 7/8/1978)		M
1973	74	Boundary Treaty Between the Republic of South Africa and the Republic of Botswana		B
1979	75	Convention on the Conservation of Migratory Species of Wild Animals BONN CONVENTION (RSA acceded 21/9/1991)		M
1980	59	Agreement in Respect of a Servitude to be Granted by Swaziland to South Africa for the Inundation of 3 800 Acres (1 540 Hectares) in Swaziland by the Pongolapoort Dam and the Instruments of Ratification Thereto	Maputo	B
1983	4	Agreement Between the Governments of The Republic of South Africa, The Kingdom of Swaziland and The Republic of Mozambique Relative to the Establishment of a Tripartite Permanent Technical Committee [**S**]	Incomati	M
1984	58	Agreement Between the Governments of the Republic of South Africa, The People's Republic of Mozambique and the Republic of Portugal Relative to the Cahora Bassa Project [**S**]	Zambezi	M
1986	13	Treaty on the Lesotho Highlands Water Project Between the Government of the Republic of South Africa and the Government of the Kingdom of Lesotho [**S**]	Orange	B
1986	47	Agreement Between the Government of The Republic of Botswana, the Government of The People's Republic of Mozambique, the Government of The Republic of South Africa and the Government of The Republic of Zimbabwe Relative to the Establishment of the Limpopo Basin Permanent Technical Committee [**S**]	Limpopo	M
1987	76	Samewerkingsooreenkoms tussen die Regering van die Republiek van Suid-Afrika en die Oorgangsregering van Nasionale eenheid van Suidwes-Afrika/Namibië Betreffende die beheer, ontwikkeling en Benutting van die Water van die Oranjerivier [**S**]	Orange	B
1988	38	Agreement Relating to the Supply of Water from the Molatedi Dam in the Marico River Between the Department of Water Affairs of the Republic of Bophutatswana and the Water Utilities Corporation in the Republic of Botswana and the Department of Water Affairs of the Republic of South Africa [**S**]	Limpopo	M
1988	77	Protocol 1 to the Treaty on the Lesotho Highlands Water Project Royalty Manual [**S**]	Orange	B
1988	78	Protocol 2 to the Treaty on the Lesotho Highlands Water Project SACU Study	Orange	B
1988	79	Protocol 3 to the Treaty on the Lesotho Highlands Water Project Apportionment of the Liability for the Costs of Phase 1A Project Works	Orange	B
1991	14	Protocol IV to the Treaty on the Lesotho Highlands Water Project, Supplementary Arrangements Regarding Phase 1A [**S**]	Orange	B
1991	80	Tripartite Ministerial Meeting of Ministers Responsible for Water Affairs Held on the 15th of February 1991 in Swaziland	Incomati	M

		(The Piggs Peak Agreement) [S]		
1992	8	Treaty on the Development and Utilization of the Water Resources of the Komati River Basin Between the Government of the Republic of South Africa and the Government of the Kingdom of Swaziland	Incomati	B
1992	9	Treaty on the Establishment and Functioning of the Joint Water Commission Between the Government of The Republic of South Africa and the Government of The Kingdom of Swaziland [S]	Incomati	B
1992	11	Agreement Between the Government of The Republic of South Africa and the Government of Kangwane on the Development and Utilisation of the Water Resources of the Komati River Basin [S]	Incomati	B
1992	17	Ancillary Agreement to the Deed of Undertaking and Relevant Agreements Entered into Between the Lesotho Highlands Development Authority and the Government of the Republic of South Africa [S]	Orange	B
1992	20	Agreement on the Vioolsdrift and Noordoewer Joint Irrigation Scheme Between the Government of the Republic of Namibia and The Government of the Republic of South Africa [S]	Orange	B
1992	34	United Nations: Convention on the Protection and Use of Transboundary Watercourses and International Lakes		M
1992	82	The Convention on Biological Diversity		M
1992	83	United Nations Framework Convention on Climate Change		M
1992	84	Agreement Between the Government of the Republic of South Africa and the Government of the Republic of Namibia on the Establishment of a Permanent Water Commission [S]	Orange	B
1994	85	Agreement Between the Government of the Republic of South Africa and the Government of Mozambique for the Establishment of a joint Permanent Commission for Co-operation [S]	Incomati	B
1995	57	Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region [S]		M
1996	1	Agreement Between the Government of the Republic of South Africa and the Government of the Republic of Mozambique on the Establishment and Functioning of the Joint Water Commission [S]	Incomati	B
1996	86	SADC Protocol on Transport, Communications and Meteorology in the Southern African Development Community (SADC) Region		M
1996	87	Agreement on the Conservation of African-Eurasian Migratory Water birds (AEWA Agreement) (RSA ratified 1/1/2002)		M
1997	60	Agreement Between the Government of the Republic of South Africa and the Government of the Republic of Botswana for the Establishment of a Joint Permanent Commission for Cooperation	Limpopo	B
1997	88	Convention on the Law of the Non-Navigational Uses of International Watercourses		M
1997	89	Memorandum of Understanding Between the Government of the Republic of Mozambique and The Government of the Republic of South Africa Concerning Mepanda Uncua [S]		B

1999	7	Agreement Between the Government of the Republic of South Africa and the Government of The Republic of Namibia on the Water Related Matters Pertaining to the Incorporation of Walvis Bay in the Territory of the Republic of Namibia [**S**]	Kuiseb	B
1999	15	Protocol V to the Treaty on the Lesotho Highlands Water Project, Supplementary Arrangements with Regard to Project Related Income Tax and Dues and Charges Levied in the Kingdom of Lesotho in Respect of Phases 1A and 1B of the Project [**S**]	Orange	B
1999	16	Protocol VI to the Treaty on the Lesotho Highlands Water Project: Supplementary Arrangements Regarding the System of Governance for the Project [**S**]	Orange	B
1999	35	Protocol on Water and Health to the 1992 Convention on the Protection and Use of the Transboundary Watercourses and International Lakes		M
2000	3	Agreement Between the Government of the Republic of Botswana, the Kingdom of Lesotho, the Republic of Namibia and the Republic of South Africa on the Establishment of the Orange-Senqu River Commission [**S**]	Orange	M
2000	6	Revised Protocol on Shared Watercourses in the Southern African Development Community		M
2001	33	SADC Protocol on Fisheries [**S**]		M
2001	90	United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa		M
2001	91	Exchange of Notes to Amend Article 11 (1) of the Treaty on the Lesotho Highlands Water Project (Effective 22/04/2001) [**S**]	Orange	B
2001	92	Stockholm Convention on Persistent Organic Pollutants (RSA ratified 23/05/2002)		M
2002	24	The Tripartite Interim Agreement Between The Republic of Mozambique and The Republic of South Africa and The Kingdom of Swaziland for Co-operation on the Protection and Sustainable Utilisation of the Incomati and Maputo Watercourses. Resolution of the Tripartite Permanent Technical Committee on Exchange of Information and Water Quality [**S**]	Incomati & Maputo	M
2002	36	Tripartite Interim Agreement Between the Republic of South Africa and the Kingdom of Swaziland and the Republic of Mozambique for Co-operation on the Protection and Sustainable Utilisation of the Water Resources in the Incomati and Maputo Watercourses [**S**]	Incomati & Maputo	M
2002	42	SADC Protocol on Forestry		M
2004	44	Agreement Between the Government of the Kingdom of Swaziland and the Government of the Republic of South Africa on the Operation of the Lavumisa Government Water Supply Scheme [**S**]	Incomati	B

B: Treaty Analysis Report

Legal assessment of selected agreements of regional importance

1. Introduction

The management of internationally shared water resources has to take place within the framework of international law, but almost invariably involves some degree of political and economic trade-off at domestic (i.e. national) level. International agreements between two or more countries are the cornerstones of this framework. A comprehensive overview of existing freshwater agreements to which South Africa is a party, as produced by the WRC Project K5/1515: A Compilation of all the International Freshwater Agreements entered into by South Africa with other States, hereinafter referred to as the International Freshwater Agreements Database Project, is therefore essential in order to analyse the current legal situation with respect to the country's shared rivers. Yet, the number of freshwater agreements is growing and it is very likely that South Africa will become a party to new international freshwater agreements in the future, particularly basin-wide agreements. International agreements also tend to have an evolutionary aspect to them, generally increasing in their range, scope and complexity over time. Thus, in order to meet the challenges of negotiating and drafting (basin-wide) agreements that will work effectively in practice, and to support that evolutionary process by bringing in scientific processes to support future negotiating teams, it is necessary to have an understanding of what are the key components that should be included in such agreements, and which matters should be regulated by such agreements.

This report contributes to this understanding by analysing two key agreements of regional importance to which South Africa is a party. The first agreement is the "Tripartite Interim Agreement Between The Republic Of Mozambique And The Republic Of South Africa And The Kingdom Of Swaziland For Co-operation On The Protection And Sustainable Utilisation Of The Water Resources Of The Incomati And Maputo Watercourses", signed on 29 August 2002 (hereafter called the Incomaputo Agreement). This agreement is the first basin-wide agreement concluded in the Southern African Development Community (SADC) region that establishes a comprehensive basin-wide management regime. It is regarded as a potential model agreement along the lines of which future basin-wide agreements in the SADC region could be drafted. This is also an example of the evolution of various agreements, accompanied by greater scope, depth and legal sophistication.

The second agreement for analysis is the "Treaty On The Lesotho Highlands Water Project Between The Government Of The Republic Of South Africa And The Government Of The Kingdom Of Lesotho", signed on 24 October 1986 (hereafter called the LHWP-Treaty). This agreement is an important example of regional cooperation over shared water resources and is of strategic importance for both states. This is an example of an agreement that was negotiated during times of heightened political tension in the southern African region, that has gone on to provide the platform for additional agreements in other basins, each involving greater depth, scope and legal sophistication. It is also a good example of the use of water resource management as a foundation for peaceful co-existence between riparian states.

2. Methodology

The project proposal originally envisaged the analysis of the effectiveness of a treaty in relation to its original objectives by using the Legal Assessment Model (LAM) developed by the International Water Law Research Institute (IWLRI) of the University of Dundee[iii]. When the proposal for the K5/1515 project was submitted, the development of the LAM was not yet complete and the KaR project reports were unpublished. The available information at the time suggested that the LAM would be an appropriate tool to enable the user to analyse the effectiveness of a treaty. After the publication of the KaR reports and the LAM user's guide, it became very clear that this was simply not attainable as the primary objective of the LAM. Instead, the LAM has evolved into a tool designed to assist a Transboundary Watercourse (TWC) state to determine whether or not its current or planned use of a specific freshwater resource is "equitable and reasonable". Stated differently, the LAM allows a state to assess whether or not its (the state's) water use complies with its international obligations. This is important in terms of South Africa's National Water Act (Act No. 36 of 1998), which stipulates in Article (2) (i) that one of the purposes of the Act is "meeting international obligations" and therefore needs to be fully understood by water resource managers with no legal training. Based on this determination, the LAM enables the user (usually a TWC state) to develop various legal options for the utilisation of a shared resource.

Although the objectives of the LAM and those of the analysis aimed for in the International Freshwater Agreements Database Project differ substantially, elements of the LAM, more specifically of the inherent Legal Audit Scheme (LAS), can be

[iii] The LAM is an output of the DFID - funded Knowledge and Research (KaR) project "Transboundary Water Resource Management: Using the Law to Develop Effective National Water Strategy: Poverty Eradication through Enforceable Rights to Water". The project reports are accessible at www.dundee.ac.uk/law/iwlri

used for the analytical purposes of this project. In order to generate a better understanding of the LAM and its application for this analysis, it is useful to provide a succinct description of the LAM methodology.

2.1 LAM-Methodology

Since it is recognised that the determination as to whether or not the current or planned use of a specific water resource is "equitable and reasonable" depends on a multitude of factors, the LAM aims to create a comprehensive set of data (legal, hydrological, economic, social and political), which are then processed and evaluated against predetermined criteria. As an end result, the TWC state applying the model will know whether or not the actual or intended use is "equitable and reasonable", and will be provided with legal options as to whether or not (and how) to continue with its use, or to implement any planned developments. As the LAM enables the TWC state to identify its legal obligations regarding the use of its shared waters, it can assist in the development of national water policies and poverty reduction strategies, as well as providing essential information for future inter-state negotiations dealing with the utilisation of shared water resources across political borders. The LAM is designed to be applied regardless of whether the TWC state is located upstream or downstream, or whether the resource in question is a shared surface water or groundwater resource. Most suitably, the LAM can be applied in a basin-wide study.

The LAM is divided into four phases. Phase I consists of a scoping exercise in order to determine the geographic scope of the specific application in question and to get a first overview of relevant parameters (from the various disciplines) that need to be taken into consideration. In a contemporary South African water resource management context, this can be informed by existing methodologies and practices such as Situation Assessments, Strategic Environmental Assessments (SEAs), Environmental Impact Assessments (EIAs) or Comprehensive Reserve Determination Studies. Whilst this first phase provides the basis for the following phases, it is Phases II and III that form the core of the model, as it is here where all the relevant data are collected together and evaluated, leading eventually to the determination of legal options in Phase IV. A schematic presentation of the different phases of the LAM is presented in **Figure 2**.

Phase II is the so-called data collection phase. Three tools have been specifically developed for this phase of the LAM, namely the Glossary of Terms, the Relevant Factors Matrix (RFM) and the Legal Audit Scheme (LAS). The Glossary of Terms forms the terminological baseline for the project and is designed to achieve clarity and consistent application of terms between the various scientific disciplines involved. This reduces uncertainty and possible future disagreements over interpretation. The

Relevant Factors Matrix is the data collection tool for all non-legal data (irrespective of the scientific discipline). The legal data are captured by means of the Legal Audit Scheme as a separate data collection tool.

Once all requisite data have been captured, they are analysed and evaluated in Phase III. The LAM lists a number of Methods of Evaluation, of which the most suitable one for the specific context needs to be chosen, depending on factors such as quality and quantity of data and the specific skills level of the evaluators. The outcome of Phase III is the determination as to whether or not the current or intended use is "equitable and reasonable".

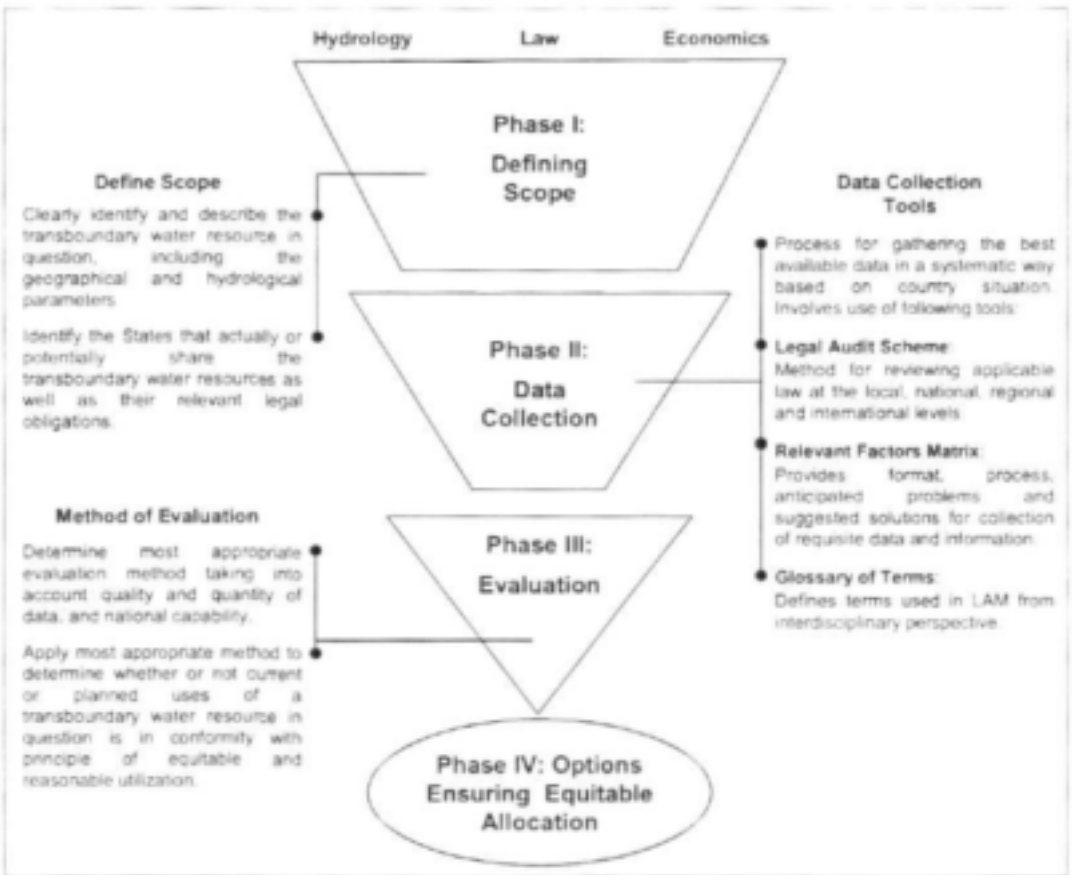

Figure 2. Schematic representation of the different phases comprising the Legal Assessment Model (LAM). (Figure redrawn from IWLRI, 2004).

The determination as to whether an existing (or intended) water use is "equitable and reasonable", depending on the outcome, will provide the TWC state with different legal options as to how to proceed. Phase IV therefore consists of an analysis of the existing options, and informs the strategic choice as to which would be the most appropriate option to pursue.

2.2 Application of LAM in the International Freshwater Agreements Database Project

In the context of the International Freshwater Agreements Database Project, only two components of Phase II of the LAM are of relevance, namely the Glossary of Terms and the Legal Audit Scheme.

2.2.1 Glossary of Terms

As the LAM establishes its own glossary of terms, it is necessary to find compatibility between the terms used by the LAM and terms used in other formats, for instance the Transboundary Freshwater Dispute Database (TFDD). It must be pointed out that the terms used by the LAM do not in all cases reflect the latest "state of the art" of the respective discipline, but have been chosen to ensure universal application by the interdisciplinary teams involved in the LAM case studies. In case a comparison of different sets of terms reveals significant differences, a choice needs to be made between the LAM-terminology (with a view to potentially applying the LAM in further studies in the region), and other options (for greater compatibility with existing international database formats).

Since the final output of the International Freshwater Agreements Database Project at this stage will be the most comprehensive assessment of water-related legal instruments that are binding on South Africa, it sets a precedent for future work on the topic and for similar projects of a national or regional scale. As future work ideally should build on the outcome of this project, clarity and consistency with respect to the core terminology is essential.

2.2.2 Legal Audit Scheme (LAS)

It has already been mentioned that the complete application of the LAM cycle eventually leads to the determination of existing legal options for the TWC state in question. This does not bind that state in any way, but rather provides additional insight into the nature of possible future disagreements or disputes by other riparian states in a given hydrological management system (international river basin or groundwater management unit). The LAS allows a TWC state systematically to identify its rights and obligations with respect to a TWC, by establishing the legal context in which the current or planned utilisation takes place, or will take place. Whilst the LAS thus helps to establish the legal framework, it does not lead to an evaluation of the quality of applicable legal instruments. The assessment as to

whether or not a treaty is effective in relation to its original objectives therefore does not directly derive from the LAM, in the sense that it would be an outcome of the application of the Method of Evaluation. However, the LAM does provide important guidelines as to which factors need to be taken into account for such analysis. As the LAM attempts to gather a comprehensive set of data, all relevant factors that eventually determine the effectiveness of a treaty are listed in the LAS data collection sheet. Hence, the project team can use the list of factors provided by the LAS.

This list of factors includes factors contained in an international agreement itself, as well as two factors outside the actual text of the agreement. The two factors lying outside of the agreement text, are "the effect (of the agreement) on the TWC state" and "national compliance". Clearly, the question whether or not an agreement is effective in relation to its objectives, depends on the combination of the agreement text and the two above-mentioned factors. It needs to be clarified, however, that the full application of the Legal Audit Scheme, -including the assessment of the two external factors - is beyond the scope of the International Freshwater Agreements Database Project. It would require intensive research into the actual legal, economic and technical implications of a legal instrument for the state in question (in this case South Africa) and the current level of compliance. The assessment of the level of compliance, in particular, would require an evaluation of the practical implementation of an agreement on the ground, which is not feasible in the confines of the financial and human resources available for this project.

Hence, when assessing the two agreements for this project, the focus is on the factors inherent in the agreement text itself. Consequently, the project will thus not attempt to make a judgement on the effectiveness of the various agreements in relation to their objectives. **Instead, the objective is to analyse whether or not the text of the agreement meets certain prerequisites that are deemed necessary for its successful implementation on the international and the national level.** These requirements have been developed through the analysis of various experiences with the implementation of international freshwater agreements in practice, and are frequently discussed in the academic literature on the subject.

In relation to these prerequisites, two broad levels of assessment can be distinguished. The first looks at a number of general categories of provisions that should form part of an international freshwater agreement. This is clearly normative in nature, as it prescribes what should be included, rather than what is actually included. These categories are the factors listed in the LAS (IWLRI, 2004) and have been further

substantiated in the literature by Vinogradov *et al.* (2003)[iv]. In total there are six identified general categories, consisting of:

1. The scope of the agreement;
2. Substantive rules;
3. Procedural rules;
4. Institutional mechanisms;
5. Dispute avoidance / settlement mechanisms; and
6. Compliance assurance mechanisms.

The second deals with provisions relating to specific issues, e.g. water allocation, pollution prevention, data sharing, etc., that are considered necessary for inclusion in an international freshwater agreement. In this context, it must be stressed that the specific issues to be addressed in an agreement depend largely on the type of the agreement in question and what its objectives are. A multilateral convention, for example, will not contain specific provisions on water allocation, whereas this would be a key factor for basin-wide agreements that aim to establish a joint management regime. An exhaustive, generic list of issues that need to be covered in an agreement therefore cannot be generated. Instead, the issues that need to be regulated in an agreement have to be selected from the wide-ranging list of issues, and then applied to the specific context of the agreement concerned.

The following analysis assesses the two selected agreements against the general categories listed in the LAS and, where appropriate, evaluates the regulation of specific issue-areas that are relevant in the context of the specific agreement.

3. Analysis of agreements

3.1 The Incomaputo Agreement

As mentioned earlier, the Incomaputo Agreement is not only the first basin-wide agreement in the SADC region to establish a comprehensive basin-wide management regime. It is also the first regional watercourse agreement to be concluded after the signing of the SADC Revised Protocol on Shared Watercourses (hereafter referred to as the Revised Protocol). The Revised Protocol was signed by the SADC member states in 2000 and functions as a framework agreement for all watercourse agreements to be concluded in the SADC region. It states "watercourse states may enter into agreements, which apply the provision of this Protocol to the characteristics and uses of a particular shared watercourse or part thereof". In other words, it provides the general direction and principles for any future watercourse agreements concluded in

[iv] The authors of this work, constituted the "Lead Team Law" of the KaR project. The six categories discussed by Vinogradov *et. al.*, 2003 are identical to the ones listed in the LAS.

the SADC region, while at the same time allowing for the consideration of certain characteristics that may be specific to the watercourse in question. Although the Revised Protocol only entered into force in 2003, after the conclusion of the Incomaputo Agreement in 2002, the latter agreement has been drafted in the spirit of the former, as the following analysis clearly shows.

3.1.1 Scope

The scope of an agreement[5] usually determines the geographical (and or hydrological or hydrographical parameters) limits of the agreement's application. This then determines the types and limits of water resources to be regulated by the agreement, the states who are eligible to participate in the treaty (*ratione personarum*) and the uses or activities governed by the agreement (*ratione materiae*) (IWLRI, 2004). A clear definition of the scope of an agreement can prevent disputes as legal controversies often result from different interpretations of the treaty provisions that determine its scope (Vinogradov *et al.*, 2003).

In this context, Article 6 (4) of the Revised Protocol regulates that "where a watercourse agreement is concluded between two or more Watercourse States, it shall define the waters to which it applies". The Incomaputo Agreement does this in Articles 1 and 2 of the agreement. Article 2 states as the objective "to promote co-operation among the Parties to ensure the protection and sustainable utilization of the water resources of the Incomati and Maputo watercourses". Thus, the activities governed by the agreement are all measures required to promote co-operation on these issues.

Geographically or hydrographically, the scope is limited to the Incomati and Maputo watercourses. A "watercourse" is defined in Article 1, following the definition of the UN Watercourse Convention, as "a system of surface and ground waters constituting by virtue of their physical relationship a unitary whole normally flowing into a common terminus such as the sea, lake or aquifer". Both the Incomati and the Maputo watercourse are more specifically defined in Article 1. It is stipulated there that the "Incomati watercourse" means the system of the Incomati River, which includes the tributaries Mazimechope, Uanetze, Massintoto, Sabie, Crocodile, Komati rivers and the estuary" whereas the " Maputo watercourse" means the system of the Maputo River, which includes the tributaries Pongola and Usuthu rivers and the estuary. The geographic / hydrographic scope is thus clearly laid out and defined in the agreement. The states eligible to participate in the treaty are not specifically defined, but this factor becomes clear from the definitions of the watercourses covered, since only the

[5] The legal meaning of the terms "agreement" and "treaty" is identical (Article 2 (1) (a) Vienna Convention) and they are used interchangeably in this analysis.

three parties to the agreement, Mozambique, South Africa and Swaziland are riparian countries along these watercourses.

For the definition of flow regimes, the agreement goes beyond defining the specific river systems that form the respective watercourse. Annex I, which is, like all other Annexes, an integral part of the agreement, (Article 16) regulates the determination of the flow regime established by Article 9 of the agreement. For this purpose, the agreement also defines the specific catchments that constitute the respective "Basin". Interestingly, in this context the agreement uses the heading "watercourse" (Article 2 of Annex I for the Incomati and Article 3 of Annex I for the Maputo), while then continuing with the term "Basin" in the text of the provision. The term "Basin" is only used in these provisions and not defined in Article 1, the definitions provision of the Incomaputo Agreement. The interpretation of Articles 2 and 3 of Annex I suggest that the term "Basin" refers to the unit of the "watercourse" and its respective "catchments". Therefore, it appears that the use of the term "Basin" in this context has been adopted purely for hydrological reasons. Clearly, it would have been useful to define the term "Basin" in the Incomaputo Agreement to achieve greater clarity and minimize possible ambiguity. Nevertheless, it can be said that the Incomaputo Agreement meets the first of the essential requirements of an effective watercourse agreement, i.e. a clearly defined scope.

3.1.2 Substantive rules

Vinogradov *et al.* (2003) and IWLRI (2004) define substantive rules as those rules of international agreements that establish the material rights and obligations of states vis-à-vis each other. These rules therefore determine what the parties to an agreement must do (or not do) in order to achieve the purposes of a particular agreement (IWLRI, 2004). These obligations are often distinguished as "obligations of conduct" and "obligations of result". The former require from a state to act in conformity with a particular standard of conduct, whereas the latter require a state to undertake certain actions in order to achieve certain specified results, or prevent a given event (Vinogradov *et al.*, 2003).

Substantive rules vary depending on the nature and purpose of a particular agreement (Vinogradov *et. al.*, 2003). There are nevertheless certain substantive rules that are deemed to be fundamental principles of watercourse agreements, and should therefore be included in every international watercourse agreement. These rules are, for example, the principle of "equitable and reasonable utilization" and the "obligation not to cause significant harm" to other watercourse states, which are contained in both the UN Watercourse Convention (Articles 5 and 7) and the Revised SADC Protocol (Articles 3 (7) (a) and 3 (9) (a)).

The principle of "equitable and reasonable utilization" is also included in Article 3 (b) of the Incomaputo Agreement, which states some general principles for the purposes of the agreement. The "obligation not to cause significant harm" is not given such emphasis, as it is not listed in the general principles in Article 3. The agreement does use the term in Article 6 (3), which deals with the protection of the environment. Furthermore, the agreement contains provisions, which, without naming the "obligation not to cause significant harm", essentially result in a very similar level of obligation to protect the interests of the other watercourse states. These obligations are inherent in the various specific obligations stipulated in the agreement, such as for example the obligation to "prevent, eliminate, mitigate and control transboundary impacts" in Article 4 (b) or to "provide warnings of possible floods and implement agreed upon measures during flood situations" in Article 4 (g).

Beyond these general principles, the Incomaputo Agreement contains numerous substantive provisions that together form a comprehensive management regime for the Incomati and Maputo watercourses. For example, it contains detailed provisions on flow regimes (Article 9 (3) with Annex I) and water allocations to the respective riparian countries based on the defined flow regimes (Article 9 (2) with Annex I). In the context of water allocations, the agreement establishes a clear priority of uses and allocates specific amounts of water for each category of use (see for example Article 4 of Annex I for the Incomati watercourse). It thereby distinguishes between first priority supplies (domestic, livestock and industrial use), irrigation supplies and a calculated runoff reduction because of afforestation. The agreement determines the exact amount for each of the uses for every catchment that forms part of the Incomati or Maputo watercourses as defined in Article 3 of Annex I.

In addition to its clear allocations of water to the specific countries and for specific uses, the Incomaputo Agreement also makes provisions for situations where these allocations cannot be met, i.e. during drought conditions. For example, Article 4 (5) of Annex I determines that during droughts, the water use by all of the parties must be reduced sequentially. Water use for irrigation must be reduced first, followed by reductions in first priority uses. A reduction of the water for the riverine and estuarine ecosystem shall only be allowed under extreme drought conditions. Thus, the Incomaputo Agreement introduces a flexible system of water allocation and uses, which addresses the specific concerns of a potentially drought-stricken region in an adequate manner. This can be considered exemplary, and could be useful to the drafters of future watercourse agreements in the SADC Region.

In addition to its water allocation and use specification provisions, the Incomaputo Agreement also contains provisions in another issue-area that is very important for watercourse agreements, i.e. water quality and pollution prevention. These

regulations are contained in Article 8 and establish a comprehensive regime for water quality management and pollution prevention, including the development of a classification system by the Tripartite Permanent Technical Committee (TPTC).

The agreement also addresses an issue of specific concern to developing countries, namely the issue of capacity. It recognizes the limited capacities in the region and therefore in Article 14 mandates the TPTC to identify necessary capacity building programmes, and prioritise them for implementation.

The scope and detail of the substantive rules established by the Incomaputo Agreement puts this part of the agreement at the forefront as far as the practical implementation of legal developments related to shared watercourses is concerned, and makes it a good example of effective regional co-operation over shared water resources.

3.1.3 Procedural rules

Procedural rules provide the means through which the substantive rules are implemented and the watercourse regime is managed (Vinogradov *et al.*, 2003). Procedural rules are no less binding than substantive rules and the distinction is made for analytical purposes only; nevertheless, the distinction between substantive and procedural rules is common international practice.

As it is the case with substantive rules, procedural rules vary considerably from agreement to agreement. However, there are some key rules that are considered to be essential elements for the effective functioning of international watercourse agreements. Usually mentioned in this category are rules concerning data and information exchange, a duty to co-operate, and prior notification and consultations (IWLRI, 2004). These principles are enshrined in the UN Watercourse Convention and the Revised Protocol. The latter, for example, lists the obligations of close co-operation in Article 3 (5) and of data and information exchange in Article 3 (6), whereas Article 4 deals in detail with the requirements for information and notification concerning planned measures.

These key procedural obligations can also be found in the Incomaputo Agreement. Article 12 of the Incomaputo Agreement contains detailed provisions related to data and information exchange between the parties. In Article 13 the Incomaputo Agreement requires parties to adhere to certain procedures concerning information and notification about planned measures, provided the planned measures have the potential of a significant transboundary impact (Article 13 (1) for planned measures listed in Annex II) or are likely to cause significant transboundary impact (Article 13

(2) for planned measures not listed in Annex II). Significantly, the specific requirements for information and notification are not stipulated in the agreement. Instead, the Incomaputo Agreement refers to the requirements set out in Article 4 (1) of the Revised Protocol. This is further proof that the Incomaputo Agreement needs to be understood as a specific part of the integrated watercourse management framework within the context of SADC, with the Revised Protocol as a framework agreement. Overall, the Incomaputo Agreement's detailed procedural provisions, particularly those on data and information exchange, are likely to benefit co-operation between the parties, and to contribute to the effective implementation of the substantive rules of the agreement.

3.1.4 Institutional mechanism

The lack of an effective institutional implementation mechanism would normally render a watercourse agreement worthless. The establishment of a functioning institutional mechanism is therefore one of the key factors for consideration when drafting an international watercourse agreement. The Incomaputo Agreement stipulates that the TPTC, established by the parties in 1983, shall be the joint body for co-operation between the parties (Article 5 (1)). In this function, the TPTC is embedded into the watercourse management framework created by the Revised Protocol. Pursuant to Article 5 (1) of the Revised Protocol, the institutions responsible for implementation of the Revised Protocol are the SADC Water Sector Organs (Committee of Water Ministers, Committee of Water Senior Officials, Water Sector co-ordinating Unit, Water Resources Technical Committee and sub-Committees) and shared watercourse institutions (Article 5 (1) (b) of the Revised SADC Protocol). Article 5 (3) (b) of the Revised Protocol provides that the responsibilities of watercourse institutions shall be determined "by the nature of their objectives which must be in conformity with the principles set out in this Protocol".

The responsibilities of the TPTC in connection with the implementation of the Incomaputo Agreement are broadly defined in Article (5) (2) of the agreement, where it states that the TPTC "shall exercise the powers established in this Agreement, as well as those conferred by the Parties in order to pursue the objectives and provisions established herein". These powers are determined in more detail in various provisions throughout the agreement. Article 8 specifies that the Parties, "through resolutions adopted by the TPTC, and, when appropriate, through the coordination of management plans, programmmes and measures" shall implement necessary measures to prevent, reduce and control pollution of the watercourse. Furthermore the TPTC shall be the forum for information and data exchange between the parties (Article 12) and shall determine the procedures for environmental impact assessments related to planned measures involving significant transboundary impact of substantial

magnitude (Article 13 (3)). In Article 14 the TPTC is mandated to identify capacity-building programmes for the implementation and monitoring of the Incomaputo Agreement. Annex I, which regulates the technical details related to the utilization and protection of the watercourse, gives the TPTC substantial decision-making powers. Examples of the many duties and powers that the TPTC is entrusted with, include the review of operating rules of existing dams (Article 4 (6) and 6 (6) of Annex I), the determination of the minimum river flows (Article 5 (2) and 7 (2) of Annex I) and the approval of operating rules for hydropower installations in any of the three states.

It can thus be seen that the TPTC is entrusted with wide-ranging management and decision-making powers, primarily related to technical issues. Importantly, however, the TPTC has not been mandated with any powers and functions related to dispute resolution. One can certainly argue that the required joint exercise of the functions the TPTC is mandated with is likely to create a spirit of co-operation that helps to prevents disputes from arising. In this sense, the TPTC in practice can play a *de facto* role in dispute prevention. However, a formal involvement of the TPTC in the settlement of disputes, in the form of joint fact-finding missions, would have been desirable (see 3.1.5., below). Nevertheless, the delegation of powers to the TPTC away from national decision-making organs is an important step towards regional cooperation regarding the utilization and management of shared resources and gives practical meaning to the spirit of the Revised Protocol.

3.1.5 Dispute avoidance / settlement mechanism

Despite the usual willingness of states to abide by the rules of agreements concluded by them (and to implement them), the possibility of a dispute between parties cannot be excluded. Particularly in a situation of prevailing or escalating resource scarcity, conflicts over resource allocation and use can arise over time. It is therefore essential for any international freshwater agreement to contain provisions that will ensure the effective and peaceful settlement of disputes. The Incomaputo Agreement provides for this in Article 15. As with normal international treaty practice, the agreement provides for different means of dispute resolution, thereby gradually elevating to the next level of dispute resolution in case the efforts on the previous level failed to resolve the issue.

Article 15 (1) provides for the amicable settlement of disputes through consultation as well as negotiations between the parties. This is in line with the principle of amicable solution also enshrined in Article 7 (1) of the Revised Protocol.

Where a dispute cannot be settled by negotiations within one year (after the negotiations have been requested by one of the parties), the dispute may be submitted to arbitration by either party (Article 7 (2)). This provision deviates from the procedure stipulated in Article 7 (2) of the Revised Protocol, which foresees dispute settlement by the SADC Tribunal as the second step. However, one needs to bear in mind that the Revised Protocol in Article 7 makes provision for the settlement of dispute arising from the interpretation of the Revised Protocol, and does not prescribe this procedure for other regional watercourse agreements that are concluded.

Article 15 of the Incomaputo Agreement provides for no other than the above-mentioned two means of dispute settlement, hence arbitration is the second and last level on the dispute resolution scale provided for. Consequently, it is stipulated that the arbitral award issued by the arbitral tribunal "shall be final and binding" (Article 15 (3) (j)).

Interestingly, the provision on interim measures is far less clear. Article 15 (3) (g) stipulates, "the arbitral tribunal may, at the request of one of the disputing parties, recommend interim measures of protection". Judging from the wording of the provision ("recommend"), a decision by the arbitral tribunal on interim measures does not appear to have binding character. This interpretation is supported by the fact that the binding nature of the arbitral award is clearly emphasized in the Incomaputo Agreement. Failure to do so for interim measures therefore seems to be a deliberate decision by the drafters of the agreement. Yet, the imposition of interim measures can be of great importance, for example where the security of water-related infrastructure (dams) is not guaranteed, leading to an increased risk of accidents. A binding character for decisions by the arbitral tribunal on interim measures would therefore be desirable, whereas the current wording of the provision creates the basis for possible further disputes, relating to the obligation of the affected party to implement the interim measures.

The exact composition of, and procedure for, the appointment of the arbitral tribunal, as well as its powers and duties, is regulated in Article 15 (3) (a) – (i). In case any of the parties fails to appoint an arbitrator (Article 15 (3) (c)), or the two appointed arbitrators fail to designate the third arbitrator (Article 15 (3) (d)), either party may request a decision from the President of the SADC Tribunal, or pending the SADC Tribunal's establishment, from the President of the International Court of Justice (ICJ). At first glance this procedure seems to be rather complicated, but it needs to be seen as part of the wider framework of regional integration as defined by the SADC Treaty and the Revised Protocol. It is common legal practice that an independent third party is called in to appoint an arbitrator, or the chairperson of the arbitral tribunal, if the parties cannot reach agreement on this matter. In the context of SADC, it makes sense to designate the envisaged SADC Tribunal to do so. As noted, the

Revised Protocol is a framework agreement for the Incomaputo Agreement, whereas the SADC Treaty is a framework agreement to all SADC Protocols including the Revised Protocol. It is the aim of these pieces of legislation to foster the development of regional law and policy harmonization. One component of this effort is the establishment of a central dispute settlement organ in the form of the SADC Tribunal. While the Incomaputo Agreement does provide for arbitration, and does not require the settlement of the substantive dispute by the SADC Tribunal, it refers to the SADC Tribunal for decision-making on procedural issues related to the dispute-settlement procedure. The Incomaputo Agreement therefore integrates well into existing dispute-settlement legislation in the context of SADC. At the same time, by providing for arbitration instead of adjudication by the SADC Tribunal on substantive matters, it maintains a degree of flexibility that is likely to benefit dispute-resolution related to the Incomaputo Agreement.

A feature that could be considered a weakness of the Incomaputo Agreement's dispute-settlement mechanism is the fact that it does not provide for some form of joint fact-finding. Joint fact-finding is not mentioned in the Revised Protocol, but it is a means of dispute resolution provided for in other watercourse agreements including, for example, the 1997 UN Shared Watercourse Convention for disputes resulting from the interpretation of that Convention. Providing an opportunity for formal joint fact-finding as a means of dispute resolution would arguably haven been a useful tool in the context of the Incomaputo Agreement. Issues related to watercourse management are often of a highly technical nature, requiring technical expertise from a variety of different disciplines. Disputes on the other hand often result from a different interpretation of data and/or a different understanding of data collection methods. Such disputes can often be avoided or easily resolved on a technical level, where experts from the disputing parties jointly assess the data, or develop agreed criteria for their interpretation. If that is the case, lengthy and costly dispute-resolution processes can be avoided and mutual trust can be developed and strengthened. Given the fact that institutional mechanisms and technical *fora* are already in place under the Incomaputo Agreement, the inclusion of a provision for some form of joint fact-finding by the disputing parties would have been preferable over the current heavy reliance on arbitration.

3.1.6 Compliance assurance mechanisms

The inclusion of compliance assurance mechanisms in international agreements is a practice that is increasingly followed, particularly in multilateral environmental agreements (MEAs). This practice derives from the realisation that non-compliance is often not a wilful act, but rather the result of a lack of capacity and resources to properly implement an agreement (Vinogradov *et el.*, 2003). In this context,

compliance assurance mechanisms that enable the parties to an agreement to exercise some form of monitoring and mutual control, usually lead to far better results as far as treaty implementation is concerned, than to "punish" the offender with the means of international law relating to state responsibility. Hence, a compliance assurance mechanism is a set of rules and procedures aimed at assessing, regulating and ensuring compliance. In the context of watercourse agreements, this is greatly enhanced where a set of measurable rules and targets exists, such as water quality objectives, lists of prohibited substances and fixed water allocation volumes. Important elements outside the agreement text, such as public access to information and equal access to justice, are also considered important elements of a compliance regime (Vinogradov *et al.*, 2003).

At the SADC level, the Revised Protocol contains some elements of compliance verification. In terms of Article 5 (2) (a) (i) the Committee of Water Ministers shall "oversee and monitor the implementation of the Protocol ..." and shall, pursuant to Article 5 (2) (a) (v) "provide regular updates to the Council on the status of the implementation of this Protocol". Pursuant to Article 5 (2) (c) (i), the Water Sector Co-ordinating Unit shall "monitor the implementation of this Protocol" and "liaise with other SADC organs and Shared Watercourse Institutions on matters pertaining to the implementation of this Protocol" (Article 5 (2) (c) (ii)). While the Revised Protocol does not stipulate any specific means of compliance control, this institutionalised mechanism remains an important aspect of compliance control at a regional level.

The Incomaputo Agreement does not contain a specific provision that establishes a comprehensive compliance assurance mechanism. Instead, elements of compliance control mechanisms are contained in various provisions of the agreement. Article 4, for example, requires the parties to the agreement to "establish comparable monitoring systems, methods and procedures' (Article 4 (h)) and to "promote the implementation of this Agreement according to its objectives and defined principles" (Article 4 (j)). Over and above these general provisions, the Incomaputo Agreement contains certain very specific requirements that constitute important elements of compliance assurance mechanisms. According to Vinogradov *et al.* (2003) one of these important elements is an institutional mechanism with a mandate to monitor compliance. The Incomaputo Agreement provides for this in Article 5 (3), where it is stipulated "for the purpose of implementation of this Agreement, the TPTC shall at least meet twice a year", thus mandating the TPTC with implementation and compliance control functions. The TPTC is also given a number of powers to meet these objectives. Pursuant to Article 8 (1) (e), for example, the parties shall, through resolution by the TPTC, implement a regular monitoring programme in order to meet water quality objectives. Thus, the TPTC is mandated with monitoring whether or not the parties to the agreement meet the specified water quality objectives. Another

provision containing elements of compliance verification is Article 12 of the Incomaputo Agreement. In terms of this provision, the TPTC shall review the list of polluting substances subject to special attention in order to "enable compliance" (Article 12 (3)). Article 12 (6) and (7) stipulate requirements for the exchange of information relating to the water quantity and quality that is necessary for implementation, and to ensure the compatibility and comparability of such information. All these provisions are important tools that facilitate implementation and the monitoring and control of compliance.

The element of public access to information is recognized in the Incomaputo Agreement. Article 12 (8) stipulates that " the Parties shall create the necessary conditions to ensure that, in conformity with applicable domestic law or International Law, information on matters covered by this Agreement is available to whoever makes a reasonable request". In the South African context, such domestic legislation would be the Promotion of Access to Information Act (Act No 2 of 2000). By requiring the parties to create the necessary conditions to make information available to the public, a means of indirect compliance control is established, which can often be a powerful force for verifying that an agreement is indeed implemented.

Importantly, the Incomaputo Agreement lacks one important element for compliance assurance, emphasized by Vinogradov *et al.* (2003), namely a system of incentives (and disincentives) facilitating proper performance (and discouraging non-compliance). As noted, performance guidelines (such as water quality objectives) are established, but there are no provisions within the Incomaputo Agreement that tie compliance (or non-compliance) to certain specific measures, which would be an incentive to comply (or disincentive not to comply). Hence, while the inclusion of some elements of compliance assurance in the Incomaputo Agreement is useful, and sets the Incomaputo Agreement apart from many other watercourse agreements, an overall more powerful compliance assurance mechanism would have been desirable.

3.1.7 Summary

The above analysis has revealed that the Incomaputo Agreement meets all essential prerequisites for an effectively functioning international watercourse agreement. The identified "weakness" of certain individual provisions (e.g. non-binding nature of decisions on interim measures and lack of a joint fact-finding procedure) are not of such magnitude that they would jeopardise this general result of the analysis. Thus, the Incomaputo Agreement is considered a "good" agreement in the sense that its text provides a solid basis for effective implementation. Whether or not it is indeed effective in relation to its objectives depends on a number of additional factors, most notably national compliance. This becomes clear in an example described by Van der

Zaag and Vaz (2003), where these authors allege that a dispute occurred between Mozambique and South Africa in 1992. In this example, Mozambique alleged that South Africa had violated the then recently signed Pigg's Peak Agreement, by not preventing sugarcane farmers from building a weir that reduced the stream flow of the Incomati River, with the consequence that the agreed stream flow into Mozambique was not met. Without judging the correctness of the allegations at that time, the example clearly shows the linkage between international and domestic law. The Incomaputo Agreement as such does not provide a party with the means to, for example, prevent the building of a weir. These means need to be provided by the domestic law of each of the respective countries. Only when the domestic law recognises international obligations (like the South African National Water Act (Act No 36 of 1998) does in Article 2 (i)) and provides the necessary means for implementing and enforcing national compliance with the provisions of international law, can an international watercourse agreement be considered to be effective. The International Freshwater Agreements Database Project cannot evaluate this for the Incomaputo Agreement for the reasons mentioned above (see 2.2.2). However, what can be said based on the analysis conducted during this study, is that the Incomaputo Agreement provides a solid basis of international law for effective implementation on the ground, provided that the domestic law within each country is in place to achieve this. Its critical analysis by water managers and drafters of future watercourse agreements in the region could therefore contribute to informing the future evolution of international law in the SADC water sector. In this regard, additional research is encouraged, specifically with respect to future cooperation with other SADC member states.

3.2 The Lesotho Highlands Water Project Treaty

The LHWP-Treaty was concluded in an entirely different political and legal context compared to the Incomaputo Agreement. While the latter was concluded in a time of increasing regional co-operation and political stability, the former was concluded in a time of heightened political tensions in the southern African region. Analytically the LHWP-Treaty pre-dates important legal developments like the Revised Protocol and the UN Watercourse Convention. Thus, the LHWP-Treaty is not embedded in a broader regional initiative of co-operation over shared water resources under a regional instrument, as the Incomaputo Agreement is under the Revised Protocol. Instead, it is an example of bilateral co-operation driven by the specific needs of the two riparian states.

3.2.1 Scope

The scope of the LHWP-Treaty is clearly defined in Articles 1, 3 and 4 of the treaty. Pursuant to Article 3, the purpose of the treaty shall be to provide for the "establishment, implementation, operation and maintenance of the Project". The Project in turn is defined in Article 1 as "that water delivery project ultimately delivering seventy cubic metres of water per second consequent upon the implementation of the phases provided for in paragraph (1) of Article 5 as well as the concomitant hydro-electric power project identified in Annexure I." Article 5 in turn refers to Annexure I where the exact construction phases of the water delivery project are regulated. Article 4 states that the purpose of this project is to enhance the use of the water of the Senqu / Orange River by storing, regulating, diverting and controlling the flow of the Senqu / Orange River and its affluent streams, in order to affect the delivery of water to South Africa.

A comparison between the LHWP-Treaty and the Incomaputo Agreement in this context demonstrates the need to go beyond the first level of analysis and look at specific issues in more detail in order to obtain a thorough understanding of the agreements (and the legal and political trends they reflect). Technically (in a legal sense), both agreements meet one of the prerequisites for an effective watercourse agreement - a clearly defined scope. One could even argue that the scope in the LHWP-Treaty is defined more clearly, as it covers only one project, whereas the Incomaputo Agreement covers a wide range of potential uses and related projects, and naturally has to be slightly less precise in its wording. On the other hand, the LHWP-Treaty does not reflect "modern" trends related to the management of shared waters. By limiting the scope to the Lesotho Highlands Water Project (LHWP), the LHWP-Treaty excludes the remaining two riparians - Namibia and Botswana - which cannot be parties to the agreement in terms of that agreement. Thus, the "modern" notion of an agreement establishing a comprehensive basin-wide regime is not achievable. Subsequently, the Orange-Senqu River Commission (ORASECOM) has been established, including all four riparian states, but this aspect of the LHWP-Treaty continues to be of relevance because it is at odds with international norms of best practice. The reason for this lies in Article 1 (3) of the agreement establishing ORASECOM. This provision states, "in the absence of an agreement to the contrary, nothing in this Agreement shall affect the rights and obligations of a Party arising from other agreements in force prior to the date this Agreement comes into force for such a Party". One such agreement is the LHWP-Treaty, and the inclusion of this provision suggests that the rights and obligations established by it will play a role in the work of ORASECOM, and for the potential development of a comprehensive basin-wide management regime.

3.2.2 Substantive rules

The LHWP-Treaty contains a multitude of substantive provisions regulating every aspect of the implementation of the Lesotho Highlands Water Project in some detail. Many of these provisions are not directly related to water sharing and utilization, but relate to tendering procedures, the services of consultants, and other questions related to the construction works. As far as water-related provisions are concerned, the LHWP-Treaty does not include the key principles of "equitable and reasonable utilization" and "obligation not to cause significant harm". This can be explained by the fact that the LHWP-Treaty has, due to its project specific nature, been drafted relatively independently from international legal trends relating to shared watercourse management. In the light of the nature of the specific project, reference to the above-mentioned principles would have made little sense. In defining "equitable and reasonable utilization", Article 3 (7) (a) of the Revised Protocol (and identical to Article 5 (1) of the UN Watercourse Convention) states that "in particular, a shared watercourse shall be used and developed by Watercourse States with a view to attain 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 for the benefit of current and future generations". Since Lesotho has substantial amounts of so-called "surplus water", and South Africa is a water-scarce country in need of secure additional water supplies, the delivery of water from Lesotho to South Africa in return for specified royalty payments, constitutes optimal utilization for both parties. Hence, it can be argued that the entire LHWP-Treaty is a manifestation of the implementation of the "equitable and reasonable utilization" principle. However, this assessment only applies in respect of the relationship between the two parties to the LHWP-Treaty and the assessment would most likely be different if the interests of the other two riparian states were taken into consideration.

While not specifically mentioning the above-mentioned important general principles, the LHWP-Treaty does contain a number of characteristics that are considered important for effectively working watercourse agreements. For example, it does have detailed water allocation provisions in Article 6 (7) (with Annexure II). It can be argued that this is logically the case, as water delivery to South Africa from Lesotho is the underlying reason for the entire engineering project and the basis of the LHWP-Treaty. Nevertheless, it is a substantial element of a watercourse agreement, and an important manifestation of co-operation between the parties. The LHWP-Treaty also includes another element considered important for an effectively functioning watercourse agreement - provisions related to water quality. Though by far not as detailed as the provisions in the Incomaputo Agreement, Article 6 (15) stipulates the requirement for pollution prevention and abatement.

One could argue that the LHWP-Treaty even contains elements of a very "modern" concept related to shared watercourse management - benefit sharing. This is not the case as described by Giordano and Wolf (2003), where agreements determine formulae that equitably allocate the benefits derived from water, instead of the water *per se*. Elements of benefit-sharing occur in the LHWP-Treaty as far as the delivery of electricity to Lesotho is concerned. The LHWP-Treaty therefore does not only provide for water-allocation to South Africa. It also stipulates that a hydro-electricity plant forms part of the project infrastructure. Before the water is released into South Africa, it is used to generate electricity for Lesotho. Thus, Lesotho does not use the water for consumptive uses, but benefits in other ways from its delivery to South Africa. Hence, the LHWP-Treaty regulates the sharing of benefits beyond the mere sharing of the water resource.

3.2.3 Procedural rules

The LHWP-treaty contains numerous procedural rules, focused primarily on data and information exchange as well as stipulating the requirement for co-operation. Arguably, the most important of these provisions are those that regulate information exchanges between the two national authorities and the Joint Permanent Technical Commission (JPTC) (subsequently renamed the Lesotho Highlands Water Commission (LHWC) by Article 2 I of Protocol VI to the LHWP-Treaty). (Note: The procedural rules have been changed with the implementation of Protocol VI. This is out of the scope of the current analysis however, which is focused only on the original LHWP-Treaty with a view to determining the potential value of the LAM as an analytical tool.)

Article 7 (15) and Article 8 (4) require the LHDA and the TCTA, respectively, to "give its (sic) full co-operation to the Joint Permanent Technical Commission with all the information, as and when required by such Commission, regarding all the operational aspects of any phase of the Project implemented at that stage". These provisions enable the JPTC to fulfil its mandate as an oversight and control Commission, and are thus an important element of co-operation between the parties.

The LHWP-Treaty does not contain provisions concerning the notification of parties on planned measures. This derives logically from the nature of the treaty. As the treaty regulates all phases of a specific long-term project, all measures are pre-planned and stipulated in Annex I of the LHWP-Treaty. There are no other planned measures foreseeable, hence the lack of provision for notification requirements.

3.2.4 Institutional mechanism

The LHWP-Treaty establishes an elaborate institutional set-up specifically for the implementation of the LHWP-Treaty. While Article 2 of the LHWP-Treaty designates the respective Water Ministries in the two countries as the authorities at government level responsible for implementation of the treaty, together the parties created three new institutions for the practical implementation and management of the project. Pursuant to Article 6 (4), Lesotho had to establish the Lesotho Highlands Development Authority (LHDA), and South Africa, pursuant to Article 6 (5), the Trans-Caledon Tunnel Authority (TCTA). Article 6 (6) states that the parties need to jointly establish the Joint Permanent Technical Commission (JPTC).

Thus, the institutional mechanism created by the LHWP-Treaty follows a two-tiered approach. While the two national authorities (LHDA for Lesotho and TCTA for South Africa) are responsible for the implementation, operation and maintenance of the part of the LHWP situated in their respective country, the JPTC has been mandated with numerous monitoring and advisory powers, and functions as a joint decision-making and oversight institution. This becomes clear when the scope of the powers of the respective institutions is examined more closely. Pursuant to Article 7 of the LHWP-Treaty, the LHDA is responsible *inter alia* for the delivery of the quantified amounts of water (Article 7 (2)), the maintenance of minimum flow rates (Article 7 (9)) and the prevention of pollution of the water to be delivered to South Africa (Article 7 (22)). The TCTA is responsible *inter alia*, for the monitoring of the quantity of water delivered to South Africa (Article 8 (3)), the establishment of management information systems (Article 8 (8)) and the compilation of cost- and funding plans (Article 8 (11)) (to name but a few). Thus, the two institutions on the national level are primarily responsible for all technical and financing aspects of the project. The JPTC on the other hand is entrusted with numerous functions related to the monitoring of the overall project. Furthermore, the JPTC has important decision-making powers. Pursuant to Article 9 (11), for example, the LHDA and the TCTA **need the approval** of the JPTC for all decisions related to, among others, the appointment of external auditors, implementation plans for each project phase and annual and short-term operation plans. Thus, most of the key decision-making powers for the implementation of the project lie with the JPTC as a joint decision-making organ. It can therefore be said, that the LHWP-Treaty, although not drafted with reference to the Revised Protocol or the UN Watercourse Convention, contains an important element of "modern" shared water resources law, in that it delegates key decision-making functions to a joint organ. This delegation of powers to the JPTC is even more remarkable given the history of its negotiation and the prevailing political tension at that time.

Although, as noted, this analysis deals with the original LHWP-Treaty, it is interesting at this stage, to examine subsequent changes to the institutional mechanism. The institutional mechanism set out by the LHWP-Treaty has been substantially changed by Protocol VI to the LHWP-Treaty, which was concluded in 1999. Protocol VI not only recognises the transition from the construction phase to the delivery phase of the LHWP but also changes the name and strengthens the role of the JPTC.

The recognition of the transition from the construction to the delivery phase of the LHWP becomes most apparent in Article 4 (1) of Protocol VI. It is stipulated in this provision that the "implementation function" of the TCTA has been completed and that the only remaining function of the TCTA is the operation and maintenance of that part of the project situated in South Africa. Article 4 (3) of Protocol VI therefore provides for a new Article 8a to the LHWP-Treaty, which limits the TCTA to the exercise of such functions. At the same time, however, Article 4 (3) of Protocol VI amends Article 8 of the LHWP-Treaty and makes provision, in the new Article 8 (2) of the LHWP-Treaty, for the establishment of a new body, provisionally called the "Implementing Authority", in case the parties agree to the implementation of a further phase of the project involving construction activities in South Africa.

In Article 2 (1) of Protocol VI the JPTC is renamed into the Lesotho Highlands Water Commission (LHWC). This does not constitute a mere name change. Protocol VI also changes the functions and the institutional set-up of the LHDA and the JPTC. The most important aspect in this regard is the changes made to the relationship between the LHDA and the LHWC and the powers of the LHWC itself. Article 5 of Protocol VI amends Article 9 of the LHWP-Treaty. Significantly, in terms of the new Article 9 (8) of the LHWP-Treaty the LHWC "shall be responsible and accountable for the Project, shall act on behalf of and advise the governments and be the channel of all government inputs relating to the Project". This substantially strengthens the role of the LHWC (previously JPTC) as it goes beyond the above-mentioned original functions of the JPTC and entrusts the LHWC with the overall responsibility for the LHWP. This more powerful role of the LHWC also becomes apparent in the new Article 33 of the LHWP-Treaty as amended by Article 3 of Protocol VI. It is stipulated in this provision that the Board of the LHDA shall be appointed by the LHWC, whereas under the original Article 33 the right to appoint the board was reserved to Lesotho as the LHDA operates only in Lesotho.

These developments illustrate an important aspect that is inherent to the analysis of any international water agreement – that the agreement represents only a snapshot in time and is embedded in a dynamic set of inter-state relations. The LHWP-Treaty has seen a substantial evolution of its institutional mechanism towards the further strengthening of the role of the joint management body. This evolution is a reflection

of the changed political dynamics in the southern African region and also represents "modern" trends in international water law.

3.2.5 Dispute avoidance / settlement mechanism

The LHWP-Treaty contains detailed provisions related to the settlement of disputes concerning the interpretation and application of the treaty. Similar to the Incomaputo Agreement, the LHWP-Treaty provides for different means of dispute resolution, with an elevation to the next level if the previous means have not led to a resolution of the issue at hand. Interestingly, however, the LHWP-Treaty allows for some flexibility in that it permits the parties jointly to refer a dispute to arbitration at any time. In other words, while the LHWP-Treaty generally provides for a gradually elevated system of dispute-resolution steps, the parties can opt for immediate arbitration if they agree to do so. However, neither party can unilaterally refer a dispute to immediate arbitration. If there is no agreement between the parties to do so, the other means of dispute-resolution stipulated in the LHWP-Treaty must first be made use of before the dispute can be referred to arbitration.

Article 16 (2) requires the parties "to pay due regard to the overriding consideration that any dispute shall be resolved in a spirit of conciliation". This provision does not appear to refer to conciliation as the first means of dispute resolution, as the wording suggests that "the spirit of conciliation" shall be the underlying driving force for the settlement of disputes regardless of which of the stipulated means of dispute resolution is made use of.

The first actual means of dispute resolution provided for by the LHWP-Treaty (in Article 16 (4) – (6) is an investigation (into the facts underlying the disputed matter) conducted by the JPTC at the request of either party, the parties jointly, or the LHDA or the TCTA. This investigation can lead to recommendations for measures to be taken by the parties. Although this is not explicitly called joint fact-finding, it essentially contains key elements of that process. With the JPTC being a bilateral commission, this aims at finding a solution to the dispute at the joint management level, without engaging in formal (arbitration) procedures. As argued above (see 3.1.5) such mechanisms can potentially be of great value for resolving a dispute at a technical level, thereby avoiding lengthy, costly procedures that can undermine mutual trust and co-operation. In this respect, the LHWP-Treaty contains a consensus-oriented dispute resolution method also found in a similar manner (there as impartial fact-finding) in the UN Watercourse Convention (though not derived from the latter). By entrusting the created joint commission (JPTC) with this role in dispute settlement, the LHWP-Treaty contains one of the "modern" legal developments in watercourse management. Significantly, this is a development that

the drafters of the more recent Incomaputo Agreement chose not to incorporate into the latter agreement.

The second step on the dispute resolution scale provided for by the LHWP-Treaty is negotiation by the parties. Article 16 (7) provides this in case the JPTC investigation and resulting recommendations have not resolved the dispute.

The third and last dispute resolution method provided for by the LHWP-Treaty is arbitration by an arbitral tribunal. Article 16 (10) – (18) contains detailed provisions concerning the appointment of arbitrators, their remuneration, arbitral procedures and the applicable law. Pursuant to Article 16 (15) (b) the arbitral award shall be "definitive and binding" on the Parties". Any disputes as to the meaning and scope of the award shall be referred for decision within 60 days to the same arbitral tribunal that rendered the award. As it is the case with the Incomaputo Agreement, the binding nature of the arbitral award stipulated in the LHWP-Treaty ensures that a dispute is not dragged on endlessly, as there are no possibilities for appeal. This provides an incentive for the parties to engage in a constructive dialogue from the start, as they are bound to accept the ruling of the arbitral tribunal, without a possibility to challenge that decision thereafter.

Unlike the Incomaputo Agreement, Article 16 of the LHWP-Treaty does not provide for any interim measures to be imposed by the arbitral tribunal. On the one hand, this avoids the legal uncertainty as to the nature of such decision ("binding or not binding"), which is inherent in the wording of the Incomaputo Agreement. On the other hand, this can be resolved by a clearer wording of a provision dealing with interim measures. Given the nature of the LHWP there could be a multitude of (construction) safety-issues coming into play, which would make the imposition of interim measures by the arbitral tribunal a useful tool to address disputes in emergencies. A provision on interim measures would therefore have been desirable.

3.2.6 Compliance assurance mechanisms

Like the Incomaputo Agreement, the LHWP-Treaty does not contain a specific provision providing for a comprehensive compliance assurance mechanism, but rather contains certain elements of compliance assurance in various provisions of the treaty.

Unlike the Incomaputo Agreement, the LHWP-Treaty does not provide for some indirect external control such as making information available to the public. This comes as no surprise, given the enormous strategic importance of the LHWP for the two countries, combined with the reality of the political situation that prevailed at the

time the original LHWP-Treaty was concluded (see Turton, 2004; Turton & Earle, 2005).

Importantly, the LHWP-Treaty does contain provisions that facilitate internal monitoring and control. The main provisions in this regard can be found in Article 9, which determines the functions of the JPTC. Pursuant to Article 9 (8) and (9) the JPTC has monitoring and advisory powers relating to the activities of the LHDA and the TCTA, respectively, insofar as such activities have an effect on the delivery of water to South Africa, and the generation of hydro-electric power in Lesotho. Water delivery and power generation are the core objectives of the LHWP, thus the LHWP-Treaty provides the JPTC with important functions to monitor compliance with the main objectives of the treaty.

Thus, while it may not be as elaborate as the system established by the Incomaputo Agreement, the LHWP-Treaty provides for elements of compliance assurance. While this is to some extent facilitated by the specific nature of the treaty, i.e. a project related treaty; it is nevertheless an interesting early example of inclusion in a treaty of a mechanism that has become more prominent only in recent time.

3.2.7 Summary

The above analysis has shown that the LHWP-Treaty meets the prerequisites that have been identified as essential for an effectively functioning watercourse agreement. This at least as far as the first level of analysis is concerned (i.e., by using the six identified general categories as filters). As far as the second level of analysis is concerned (i.e., the specific substantial provisions that today are considered essential for an effective water management regime), a certain dichotomy can be noticed. On the one hand, the LHWP-Treaty excludes two of the four Orange River basin riparian states and thus does not establish a basin-wide management regime. On the other hand, the LHWP-Treaty contains very "modern" elements of international water law, such as the provision instituting what is in effect a joint fact-finding procedure, as part of the dispute settlement mechanism.

4. Effectiveness of LAM as an analytical tool

The project description of the International Freshwater Agreements Database Project requires an evaluation of the effectiveness of the LAM as an analytical tool. This evaluation needs to be seen in the context in which the International Freshwater Agreements Database Project has applied the LAM. It has been emphasized (see section 2.2.2) that the application of the LAM in the International Freshwater

Agreements Database Project is not consistent with the application as envisaged by the developers of the LAM. This inconsistency is the result of the fact (see 2.2.2) that the development of the LAM was not completed when the project proposal for the International Freshwater Agreements Database Project was drafted, and that the initial information available at the time suggested that the LAM would be an appropriate tool to enable the user to analyse the effectiveness of a treaty.

This analysis thus cannot claim to evaluate the LAM in its entirety, and therefore cannot reach a definitive conclusion related to the LAM's actual objectives (i.e. the determination as to whether or not a country's current or planned utilization of a specific watercourse is "equitable and reasonable"). As the LAM was not applied in this way in the International Freshwater Agreements Database Project, any judgment on its effectiveness for this purpose would only be speculative.

This evaluation can, however, reach some valuable conclusions about the way in which the LAM was applied in the International Freshwater Agreements Database Project. As noted earlier (see section 2.2.2.), the Legal Audit Scheme (LAS) was the main LAM component that was used in the treaty analysis phase of the International Freshwater Agreements Database Project. In the context of the overall objectives of the LAM, the LAS is meant to establish the legal context in which a country's current or planned utilisation of a shared watercourse takes place. In order to achieve this, the LAS requires a summary of the relevant provisions of each applicable agreement. These relevant provisions have been subdivided into six categories for better understanding and analysis of the rights and obligations they create. By means of this categorisation, the LAS establishes key criteria that should be regulated in an international watercourse agreement. As such, the LAS is a normative tool that informs a user of the specific issues that should be dealt with in an international agreement. This determination of key criteria has critically informed the analysis as conducted in the International Freshwater Agreements Database Project (i.e. the analysis as to whether or not the selected agreements meet the prerequisites considered essential for effective implementation on the ground). Using the six (treaty-inherent) categories identified by the LAS as a baseline, and applying these to two selected agreements (the Incomaputo Agreement and the original LHWP-Treaty), the analysis phase in the International Freshwater Agreements Database Project was able to follow a structured and informed approach for determining whether or not the evaluated agreements meet the essential prerequisites. As such it is clearly a helpful analytical tool.

Importantly, the LAS also emphasises the critical link between an international agreement and its effects (outcomes) on the watercourse state (legal, economic and technical implications), and highlights the important role of domestic law for implementation and compliance. These are important factors, which, together with

the agreement text itself, eventually determine whether an agreement will be effective in reaching its objectives. While the International Freshwater Agreements Database Project could not conduct the necessary research on the effect of the agreements on the watercourse state (in this context RSA), and the level of compliance, because of financial and time constraints, it is critical that these important aspects were identified and highlighted by the LAS. The LAS could thus also be used in other analyses, for example where the intention of such a treaty analysis is not only to determine whether or not an agreement meets the essential prerequisites for effective implementation, but also whether the specific agreement is effectively implemented in practice. These aspects of treaty analysis do complement the analysis as provided by the International Freshwater Agreements Database Project. Although this is not the application it was originally developed for, the LAS can make a valuable contribution to such an analysis.

Besides its usefulness for analytical purposes, there are important indirect benefits that can be derived from the use of the LAM/LAS. As the LAS is only one component of the LAM, when applying the LAS for the purposes of analysing the effectiveness of a treaty (or whether the prerequisites for effective implementation are met), the user has to develop an understanding of the entire LAM and its original objectives. In this context, the linkages between the legal aspects for the effective management of shared water resources and other aspects, such as hydrological, environmental, economic and social factors, are emphasized. It is evident that effective water resource management, when the overall goal is one of sustainable and optimal utilization, depends on the interplay between many different sectors and factors. Thus, even though it was not applied consistently with its original objectives in the context of the International Freshwater Agreements Database Project, the LAM has proved to be both useful for analytical purposes, as well as for the development of a better understanding of the linkages between the various factors determining the effective management of a shared water resource.

5. Conclusion

The analysis of existing regional international watercourse agreements can critically inform the negotiation and drafting process of future watercourse agreements that may be concluded in the SADC region in the future. Using elements of the LAM, most notably the LAS, the analysis carried out in this study has shown that the two selected key agreements of regional importance do meet the prerequisites for effective implementation on the ground. While the LHWP-Treaty contains important elements of "modern" international water law, the Incomaputo Agreement reflects the developments of international water law to a higher degree. As it establishes a comprehensive basin-wide management regime, the Incomaputo Agreement is well

suited to function as a model agreement for other, future basin-wide water agreements that may be contemplated in the SADC region. Importantly, the analysis conducted here has shown that certain improvements to the Incomaputo Agreement are desirable and indeed possible. The scheduled conclusion of a "final" Incomaputo Agreement could possibly provide the opportunity to incorporate such changes.

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C: International Freshwater Agreements Database Report

The International Freshwater Agreements Database

1. Approach to the Development of a Database

The primary purpose of the database is to provide a centralised register of the international agreements that South Africa has entered into and which relate specifically to international (shared) water resources and their management. The list is not intended to be an exhaustive record that reflects every agreement that mentions water. Instead, the database lists only those agreements that play a direct role in the definition and management of those international water resources that South Africa shares with its neighbours.

For completeness, the database also includes all the treaties and agreements related to water resources shared by South West Africa (now Namibia) and its neighbouring territories, which the South African authorities entered into while they administered that country. These treaties span the period between 1916, when South Africa first occupied the former territory of South West Africa under the auspices of the League of Nations, until 1990 when that country became the independent state of Namibia.

The database entries provide selected sets of information on the content of each agreement in terms of its current status, scope and provisions. The software package DBTextWorks© was chosen as the preferred database software that was used to store, sort and display the relevant agreements.

All members of the project team were engaged in the design and development of the database – this process became a model for further collaboration between team members. At the project inception meeting, the team discussed which input data fields should be included in the list of treaties, and these were then included in the first version of the database. This first version was then compared with other available databases on international water agreements, including:

1. The Transboundary Freshwater Dispute Database (TFDD, 2004);
2. The Hydropolitical Vulnerability Database (UNEP, no date);
3. The Development and Extent of Transboundary Water Law in Africa (Lautze and Giordano, 2004);
4. The IWMI database (IWMI, no date); and
5. The LAM analysis framework (IWLRI, 2003).

A synopsis of the data fields employed in each of the above studies was reviewed by the project team and specific fields that were identified as being relevant to this project were included for consideration as possible fields to be used in the current study. Once a comprehensive list of input fields was agreed upon, they were used as a template to design the final database structure using DBTextWorks (**Addendum i**).

A new database (entitled: *International Freshwater Agreements Database.tba*) was created and the relevant design forms and textbase structures were populated with appropriate information and data. Where possible, validation and substitution lists were included in the input field design to ensure standardisation of terminology and efficiency of data input. The substitution lists, where appropriate, were based on the 'code for fields' as described for the TFDD database (TFDD, 2004) to ensure that the database entries would be compatible if the databases were to be compared in future. Each agreement was analysed according to the database input field requirements; the result is a comprehensive database that is searchable on all input fields, and which allows for quick and easy comparison of all the agreements captured for this study.

2. The Database

A brief summary of results

The database contains 59 records or agreements that South Africa has entered into and which are related to international (shared) water resources. The earliest agreement signed by South Africa is the 'Agreement Between The Union Of South Africa And Portugal On The Settlement Of The Boundary Between The Union Of South Africa And The Province Of Mozambique', signed on 8 February 1926; the most recent agreement is the 'Agreement Between The Government Of The Republic Of South Africa And The Government Of The Kingdom Of Swaziland On The Operation Of The Lavumisa Government Water Supply Scheme', signed on 6 June 2004.

A brief decadal analysis of the database entries, from 1920 to 2009, reveals that the majority of agreements were signed in the 1990s, after South Africa's first democratic elections in 1994 (**Figure 3**). Of the 20 agreements signed during the 1990s, 12 were bilateral agreements that focus on a range of issues including the establishment of commissions of co-operation and the utilization of water, as well as several agreements with the Kingdom of Lesotho on the Lesotho Highlands Project. The remainder (eight) consist of multilateral agreements and international treaties.

The numbers of multi-lateral and bilateral agreements are shown in **Table 3**. Multi-lateral agreements include all agreements that are signed by more than 2 states, and include the various SADC treaties and protocols (4 in total) and international

conventions (a total of 10). The balance comprises agreements that have a more regional focus, for example river basin state agreements that establish formal technical commissions or commissions of co-operation. Bilateral agreements include all those agreements that are signed by two parties. Most of the agreements that fall within this group include agreements on water utilization, development of shared water resources and border demarcation.

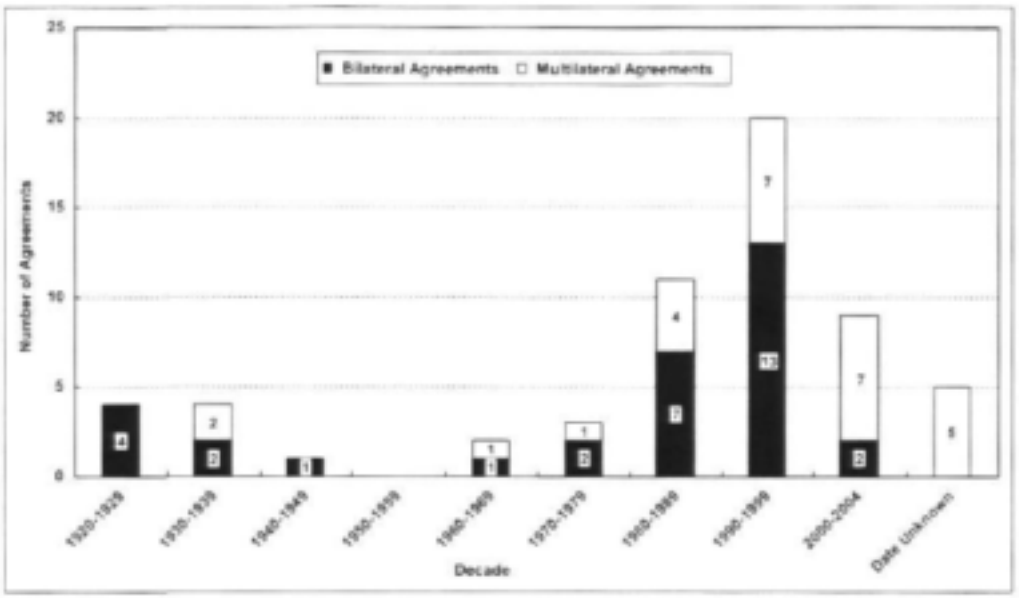

Figure 3: Number of agreements relating to international (shared) water resources signed by South Africa, per decade, from 1920 to 2004.

Table 3: Number of agreements per agreement type from **Figure 3**.

Type of Agreement	Number of Agreements
Multilateral	27
Bilateral	32

The dramatic rise in the number of agreements that South Africa entered into during the period 1990-1999 suggest that these may be linked to the end of the Apartheid regime in 1994 and the emergence of South Africa as an independent nation. Examination of these agreements (**Table 4**) shows that there was a sharp rise in the number of agreements signed shortly before 1994, with a slightly larger number of bilateral agreements.

Table 4: Detailed breakdown of the number of bilateral and multilateral agreements signed by South Africa between 1990 and 1999.

Year	Number of Agreements	Bilateral (B) or Multilateral (M)
1990	0	-
1991	2	1 x B; 1 x M
1992	8	6 x B; 2 x M
1993	1	1 x M
1994	1	1 x B
1995	1	1 x M
1996	1	1 x B
1997	2	2 x B
1998	0	-
1999	4	2 x B; 2 x M

One of the fields of entry within the database is labelled 'Explicitly Quantified Allocation'. This criterion allows the differentiation between agreements that list specific water allocation requirements of neighbouring states from those that do not. Only ten of the 59 agreements in the database list specific water allocation details.

Maintaining the database

It is important to note that the database will only remain a useful tool if it is continuously updated and maintained. As new international water-related treaties are signed by South Africa, these should be analysed and their details entered into the database. The designated custodian of the database should also be responsible for its upkeep, and should allow researchers to access the information as required. It is recommended that the Project Steering Committee consider this important issue and confirm whether the Department of Water Affairs and Forestry or the Department of Foreign Affairs should play this role. On an administrative note, the custodian needs to possess a copy of the full licence for DBTextWorks and needs to be familiar with the procedures required to maintain the database (see **Addendum ii**).

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Addendum i - *Database Structure Template*

AND ID Code

REFERENCING DETAILS

AND Legal Instrument - Full Name

AND Legal Instrument - Abbreviated Name

AND Citation

STATUS

AND Territorial Application

AND Signatories

AND Date of Signatory

AND Ratification Date

AND Date of Entry into Force

AND Is Instrument Superseded?

SCOPE

AND Principal Issue Area

AND Basin Name [Instrument Terminology]

AND Hydrologically Defined Basin

AND River Name(s) [Instrument Terminology]

AND IBA River(s)

AND Other

SUMMARY OF RELAVENT PROVISIONS

AND Substantive Rules?

AND Procedural Rules?

AND Data and Information Exchange?

AND Means of Compliance Verification and Control?

AND Institution Created

AND Purpose of Institution

AND Powers of Institution

AND Responsible Institution for Implementation

AND Explicitly Quantified Allocation

AND Allocation Details

AND Dispute Resolution?

AND Means/Forums of Dispute Resolution

HARDCOPY DETAILS

AND Is the PDF copy of the Instrument a signed version?

AND Link to Scanned Document

Addendum ii

Maintaining the Database (a simple user-guide)

Adding Records

This can only be done by the holder of the full Inmagic DBTextWorks licence and not through the runtime version of the software.

In order to populate the database with additional records, the following sequence of steps must be followed:

1. Choose **File>Open** and open the database created (*International Freshwater Agreements Database.tba*).
2. Choose **Records>New Record** to open the Edit New Record window.
3. Click in the box in which you want to start entering information and type the information that you want to enter. If the field has a validation or substitution list, you can press **F3** and paste an entry from the drop-down substitution list provided into the current field. Validation settings for the current field are shown on the status bar.

Note: If you want to add multiple entries into the same box, and you want them to be searchable as separate entities, then you must separate your entries using **F7**, which will create a bullet for each entry added.

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4. Enter information in all applicable fields by moving from box to box.
5. Choose **Records>Save Record**.

Note: For those fields that have a validation list, you cannot save a record that leaves this type of field empty; input is mandatory.

Note: For those fields that have a substitution list, you can press **F3** to browse the choices in the substitution list and select and paste an item from that list into the relevant field.

Using the Database (a simple user-guide)

Viewing the Database

In order to install the runtime version of Inmagic DBTextWorks, the following sequence of steps must be followed:

1. Open folder on database CD named **Disk1**
2. Double click on **Setup.exe** (this will initiate the Run-time setup wizard).
3. Click **Next**
4. Click **Yes**
5. At the 'Choose Destination Location' window, browse for an appropriate location to save the software on the hard drive of your computer.
6. Click **Next**
7. Click **Next** (this will initiate the Setup).
8. Click **Finish**

In order to open Inmagic DBTextWorks software, the following sequence of steps must be followed:

1. Navigate to where you saved the software on your hard drive.
2. Double click on **DBSgSrch.exe** (this will open the Run-time version of the database).
3. Go to **File>Open**
4. Navigate to CD/DVD drive and double click on **International Freshwater Agreements Database.tba**

The database has hyperlinks to portable document format (pdf) files that contain an electronic copy of the agreement (See *Link to Scanned Document* field in the database). In order to view these pdf files one needs to install Adobe Reader on your computer's hard drive. If you do not have a copy of this reader, a downloadable copy is available on the database CD (**ADbeRdr70_enu.exe**). Once installed, simply click on the hyperlink to open the relevant document.

To be able to scroll through the whole database record by record, click on the **green globe icon** on the main toolbar. A 'Select Search Results' window appears, click **OK**. Use the arrows to the top of each record window to navigate to the next record.

Searching the Database

When you open the database (**File>Open> International Freshwater Agreements Database.tba**), a Query window automatically opens and displays a query screen (a form for doing searches that contains query boxes). The Query screen displays all the fields within the database – you can search the database using one or more of these

fields. To find records, type information in the relevant query boxes then press the **Enter** key. A **Select Search Results** Window appears; chose an appropriate option to view the records in, and then click **OK**. The **Query Screen** can also be activated by choosing **Search >Query Screen** from the main menu.

Another method of searching is to select a field you want to query (place the cursor in the appropriate field box) and press **F3**. A **Query Choice** browser window appears from which you can paste an item of your choice. In this way, you eliminate the guesswork as to what information is housed in that input field. You can also undertake multiple searches using the Boolean buttons found alongside each query box. Toggle this button by clicking on it for **AND**, **OR** and **NOT** options.

To find all records, choose **Search>Find All Records** on the main windows menu bar.

To find all populated records in a field, type * in the appropriate box and press **Enter**. To find all unpopulated records in a field, type in * in the appropriate box, toggle the Boolean button to **NOT**, and then press **Enter.** Some useful search criteria include:

national	The word national
nation*	Variations such as nation and national
=South Africa	That complete term (exact entry, with no other text).
border demarcation	That phrase (those words, in that order)
border / demarcation	Either word (or both)
border & demarcation	Only records that contain both words (Records that contain just one or other of the words will be ignored).
border! demarcation	border but not demarcation
border p5 demarcation	border preceding demarcation by 5 words or fewer.
border w5 demarcation	border within 5 words of demarcation (before and after).
=@DATE-7	The date one week ago.
<1998	Dates before January 1, 1998 (You can use symbols <, <=, >, >= with dates, value or text).
1:205	Values between 1 and 205, inclusive (Use with dates, values or text).

Dealing with Synonyms for River and Basin Names

The spelling used for the names of rivers and river basins differs amongst neighbouring countries and in different languages. This has the potential to cause problems when searching for details of agreements that have been concluded for a specific river or river basin. Accordingly, the project team has drawn up a list of the different names that have been used for rivers and river basins and these are listed as 'synonyms' in the two tables shown below. When using the database to search for agreements on a specific river or river basin, it is important to use the river or basin name listed in the first (left-hand) column of these tables as these are the names most frequently used.

Basin Name	Basin Name Synonyms
Buzi	Buze; Buzé
Cabinda	
Congo	Zaire
Cunene	Kunene
Cuvelai	Etosha
Incomati	Inkomati; Komati, Komatie
Kuiseb	
Limpopo	
Maputo	Usutu
Nile	
Okavango Makgadikgadi	Okavango; Kavango
Orange Senqu	Senqu Orange; Orange; Gariep
Pangani	
Pungue	Pungué
Rovuma	Ruvuma
Save	Savé
Thukela	Tugela
Umbeluzi	Mbeluzi
Zambezi	Zambesi

River Name	River Name Synonyms
Buzi	Buze; Buzé
Cabinda	
Congo	Zaire
Cunene	Kunene
Cuvelai	Kuvelai
Incomati	Komati; Inkomati; Komatie
Kuiseb	
Limpopo	
Maputo	Usutu
Marico	

Nata	
Nile	
Okavango	Okawango; Kavango
Olifants	Rio dos Elefantes
Orange	Gariep
Orange Senqu	Orange; Gariep; Senqu; Orange-Senqu
Pafuri	
Pangani	Pagani
Pongola	Ingwavuma
Pungue	Pungué
Rovuma	Ruvuma
Save	Savé; Sabi; Sabie
Shashe	Shashi
Shingwedzi	Shingwetsi; Singwedzi; Shingwedsi
Thukela	Tugela
Umbeluzi	Mbeluzi
Vaal	
Zambezi	Zambesi

D: Detailed Methodology for Selecting Agreements

Introduction

The original work on transboundary water treaties carried out by Wolf and his co-workers (Wolf *et al.*, 2003) was groundbreaking in many ways, not least of which was the inherent value of knowing how many treaties exist and what specific issues they apply to. However, the final output of Wolf's work was presented in rather simplistic terms, and used the number of treaties in existence for each river basin as the basis for defining so-called "basins at risk" (of conflict). Unfortunately, this approach has had unintended consequences, including the incorrect portrayal of certain basins, such as the Orange River, as being "at risk", when in reality scientists and practitioners working in the field know that this label is incorrect. This suggests that while being intrinsically useful, a database of treaties and international agreements is highly nuanced, and needs to be interpreted correctly if mistaken conclusions are to be avoided. This is evident from the work by Turton (2003a, b; 2004), Turton *et al.*, (2004) and Turton & Earle (2005), who showed the existence of many more international agreements on southern African river basins than the listing used by Wolf *et al.* (2003), thereby questioning both their methodology and the conclusions drawn.

This project, entitled: "A Compilation of All the International Freshwater Agreements Entered into by South Africa with Other States", represents a continuation and refinement of this work, and seeks to develop a more robust methodology for the compilation, interpretation and presentation of a database of the international agreements pertaining to freshwater that South Africa has entered into with her neighbours.

Chosen methodology

Given the fact that no specific methodology exists, and the methodology used by Wolf *et al.* (2003) is known to be flawed, the work in this project can be considered to be at least partially experimental. This suggests that the process followed in this project is likely to be iterative and require future refinement. The following methodology is thus offered as a first step in this process.

What constitutes an international freshwater agreement?

For the purposes of this project, any agreement that has been entered into between any sovereign state and South Africa that either deals expressly with water, or that has an

impact on the management of water resources in any form, will be included. This is perhaps best illustrated by way of various examples:

- A specific agreement such as the "Treaty on the Lesotho Highlands Water Project Between the Government of the Republic of South Africa and the Government of the Kingdom of Lesotho" clearly falls within the delimitation of this project.
- An agreement that deals with water, but that is not specific to a given river basin such as the "Multilateral Agreement on the Control of Pollution of Water Resources in the South African Region" falls within the delimitation of the project.
- An agreement that at first appearance seems not to be directly applicable to South Africa as it is currently defined, such as the "Agreement Between South Africa and Portugal Regulating the Use of the Kunene [sic] River for the Purposes of Generating Hydraulic Power and of Inundation and Irrigation Of The Mandated Territory Of South-West Africa" would fall within the delimitation of this project, because while it is not a about a specific international river basin in what is presently known as the Republic of South Africa, this type of treaty is a historic record of cooperation in the management of transboundary water resources and as such forms part of the legal precedent and normative foundation of international cooperation for water resource management.
- An agreement that is not directly about water resource management, but that lays the normative and legal foundation for subsequent cooperation between South Africa and any other sovereign state over water resource management, will also be included. An example of this is the "Agreement of non-Aggression and Good Neighbourliness Between the Government of the Republic of South Africa and the Government of the People's Republic of Mozambique", because this laid the foundation for the subsequent "Agreement Between the Governments of the Republic of South Africa, the People's Republic of Mozambique and the Republic of Portugal Relating to the Cahora Bassa Project".
- A multilateral agreement such as "The Declaration Treaty and Protocol of the Southern African Development Community" falls into the delimitation of the project because it establishes legal obligations on signatory countries that are manifest in subsequent agreements. This category of agreement can be considered as an enabling treaty as it creates the broader framework through which sovereign states choose to order the condition of structural anarchy in which they function (Axelrod, 1984; Dougherty & Pfaltzgraf, 1981; Haas, 1980; Keohane, 1983; 1984; Krasner, 1982; 1983; List & Ritteberger, 1992; Yung, 1983; 1989; 1994). This category lays the foundation for subsequent multilateral agreements such as the "Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region", (SADC,

1995), and its revised version (SADC, 2000), which established clear duties and obligations on signatory states for the management of transboundary water resources.

- An exchange of notes does not enjoy the same legal status as a Treaty, but does constitute an agreement between two sovereign states; an example of this is the "Exchange of Notes Regarding the Privileges and Immunities Accorded to the Members of the Joint Permanent Technical Commission". This falls within the delimitation of the project as it forms part of the legal precedent and normative culture of cooperation over the management of a transboundary water resource.
- Simple statements of intent that are signed by duly authorized representatives of sovereign states also do not enjoy the same status as a Treaty, but constitute a written record of a binding agreement between sovereign states. An example of this is the "Tripartite Ministerial Meeting of Ministers Responsible for Water Affairs. Acceptance by the Ministers Responsible for Water Resources Concerned with the Inkomati [sic] River Basin of the Recommendations of the Tripartite Technical Committee". This document would fall within the delimitation of this project because it is part of the legal precedent and demonstrates the normative culture of cooperation over the management of a transboundary water resource.
- International agreements that have no apparent direct link to water, but that are being used in legal arguments in international river basins outside of South Africa as a basis for determining equitable utilization of water will also be included. An example of this is the "International Covenant on Economic, Social and Cultural Rights", which is being used in the Jordan River basin as the basis for determining what we would call a Basic Human Needs Reserve. The purpose of including such agreements is that this project will enable DWAF personnel to anticipate the possible legal precedent of such an instrument being used in a local context, given that South Africa is a signatory to this specific instrument.

For the purposes of this project, any agreement that does not have a traceable link to water will be excluded. An example of such an instrument is the following:

- "Agreement Between the Government of the Republic of South Africa and the Government of the Kingdom of Swaziland with Regard to Financial and Technical Assistance for the Construction of a Railway Link in the Kingdom of Swaziland".

For the purpose of this project, minutes from any intergovernmental meeting relating to the management of international rivers will not be included because these minutes are not yet in the public domain, whereas Treaties and equivalent agreements are openly available.

Why are agreements with former colonial powers included?

Given the fact that agreements between sovereign states are an empirical demonstration of relationships across international borders, it is important to understand that they codify elements of a normative nature. For this reason, many modern treaties have evolved from earlier agreements, often dating back to colonial times. An example is the following situation:

- The "Agreement Between the Government of the Union of South Africa and the Government of the Republic of Portugal in Relation to the Boundary Between the Mandated Territory of South-West Africa and Angola" was entered into in 1926. The parties to the agreement were colonial powers acting on behalf of the territories under their control at that time. In this case the parties are South Africa, which was then a British Colony, but which administered modern-day Namibia as if it were a colonial power in its own right; and Portugal, which was the colonial power controlling various countries in the Southern African region that would also eventually enter into agreements with South Africa (e.g. Mozambique).

The above treaty is referred to by name in the subsequent "Agreement Between the Government of the Republic of South Africa and the Government of the Republic of Portugal in Regard to Rivers of Mutual Interest, 1964 Massingir Dam", and as such also forms part of the record of cooperation over a transboundary water resource.

This treaty was once again referred to in the "Agreement Between the Government of the Republic of South Africa the Government of the Kingdom of Swaziland and the Government of the People's Republic of Mozambique Relative to the Establishment of a Tripartite Permanent Technical Committee". In fact, Swaziland acceded to the earlier treaty between South Africa and Portugal and this series of inter-state interactions represents part of a verifiable form of cooperative state behaviour.

Why are agreements entered into before 1910 excluded from the dataset?

Any agreement entered into before 1910 will be excluded because it is recognized that at that date the Union of South Africa came into legal being. Prior to 1910 there were a number of international agreements entered into between the Orange Free State Republic and the Transvaal Republic, both of which were sovereign states at the time, and some of these agreements also dealt with water (Turton *et al.*, 2004). However, these have questionable legal standing in modern times because neither of those two States existed as sovereign entities after the Act of Union in 1910. For this reason, the earliest cut-off date for the inclusion of a treaty or agreement in the database will be the date on which the Act of Union came into legal force in 1910.

Will agreements entered into by former South African Homeland Governments be considered valid?

Given the specific historic context in which South Africa currently finds itself, there are a number of agreements in existence between now defunct former Homeland Governments and other sovereign entities. Some of these agreements have been incorporated into, or have had an impact upon, existing agreements for the management of international river basins. In such situations, the agreements will be captured in this project. A typical example of this situation is:

- Treaty 1992. "Agreement on the Development and Utilization of the Water Resources of the Komati River Basin between the Government of the Republic of South Africa and the Government of Kangwane". Signatory Document, Signed by Representatives of the Two Governments. Malelane, 2 October 1992. 23 pages.

Here, the agreement in question is an integral part of KOBWA and as such has legal standing even though Kangwane no longer exists. It can be argued that the legal obligations moved from the defunct Government of Kangwane to the South African Government when all former Homelands were reincorporated into South Africa prior to the first democratic elections that were held in 1994.

What sources will be considered to be "valid" for international agreements?

International agreements are legally binding documents that are openly available in the public domain. However, there are several sources from which these agreements can be found, and each has a different weight from a research perspective. For this reason, the following sources of international agreements will be recognized in this project:

- The most sought after source will be an original signatory document. Such a document contains the signatures of the respective parties and as such is considered to be the most authoritative version of an agreement. However, such documents are often difficult to locate because they are normally stored in official archives and are not easily accessible. Nonetheless, signatory documents remain the highest priority and will be sourced in preference to any other version of an agreement between states.
- International agreements that are entered into between sovereign states for peaceful purposes are public domain documents. These are usually published in official record books such as the League of Nations Treaty Series, the United Nations Treaty Series, or the Republic of South Africa Treaty Series. Wherever agreements are published in these sources they will be considered to be authoritative and carry equal weight to those of a signatory document.

- No other agreements will be considered as being authoritative for the purpose of this project because their veracity and accuracy cannot be verified with confidence.

How will the various international agreements be referenced in the bibliography?

It is vital that all agreements be referenced correctly in the bibliography of the report. There is considerable debate about how such documents should be referenced, and referred to, specifically regarding the "authorship" of the document. Should it be the first signatory state? Should the different states be listed in alphabetical order? Should it be the authorized person that signed the document on behalf of the state? In what sequence will these names be used given that this might reflect on the diplomatic status of the document? These are all sensitive issues that can invoke much argument, which is not very helpful to this project.

In order to introduce scientific rigour into the process while avoiding the potential diplomatic pitfalls noted above, signatory documents will be cited according to the following examples. No italics will be used because the document has not been published. The exact wording and spelling used in the agreement for the title will be replicated in the bibliographic reference. Where a specific name may have changed or no longer be accepted, for example that of a river system, the "incorrect" name will be followed by the italicized and bracketed word "[*sic*]". The word "treaty" will be used in all citations such as ... (Treaty, 1986) with a bibliographic reference laid out as follows:

- Treaty 1986. "Agreement Between the Government of the Republic of Botswana, the Government of the People's Republic of Mozambique, the Government of the Republic of South Africa and the Government of the Republic of Zimbabwe Relative to the Establishment of the Limpopo Basin Permanent Technical Committee". Signatory Document, signed by Representatives of Four Governments. Harare, Zimbabwe, 5 June 1986. 3 pages.
- Treaty 1991. "Tripartite Ministerial Meeting of Ministers Responsible for Water Affairs. Acceptance by the Ministers Responsible for Water Resources Concerned with the Inkomati [*sic*] River Basin of the Recommendations of the Tripartite Technical Committee". Signatory Document, signed by Representatives of the Three Governments. Pigg's Peak, Swaziland, 15 February 1991. 2 pages.

Where a given treaty has been sourced from a recognized official journal or book, the citation will include all information as normally found in an academic or scientific paper. An example is as follows:

- Treaty 1983. "Agreement Between the Government of the Republic of South Africa the Government of the Kingdom of Swaziland and the Government of the People's Republic of Mozambique Relative to the Establishment of a Tripartite Permanent Technical Committee". Signed at Pretoria on 17 February 1983, in *South Africa Treaty Series*, No. 12; 1986.

Where known spelling mistakes occur, the exact wording used in the original treaty will be reproduced followed by the italicized and bracketed word, "[*sic*]", to indicate that cognizance has been taken of the existence of the alleged incorrect word. This is important because in the work by Wolf and his co-workers (Wolf *et al.*, 2003) this is one of the problems they experienced, causing them to allocate treaties to incorrect river basins, or to include duplicate entries for treaties dealing with apparently different river systems. Known examples are as follows:

- Treaty 1926. "Agreement Between South Africa and Portugal Regulating the Use of the Kunene [*sic*] River for the Purposes of Generating Hydraulic Power and of Inundation and Irrigation of the Mandated Territory of South-West Africa". In *League of Nations Treaty Series*, Vol. LXX, No. 1643; 315.
- Treaty 1991. "Tripartite Ministerial Meeting of Ministers Responsible for Water Affairs. Acceptance by the Ministers Responsible for Water Resources Concerned with the Inkomati [*sic*] River Basin of the Recommendations of the Tripartite Technical Committee". Signatory Document, signed by Representatives of the Three Governments. Pigg's Peak, Swaziland, 15 February 1991. 2 pages.

Where an original treaty was drafted in Afrikaans, the exact title of that agreement will be reproduced, followed by an English translation in brackets. In this case, the English translation will be entered into the database with a note stating that the original title is in Afrikaans and, where possible, listing that title in full for reference purposes. This will make the database generated by this project compatible with international databases such as that under continuing construction at Oregon State University. A known example is the following:

- Treaty 1987. "Samewerkingsooreenkoms Tussen die Regering van die Republiek van Suid-Afrika en die Oorgangsregering van Nasionale Eenheid van Suid-Wes Afrika / Namibië Betreffende die Beheer, Ontwikkeling en Benutting van die Water van die Oranjerivier (Cooperation Agreement Between the Government of the Republic of South Africa and the Transitional Government of National Unity of South-West Africa / Namibia Regarding the Control, Development and Utilization of the water from the Orange River)". Signatory Document, signed by Representatives of Two Governments. Mbabane, Swaziland, 13 November 1987. 5 pages.

Where no signatory document can be located, and when the agreement concerned has not been published in an official reference such as the *South Africa Treaty Series*, then the citation will be as follows:

- Treaty 1992. "Agreement Between the Government of the Republic of South Africa and the Government of the Republic of Namibia on the Establishment of a Permanent Water Commission". 10 pages.

Conclusion

The methodology developed in this paper represents the start of a journey rather than a final destination. We believe that the approach developed here will help to steer this project away from the types of pitfalls encountered by Wolf and his co-workers (Wolf *et al.*, 2003), and that this methodology will introduce greater rigour into this type of analysis. However, it is important to remember that the compilation of an authoritative database is not as simple as the title of the project suggests. Wolf and his co-workers discovered this when their work led them to conclude that several international river basins were "at risk". For this reason, the methodology needs to be verified and refined through a process of stringent quality control.

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E: Department of Foreign Affairs Presentation on Treaties

Advocate André Stemmet and Ms Yolande Dwarika of the Office of the Chief State Law Adviser made a presentation to the project team on the 11th of March 2005 at the WRC offices. This gave the project team a good overview of the treaty formation process in South Africa as well as what the differences between the various types of international agreements are. Following are the main points taken from their PowerPoint presentation:

Treaty Section

- The Treaty Section controls and is responsible for the safekeeping and updating of the South African Treaty Collection;
- There are approximately 2900 agreements registered with the Treaty Section;
- The South African Treaty Register is the only record that exists of all the bilateral and multilateral treaties and conventions that the Republic of South Africa is a party to;
- All documents and information relating to agreements, treaties and conventions should be deposited by the responsible line function departments with the Treaty Section for indexing and safekeeping.

Services offered by the Treaty Section:

- Render an information service on all aspects concerning treaties such as the signature, ratification, accession, and entry into force of all agreements that the Republic of South Africa is a party to;
- Prepare an annual Treaty List for publication in the South African Yearbook and the South African Yearbook on International Law;
- Registration of agreements with United Nations in line with UN Charter; and
- Bind all agreements and Instruments of Ratification or Accession before signature.

PROCEDURES AND DOCUMENTATION (SECTION 231(3) AGREEMENTS)

- Section 231(3) Agreements
- Agreements concluded under Section 231(3) of the Constitution of the Republic of South Africa, 1996 are of a technical, administrative or executive nature

- The State Law Advisers: Department of Justice scrutinise the agreement for consistency with domestic law
- Approach the relevant political desk at DFA for a legal opinion from the State Law Advisers (International Law) - include the legal opinion from the Department of Justice
- The State Law Advisers(IL): Foreign Affairs will then scrutinise the agreement:
    - For consistency with international law;
    - For consistency with South Africa's international obligations;
    - In order to certify the final version of the Agreement

After legal opinions have been obtained from both sets of Legal Advisers:

- Effect the necessary amendments;
- Communicate these to the other Party;
- Prepare documentation for certification and Presidential approval
- Why certification is necessary:
- To confirm to the Presidency that the Agreement has been scrutinised and that it is in conformity with international law

DOCUMENTS THAT MUST ACCOMPANY REQUEST FOR CERTIFICATION

- Z137 Coversheet
- Explanatory memo, normally one page - indicating expected date of signature
- 2 Original copies of the agreement certified by the State Law Advisers(IL)
- 2 x President's Minute
- Certificate of authenticity issued by the Minister when agreement is multilateral
- Line Function departments must ensure that there are no mistakes on any of these documents in order to avoid delays in certification and avoid them being returned by the Presidency.
- Certification process by the State Law Advisers (IL) consists of the following:
    - Scrutinising all the documentation to ensure that there are no mistakes
    - Certification on the first text page
    - Initialing all the other pages
    - Drafting a note for the Presidency if the format of the agreement is different from the standard format

Once the agreement has been certified and President's approval has been obtained, the agreement cannot be changed, if a change occurs, the whole process must be repeated.

- Explanatory Memorandum
- Plain A4 sheet
- Short (+- 1/2 a page)
- Summarise the content of the Agreement and its benefit to South Africa
- Indicate the proposed date of signature.
- Tabling in terms of section 231(3) of the Constitution

Section 231(3) provides that agreements that do not require the approval of the National Assembly or the Council of Provinces must be tabled in Parliament within a reasonable time. Purpose of tabling is for information purposes. A reasonable time is at least once a year.

Procedure for tabling in Parliament in terms of section 231(3):

- Tabling is the responsibility of the line function department.
- Letters requesting tabling should be addressed to the Speaker of the National Assembly and Chairperson of the National Council of Provinces

INTERNATIONAL AGREEMENTS

Definition: International Agreement include any written agreement between South Africa and another state or international organization that is governed by international law, whatever its designation.

Section 231 of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) applies to these agreements.

DESIGNATION (TITLE) OF AGREEMENTS

Treaty: normally used for more formal agreement dealing with matters of gravity;
Convention: usually used for multilateral agreements
Agreement: less formal agreements with limited scope and fewer Parties; Most popular e.g. Project agreements.
Protocol: Usually an ancillary agreement to the original agreement;
Memorandum of Understanding: a less formal agreement, usually of an administrative nature;
Exchange of Notes: Less formal agreement. Concluded through two or more diplomatic notes.
Declaration of Intent: Normally used for non-binding/ informal arrangements;

NB: The designation of an Agreement will not determine its legal status, it is an indication only - CONSULT US.

PREAMBLE:
- The gerund: E.G. - DESIRING to ……; RECOGNISING; NOTING; RECALLING; WELCOMING; CONVINCED; CONSIDERING, WHEREAS ……..

Uses:

- An interpretative guide;
- A record of the negotiating history E.G. - "RECALLING the Agreement on Cooperation signed between the Parties on 28 January 2003"
- A deadlock breaker

PREAMBLE CONTINUED (Justice inputs)

Preamble:
1) Paragraphs of preamble -
a) Should not be numbered;
b) Usually start with a gerund which is printed in upper case lettering and in bold

2) Concluding sentence of preamble - Usually "HEREBY AGREE as follows"

Can also use "HAVE AGREED as follows" or "HAVE AGREED to the following"

HEADINGS (Justice inputs)

It is preferred that:
1) Each article should have a heading;
2) Heading and article number positioned in middle of page

NUMBERING (Justice inputs)

Prefer that articles of agreement are numbered as in SA legislation:

"Article 1	[Article 1]
(Heading)	
(1) ……..	[sub-Article (1)]
(a) ……..	[paragraph (a)]
(i) ……..	[Subparagraph (i)]

- Preferably, the definitions should not be numbered

SUBSTANTIVE PROVISIONS

- The use of "shall", "may", "will" and "should"
- "shall" : peremptory, normally used;
- "may", "will" and "should" - discretionary, use with caution

Other "non-binding" language:

- "shall consider";
- "endeavour";
- "where appropriate";
- "subject to its domestic law"
- "within its means"/ "According to its capacity"

Who can sign international agreements?
Project Agreements/ Programmes of Co-operation:

- Normal procedures still apply
- Consider using the Cabinet approval procedure

Testimonium / end clause example:

IN WITNESS WHEREOF the undersigned being duly authorised thereto by their respective Governments, have signed and sealed this Agreement in two originals in the French and English languages, both texts being equally authentic. [In case of any differences in interpretation, the English text shall prevail]

TERMINOLOGY: BITS AND PIECES

Reference to the Parties: preferably "Parties" not "Contracting Parties";
"Ministry" vs "Department";
The chapeau e.g.
"The Parties undertake to cooperate in the following areas -
(a) .....
(b)....."
The use of square brackets;
Exchange of Notes

FINAL CLAUSES: SIGNATURE AND ENTRY INTO FORCE

Option A

1) This Agreement shall enter into force on the date of signature thereof

Implications:

- Preferred for section 231(3) agreements i.e of an administrative, technical or executive nature;
- Speedy entry into force, easy administratively

FINAL CLAUSES: SIGNATURE AND ENTRY INTO FORCE

Option B

This Agreement shall enter into force once the Parties have notified each other in writing through the diplomatic channel of its compliance with the constitutional requirements necessary for the implementation of this Agreement. The date of entry into force shall be the date of last notification.

Implications:

- Can be used for section 231(2) or 231(3) agreements;
- Option A preferred for section 231(3) agreements but this may be required by the other State even for an administrative, technical or administrative agreement;
- Make sure it is easy to establish the date of entry into force.
- NB: follow-up required

FINAL CLAUSES: SIGNATURE AND ENTRY INTO FORCE
Option C

1. This Convention shall be open for signature by all States from 1 December 2003 to 31 December 2003;
2. This Convention shall be subject to ratification, acceptance or approval. The instruments of ratification, acceptance or approval shall be deposited with.....
3. This Convention shall enter into force on the thirtieth day following the deposit of the fifth instrument of ratification, acceptance or approval with .....

Implications:

- Usually for multilateral agreements;
- If we don't sign on stipulated dates then we cannot sign. Must accede to the agreement.
- Can be used in modified form for bilateral agreements.
- NB: if term "ratification" or "accession" is used then Parliamentary approval must be obtained even for technical bilateral agreements

EXCHANGE OF NOTES

What it is: a vehicle to convey an agreement. It is an agreement but in a different form.

Uses:

- Informal, legally binding agreements; and
- Where the Parties cannot meet to sign.

The Role of the Department of Foreign Affairs:

- Exchange of Notes are sent through the diplomatic channel; and
- Minister of Foreign Affairs/ Ambassadors traditionally the signatories - in practice may have another Minister as signatory.

The Exchange of Notes vs the Note Verbale

PROCEDURES FOR SECTION 231(2) AGREEMENTS PARLIAMENTARY APPROVAL

Which agreements need Parliamentary approval in terms of section 231(2)?

Agreements that:

- Require ratification or accession (usually multilateral agreements);
- Have financial implications which require an additional budgetary allocation from Parliament; or
- Have legislative or domestic implications (e.g. require new legislation or legislative amendments).

The meaning of the terminology:

"Ratification":

- UN practice: is used for agreements that were signed; and
- AU practice: agreements that were signed and have not entered into force.

"Accession" :

- UN practice: is used for agreements that were not signed or for which the period for signature has lapsed; and
- AU practice: agreements that were not signed or were signed but have already entered into force.

"Acceptance" is also used but entails the same procedure as ratification or accession.

Procedure to obtain Parliamentary approval in terms of section 231(2):

- All agreements that need to be ratified/ acceded to also need Presidential approval (I.e. the President's Minute);
- After signature, begin process to obtain Parliamentary approval;
- All agreements that require Parliamentary approval must be submitted to Cabinet for discussion; and
- Cabinet makes a recommendation regarding accession or ratification of the agreement to Parliament.

Procedure for obtaining Cabinet approval:

- Attach legal opinions of the State Law Advisers at the Department of Justice and the State Law Advisers (IL) at the Department of Foreign Affairs; and
- Cabinet Memorandum prepared in the normal manner and submitted through the relevant Ministry to the Cabinet secretariat.

Procedure for tabling in Parliament in terms of section 231(2):

- In order to obtain the approval of Parliament to ratify or accede to agreements, it needs to be tabled in Parliament;
- Tabling is the authority of the Presiding Officers;
- Letters requesting tabling should be addressed to the Speaker of the National Assembly and Chairperson of the National Council of Provinces;
- The reports of the committees are considered by the National Assembly and National Council of Provinces sitting separately;
- Only when both Houses have adopted the reports have the Parliament taken a decision; and
- Decisions are recorded in the Minutes of both Houses.

An Instrument of Ratification or Accession is prepared by the line function department in consultation with the Department of Foreign Affairs.

A copy of the Minutes of both Houses reflecting the decision of the Houses must be submitted to the Department of Foreign Affairs with the request that the Minister of Foreign Affairs should sign the Instrument. Arrangements are made by the line function desk of the Department of Foreign Affairs for the binding of the Instrument before submitting it for signature to the Minister of Foreign Affairs.

The Instrument of Ratification or Accession is deposited by the relevant line function desk of the Department of Foreign Affairs with the depository as prescribed in the agreement. The date of depositing must be communicated to the Treaty section for recording.

F: Agreements Identified by the Project Team But not Included in the Final Database

Year	Full Name	Reason for Exclusion
1898	Delimintation of the Frontier Between British and Portuguese Possessions in Amatongaland	Not water management related
1928	Delimitation of the SWA - Angola Boundary	Not water management related
1959	The Antarctic Treaty (South Africa ratified 21/6/1960)	Not water management related
1981	Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention) (South Africa acceded 30/5/2003)	Not water management related
1986	Exchange of Notes Regarding the Privileges and Immunities Accorded to the Members of the Joint Permanent Technical Commission (Lesotho Highlands Water Project)	Not water management related
1989	Agreement on the Establishment and Operation of a Common Works Area at the Caledon River for the Purpose of the Implementation of the Lesotho Highlands Water Project	Not water management related
1990	Agreement Relating to the Construction of the Taung Dam and the Operation of the Dam in Conjunction with the Operation of Certain Other Water Works Between the Government of the Republic of South Africa and the Government of the Republic of Bophuthatswana	Former Homeland – now part of SA
1991	Protocol on Environmental Protection to the Antarctic Treaty (South Africa ratified 3/8/1995)	Not water management related
1992	Declaration and Treaty of the Southern African Development Community	Not water management related
1993	Agreement Relating to the Administration of the Judicial System After the Incorporation / Reintegration of Walvis Bay into Namibia	Not water management related
1994	Treaty Between the Government of The Republic of South Africa and the Government of The Republic of Namibia with Respect to Walvis Bay and the Off-shore Islands	Not water management related
1996	Loan Agreement for KwaNdebele Region Water Augmentation Project Between the Overseas Economic Co-operation Fund, Japan and the Government of the Republic of South Africa	Short-term project
1996	Agreement Between the Government of The Republic of South Africa and the Government of The Republic of Finland on Technical and Financial Assistance for the Water Law Review Project of The Republic of South Africa	Short-term project
1996	Agreement Between the Government of the Kingdom of Denmark and the Government of the Republic of South Africa on the Development of a Strategy to Manage the Water Quality Effects of Dense Settlements in the Republic of South Africa	Short-term project
1997	Agreement Between the Government of the Republic of South Africa and the Government of the Republic of Finland on Financial Assistance for the Working for Water Programme in Mpumalanga and Northern Province of South Africa	Short-term project

Year	Full Name	Reason for Exclusion
1997	Protocol to the United Nations Framework Convention on Climate Change (Kyoto Protocol) (South Africa acceded 31/7/2002)	Not water management related
1998	Agreement Regulating Technical Assistance Between The Government of the Republic of South Africa and the Government of Ireland	Short-term project
1999	Agreement Between the Governments of Denmark, Swaziland, Mozambique and South Africa on the Execution of the Integrated Inkomati Development Initiative Study	Short-term project
1999	Malaria Control on the Lubombo Spatial Development Between the Republic of South Africa, the Kingdom of Swaziland and the Republic of Mozambique	Not water management related
2000	Agreement Between the Department of Water Affairs and Forestry and the Netherlands Minister for Development Co-operation on Flood Relief in Mpumalanga and the Northern Province	Short-term project
2000	Financing Agreement Between the European Community and the Government of The Republic of South Africa Concerning Water Services Sector Support Programme	Short-term project
2000	Cartagena Protocol on Biosafety to the Convention on Biological Diversity (South Africa acceded 14/8/2003)	Not water management related
2000	Agreement on the Development of the Gaza-Kruger-Gonarezhou Transfrontier Park Between the Governments of the Republic of South Africa, the Republic of Mozambique and the Republic of Zimbabwe	Not water management related
2001	Financial Agreement Between the Government of the Republic of South Africa and the Government of the Republic of France for the Implementation of the Project Entitled "Training System for the Water and Sanitation in South Africa"	Short-term project
2001	Agreement on Co-operation in Water Resource Management, Water Supply and Sanitation Between the Government of the Republic of South Africa and the Government of the Republic of Cuba	Not water management related
2001	Agreement on Support to the Water Supply and Sanitation Sector Programme, Masibambane, Between the Department of Water Affairs and Forestry and Ireland Aid	Short-term project
2001	Programme Agreement on Support to the Water Supply and Sanitation Sector Programme, Masibambane, Between the Department of Water Affairs and Forestry and Ireland Aid	Short-term project
2001	Memorandum of Understanding on the Process Leading to the Establishment of the Ai-Ais / Richtersveld Transfrontier Conservation Park	Not water management related
2001	Memorandum of Understanding in Respect of the Maloti-Drakensberg Transfrontier Conservation Development Area	Not water management related
2002	Exchange of Notes Between the Government of Japan and the Government of the Republic of South Africa Concerning Japanese Economic Co-operation	Not water management related
2002	Launch of the African-European Union Strategic Partnership on Water Affairs and Sanitation. Johannesburg Declaration	Not an official International Agreement

Year	Full Name	Reason for Exclusion
2002	Memorandum of Understanding on Co-operation in the Field of Capacity Development and Studies in the Water Sector Between the Department of Water Affairs and Forestry of the Republic of South Africa and the International Water Management Institute	Not water management related
2002	Record of the Meeting on KwaNdebele Region Water Augmentation Project Between Japan Bank For International Co-operation and Department of Water Affairs and Forestry	Non-state actor
2002	Joint Declaration of the Second Session of the Joint Bilateral Commission Between the Republic of South Africa and the Republic of Cuba	Not water management related
2002	Democratic People's Republic of Algeria – Note Verbale No. 350 / HCBN – Legal Framework/02	Not water management related
2002	Memorandum of Understanding Between Hon. Ronnie Kasrils, MP, Minister of Water Affairs and Forestry of South Africa and Hon. Anthony Diallo, MP, Deputy Minister of Water and Livestock Development of the United Republic of Tanzania	Short-term project
2002	Treaty Between the Government of the Republic of Mozambique, the Government of the Republic of South Africa and the Government of the Republic of Zimbabwe on the Establishment of the Great Limpopo Transfrontier Park	Not water management related
2003	Statement of Intent on Co-operation in the Forestry Sector Between the Government of The People's Republic of China and the Government of the Republic of South Africa	Not water management related
2003	Contract Between Department of Water Affairs and Forestry of the Republic of South Africa and Dai Nippon Construction for the Project for Rural Water Supply in the Eastern Cape Province	Non-state actor
2003	Treaty on the Establishment of the Ai-Ais / Richtersveld Transfrontier Park	Not water management related
2004	Memorandum of understanding between the Palestinian Nation Authority and the Republic of South Africa on Water and Forestry	Not water management related
????	DFID Support to Republic of South Africa Water and Forestry Programme	Short-term project

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