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„Water governance:

From a global and regional perspective“

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Für meine Eltern, die es mir ermöglicht haben zu studieren und

für meinen Bruder Can, der mich in so vielen Bereichen unterstützt.

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ABBREVIATIONS

AIDS	Acquired immune deficiency syndrome
CFA	Cooperative Framework Agreement
CIA	Central Intelligence Agency
CIDA	Canadian International Development Agency
CSR	Corporate social responsibility
DABLAS	Danube Black Sea Task Force
DEF	Danube Environmental Forum
DR Congo	Democratic Republic of Congo
DTC	Danube Tourism Commission
EAC	East African Community
EAP	Environmental Action Programme for Central and Eastern Europe
EBRD	European Bank for Reconstruction and Development
ENSAP	Eastern Nile Subsidiary Program
ENTRO	Eastern Nile Technical Regional Office
EPDRB	Environmental Programme for the Danube River Basin
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign direct investment
FRIENDS	Flow Regimes from International Experimental and Network Data Sets,
G-7	Group of Seven
GDP	Gross domestic product
GEF	Global Environment Facility
GIS	Geographical information system
GWP	Global Water Partnership
HD Report	Human Development Report
Hydromet	Hydro-meteorological Survey of the Equatorial Lakes
IAD	International Association for Danube Research

IAEA	International Atomic Energy Agency
IAWD	International Association of Water Supply Companies in the Danube River Catchment Area
IBRD	International Bank for Reconstruction and Development (also referred to as World Bank)
ICCON	International Consortium for Cooperation on the Nile
ICID	International Commission on Irrigation and Drainage
ICPDR	International Commission for the Protection of the Danube River
ICSID	International Centre for the Settlement of Investments
IDA	International Development Agency
IDEN	Integrated Development of the Eastern Nile
IFC	International Finance Corporation
IFI	International financial institutions
IGO	International governmental organization
IHP	International Hydrological Programme
ILA	International Law Association
ILC	International Law Commission
ILI	International Law Institute
IMF	International Monetary Fund
INGO	International non-governmental organization
IR	International Rivers
ISRAM	International Shared Aquifer Resources Management
IWRA	International Water Resources Association
JAP	Joint Action Plan
MIGA	Multilateral Investment Guarantee Agency
NATO	North Atlantic Treaty Organization
NBI	Nile Basin Initiative
NBTF	Nile Basin Trust Fund
NELSAP	Nile Equatorial Lakes Subsidiary Program
NGO	Non-governmental organization
Nile-COM	Nile Council of Ministers of Water Affairs

Nile-TAC	Nile Technical Advisory Committee
Nil-SEC	Nile Secretariat
NRBAP	Nile River Basin Action Plan
ORF	Österreichischer Rundfunk
PCCP	From Potential Conflict to Cooperation Potential
SAP	Strategic Action Plan
SIDA	Swedish International Development Agency
SVP	Shared Vision Program
TECCONILE	Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile
TNC	Transnational corporation
TWB	Technical-Scientific Advisory Committee
UIA	Union of International Associations
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN-ESCWA	United Nations Economic and Social Commission for Western Asia
US	United States
USA	United States of America
USAID	United States Agency for International Development
USSR	Union of Soviet Socialist Republics
WBCSD	World Business Council on Sustainable Development
WCD	World Commission on Dams
WEF	Water Environment Federation
WHO	World Health Organization
WTO	World Trade Organization

WWC	World Water Council
WWF	World Wildlife Fund

1. Introduction

Earth and its resources are under heavy pressure. Possibly the most important reasons for this situation are human activities and how natural resources like air, biodiversity or water are managed and governed. Environmental issues have drawn an increasing attention from the international community and, therefore, the studies on international relations. How do states and non-state actors deal with these challenges? What is the political answer to the pressing environmental problems on our planet?

Water is the most essential resource because without water life would be impossible. In spite of its high importance for humans as well as other creatures, the question of water governance gets modest public attention in comparison with other resources like oil, gas or the climate. Moreover, the number of regions in the world which fulfill the conditions for chronic water stress are increasing. Only 3% of the world's water is fresh water and only 0.9% of these 3% can be found in lakes or rivers. Most of the water people use stems from rivers. However, rivers and lakes together only constitute 0.007% of the total water on this planet. (USGS 2010) Many rivers pass through more than one country and hence have a transnational or transboundary character. According to the United Nations, there are around 263 transboundary river basins in the world (UN Water 2008, p. 1). Since these rivers are important sources of energy production, drinking water or irrigation, they are subject to qualitative (pollution) as well as quantitative (extraction) changes. Changes done to a transnational river or watercourse by an upstream state have consequences for every downstream state. Several factors, for example population growth, increasing energy, food and water demand or pollution will lead to even more pressure on those water courses. How do states and other actors deal with this interdependence determined by nature? What are the governance structures and processes with regard to transboundary rivers on a global and transnational level? These are key questions of the present study.

In the three main chapters, the study has a closer look at the global governance system of transboundary rivers as well as at two river basins and their governance structure. Although the Danube and the Nile basin show different characteristics, they also have some elements in common.

There are four research questions constituting the main focus of the study:

(1) Is the current global governance system of transboundary rivers able to deal with ecological challenges in this area?

(2) Is the current transnational governance system of the Danube able to deal with ecological challenges in the river basin?
(3) Is the current transnational governance system of the Nile able to deal with ecological challenges in the river basin?
(4) Do states regard transboundary rivers as a common property resource?

Derived from the main research question, there are a number of sub-research questions which aim to deepen the analysis of the governance systems:

(1) Who are the main public and private actors in the area of global governance on transboundary rivers?
(2) How do the different actors on the global level interact with each other with regard to governance of transboundary rivers?
(3) How did the global governance system on transboundary rivers develop?
(4) Why is the current global water governance system (not) able to deal with ecological challenges in this area?
(5) Which factors did influence the regime formation for the Danube and the Nile?
(6) How did the transnational governance system of the Danube develop?
(7) Why is the current transnational governance system of the Danube (not) able to deal with ecological challenges in the river basin?
(8) How did the transnational governance system of the Nile develop?
(9) What are the reasons for the structure of the Nile governance system?
(10) Did the opening of the Nile Cooperative Framework Agreement for signature have an effect on the cooperation of the riparian states?
(11) Why is the current transnational system of the Nile (not) able to deal with ecological challenges in the river basin?

The hypotheses of this study are the following:

(1) The current global governance system of transboundary rivers is underdeveloped. Therefore it does not work in a way that would ensure an effective handling of the ecological challenges with regard to transboundary rivers.
(2) The transnational governance system of the Danube is well developed and ensures that the basin countries can deal effectively with the ecological challenges of the Danube basin.

(3) The transnational governance system of the Nile is still developing and does not ensure the sustainable use of the river basin. Consequently, there is the potential that the ecological situation in the Nile basin will worsen.
(4) States regard transboundary rivers neither on a global nor on a regional level (Danube, Nile) as a common-property resource.

The methodological approach is based on the analysis of the existing literature such as books and journals and semi-structured interviews. They seem to be the most adequate instrument to obtain more information with respect to the research questions. Some data is only available to a certain extent in the literature, in particular information about current developments or sensitive background information. Therefore, the interview with experts was seen as a way to add scientific value to this thesis. Moreover, the chosen experts are directly involved in the governance processes; consequently, they are informed about current developments as well as possess a profound knowledge of the issues due to their long engagement in the area of transboundary river governance.

Using the semi-structured interview, the interview guide becomes the most important instrument for the interviewer. The guide should give orientation during the conversation with the expert. However, it leaves enough space for flexibility because the interviewer is free in choosing when, how and even if he asks a question. This is the main difference between the semi-structured and the standardized interview. The questions of the interview guide have to be linked with the research questions as well as with the hypothesis. Basically, the interview guide ensures that the interviewer receives more or less similar information on the same issues if he conducts more than one interview. Due to the fact that the questions are related to the hypothesis, the guide guarantees that the researcher gets the information which is necessary for the study. After several interviews, researchers are apt to get biased in the sense that they develop a certain opinion on the issue they are studying. Consequently, questions change and could develop a suggestive character. Therefore, it is necessary to stick to the questions from the first until the last interview because it helps to avoid such unscientific tendencies. (Gläser and Laudel 2009, p.142-143) However, during the ten interviews the author changed some questions and adapted them to the individual expert, taking into consideration the specific areas of expertise of the different experts.

In total, the author conducted ten expert interviews with government officials, scholars and representatives of IGOs on the transnational governance systems in the Danube and Nile basin. Half of the interviews were done in English, the other half in German. The interviews

with five experts[1] on the Danube were done in June 2010 in Vienna. The internet proved to be the most efficient way to headhunt and identify potential experts who were initially contacted via Email. The telephone was the most efficient method for the organization of the final appointments. In August 2010 five interviews[2] touching the governance process of the Nile were conducted in Egypt and Uganda. Egypt was chosen because it is the last downstream country and Uganda is the source of the White Nile and one of the upstream countries. The initial communication with these experts was difficult and only successful due to the support of certain people.[3]

Afterwards, interviews were transcribed without including non-verbal communication or dialects. Then a content analysis following Gläser and Laudel was done. Due the fact that expert interviews serve as a source of information but not all material is relevant for the study, a scheme of categories based on the research questions must be developed. These categories act as a filter, helping to extract the study-related parts of the conversation and to separate relevant from irrelevant information. (Gläser and Laudel 2004, p. 191-196) Finally, the gained material was used in order to answer the research questions for the individual governance systems or processes.

[1] Karl Schwaiger (Ministry of Agriculture, Forestry, Environment and Water Management of Austria, Vienna), Prof. Hans-Peter Nachtnebel (University of Natural Resources and Applied Life Sciences, Vienna), Philip Weller (ICPDR), Richard Stadler (Ministry of Agriculture, Forestry, Environment and Water Management of Austria, Vienna) and Peter Schneidewind (Metis Vienna, Vienna).

[2] The author conducted five interviews with experts on the governance system of the Nile. These interviews were given by the following people in August 2010: Khaled Abu-Zeid (Centre for Environment and Development for the Arab Region and Europe, Cairo), Callist Tindimugaya (Ministry of Water and Environment of Uganda, Entebbe), Patrick Kahanigre (Former Executive Director of the Nile Basin Initiative/former Director of the Directorate of Water Development in the Ministry of Water and Environment of Uganda, Kampala), Hamere Wondimu (Former Coordinator of the Shared Vision Program of the Nile Basin Initiative, Entebbe) and a representative of a Western donor organization

[3] The author would like to thank in particular Prof. Hans-Peter Nachtnebel, Robert Burtscher, Simon Thou and Hans Schattauer for their support.

2. Theoretical background

The following chapters discuss the main theoretical concepts on which this paper is based. At the beginning, the different ways to think about “governance” and its implications, in particular for the state, build the focus of discussion. What is global governance and how did it develop? These and other questions about global governance build the principal foc1us of the subsequent part which serves as theoretical basis of the analysis of global water governance structures. Since transnational governance and international regime theory are useful theoretical tools to understand the governance of water at a regional level, chapter 2.4. takes a closer look at these concepts and their implications. Finally, the concepts of common property and open access are helpful to analyze the governance of transboundary rivers.

2.1. Water and rivers

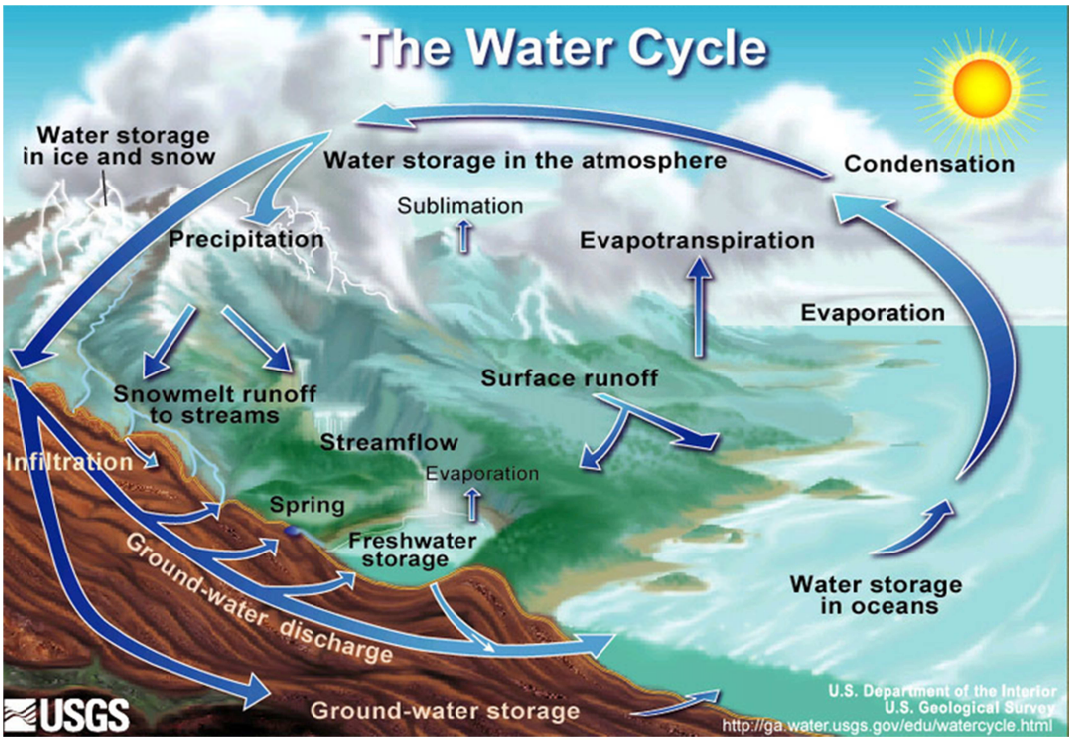
Due to the fact that this thesis deals with water governance, it seems appropriate to re-call some basic facts about water and how it influences the planet.

The water (or hydrological) cycle is one important factor ensuring the survival of life on earth. Since it is a cycle everything is highly interconnected with each other. Therefore, damage done to one part of this system has consequences for all others parts (e.g. pollution of rivers). This increases the responsibility to treat water in a sustainable manner, for example, developing ways to govern water at different levels.

Beside its importance for the ecological system, water, as drinking water, helps human beings and animals to survive or supports activities in the area of agriculture (e.g. irrigation) and industry (e.g. transportation).

The thesis deals with the governance of transboundary rivers and defines a transboundary river as a watercourse which flows through more than one country. The term “water governance” refers to the governance of a transboundary river.

Figure 1: Water (hydrological) cycle



Source: U.S. Geological Survey, http://www.usgs.gov

2.2. Governance

Firstly, there the term governance has to be defined. One scholar supporting a broader approach to governance is Mayntz who defines governance as follows:"The sum of all simultaneously existing forms of collective regulation of societal issues…"[4] (Mayntz 2004, p. 66 ; translated from German by the author). She includes self-regulation by civil society, different ways of public and private cooperation as well as activities of state authorities.

On the contrary, Stoker delivers a more narrow definition of governance:"There is, however, a baseline agreement that governance refers to the development of governing styles in which boundaries between and within public and private sectors have become blurred" (Stoker 1998, p. 17).

A third definition is delivered by Peters and Pierre who define governance as "…a goal-directed activity, with the need to establish collective goals and develop the means of reaching those goals" (Peters and Pierre 2006, p. 215). The author follows in his analysis the definition of Peters and Pierre.

[4] Original German quotation: "…das Gesamt aller nebeneinander bestehenden Formen der kollektiven Regelung gesellschaftlicher Sachverhalte…".

2.2.1. Governance: what role for states and governments?

Although governance is a young concept, it seems that it questions a fundamental pillar of international relations and social organization of the last three centuries. Governance redefines the role of states as well as governments by neglecting their position as principal actor. Does this mean the end of the Westphalian state?

Some scholars, like Rhodes, regard governance as a new form of governing, but without government. The stronger involvement of social actors (public-private partnership), the trust in markets as a regulative element (deregulation of markets) or the retreat of the state in the United Kingdom created an impression of a complete new era of governing. However, this analysis tends to underestimate the position of the state within governance frameworks. As a consequence, Pierre and Peters (2006) developed different categories of governance depending on the role of governments. These models are helpful to avoid a discussion of extremes (government or absence of government).

Figure 2: Models of governance

Model	Characteristics
Etatiste	Dominant role for state institutions. Limited involvement and feedback from society
Liberal	Involvement of limited number of societal actors, selected carefully by state institutions. Pluralist, with government choosing the legitimate actors
State-centric	State remains dominant actor, but societal actors have some autonomous sources of legitimacy and some claims involvement, corporatist bargaining being a prime example
'Dutch'	Networks become central, if not dominant, participants but state retains capacity to make autonomous decisions and 'steer from distance'
Governance without government	Networks and markets are dominant actors. State legitimates the actions of these societal actors

Source: own illustration based on Peters B.G, Pierre P. (2006), p. 212

The “Etatiste model” hardly knows an actor other than the institutions of the state; input from non-state is rare and not highly appreciated. A more open approach (“Liberal Model”) allows the participation of private actors; however, the state selects them carefully. Private actors have more influence in a “State-centric model” where the state gives some autonomy to them. Governance activities in the “Dutch model” are dominated by non-state actors but the state still claims the possibility to intervene. Finally, there is the model “Governance without government”. In this case, private players and networks are nearly the only actors. Choices in this model do not reflect the preference of society but the preference of one particular group. The state gives legitimacy to these actors and their activities (Pierre and Peters 2006, p. 212-213).

Peters and Pierre admit that several changes in governance have occurred but argue that the states, as well as its institutions, remain the primary players and, therefore, should be the starting point of governance analysis. Governance is defined as “…a goal-directed activity, with the need to establish collective goals and develop the means of reaching those goals” (ibid, p. 215). Many different interests exist within societies. The state offers mechanisms to decide which of these goals are prioritized and enjoy the support of state resources like money or legal authority. Three other elements of effective governance structures are the consistency of the legislative choices made by the state, the implementation and the feedback of governance ensuring its accountability and quality. Public institutions manage to take into account a high number of interests. Consequently, it increases the legitimacy of governance. According to Peters and Pierre, only the involvement of public institutions can guarantee such legitimacy (ibid, p. 215-217).

In spite of changes in the governance arrangements, as well as an increasing complexity, states have not lost their power but they exercise it in a different way. Whereas before, governments relied on hierarchical ways (authority) to govern and reach their objectives, they now tend to integrate private actors. This is the reason why governance became more transparent or legitimate. However, the decision on which goals enjoy priority is made by governments or public institutions. They offer acknowledged mechanisms which help to select those policies which enjoy the support of the state. Other forms of governance (networks) lack such institutions of conflict resolution. Therefore, it needs the state to resolve several conflicts. The progress concerning the integration of private actors is that the government can decide how to engage in governance. On the one hand, it can remain passive (as an observer), on the other hand, it can intervene if it sees a necessity to do so (violation of

existing laws). Of course, in some areas states have to involve private actors because they cannot deliver services on their own or the governance of a certain environment is impossible without support from non-state actors (ibid, p. 218-221).

2.2.2. Multiple perspectives on governance

At the beginning it has to be underlined that the following approaches to governance are based on a structuralist point of view.

One governance perspective understands governance as a system of hierarchies. This model is closely connected with the Weberian idea of bureaucracy. The majority of Western states were influenced by this approach for more than a century. Basically, this type of governance clearly separated the state (and its bureaucracy) from society which received the orders in a command and control model. Laws and other forms of regulation characterized state action. Is this model still appropriate? Critics would answer negatively due to the changing circumstances emphasizing flexibility or the sharing of power between the public and private sphere. For example, networks unite actors from various backgrounds, build coalitions of interests and conflict with the idea of the hierarchical state. However, since the 1990s another factor has appeared which weakens the ability of the state, particularly in regards to influence on its economy; globalization puts pressure on traditional national states. Moreover, the shift of authority from a national level to a global or international (e.g. WTO, EU) and a regional level (e.g. regions, cities) leads to a transformation of the role of the national state. Nevertheless, hierarchies still remain an important element of governance (e.g. relations between states and their local communities). (Peters and Pierre 2000, p. 14-18)

Furthermore, governance can be seen in the form of markets. During the 1980s and 1990s the market became an ideal concept of how to allocate resources efficiently. Market in this sense underlines the increasing importance of monetary criteria as an indicator of efficiency and rather describes an approach or a way of thinking. A second meaning concerns the cooperation between economic actors aiming to solve a common problem (governance of markets) and refers to concrete action (cooperation) instead to a way of thinking. (ibid, p. 18-19)

Governance as networks is a third way to think about governance. Networks represent a prominent example of governance. They unite public and private actors around a specific

issue touching the interests of all participants. Even if this kind of governance is not new, some scholars see the potential that such networks challenge the authority of the state in specific issues. However, decisions of these networks serve the interests of the affected actors and ignore the collective interest. In some cases governments depend on networks (expertise, integration of societal actors) and, therefore, create a difficult situation for them. (ibid, p. 20)

Finally, there is the approach focusing on governance as communities. This approach refuses the state as well as the market as organizers of a governance system. The state and its institutions are too big to solve the existing problems. It is based on the assumption that individuals of a community manage to govern by involvement and consensus building. Critics argue that supporters of this position underestimate the potential of conflicts and overestimate the positive character of communities. (ibid, p. 21-22)

2.3. Global governance

2.3.1. Liberal internationalism and global governance

Global governance has its origins in the liberal school of international relations. In contrast to realism, the liberal theories show normative elements and deal principally with cooperation, peace and interdependence. This chapter seeks to have a closer look at liberal internationalism as one of the theoretical foundations of global governance.

Liberal internationalism developed as an alternative to the concepts of realism or geopolitics both focusing on war, anarchy within the international system and states which try to augment their relative gains. It sees peace as the way to reach human freedom and aims to eliminate obstacles like power politics preventing mankind from achieving this goal. What are the postulates of liberal internationalism?

(1) Conflicts between states can be solved without force or war. Rationality, as well as reason, represent the essential requirements to settle conflicts peacefully.

(2) Cooperation is seen as more preferable than force. Moreover, growing interdependence calls for more cooperation and international regulation.

(3) International institutions play a crucial role in international relations because they limit the power of powerful states and offer mechanisms to avoid interstate conflicts.

(4) War is not considered a constituting feature of the international system. It can be avoided by the subjugation of international affairs under the rule of law (domestication of international affairs).

Transnational economic integration, international governance and democracy foster the development towards a moment where war and force are regarded as unthinkable instruments to solve interstate conflicts. Of course, these assumptions reflect an ideal and normative point of view and it should be asked if these ideas have an explanatory value for all regions of the world. (McGrew 2002, p.267-269)

McGrew emphasizes that international liberalism does not represent a unified and completely coherent theoretical block. The four contemporary streams (liberal institutionalism, structural liberalism, liberal reformism, liberal cosmopolitanism) differ in various respects. Two of these cleavages are economics versus politics and minimal governance versus active governance. One long-lasting disagreement stems from the following question: which role should the state play and if a minimum or more than a minimum of governance is necessary? Kant, who advocated a confederation of republican states and international rules, opposed Bentham, who argued for little international government. This discussion is still going on and touches global governance as well. What role should governments play? The question is closely connected with one vision of global governance: Should global governance fight against barriers for individual freedom or should it shape the global framework actively by creating conditions?

2.3.2. Global governance and its development

The international system has witnessed fundamental changes on a global scale, which led to discussions about the reliability of current theoretical tools in the area of international relations. The end of the Cold War and the increasing intensity of globalization contributed to the emergence of the concept of global governance, which should serve as a comprehensive instrument to understand global change. Other theories, like realism, remain relevant because politics implies power struggle but new organizing principles have to be taken into account. One possibility for the use of global governance is the analysis of global change, which takes place in four different ways.

One way to look at global change with the help of global governance stems from James Rosenau, who states a shift of the location of authority. The undisputed primacy of the state is called into question by new actors as well as global changes. Governance, instead of government, becomes the dominating concept. However, the tendency towards governance reflects an increase in the skills of individuals and small groups causing a change in patterns of global life. Additionally, the territorial state of the Westphalian system becomes one of many actors because authority is redistributed in multiple directions. (Hewson and Sinclair 1999, p.7)

A second approach focuses on the formation of a global civil society. Many organizations between politics and economy have started to extend their activities on a global scale. As a result of their global orientation, they enter the international arena of political discourses and represent a democratic element. These organizations constitute an important starting point for discussions on legitimacy and democracy within the concept of global governance. One example would be several indigenous people's movements. (ibid, p.7-8)

Cox introduced a third element which deals with the reorientation of elites of the G-7 member states in the area of politics, business or science. The forces of global governance have different forms depending on the particular era. According to Cox, two social forces existed in the 1980s: on the one hand there was hyperliberalism and on the other hand there was state capitalism, whereby the model of hyperliberalism managed to become the dominant discourse. Therefore, current global governance follows the paradigms of hyperliberalism. Gill regards globalizing elites as the driving forces behind global change and mentions some institutions serving as creators of consensus like the World Economic Forum or the G-7 meetings. Deregulation of business and the free movement of capital has widened the options of private actors but has constrained those of states which have less influence on the economy due to the increasing linkage of production, consumption and tax bases. Environmental movements own the potential to counter this hyperliberal way on a global level and to subdue the global economy to regulation again. (ibid, p. 8-10)

Another analysis of global change by using the global governance concept centers on the technical progress and its impacts on communication, information and knowledge. Global governance serves as an instrument to foster communication and the creation of knowledge with the purpose to support better coordination of globalization. Expertise has become more and more important and a new form of authority has appeared, in which experts play a crucial role. The epistemic authority is based on the assumption that knowledge is power. In this

approach informational elites backed by innovation centers, as well as public and private institutions in the area of information management highly influence the organization of the world. (ibid, p. 10-11)

Beside the analysis of global change, global governance also offers leads to an understanding of the relation between global change and international organizations. After the collapse of the USSR, the international community saw the potential for a new world order where international organizations and especially the United Nations gain importance. The change of the international environment called for a reform of the international organizations, which can be summarized under the term of global governance. The influential Commission on Global Governance was not the first group of this kind, but it showed essential differences to some of its predecessors. In contrast to other commissions the Commission on Global Governance does not deal with a particular problem but rather with the issue of a new global governance structure. The end of the bipolar system also transformed the way how the international community generally deals with global problems. Hence the commission addresses, for example, the expansion of several forums for NGOs. Programs from social democrats strive to integrate global governance organizations into a global civil society, which could contribute to their expertise and enhance the democratic legitimacy of global governance. (ibid, p. 13).

International regime theory contributed to the theoretical development of global governance as well. At the beginning regime theory[5] laid its focus on clearly defined issues without considering other issues or regimes. Consequently, the analysis of changes within the whole governance system was impossible. However, regime theory followed a different direction. It looks at the overlapping areas of regimes and picks up a systematic approach to the analysis of regimes. An example would be environmental regimes (climate, ozone layer, biodiversity etc.). This strand of global governance is not occupied with global change and avoids the term global governance.

2.3.3. What ontology for global governance?

The international system is confronted with changes in numerous fields like politics, economy or cultural life. Borders, for example, are either disappearing or losing their meaning

[5] A deeper discussion about regime theory follows in chapter 2.4.1.

under the viewpoint of a process interconnecting the world. Due to these developments the concept of global governance entered the sphere of theoretical tools, which should help to deal with these emerging patterns. Nevertheless, analysis of the international system remained in old boxes of thinking, in which states are perceived as sole actors. At the same time this approach ignores the changes on a global scale (e.g. erosion of state authority or transformation of borders) and it is unable to show the underpinnings of such developments. To ignore new kind of actors, like NGOs or TNCs, and their influence, or to uphold the division between domestic and foreign policy leads to difficulties to analyze the ongoing changes.

According to Rosenau, global governance needs “a new ontology for understanding the deepest foundations of governance” (Rosenau 1999, p. 288). This new ontology has to postulate a shift of authority to other levels (subnational, transnational) as well as to other actors (nongovernmental). Moreover, the emphasis on territoriality has to be changed and more significance has to be given to temporal dimensions of governance.

While ontologies are more stable and static than paradigms, both can change in two different ways. Since ontologies represent the intersubjective perspectives of people on the condition of their existence, ontological changes happen if these conditions profoundly change. Consequently, people start to transform their intersubjective perspective (ontology). A second possibility is the transformation by new technologies which allow people to see the conditions of their existence in a new context. In this case it is not the conditions which change but the people’s perception of these conditions. At the moment both sources of transformation exist parallel to one another. Ontologies are deeply rooted in the science as well and, therefore, a transformation (away from a state-centered analysis) takes place slowly.

This does not mean that states become irrelevant or disappear in international relations, but the space in which they can exercise power is narrowed by diminishing of borders and the advent of new actors. Furthermore, the phenomenon of globalization fosters tendencies for a stronger localization. These two tendencies put pressure on the national level and the concept of the nation state. Despite the weakening of the national level there is no power vacuum because authority is redistributed not deteriorated. Hence, global governance represents less a kind of political integration than a term which summarizes global activities or efforts aiming to reach a coherent approach towards an issue.

States, as mentioned above, are one of many sources of authority. This assumption means that spheres of authority build the new focus of analysis in contrast to territorially-centered approaches. Spheres of authority vary in structure and appearance (epistemic authority, bureaucratic authority etc.). They can be bound to certain territories where, for example, people act in accordance with the rules set up by governments. Governance is a broader concept than government because it is not a clearly defined actor and posses no formal jurisdiction over a territory. Furthermore, it encompasses a wide range of actors of which governments are one element. These different actors have different capabilities. (ibid, p. 287-296).

2.3.4. Towards a typology of global governance

The ability to govern (exercise authority) requires a rule system, which can encompass formal elements, like laws, as well as informal elements, like practices that people regard as authorative (Rosenau 2002, p. 72). Rosenau defines the term 'spheres of authority' as follows:

> "Both the formal and informal rule systems consist of what I call 'spheres of authority' (SOAs) that defines the range of their capacity to generate compliance on the part of those persons towards whom their directives are issued."
>
> (Rosenau 2002, p.72)

On a global level there are two separated systems: on the one hand there is the traditional state system dominated by governments, and on the other hand there is a multi-centric system. Actors of the multi-centric system interact with the state-centric system[6] in different ways (cooperation or competition) and challenge the authority of governments in some areas. All these actors and spheres of authority constitute a complex system called global governance. Although some non-state spheres of authority have emerged, the state remains an important element of the international system because it still can influence and shape developments on a global scale. However, states and their national governments are reluctant to make decisions which would be necessary to manage global problems like the depletion of natural resources, climate change or economic instability. (ibid, p.73)

Due to a lowered significance of national borders as well as the appearance of new spheres of authority, states partly face difficulties in generating compliance despite their

[6] Rosenau calls it interstate system.

possibility to exercise force in the case of non-compliance. They are paralyzed by inner division fostering ineffective decisions or non-decisions which has consequences for its ability to generate compliance. (ibid, p.75-76)

Several other factors have contributed to the weakening of the national state, for instance the Internet. This new communication infrastructure enables completely new forms of mobilization, debate and collective action. Therefore, even small groups without enormous administrative support get the possibility to take part in political discussions by pushing their goals on the agenda. The increasing number of actors[7] augments the complexity of governance. One way to deal with this situation lies in the concept of multi-level governance, which distributes authority on different levels to increase the quality of governance (e.g. EU). Besides the huge number of participating groups, the widely-dispersed authority makes some areas hardly governable. This is the case if a global issue remains in the traditional regulative framework of national states but one state alone is unable to act effectively since the issue is out of its reach. However, a common approach of state as well as non-state actors would take too much time. Consequently, this leads to non-decisions in areas of global concern. (ibid, p.77-79)

Rosenau develops a six-governance typology which differs from the model of Peters and Pierre who center their typology around the role of the state. Furthermore, it defines models of governance in general whereas Rosenaus' typology focuses on global governance.

The global governance model of Rosenau consists of six types of governance differing with respect to structures and processes. Structures can be formal, informal or mixed (formal and informal) and therefore, the structural element is tri-dimensional, compared to the process element which is two-dimensional (unidirectional and multidirectional).

[7] Chapter 2.3.5 discusses the different non-state actors of global governance in detail.

Figure 3: Typology of global governance

		PROCESSES *(type of collectivities involved in this form of governance)*	
		unidirectional (vertical or horizontal)	multidirectional (vertical and horizontal)
STRUCTURES	formal	**Top-down governance** *(governments, TNCs, IGOs)*	**Network governance** *(governments, IGOs, NGOs, INGOs-business alliances)*
	informal	**Bottom-up governance** *(mass publics, NGOs, INGOs)*	**Side-by-side governance** *(NGO and INGO, governments)*
	mixed formal and informal	**Market governance** *(governments, IGOs, elites, markets, mass publics, TNCs)*	**Mobius-web governance** *(governments, elites, mass publics, TNCs, IGOs, NGOs, INGOs)*

Source : Rosenau (2002), p.81

The actors appearing in this matrix are the following: governments, transnational corporations (TNCs), international governmental organizations (IGO), non-governmental organizations (NGOs), international non-governmental organizations (INGOs), markets, elite groups and mass publics. The governance forms on the left side only function in one direction (top down, bottom up etc.). In most cases it is governments who initiate and implement policies in the area of top-down governance, contrary to bottom-up governance, where NGOs often take the initiative and pressure governments to take action. Market governance encompasses self-regulations for products or standards ensuring the non-involvement of governments. Network governance is characterized by the equality of the network members in the bargaining process. The side-by-side governance model consists of non-governmental global elites and public officials. Those interactions are already so intertwined that it seems impossible to distinguish between formal and informal inputs. Issues in this area are very dispersed and mass mobilization is either impossible or even counterproductive. Therefore, negotiations continue to neglect big involvement of the public. Mobius-web governance is quite similar to

side-by-side governance but it does not exclude mass movements or the public. An example would be environmental issues. Due the increasing complexity, it is likely that mobius-web governance becomes the dominant form of global governance. The three governance types on the right side have multiple flows of influence and are extremely overlapping. They are not linear but emphasize the importance of networks as well as feedback. (ibid, p.80-83)

The Commission on Global Governance defines global governance as

> "…the sum of the many ways individuals and institutions, public or private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action may be taken. It includes formal…as well as informal arrangements that people and institutions have agreed to or perceive to be in their interest."
>
> (Commission on Global Governance 1995, cited in Karen and Mingst 2004)

However the author refers for the definition of global governance to Peter and Pierre (2006) again[8]. Although they define governance in the first place, it seems useful to refer to this definition and add the global dimension. Consequently, global governance in this analysis is defined as "a goal-directed activity, with the need to establish collective goals and develop the means of reaching those goals on a global level".

2.3.5. Beyond the state: non-state actors of global governance

2.3.5.1. Transnational corporations: global giants [9]

Business and its actors belong to those who extended their influence through globalization. Transnational Corporations (TNCs) are involved in many issues (economic, environmental, social) of global concern. The shift from national to transnational capital, (in respect of ownership) as well as the absence of global regulations, has fostered the emergence of TNCs as powerful participants in world politics. Their transnational character allows them to act globally, untouched by any domestic regulations or restrictions because government's influence is territorially bound, in contrast to the de-territorialized activities of TNCs. Generally, the growing importance of ideas promoting liberal market economy and the

[8] They define governance as "…a goal-directed activity, with the need to establish collective goals and develop the means of reaching those goals".
[9] Some authors use the term multinational corporations.

competition between states for FDI caused by the ongoing economic integration represent only two reasons for the rise of these kinds of non-state actors. Furthermore, progress of information and communication technologies supported the rise of globally organized firms. (Martinelli 2003, p. 300). Between 1970 and 2001 the number of TNCs increased significantly, from 7000 to around 63300. Additionally, the volume of their operations exceeds in some cases the GDP of states. These actors are concentraed geographically in North America, Europe and Japan.

However, the influence of TNCs also becomes evident in other ways. They need enormous amounts of natural resources (e.g. water), raw materials or energy for their activities and spread unsustainable practices, for instance long distance transportation, having a big negative impact on the environment. (Pattberg 2007, pp.80-82) Additionally, TNCs influence the societies in which they operate in an ambivalent manner. While their activities give countries the possibility to receive new technologies, FDI or higher salaries than the domestic average, they also introduce practices or routines, like the exploitation of natural resources, which negatively affect societies, in particular those of developing countries. (Martinelli 2003, p. 301) Their capital power and ability to create a high number of jobs gives them the possibility to pressure host governments. The threat to move jobs or investments to other countries influences the behavior of governments in both developed and developing countries. (Karen and Mingst 2004, p. 19)

Impacts do not only concern the environment but also the global economy (economic crisis). Domestic liberalizations and multilateral trade agreements helped transnational corporations to extend their rights. Particularly, intellectual property rights of pharmaceutical as well as entertainment industries enjoy a broad protection by international agreements (e.g. WTO). (Ruggie 2004, p. 511) Corporations own the necessary resources to lobby their interests and influence decisions on a national as well as a global level. Other actors lack such an ability to work parallel on two levels. (Woods 2002, p.28)

With regard to self-regulation, TNCs have begun to set standards on their own without any public initiative. These standards concern, for example, product safety, ecological sustainability or codes of conduct and are summarized under the term private governance. (Ruggie 2004, p. 502-503) Why do TNCs regulate themselves without being pressured? Firstly, corporations try to anticipate state intervention in their business and secondly, they try to show customers their social or environmental engagement.

TNCs use the competitive advantages on a global scale as well as production and distribution networks. Even several sectors (telecommunication, automobile industry etc.) are dominated by these global giants.

2.3.5.2. International governmental organizations: More than forums

These organizations are major players in the arena of global governance. IGOs are based on international treaties and have more than three member states. Founding treaties fix the competencies as well as limits of an international organization. (Filzmaier et al. 2006, p.276-277)

Karen and Mingst identify six functions of IGOs: informational (collection and analysis of information), forum (discussion of positions and decision making), normative (development of behavioral standards), rule-creating (creation of legally binding treaties or agreements), rule-supervisory (monitoring of compliance, mediator in conflicts) and operational (allocation of resources, technical assistance) function. (Karen and Mingst 2004, p. 9)

Since World War II their number increased continuously whereby the United Nations, their sub-organizations and several autonomous organizations (World Bank, IMF) built the center of the IGO circle. Beside the growth in number, IGOs also have undergone a change in respect to issues they deal with; today collective (global) policy problems build the main focus of their work, like environment, social and industrial development, crime or poverty.

However, IGOs are not always undisputed due to a lack of transparency, efficiency and legitimacy. Institutions like IMF or WTO are confronted with criticism concerning their policy, following, in many parts, neoliberal ideas. (Martinelli 2003, p. 304-306)

The influence of IGOs is also influenced by its key representatives (UN Secretary General, President of the World Bank etc.) and their reputations. They often contributed reaching a consensus in difficult situations because they acted as mediators. (Karns and Mingst 2004, p.17)

2.3.5.3. Non-governmental organizations: watchdogs and initiators

First of all, there are different kinds of NGOs working on different issues and levels. Most of the large transnational organizations have their headquarters in industrialized countries, like Amnesty International or Greenpeace. However, there are also smaller and locally based NGOs, which play a crucial role in the area of development aid projects. (Woods 2002, p. 27-28) Social movements have developed as an alternative to traditional institutions to push certain issues on the public agenda and to put pressure on political or corporate decision makers. These movements sometimes become more structured and organized and NGOs arise from such social movements. (Teegen et al. 2004, p.465-466)

They are referred as major elements of (global) civil society; Teegen et al. offer the following definition:

> "NGOs are private, not-for-profit organizations that aim to serve particular societal interests by focusing advocacy and/ or operational efforts on social, political and economic goals, including equity, education, health, environmental protection and human rights."
>
> (ibid 2004, p.466)

NGOs represent groups which do not possess the necessary financial or political resources (poor people) or the ability (animals, environment) to express their interests efficiently. Therefore, they can ameliorate the social representation within societies. There exist two ways that they advocate interests: first, they integrate themselves into established institutions where they participate actively either as legitimate representatives or experts. Secondly, they mobilize public opinion and decide against a cooperative way. In this case, they take an offensive stand against particular institutions.

Beside their lobbying work, NGOs provide operational activities which are not fulfilled by governments or other private actors. Moreover, they develop codes or standards for certain areas and monitor government or corporation compliance to these benchmarks. "Naming and shaming" is an effective possibility to pressure decision makers who do not act in accordance with particular codes.

Several factors fostered the development of NGOs in the last 60 years: the growing importance of human rights, the collapse of the Soviet Union, concepts to shrink government involvement (Reagan, Thatcher) and, of course, globalization. Although globalization evokes strong criticism from a high number of NGOs, they also use and benefit from some of its

consequences. (ibid, p. 466-471) Martinelli emphasizes the important role of epistemic communities and global scientific groups, which are relevant in particular for environmental governance (Martinelli 2003, p. 312).

Finally, the international system witnesses a big increase of NGOs; in 1909 there were 176 nongovernmental organizations. In the year 2007 more than 7600 organizations existed worldwide. (UIA 2009)

2.3.6. Between preservation and ideological hegemony: A critical view on global governance

The French philosopher Michel Foucault coined the term of governmentality, describing the sum of state organs which define and administrate relations within a society. However, Foucault applied his concept only to individual states or societies and never considered the possible implications of his concept on a global level. The ongoing globalization opens a new perspective for governmentality as a way to look at global developments because an increasing number of structures and relations are governed on a global scale.

Latham draws a connection between structural-functionalism and global governance and sees its roots in this tradition. He particularly refers to Parson's credo that societies need normative coherence as well as coordination to ensure their stability and prevent their dissolution. Normative coherence and coordination are necessary to maintain a current societal order. Latham argues that global governance follows the same path, but from a global instead of a national point of view. According to this logic, the concept of global governance is function-fixed and concentrates exclusively to preserve the functioning of the global system. Global governance aims to identify patterns of authority without having a formal system of government. Therefore, it is not the state which is important but rather the functioning of the political system.

Parson sees different structures which fulfill essential functions for the stability of a society. This is a second overlapping between functional-structuralism and global governance, but with an important difference. While the American society served Parson as a reference point for his reflections, the global governance approach does not have such a reference point. The limitation to the American society makes it easier to assume a consensus on certain

values or a normative coherence. A global consensus on certain values seems to be difficult in the face of a manifold spectrum of attitudes. (Latham 1999, p.25-35)

Latham criticizes that both approaches do not ask critical questions, like who or which interest is dominating. On the contrary, criticism is regarded as burden and as a potential source of conflict although such debates could be a starting point to change politics and economic structures. Global governance knows no space, located outside the concept. It tries to integrate the critique into its logic that shows the underlying assumption that everything can be governed. Therefore, global governance is anticipative and adaptive because it has to respond to disorder and contradiction by finding ways to ensure order and coherence. At the end, the structural-functionalist logic of global governance can support radical or conservative tendencies. Additionally, Latham states that the relation between politics and governance does not exist. Within a liberal democracy, a political competition takes place to decide the way that the state should shape a particular form of life. Global governance would exclude such a competition because there is no center of authority (like the state). This approach perceives the concept as apolitical or post-political. Consequently, the idea of global governance is undemocratic due to the missing link between politics and governance. Furthermore, there are three implications of global governance concerning the relations between society and state, emphasized by its critics. Firstly, the structure of the international system solves several problems, which are not subject to the global governance approach. The weakening of the state confronts the concept with currently unexamined questions. Secondly, the civil society, as an important element of global governance, is rooted in the sphere of national states. However, global governance would undermine this organizational basis. Thirdly, global governance has an universalism aiming to create standard norms which manage transboundary relations. (ibid p.35-46).

Liberal internationalism (and global governance) has attracted criticism, particularly from realists and Marxists. Firstly, liberal internationalism is regarded as too idealistic. The real dynamics that drive world politics are ignored (power, force etc.) in favor of an idealized (normative) view on international relations.

Secondly, and more important, critics understand it more as an ideology than as an analytical framework for international relations. They claim that liberal internationalism tries to establish a multilateral world order with the help of a hegemonic power or hegemonic global capitalism. Therefore, liberal internationalism is judged as dangerous at the

international level due to its cultural imperialism and its support for powerful players in world politics. (McGrew 2007, p. 283-284)

2.4. Transnational governance

The concept of transnational governance helps to discuss governance systems on a regional level. Risse states that "[O]nly if and when non-state actors have a say in the decision-making bodies of global governance, should we speak of 'transnational governance'" (Risse 2004, p. 4). This definition shows some weaknesses. Firstly, it has to be clarified what "to have a say" means. Non-state actors maybe have no formal right to decide on issues but even their inclusion into the pre-decision process, for example by delivering expertise, shapes the development of the governance process. Secondly, the necessity to "have a say in the decision making bodies of global governance" has to be questioned. This definition constitutes that transnational governance can exclusively take place within global governance bodies. However, transnational governance is not bound to a global framework or to global governance institutions because transnational governance can be exercised on a global scale, although this is not necessary.

Erisken und Fossum offer a different and, in the author's point of view, more advantageous definition:

> "The term transnational governance is thus used to describe the emergence of new forms of legal and/or political collaboration of public and private actors at international and regional levels. Here the terms governance and transnational, are conjoined to create a conceptual apparatus to caption the far more fluid post-Westphalian world, a world where territoriality and functionality do not cohere."
>
> (Eriksen and Fossum 2002)

A broad spectrum of actors and institutions participate in governance activities. Since regimes play a crucial role in the governance of transboundary rivers and sometimes constitute the basis of the governance system, the following chapter deals with international regime theory.

2.4.1. International regime theory

Basically, regime theory developed as a counter movement to neo-realist concepts of international relations. States remain the main actors in international politics and therefore inter-state cooperation is the principle idea of international regime theory. Although regimes are institutionalized, they are informal and focus on one specific issue or problem, which should be solved with the help of political cooperation. Due to the fact that states work together through such regimes, it gives them the possibility to observe each other and the behavior of the participating states becomes more predictable. As a consequence, uncertainty is reduced. At the same time as predictability increases, mutual trust grows which makes a peaceful interaction more likely. Additionally, regimes lower the transaction costs for states in respect of cooperation because it provides a framework for negotiations. The decision of state participation in a regime is based on a cost-benefit analysis. (Filzmaier et al. 2006, p. 290-294)

Krasner's definition of international regimes contributed to the progress of regime theory and became a definition that was broadly accepted by the scientific community. He defines them as follows: "International regimes are defined as principles, norms, rules and decision-making procedures around which actor expectations converge in a given issue-area". (Krasner 1983, cited in Levy et al., 1994) However, Krasner's definition provoked, criticism stating two major points; firstly, the components of regimes seem to be far away from being distinguishable and secondly, critics identify a vagueness in his definition.

Levy, Young and Zürn use the definition of Krasner as a starting point and elaborate a more precise definition, taking into account the points mentioned above. They propose to define international regimes as "…social institutions consisting of agreed upon principles, norms, rules, procedures and programs which govern the interactions of actors in specific issue-areas." (Levy et al. 1994, p.13) This definition clearly separates international regimes from international organizations. Although they are sometimes interconnected, it is necessary to have an analytical distinction between these two elements of international relations. Moreover, regimes can be classified in different ways; they can be categorized in respect of principles and norms, rules, procedures and programs, as well as actors and issue areas. (Levy et al. 1994, p. 13-18)

Of course, such regimes have consequences for the sovereignty of states. According to Levy et al., there are two kinds of sovereignty; on the one hand formal, on the other hand

operational sovereignty. Environmental interdependence often leads to the necessity to cooperate on an operational level. Therefore, environmental regimes modify the operational sovereignty of states while their formal sovereignty remains mostly untouched. (Levy et al. 1993, p. 415-416)

The study of regime formation can be summarized in five to six central points. In the following analysis of regimes the author integrates five elements. It has the objective to deliver a broad analysis of theses formation processes by using different perspectives. The six categories are:

(1) Actors and actor behavior: though, states are regarded as principal actors in forming and maintaining regimes, non-state actors are of certain relevance in particular by initiating discussions and putting issues on the international agenda. Nevertheless, the analysis of regimes remains a state-centered approach. States are not unified actors but entities with an internal diversity of interests.

(2) Processes of regime formation: in general, regimes can be formed by self-generation, negotiation or imposition. Self-generation of regimes emphasizes the converging expectations from potential participants. Furthermore, it is not a result of conscious efforts. Negotiations, on the other hand, represent a conscious process aiming to form a regime (negotiated regimes). Finally, the imposition of regimes is a third possibility. A powerful actor is able to force others to participate in a regime. A clear distinction between these three types of processes is hardly possible. Therefore, all three factors can appear during the formation but one of them dominates over the others.

(3) Stages of regime formation: at the beginning, there is the agenda formation. During this phase an issue gains enough prominence to be treated on a high level within the international system. The second phase encompasses the time between the acceptance of the issue as an international priority and the creation of a regime (phase of institutional choice). The third stage is the operationalization encompassing "…all those activities required to transform an agreement on paper into a functioning social practice" (Levy et al. 1994, p. 22).

(4) Driving social forces: Levy et al. name power, knowledge and interests as specific factors which influence the formation of international regimes whereas different schools of international relations emphasize different factors. For example, realists and

neo-realists emphasize power because in their point of view, regimes reflect the distribution of power in the international system. Others, like Haas, suggest shared and consensual knowledge, as well as social learning, as important factors to foster the formation of regimes. Some scholars identify interests as the motivation of states to create regimes, in particular with regard to collective-action problems.

(5) Crosscutting factors: two additional intervening factors are individual leadership and context. Individuals sometimes influence significantly the process of regime formation (e.g. if a mediator ensures the continuation of negotiations). This individual leadership is broken down in three separated forms: structural leadership (individuals who use power to ensure the continuation of regime formation), intellectual leadership (individuals who frame the discussion by, for example, developing ideas) as well as entrepreneurial leadership (individuals who create consensus and are honest brokers).
The emergence of regimes is not detached from other (political) events or developments and is therefore, embedded in a certain context. This contextual factor should not be underestimated because it highly influences the course of regime formation. [10]

(6) Multivariate models: This point shows the importance of finding successful tracks of regime formations and not only individual factors. However, for this purpose several processes of regime formation have to be analyzed and compared. Such an analysis would exceed the scope of this paper. Therefore, it is not integrated into the analysis of the following regimes. (ibid, p. 19-24)

Although, governments opt to participate in regimes if they cannot deal with (environmental) problems on their own, there are three reasons why governments stay passive in some cases when it comes to environmental issues. Firstly, governments underestimate the environmental threat and show a low level of concern. Secondly, they are not able to counter the environmental threat since they do not have enough capacity. Thirdly, difficulties to overcome obstacles of common action are responsible for the fact that governments do not respond to environmental threats. In particular, the third factor concerns the area of international regime formation while the others can also be applied to intra-state issues. (Levy et al. 1993, p. 398)

[10] For example, contextual factors were important for the formation of the Danube regime.

An increasing number of environmental problems do not stay limited to the borders of one state. This becomes particularly complex if the polluter or user whose actions are responsible for environmental harm or quantitative harm is situated in a different state than those who have to deal with the consequences of the behavior of the upstream country. The question of transboundary accountability, for instance of the pollution of rivers, shows the limits of the Westphalian order and the need for reforms.

One way to solve this problem is the creation of environmental conventions and regimes. International regimes establish new obligations for states participating in the regime. In general, the Stockholm Declaration on Human Environment (1972) as well as the Rio Declaration on Environment and Development encourage states to avoid activities within their territory, which have negative environmental consequences on areas beyond their jurisdiction. However, this obligation does not enjoy the status of a 'jus cogens' norm of international law, like the prohibition of genocide or torture, which "represent the highest international standards by which state and non-state actors can be held accountable" (Mason 2001, p.415).

Although many environmental treaties include binding commitments, most of them lack clear rules that define responsibilities and mechanisms dealing with liabilities of transboundary use or environmental damages (ibid, p.407-424).

2.4.2. Common property regimes

Different scholars share the view of the problem of overuse concerning common property goods. Nevertheless, there are diverging approaches, which deal with the question of how to govern or manage those resources. On the one hand, Hardin sees one possibility in the privatization of common property goods with the purpose to prevent its over-exploitation[11]; on the other hand, Nostrum suggests creating common property regimes. Such regimes foresee the formation of institutions managing or governing the natural resources in a sustainable manner. Ostrom identifies a number of decisive factors guaranteeing a stable arrangement for common property regimes:

(1) A clearly defined community of resource users
(2) A clearly defined resource

[11] Hardin's article 'The tragedy of the Commons' highly influenced discussions about common the management and governance of natural resources. See chapter 2.5.1.

(3) Clearly defined rules clarifying rights, responsibilities and sanctions for non-compliance
(4) Effective monitoring systems
(5) "Graduated" sanctions matched to the level of the offense
(6) Conflict resolution mechanisms with cheap and easy access
(7) Minimal recognition of rights to organize
(8) Systems for adaptive management ensuring the possibility to modify rules if necessary

These factors have an impact on the relations between the participants of a common property regime (e.g. expectations, trust). (German and Keeler 2010, p. 573-575)

Due to the fact that this paper considers transboundary rivers as a common property resource, the concept of common property regimes offers an additional value for the understanding for transnational water governance structures in certain regions of the world. The author regards the eight points developed by Ostrom as an indicator if states perceive transboundary rivers as a common property resource.

2.5. Common property and open access

A further concept which contributes to the analysis of transnational water governance system are the theories of open access and common property resources. Even if there are several overlapping points between the two concepts both have significant differences, particularly in respect of use and access.[12] It is important to state that open access or common property are not inherent characteristics of resources, but rather describe the way how a resource is or is not managed.

2.5.1. Open access or the problem of overuse

An open access resources is

> "… a depletable, fugitive resource characterized by rivalry in exploitation; it is subject to use by any person who has the capability and desire to enter into harvest or extraction of it; and its extraction results in symmetric and asymmetric negative externalities."
>
> (Stevenson 1991, p. 8)

[12] This chapter does not deal with the full depth of these theories but only to the extent which seems necessary for the analysis of water governance systems.

Open access can be split up in two subcategories: on the one hand, there are those which have limited users and therefore can only accessed by members, on the other hand, there are those resources which have an unlimited number of users and are open to anyone. Both subcategories share the point of unlimited extraction of the resource. (ibid, p.58)

The overuse of a resource means that the exploitation has reached a critical level which exceeds its carrying capacity or maximum sustainable yield (ibid, p.10). Hardin (1968) exactly discusses this problem in his article "The tragedy of commons". He argues that several issues exclude a technical solution but have to be conceived as problems of morality and attitude. Hardin contests the idea that the best outcome for society can be reached if each individual acts in a way which ensures its own benefit. On the contrary, unlimited individual freedom causes serious problems for the survival of mankind, because the activities of subjects acting in the logic of individual benefit lead to a tragedy. It is the tragedy of the commons. Unlimited freedom enables everyone to increase his individual benefit at the costs of the commons.[13] Resources like water or air cannot be fenced. Therefore, these kinds of resources have to be protected by laws and regulations. Moreover, Hardin emphasizes the role of overpopulation as key source of other problems. (Hardin 1968, pp.1243-1245)

2.5.2. Common property: a solution for the tragedy of the commons?

Stevenson suggests seven elements characterizing common property.

Firstly, "the resource unit has bounds that are well defined by physical, biological and social parameters." (Stevenson 1991, p.40) This aims to clarify which resource is meant. Secondly, the group possessing the right to use a particular resource is well defined and clearly indicates those who are excluded. Thirdly, more than two people use the resources. Otherwise it would be private property. Fourthly, a system of rules exists fixing rights and duties which regulate the behavior of the users and resource extraction. This control mechanism over the extraction of the resource constitutes a major difference between open access and common property resources. Furthermore, a common property foresees that "users share joint, nonexclusive entitlement to the in situ or fugitive resource prior to its capture." (ibid, p. 40) This means owners jointly claim the use of a resource a priori to its capture. Moreover, those who use the resource compete for it. In doing so, they cause negative externalities on the other users.

[13] Hardin illustrates it with the example of herdsmen who share common grassland.

However, the limited number of users and sets of rules help to keep the negative externalities at an appropriate level. Finally, a clearly defined group of rights holders can be identified; this group does not have to be identical with the group of resource users. (ibid, pp. 40-45)

In a nutshell, Stevenson summarizes his characteristics by defining a common property as

> "…a form of resource management in which a well-delineated group of competing users participates in extraction or use of a jointly held, fugitive resource according to explicitly or implicitly understood rules about who may take how much of the resource."
>
> (ibid, p. 46)

Historically, commons have always been regulated in one way or the other and have not shown elements of open access. Moreover, open access resources imply the absence of property because there are neither rights nor duties ex ante to the capture. In comparison to open access, common property postulates rights and duties which exist before resource use. Open access resources are open to everyone and therefore have no owners who would have the right to exclude another person. Common property, on the contrary, has a well defined group of authorized users holding the right to deny others the access to a certain resource. (ibid, S. 48-52)

Figure 4: Property institutions

	Private Property	**Common Property**	**Open Access**	
			Limited User	**Unlimited User**
Group limitation	One person	Members only	Members only	Open to anyone
Extraction Limitation	Extraction limited by individual decision	Extraction limited by rules	Extraction unlimited	Extraction unlimited

Source: Stevenson (1991), p. 58

Additionally, even if there is a limited number of users it does not fulfill the condition of a common property if these users are allowed to extract as much of the resource as they want because they tend to overuse. Consequently, rules between users defining the way and amount of extraction are necessary to prevent exceeding of the carrying capacity.

A decisive difference between common property and public goods lies in their nature. Public goods are goods or services whereas common property is a kind management a particular resource. In addition, public goods cause rivalry and are not exclusive because the exclusion of certain groups is hardly possible, due to costs. In general, public goods are produced artificially and the principal question is how much of them should be provided. (ibid, pp. 52-58)

Furthermore, the consumption of public goods does not have influence on its quantity. Consequently, they are in some way ‘immune’ against depletion. However, whereas public goods cannot be depleted, common property resources can easily be depleted. Therefore, several resources are wrongly characterized as public goods although they show clear elements of common property resources. (McKean 1996, p. 226)

3. GLOBAL WATER GOVERNANCE

3.1. Water governance from a global perspective

Water governance takes place at a local, a national, a basin or a global level. All these levels partly are interconnected and overlap each other. There exists more than one approach to water governance and four levels dealing with this issue. Therefore, it seems helpful to have a closer look at these different levels of governance.

Firstly, the local level has been the locus where water is governed for hundreds of years. This approach emphasizes the concept of decentralization as well as subsidiarity; according to this logic, the governance level to the stakeholders should handle questions of water. Therefore, advocates of this approach regard the local level as the most appropriate governance level for water.

Those who support the primacy of the domestic interest prefer to deal with water issues at a national level. In this point of view water has to serve the interests of a state; this can only be adequately accomplished by governing water at a national level.

A third approach[14] refuses to think within political borders because water governance cannot be bound to politically defined territories. Therefore, efficient ways of water governance follow naturally defined spheres, for instance a river basin or a watershed, instead of fixed spaces determined by humans. Consequently, the basin approach is more comprehensive and encourages transboundary water governance as well.

Ultimately, there is a global approach to water governance. Promoters of this perspective argue that several water-related problems can only be managed at a global scale. According to this school, all the other water issues are connected with each other within the global water system (e.g. water cycle). This is the reason why water governance has to be global. (Pahl-Wostl et al. 2008, p. 421)

Since this chapter focuses on global water governance, it is worth discussing some arguments for a global approach. Pahl-Wostl et al. name four arguments which back the idea of establishing a global system of governance, in addition to the other levels.

The hydrological system operates globally and is not limited to local, national or basin levels. Moreover, developments touching the area of global environment or the world

[14] Chapter 4 deals with transnational or basin-related governance systems.

economy create and foster situations which exceed the capacities of governance systems at a lower level. Furthermore, several water-related phenomena (e.g. urbanization, loss of biodiversity) visible at a local level are embedded in a bigger global context; thus a global approach is necessary. Additionally, the change of water, in quantitative as well as in qualitative respects, has global implications and consequences. (ibid, p. 421-422)

The UNDP defines water governance as "…the range of political, social, economic, and administrative systems that are in place to develop and manage water resources and the delivery of water services at different levels of society." (UNDP n.d.) Pahl-Wostl et al. deliver a definition focusing on actors and their behavior:

> "Thus, GWG can be defined as the development and implementation of norms, principles, rules, incentives, informative tools, and infrastructure to promote a change in the behavior of actors at the global level in the area of water governance."
>
> (Pahl-Wostl et al. 2008, p. 422)

Finally, it has to be underscored that governance of water at a global scale is not exclusive but represents one additional level of governance beside local, national and basin levels.

3.2. International water law

Efforts to govern water date back 5000 years ago when societies in India, China or Egypt tried to establish regulatory frameworks. Therefore, water governance, in a broad sense, is not an innovation of the 20th century. However, during the last 60 years steps towards a codification of an international law on water or regulations touching water issues advanced continuously. Since the 1950s "[T]his process involved the identification and articulation of common principles for managing water based on an analysis of local and national traditions" (Dellapenna and Gupta 2008, p. 439). Several non-state actors, for example the International Law Association (ILA), have already influenced the creation of regional as well as international rules and principles at an early stage.[15] Several numbers of international declarations and conventions extended the scope of water-related regulations. The advent of an amplified globalization contributed to the promotion of neoliberal ideas in the area of global water governance; particularly, a dispute has developed around the question

[15] For a deeper discussion of actors in global water governance see chapter 3.3.

of whether or not water is regarded as a human right or rather as an economic good. This debate has a wide array of implications. (ibid, p. 439-440)

The following chapter deals with those international declarations that play an important role in the development of water law at a global level.

3.2.1. Helsinki rules on the uses of the waters of international rivers

One of the most influential documents dealing with the use of international rivers was presented by the ILA at its meeting in Helsinki in 1966. Those rules were the result of preceding meetings in Dubrovnik, New York and Tokyo. Like the other documents of the ILA, the Helsinki rules do not posses any legally-binding status; however, they enjoyed international acceptance and served as a reference point. (Salman 2007, p. 628-629)

The document consists of six chapters and 37 articles which cover a broad palette of issues, like pollution (chapter 3), navigation (chapter 4), timber floating (chapter 5) and procedures for the prevention and settlement of disputes (chapter 6). Concerning pollution, the rules state that

> "… a State (a) Must prevent any new form of water pollution or any increase in the degree of existing water pollution in an international drainage basin which would cause substantial injury in the territory of a co-basin State; (b) Should take all reasonable measures to abate existing water pollution…to such an extent that no substantial damage is caused in the territory of a co-basin State."
>
> (ILA 1966)

This approach means a refusal of the idea of a complete sovereignty of states over international rivers which flow through their territory.

However, chapter 2 introduces the most influential concept of international water law, namely "equitable utilization". Salman asserts that the rules presented in Helsinki

> "…established the principle of 'reasonable and equitable utilization' of the waters of an international drainage basin among the riparian states as the basic principle of international water law."
>
> (Salman 2007, p. 629)

The Rules fix 11 points which should help to assess if an utilization is fair and reasonable or not; for instance, the obligation to avoid harm to co-basin states.

In spite of the fact that the Helsinki Rules posses no legally-binding status, they had a remarkable impact on several regional agreements and were taken over by states as well as organizations. (ibid, p. 630)

Two important mile stones in the ongoing development towards a global governance system of transboundary rivers were the International Conference on Environment and Development (Dublin Conference) as well as the UN Conference on Environment and Development in Rio de Janeiro in 1992. They pushed paradigms like integrated water management or integrated river basin management. (Biswas 2001, p. 491-492) As a result, regional approaches to transboundary river governance made substantial progress in the first half of the 1990s (UNECE Water Convention, Nile River Action Plan, Danube Protection Convention, Strategic Action Plan).

3.2.2. UN Convention on the Law of the Non-Navigational Uses of International Watercourses

Although the UN Watercourse Convention has not entered into force, it seems appropriate to have a closer look at this document because it is a central reference point for the development of international water law.

The development of this convention lasted 27 years. In 1970 the UN General Assembly gave green light to the International Law Commission (ILC) to develop articles touching the issue of regulating the non-navigational uses of international watercourses: "Recommends that the International Law Commission should…take up the study of international water courses with a view to its progressive development and codification…" (UN General Assembly Resolution 2669 (XXV) 1970). Although, the United Nations did not take over the rules formulated by the ILA, they had a significant influence on the work of the ILC. (Dellapenna and Gupta 2008, p. 446) The Commission commenced its work in 1971 and voted on the final version of the draft-articles in 1994 which were submitted to the General Assembly in the same year. After three years of discussions and negotiations the General Assembly (Resolution 51/229) adapted the Convention in May 1997. (ILC 2005)

However, some upstream states sharing an important international water course, like Turkey (Tigris and Euphrates) or China (Mekong), voted against the resolution. (Conca 2006, p. 102)

As the title indicates, the Convention only deals with non-navigational issues of international watercourses. A watercourse is defined as "a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus." (Convention on the Law of the Non-Navigational Uses of International Watercourses 1997, p. 3) Consequently, its norms are also applied to groundwaters. In the case that a watercourse extends over different states, it is termed 'international watercourse'. Article 3 regulates the relationship with already existing watercourse agreements which are not affected by the Convention of 1997 (paragraph 1); however, parties of such agreements are invited to harmonize their legal frameworks with the "basic principles" of the Watercourse Convention (paragraph 2). Each state along a watercourse has the right to negotiate, as well as participate in, every agreement applying to the entire international watercourse (Article 4). The Helsinki rules, as mentioned above, had established the idea of equitable utilization as the most important concept of international water law. The Convention refers to this concept in article 5 stating that "[W]atercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner". (ibid, p.4) Article 6 delivers a better understanding of article 5 by listing seven factors which determine the equitable and reasonable utilization. States should take these points into account. Many of them, like the population depending on a watercourse, the (economic and social) needs of states or other natural factors (climate, hydrology, ecology etc.), stem from the report presented in Helsinki in 1966. In spite of the factors mentioned above, Dellapenna and Gupta criticize that the meaning of these provisions with regard to the environment remains unclear (Dellapenna and Gupta 2008, p.447).

Article 7 obliges states not to cause significant harm to a watercourse. In case that a state causes significant harm to an international watercourse with its activities it has to mitigate or eliminate these causes. Article 6 and 7 represent different schools concerning the protection of watercourses: on the one hand, there is the principle prioritizing the equitable and reasonable utilization of watercourses, which is preferred by upstream states. On the other hand, the principle of no-harm is supported by downstream states because it limits the potential of upstream states to create negative impacts on a watercourse. Although both concepts are part of the Convention, the Convention tends to favor the principle of equitable utilization. What is the reason for this tendency? Article 7 says that if significant harm is

caused, the responsible state has to mitigate or eliminate it with regard to the norms of articles 5 and 6. The implications are twofold: firstly, harm can be accepted if states consider compensation. Secondly, the reference in article 7 supporting the no harm principle to articles 5 and 6 coined by the principle of equitable utilization shows that, in the end, it is the concept of equitable utilization which is the last legal reference point. Therefore, the reference of article 7 to its preceding articles gives the concept of equitable utilization more weight. (Salman 2007, p. 633-634)

Moreover, the Convention encompasses norms for a broad spectrum of other watercourse-related issues, for example the question of planned measures which can have an effect on an international watercourse (part III). Part IV is dedicated to protection, preservation and management whereas the frequent use of the phrase "Watercourse States shall, individually and, where appropriate, jointly…" is striking. This phrase, in particular "where appropriate", remains vague and, therefore, leaves space for broad interpretations concerning situations in which cooperation between states should be established. However, the Convention proposes to foster mutual cooperation with the help of, for instance, joint commissions.

Article 21 suggests the following definition of pollution of an international watercourse:"…means any detrimental alteration in the composition or quality of the waters of an international watercourse which results directly or indirectly from human conduct" (Convention on the Law of the Non-Navigational Uses of International Watercourses 1997, p. 9).

Bearing in mind that international watercourses can potentially become sources of interstate conflicts, the Convention devotes Article 33 to the settlement of disputes. Furthermore, the annex encompasses 14 articles for the issue of arbitration.

Until December 2010 only 20 states have become a party of the convention.[16] This is far from reaching the number of 35 states which would be necessary so that the document can enter into force. Due to the fact that more than 13 years have passed since the General Assembly voted for the Convention, it seems legitimate to ask why states are reluctant to ratify or accede the UN Watercourse Convention. Generally, two main reasons can be identified.

[16] These states have deposit an instrument of ratification, acceptance, approval or accession with the Secretary-General of the United Nations.

First, the Convention is not absolutely clear which principle (equitable utilization or no-harm) is dominant although, a tendency towards equitable utilization is evident. This ambiguity alienates states deciding not to ratify the UN Convention. (Salman 2007, p. 634) Dellapenna and Gupta argue that the upstream states are reluctant because they do not accept the no harm rule expressed in article 7. (Dellapenna and Gupta 2008, p. 447)

Second, states see no added value by joining the Convention which "tends to be conservative" (ibid, p. 447). In comparison with the Helsinki rules of 1966, it lacks a significant progress and legal innovation. Thus, states stay with the status quo. (ibid, p. 447)

Having a closer look at the Convention, it can be seen that it does not foresee the participation of non-state actors. From this point of view, the Watercourse Convention remains traditional because it does not even mention the possibilities of non-state actors in several areas, such as the delivery of data or information which could be relevant for the governance of the watercourse. (Conca 2006, p. 99)

Generally, the Convention, according to Conca, does not promote an integrated watershed management but focuses exclusively on pollution and disruption of the downstream flow of international water courses. Furthermore, it is too optimistic because it assumes that all harm can be measured adequately. (ibid, p. 99-100)

In spite of all the criticism, Salman states that even if the Convention will not obtain the necessary number of ratifications, its provisions are acknowledged to build the fundamental elements of international water law. (Salman 2007a, p. 13)

3.2.3. Berlin Rules

The ILA, which had developed the Helsinki Rules, continued its efforts to deliver a non-binding legal framework for the regulation of international watercourses. Even though the Convention of 1997 integrated several concepts of the Helsinki Rules, nearly three decades had passed between the presentation of these rules and the vote on the UN-Convention. Therefore, the International Law Association tried to take into account the changes of this period and to create a more innovative and encompassing set of rules.

The revision process for the Helsinki Rules started at the ILA conference in London in 2000. Aiming to bring this revision to an end in 2004, the ILA held two meetings where the

participants outlined a new set of rules and completed the overhaul of the rules presented in 1966. Finally, the ILA voted in favor for 'The Revised ILA rules on Equitable and Sustainable Uses in the Management on Water Resources' at its meeting in Berlin (August 2004). (Salman 2007, p. 635)

What are the main changes and innovations of the Berlin Rules in comparison with Helsinki and the UN Watercourse Convention?

The Berlin Rules encompass 73 articles summarized in 14 chapters. There are several differences between the three documents; however, the Berlin Rules represent a real progress in international water law. First of all, it does not only aim to regulate international watercourses; on the contrary, it contains rules which can be applied to national and international watercourses. Both, the Helsinki Rules and the UN Convention deal exclusively with international watercourses.

Furthermore, the rules, presented in Berlin, explicitly mention that states should enable the participation of persons (article 4) who are affected by the management of waters and give access to management-related information (article 18). This is one of the main critiques against the other two documents, which do not include any type of non-state or public participation.

A third difference touches the two principles, equitable and reasonable utilization and no harm, in international water law. As mentioned above, the principle of equitable utilization has a longer tradition and is reflected in the Helsinki Rules as well in the UN Watercourse Convention. The Berlin Rules seem to regard these two principles as equal and advocate the end of the tradition defining the principle of equitable utilization as the major norm in international water law. Whereas the Helsinki rules and the Convention focus on the use of shared watercourses, the Berlin Rules emphasize the management of those. There is an enormous difference, due to the fact that 'use' primarily focus on rights but not duties; 'management' in an equitable and reasonable manner, on the other hand, includes rights and obligations or duties for the states. 'Management of waters' is defined as "…the development, use, protection, allocation, regulation, and control of waters" (ILA 2004). Obviously, use is only one part of management. With regard to management, they support an integrated management of waters: "States shall use their best efforts to integrate appropriately the management of waters with the management of other resources" (ibid). Therefore, the Berlin Rules are more comprehensive.

Figure 5: Summary of the Helsinki Rules, the UN-Watercourse Convention and the Berlin Rules

Document	Year	Important actors	Key points/characteristics
Helsinki rules on the uses of the waters of international rivers ("Helsinki Rules")	1966	International Law Association	• Equitable utilization • Pollution • Navigation • Timber floating • Prevention and settlement of disputes
UN Convention on the Law of the Non-Navigational Uses of International Watercourses	1997	International Law Commission, states	• Equitable utilization • Mutual cooperation • Settlement of disputes • Tendency to "conservatism"
The Revised ILA rules on Equitable and Sustainable Uses in the Management on Water Resources ("Berlin Rules")	2004	International Law Association	• Equality of equitable utilization and no-harm principle • Reference to national and international watercourses • Integration of non-state actors • Comprehensive character (protection of basin environment) • Settlement of disputes • Innovation in international water law

Source: own illustration

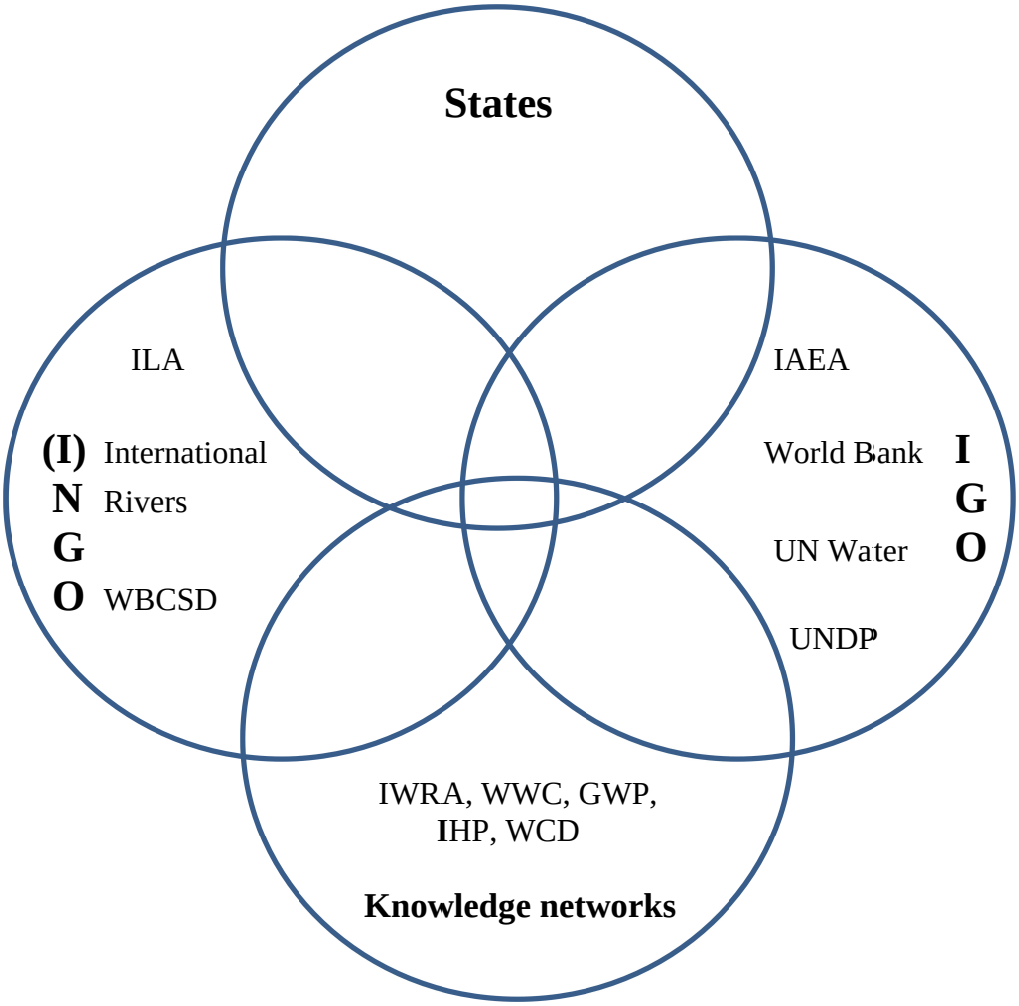
Beside this change, they also integrate other fields like navigation (chapter IX), groundwater (chapter VIII), the individual right to access to water (chapter IV, article 17), dispute settlement (chapter XIV) or the protection of aquatic environments (chapter V). The latter, the protection of aquatic environments, obliges states to take steps and measures ensuring the ecological integrity of waters. Underscoring this necessity, the Berlin Rules define the issue of water management in a broader and comprehensive way. (Salman 2007, p. 635-638)

The development from the Helsinki Rules, the UN Watercourse Convention to the Berlin Rules shows that the principle of equitable use, the principle of no harm, dispute settlement in a peaceful way, the exchange of information or the notification of activities managed to be accepted as basic norms of international water law. (Rahaman 2009, p. 222)

3.3. Actors of global water governance

The system of global water governance consists of an enormous number of actors, both state as well as non-state. Therefore, it is impossible to present all of them within the limits of this thesis. Due to this fact, the following chapter gives some examples of central actors participating in global water governance. Although these actors are not exclusively working on transboundary rivers, their activities touch this issue at least to a certain extent. The role of states in global governance has been deeply discussed in the theoretical chapter. Therefore, this chapter does not include states.

Figure 6: Actors of global water governance



Source: own illustration

3.3.1. IGOs

The International Bank for Reconstruction and Development (IBRD), or World Bank, was founded in 1945 based on the agreements of Bretton Woods. The Bank is a specialized agency of the United Nations with 186 member states and its seat in Washington D.C. The World Bank differs from the World Bank Group encompassing the IBRD, the International Centre for the Settlement of Investments (ICSID), the International Development Agency (IDA), the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA). The World Bank aims to foster the economic development of its members with the help of promotion of foreign direct investment, external trade or investments for

production purposes. (BPB 2009) Concerning global water governance, in the sense of transnational rivers, the World Bank plays an important role in funding large projects such as dams.[17] Since 1944, it funded more than 600 dam projects which often led to violation of rights of local populations. Due to pressure, mainly from (I)NGOs, the World Bank decided to abandon funding such large-impact dams during the 1990s. Consequently, other financiers - particularly from China or southern financial institutions - stood in. However, the World Bank has returned to the old approach to financially support the implementation of these projects. (International Rivers n.d.) Between 2005 and 2009 the Bank invested more than 2.7 billion US-Dollars in large hydro power projects. Surprisingly, the size of these funds has decreased enormously in 2009, after they had reached a peak in 2008.[18] (World Bank 2009) Although, dam projects receive strong support from the Bank, it refused to formally adopt recommendations of the World Commission on Dams.[19]

Besides the funding of dams, the World Bank participated in the creation of a number of influential (I)NGOs in the global water governance system- such as the Global Water Partnership and the World Water Council – or is backing them with money.

According to a report of the Joint Inspection Unit, in some sectors "…such as water and energy, more than 20 United Nations agencies are active and compete for limited resources without a clear collaborative framework" (Joint Inspection Unit 2009, p. 5). This is the reason why the UN High Level Committee on Programmes initiated the inter-agency mechanism "UN-Water" in 2003. UN-Water aims to enhance the cooperation between the UN agencies which have to do with water, for instance, UNESCO, UNDP, UNEP or the World Bank.[20] (UN-Water 2009) The World Water Development Report which is published every three years represents the most comprehensive UN-report on water. Moreover, there are several task forces, like the Task Force on Transboundary Waters. It tries to foster the coordination between the members concerning transboundary waters.

Acting under the umbrella of UN-Water, many agencies are involved in the governance of transboundary watercourses at a global level. The IAEA cooperates with states in Africa and Latin America to improve scientific knowledge about aquifer systems (e.g. Nile basin) for the purpose of a better management of these water resources. Additionally, the

[17] Of course, there are other areas of global water governance where the World Bank plays an active role, for instance, the management of drinking water supply systems. Its role in this area is highly criticized because many observers see in its approach the aim o spread neoliberal ideas (e.g. water privatization).
[18] 2008: around one billion US-Dollars, 2009: 177 million US-Dollars.
[19] See chapter 3.3.3.
[20] For a complete list of members, see http://www.unwater.org/members.html.

UNDP take measures to help countries in reforming governance processes on shared water bodies. The UNESCO – in particular with the IHP – fosters scientific cooperation in the area of water management and water research. Two programs are touching the issue of transboundary waters, namely "From Potential Conflict to Cooperation Potential" (PCCP) and International Shared Aquifer Resources Management (ISARM). There are several other UN agencies which work on transboundary waters and consequently, on transboundary rivers (e.g. UNEP, WHO etc.). (UN-Water 2008, p. 11-16)

3.3.2. INGOs

Local communities in particular often depend on rivers and, consequently, are highly affected by changes, like water quality or big construction projects (e.g. dams). The organization International Rivers (IR) is a globally operating NGO advocating for the rights of river-dependent communities and the protection of rivers. Focusing on the southern hemisphere, IR is engaged in Africa, Southeast Asia, as well as Latin America. Another focus lies in the question of dam construction because dams have a big impact in many respects. (International Rivers n.d.) According to its annual report 2008, IR receives financial support particularly from foundations (Ford Foundation, Heinrich Böll Foundation), other NGOs (Oxfam) and individuals. (International Rivers 2008, p. 3)

As mentioned before, there are two law organizations which highly influenced and shaped the development of international water law. One of these scholarly organizations is the International Law Association (ILA), founded in 1873 in Brussels. Its 3700 members are lawyers, scholars, officials and experts in law-related areas. The ILA enjoys a consultative status in several agencies of the United Nations. (ILA n.d.)

Bearing in mind that international law is often not codified, the ILA constructs resolutions aiming to codify international law, but they lack any legally-binding character. However, they enjoy a high reputation and influence the development of international (water) law because they "reflect customary principles" in this area. (Salman 2007b, p. 628) In 1966 the ILA presented a resolution called "Helsinki Rules on the Uses of the Waters of International Rivers" in the Finnish capital. Due to the absence of any international codification dealing with the non-navigational uses of international rivers, the Helsinki Rules rapidly became a globally-acknowledged reference point for interstate agreements on

watercourses.[21] Moreover, the UN Convention of 1997 shows far-reaching accordance with these agreements. (ibid. p. 630)

The development of international water law illustrates the potential influence of an INGO which established with its activities fundamental principles (e.g. equitable and reasonable utilization), coining global and regional legal frameworks in this area for more than 40 years. It has been the ILA, a non-state actor that highly contributed to the creation of international water law. Additionally, the association continues to overhaul existing proposals by integrating changes and new scientific findings. One example is the Berlin Rules of 2004.

Another non-state actor is the World Business Council on Sustainable Development (WBCSD), founded in 1995. It is an association which has more than 200 members. Its members are solely private companies doing business on a global scale, for example, Toyota Motor, Vestas Windsystems, Deutsche Bank, Volkswagen, 3M or IBM. (WBCSD 2010) The WBCSD describes its mission as follows:

> "Our mission is to provide business leadership as a catalyst for change toward sustainable development, and to support the business license to operate, innovate and grow in a world increasingly shaped by sustainable development issues."
>
> (ibid)

"Water for the Poor" is the title of a report, published by the council in 2002, which aims to formulate a position connecting the needs of the poor, the business opportunities of firms and the positions of public institutions. This approach is similar to the perspective of the World Bank. (Goldmann 2009, p. 153)

3.3.3. Epistemic communities and knowledge networks

According to Haas, an epistemic community is"…a network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area" (Haas 1992, p. 3). The global water governance system has several organizations which can be categorized as epistemic communities or as global knowledge networks.

[21] For a profounder discussion of the Helsinki rules, see chapter 3.2.1.

The International Water Resources Association (IWRA), founded in 1972, unites more than 1400 water professionals from 110 countries all around the world. In contrast to other water recourse-related organizations, the IWRA follows a multidisciplinary approach and does not focus on one perspective on water resources. The association publishes a journal (Water International), organizes meetings as well as conferences and offers an online database of water experts. Water International reflects the multidisciplinary approach because it offers political, technical or economic perspectives on water. The number of international meetings[22] dealing with environment in general and water resources in particular increased continuously since the Conference on Environment and Development in Rio at the beginning of the 1990s. These meetings represent unique networking possibilities on a global level. The IWRA sees itself as follows: "IWRA is about networking. Networking the people, information, and organizations that are vitally concerned with the global sustainability of water resources" (IWRA n.d.). Due to its international events, the IWRA has step by step gained influence on defining the global water discourse. (Conca 2006, p. 132-133) Moreover, the IWRA is a founding member of the World Water Council (WWC).

The World Water Council was set up in 1996 and sees itself as a "…multi-stakeholder platform" (WWC) and defines its mission as follows:

> "The World Water Council's mission is 'to promote awareness, build political commitment and trigger action on critical water issues at all levels, including the highest decision-making level, to facilitate the efficient conservation, protection, development, planning, management and use of water in all its dimensions on an environmentally sustainable basis for the benefit of all life on earth.'"
>
> (WWC 2010)

As a think tank on water issues, the WWC serves as an important information source for global decision makers. The council encompasses a huge variety of actors from different areas: governments and government agencies, TNCs (e.g. Suez, Shell), UN agencies (e.g. UNESCO) or NGOs, like the World Wildlife Fund (WWF) or research institutions.[23] The WWC is financed by membership fees and contributions of the United Nations and the World Bank. (Goldman 2009, p. 152) The official founding members are the Egyptian Ministry of Public Works and Water Resources, the Canadian International Development Agency and

[22] For a chronology of international water network building, see Conca 2006, p. 134-139.
[23] For a detailed memeber list, see http://www.worldwatercouncil.org/fileadmin/wwc/About_us/official_documents/List_Member_Octobre2009.pdf

Suez-Lyonnaise des Eaux, a French water firm. One of the most important activities of the WWC is the organization of the World Water Forum, an international conference which takes place every three years.[24] At these meetings water experts from different institutions gather to exchange positions, raise awareness and apply pressure to governments. (Conca 2006, p. 146-147). For instance, the last World Water Forum in Istanbul attracted between 6000 and 35000 participants and was especially dedicated to the issue of national and international cooperation. Throughout the course of the event, a high number of side-events took place, like ministerial meetings, expert panels as well as exhibitions. (Kazemi 2009, p. 1821)

The International Hydrological Programme (IHP) of the United Nations Educational, Scientific and Cultural Organization (UNESCO) started in 1965. It defines itself as an "… international scientific cooperative programme in water research, water resources management, education and capacity-building…" (UNESCO). The program has the objective to improve the knowledge of water resource management, which should help its member states to advance in this area. The IHP built up a network of several regional offices, such as in Africa, Arab States or Latin America. The sharing of information and knowledge between states, for example, those which are part of the same river basin (e.g. Nile, Danube) is essential to ensure an efficient water management. (Al-Weshah 2002, p. 2-3) One initiative is FRIEND trying to develop a better understanding of hydrological variability. For this purpose, states share knowledge, technologies as well as data at a regional level (e.g. Northern European FRIEND or the FRIEND-Nile Project). The different FRIEND projects publish studies dealing with, for instance, glacier melt, floods or rainfall modeling. (UNESCO 2006b)

In 1996 the World Bank, the UNDP and the Swedish International Development Agency (SIDA) created the Global Water Partnership (GWP). The secretariat of the network, located in Stockholm, intends to serve as a platform where water experts from different backgrounds (governments, corporations, NGOs etc.) work together. (Conca 2006, p. 150)

According to the website of the partnership, GWP put a mission statement:

[24] Marrakech (1997), The Hague (2000), Kyoto (2003), Mexico City (2006), Istanbul (2009) and Marseille (2012).

> "The Global Water Partnership's vision is for a water secure world. Our mission is to support the sustainable development and management of water resources at all levels. GWP believes that an integrated approach to managing the world's water resources is the best way to pursue this vision…" (GWP 2010)

The difference between the WWC and the GWP is not completely clear, even for members of the WWC. A survey, conducted in 2002, shows that members of the WWC see their organization as a think tank which develops policies and does lobbying whereas the GWP is perceived as an organization focusing on grass-root activities as well as implementing projects. (Conca 2006, p. 151) The GWP acts on a global scale and has created 13 regional water partnerships as well as 73 country water partnerships. Moreover, there is a steering committee which is elected by GWP sponsors and a technical committee (TEC). It advises the steering committee in technical issues of integrated water resources management and consists of 12 members. (GWP 2010) Theoretically, the GWP and the WWC have individual and separated domains but both organizations have practically overlapping activities. (Salman 2003, p. 494)

What are the (negative) impacts of large dam projects and how can they be avoided? These are central questions in particular for those who are directly affected by such dams. Large international rivers are also sources of hydropower, and dam projects can have a big impact on the watercourse (water quantity, water quality, biodiversity etc.). The World Commission on Dams (WCD) met for the first time in 1998 and was officially disbanded in 2002. Although, the WCD is not an epistemic community, it is an expert group on a water governance-related issue. The Declaration of Manibeli, primarily addressed to the World Bank, expresses the claim of more than 320 NGOs to stop financing high-impact dams. Although, the World Bank conducted an internal review of these projects, the result of this review came under fire. Consequently, a coalition of 49 NGOs, led by International Rivers, pressured the institution to set up an independent commission evaluating existing dams as well as developing guidelines for future projects. As a result of a meeting between NGOs, World Bank, private-dam corporations and public-dam agencies in Switzerland the WCD was born. Its 12 members (commissioners) started their work at the beginning of 1998 and presented a final report reviewing 125 large dams in 2000. The commission fostered a participatory decision-making process by gathering proponents and opponents of dams who should agree on a document defining recommendations for the construction of dams. Even though, some governments have supported the recommendations and have integrated them at

least to a certain extent into their work (e.g. Germany, Sweden, Switzerland), others have openly refused to follow the recommendations of the World Dams Commission (e.g. India, China, Turkey). Even the main financial institutions funding large dam projects, for example the World Bank or the Asian Development Bank, neglect to consider the guidelines for their activities. While some members of the commission regarded the recommendations as a starting point of national discussions and national reviews, others, mostly NGOs, regarded them as a kind of code of conduct. (Fujikura and Nakayama 2009, p. 174-181) Consequently, there existed different views on the binding character of the guidelines.

In a nutshell, the impact of the WCD falls short of expectations since many dam-building states as well as international financial institutions do not consider their guidelines.

3.4. International conferences: arenas of global water governance?

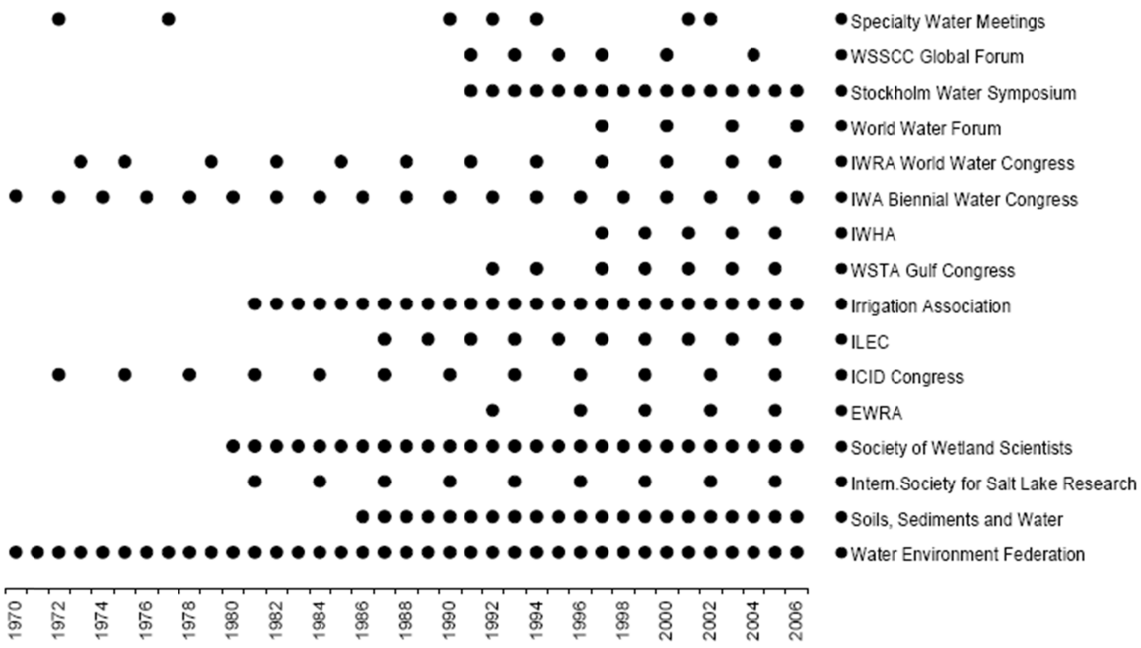
Bretton Woods, Kyoto and Copenhagen are only three out of many important international conferences or summits which have a long tradition in international relations as forums where decision-makers, experts and (I)NGOs try to manage global issues. The global governance of waters and rivers is not an exception. During the last 40 years, since water has come on the international agenda, international conferences constitute the main arena of global water governance. Of course, the way these meetings proceed and the actors participating in these meetings have changed; however, the conference approach remains the same.

The fact that the world population increased from 1.6 to 6.1 billion within the last 100 years and that more than 50 percent of rivers as well as lakes of this planet are severely polluted, led to the development of a discourse about water and its future. At the beginning of the 1970s, water managed to attract attention and enter the global political sphere.[25] The water conference in Mar del Plata (Argentina), organized by the UN, constitutes one of the most important events in water governance during the last decades because it brought up those issues which are still part of the global discussion. (Salman 2003, p. 491-493) Initially, organizations like the International Water Resources Association (IWRA)[26] commenced to host conferences on water issues in the early 1970s. The number of such gatherings increased

[25] See, for example, the start of ILC activities on international watercourses.
[26] Other organizations which held early meetings were Water Environment Federation (WEF), the International Water Association (IWA) or the International Commission on Irrigation and Drainage (ICID).

significantly in the last 30 years, in particular since the 1990s. (Gleick and Lane 2005, p. 411) Figure 7 illustrates the development of selected international water conferences from 1970 until 2006.

Figure 7: Selection of international water conferences



Source: Gleick, H. and Lane, Jon (2005), p. 411.

The 1990s mark the start of a series of new meetings. In 1992 the UN organized a conference in Dublin dealing with the relation between water, in particular fresh water, and the environment. Six months later, in June 1992, participants from different backgrounds gathered at the United Nations Conference on Environment and Development in Rio de Janeiro. Although Agenda 21 included an exclusive chapter (chapter 18) devoted to water, the declaration of the summit did not mention water in a specific manner. Until the second half of the 1990s, the global activities in the area of water resources remained, more or less, uncoordinated. At this point the landscape of water-related international organizations changed due to the appearance of two new actors: the World Water Council and the Global

Water Partnership.[27] Both bodies managed immediately to enter the global stage of water governance and started, step-by-step, to obtain the dominating role. While the United Nations, as well as its agencies (e.g. UNDP, UNESCO, World Bank), were the main actors during the 1970s and 1980s, the advent of the WWC and the GWP changed this situation. Suddenly, the UN was replaced as the main actor of work in water resources. As a consequence, both sides seemed to enter a competition instead of finding possibilities for cooperation or synergies. A manifestation of this competition was the organization of the first World Water Forum of the WWC (Marrakech) and the traditional IWRA congress in 1997. (Salman 2003, p. 493-494; Gleick and Lane 2005)

In 1997, the United Nations General Assembly voted in favor of the "United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses" and marked the end of almost 30 years of lasting processes for the development of such a convention.[28] However, the Convention has not entered into force until today. The World Water Council had chosen The Hague as the location for its second World Water Forum in 2000. In comparison with the event in Marrakech, the conference in The Netherlands attracted many more participants from different backgrounds. The forum in Morocco was dominated by elites who hardly disagreed on issues of water governance while (I)NGOs, academics and civil society actors played an active role three years later. Consequently, cleavages as well as polarizations developed; for instance, the questions of large dam projects led to intensive discussions. The Ministerial Declaration remained vague and lacked substantial commitments. Therefore, it disappointed those who had expected measurable objectives. Several NGOs criticized the outcome of the conference and emphasized its refusal of large-impact dams and a prominent role of the private sector in water management. Due to its variety of participants and also critical views, the second world water forum ultimately showed the divergence positions in global water governance. In the following years there was a third World Water Forum (2003 in Kyoto), a World Bank workshop in Switzerland on the issue of dams and the work of the World Commission on Dams until 2002. (ibid, p. 495-498)

Beside some regional initiatives, like the European Water Framework Directive (2002) or the African Ministerial Conference on Water (2002), there have been some other conferences on an international level. The summit in Johannesburg – and its results – remained behind their potential because the declaration as well as the "Johannesburg Plan of

[27] Further information about the WWC and the GWP can be found in chapter 3.3.4.
[28] Chapter 3.2.4. deals with the Convention in detail.

Implementation" are characterized by imprecise statements. The World Water Forum in Kyoto provoked again heavy debates on the issues of private sector engagement and dams. Furthermore, the declaration of ministers avoided fixing concrete commitments or actions. Although, those declarations are political statements on a high level, they do not have any legally-binding character. Generally, it can be observed that the increasing number of organizations, and therefore conferences, dealing with water issues, led in many cases to competition and duplications instead of cooperation. (Salman 2004, p. 12-18)

Exactly this fact – the increase of competition and duplication – leads to the following question can such large international water meetings still be justified? Gleick and Lane name a number of arguments supporting the approach of large international conferences, for example, awareness building, identification of problems, networking and communication possibilities between participants as well as the development of solutions. Moreover, they offer the chance to raise critical and polarizing positions at an international level. In spite of these positive effects caused by meetings with an international character, there are several arguments questioning their added value. First of all, global water meetings lack clear objects and remain in most cases very general and vague. Declarations are often pure political statements without new commitments or policies. Even if there is a plan for specific actions, it is unlikely that these actions will be implemented. Secondly, large water-related meetings tend to fail in attracting the important policy makers, like local and national governments. Thirdly, such conferences run to risk to fail a profound and efficient exchange of knowledge since its size makes it practically impossible. Ultimately, the costs of money and time are enormous. (Gleick and Lane, p. 411-412)

Alternatively, the two authors suggest focusing on smaller, more specific and regional meetings. This would help to implement clearly defined objectives and measures instead of political declarations which lack the necessary substance. Ministerial conferences hardly deliver decisions or fix new – legally binding – commitments. Of course, the results of smaller workshops would not automatically have binding character but they can serve as a common basis. Gleick and Lane regard them as an alternative to big and inefficient global meetings. (ibid, p. 413)

3.5. Conclusion

The development of a global governance system for transboundary rivers has been a cumbersome and slow process. If one accepts the presentation of the Helsinki Rules in 1966 as the beginning of modern global governance of international rivers, the achievements remain rather modest. States were not able to establish a framework convention regulating this important natural resource on a global scale. Additionally, it was the ILA, an INGO, which took the lead and initiated the process of global regulations by the formulation of the Helsinki Rules. Its initiative is a good example for the possibilities of non-state actors to shape the international agenda in a specific area and gain influence. The Rules have served as a reference point for nearly 50 years reflected in the UN Watercourse Convention or several regional agreements.

Notwithstanding the existence of the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, only 20 states have become member of the Convention since 1997. It seems unlikely that 15 states will ratify the Convention in the near future which would be necessary so that the document can enter into force. This is one reason why the global governance of transboundary rivers lacks efficient institutions or regulations. Therefore, the governance system is still developing.

With regard to the actors, global governance of water in general and international rivers in particular encompasses a wide range of actors with different backgrounds, such as INGOs, scientific networks or IGOs. Several UN bodies are highly engaged, although they have come under pressure since the mid-1990s because other actors appeared who organized big international meetings. A central element of global water governance are international conferences, like the World Water Forum organized by the World Water Council. However, the steadily increasing number of global meetings does not automatically imply a better outcome. Instead of cooperation, many conferences foster competition ignoring exisitng potentials of synergies.

Furthermore, the governance system is characterized by a strong engagement of non-state actors. Some of the central networks such as the World Water Council or the Global Water Partnership, which became very prominent from the 1990s onwards are financially supported by certain governments or IGOs (e.g World Bank or UN bodies). However, states have remained rather passive on this issue since 1997. The small number of ratifications of the UN Watercourses Convention and the lack of serious efforts to set up clear rules on a

global level reflect the inactivity of public actors. Following the typology of Rosenau, the current structure of the global governance system of international rivers can be categorized as either side-by-side governance or as mobius-web governance. In comparison with other international issues, for instance climate change or poverty, the area of transboundary rivers has a low participation of the mass public on a global level.

4. TRANSNATIONAL WATER GOVERNANCE I – THE DANUBE [29]

The Danube, reaching a length of around 2869 km, flows through nine countries in Europe and its basin encompasses 19 states: Austria, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Italy, Macedonia, Moldova, Montenegro, Poland, Romania, Serbia, Slovak Republic, Slovenia, Switzerland and Ukraine.[30] The stream passes several cities on its way from Germany into the Black Sea, such as Ulm, Linz, Vienna, Bratislava, Budapest and Belgrade, which have a high impact on its water quality.

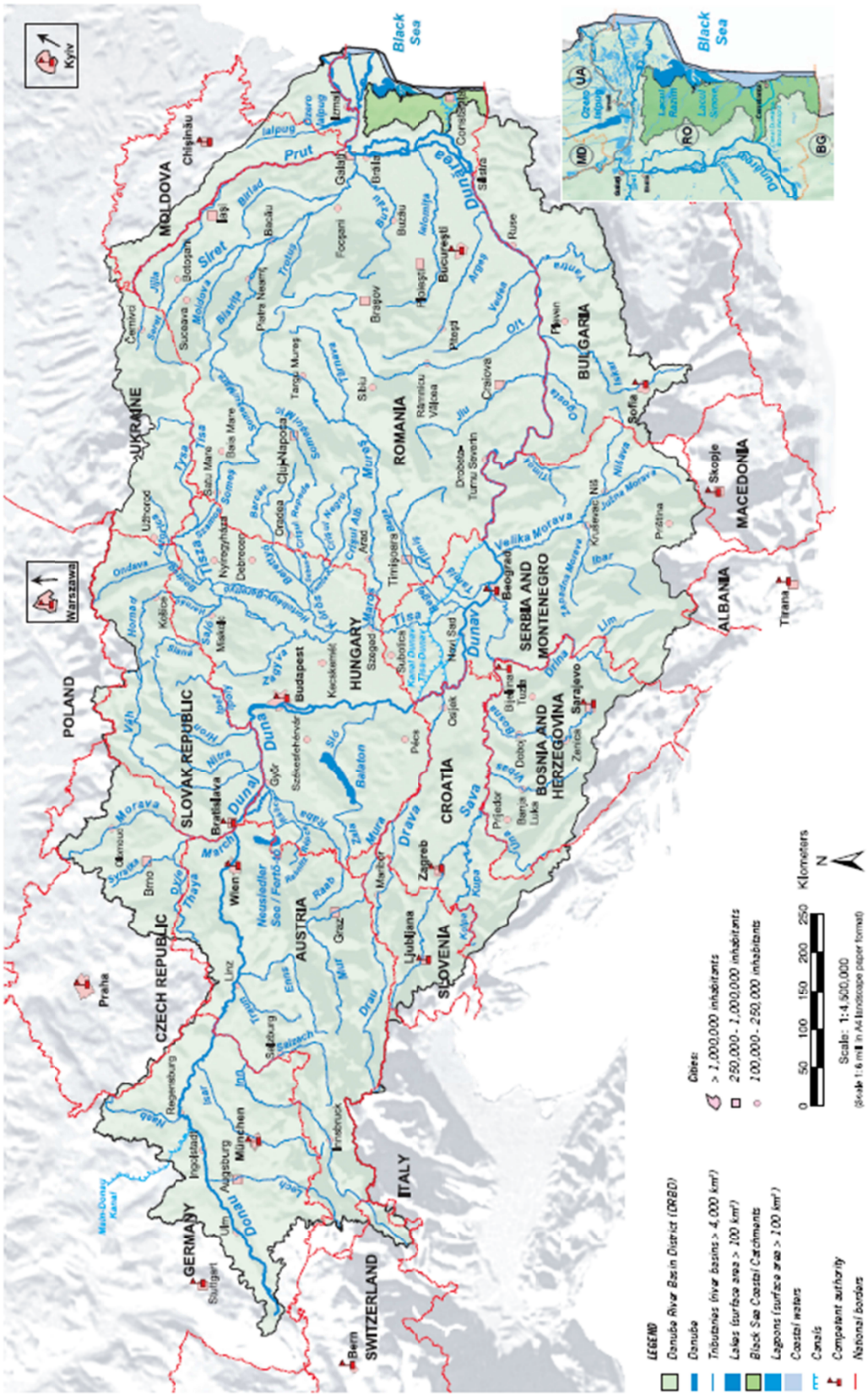
Since navigation as well as flood control play a central role for states, the riparian countries have often changed the natural course of the river. Beginning with the mid-1950s, the navigational use of the Danube and the implementation of complex water projects, like dams, has increased continuously. (Jansky et al. 2004, p. 40)

Encompassing a large number of different nations and cultures, the Danube has been subject to many international efforts of political cooperation during the last decades. Even during the Cold War, countries from the East and the West agreed on mutual regulations governing the rivers' use. For the purpose of coordinated actions concerning the navigational use of the Danube, 11 countries signed the Danube Convention in 1948, which is based on an international regime concluded in 1856. The convention foresees the duty of its signatories to ensure the maintenance and improvement of navigability of the Danube. Consequently, the navigation, as mentioned above, augmented strongly. (ibid, p. 40) However, this thesis does not deal with the Danube Convention of 1948 regulating the navigational use of the river.

[29] The author conducted five interviews with experts on the governance system of the Danube. These interviews were given by the following people in June 2010: Karl Schwaiger (Ministry of Agriculture, Forestry, Environment and Water Management of Austria, Vienna), Hans-Peter Nachtnebel (University of Natural Resources and Applied Life Sciences, Vienna), Philip Weller (ICPDR), Richard Stadler (Ministry of Agriculture, Forestry, Environment and Water Management of Austria, Vienna) and Peter Schneidewind (Metis Vienna, Vienna).

[30] Jansky et al. do not mention Montenegro in their study because the text had been written in 2004 and Montenegro separated from Serbia in 2006.

Figure 8: Danube river basin



Source: ICPDR (2005) 'Danube River Basin District: Overview', http://www.icpdr.org/wim07-mysql/download.php?itemid=6842&field=file1 [accessed 25.5.2010].

4.1. Why the Danube is important and polluted

The Danube river basin is the home of more than 80 million people in Europe who use the river in a myriad of ways. Serving as the principal source of drinking water in all countries downstream from Slovakia, the Danube represents an integral part in the daily life of many Europeans. In Austria and Slovakia it is at least an important source. (Linnenrooth-Bayer and Murcott 1996, p. 524) According to the WWF, more than 20 million people depend directly on it as a source of drinking water (WWF 2005, p. 1). However, the fact that it flows through several highly populated municipalities leads to problems with regard to water quality. Many cities do not treat their wastewater in a sufficient manner and consequently, these discharges have a huge impact on the Danube pollution level.[31] The inadequate management is identified as a core problem of the Danube river basin. (ICPDR 2009a) Even in Austria, as one of the richer countries, wastewater treatment was not on the top of the agenda until the beginning of the 1980s. "Until 1980, neither Vienna nor Linz had wastewater treatment facilities…" (Milich and Varady 1999, p. 277). Due to the current economic crisis, many riparian countries have difficulties ensuring financial resources for the construction or modernization of treatment facilities. This has long-term effects on the water quality of the forthcoming years. (Schwaiger Jun 2010) Nevertheless, it is essential not to forget the tributaries of the Danube. The Danube itself has a high degree of self-purification. The problems lay primarily in the tributaries, like the Tisza. (Nachtnebel Jun 2010) Gerlak identifies three major reasons for nutrient pollution of the Danube: household products, sewage from municipalities and fertilizers from the agricultural sector (Gerlak 2004, p. 405).

Beside functioning as a source of drinking water, the Danube serves industrial and agricultural purposes, including the chemical, food or paper industry, hydroelectric power generation or irrigation. Discharges of these industries can increase the levels of heavy metals and micro-pollutants. The consequences are short-term effects (water pollution, groundwater and soil contamination) as well as long-term effects (reduction in biodiversity, health risk). Important steps to prevent these consequences are, for example, the modernization of wastewater treatment facilities or the revision of discharge permits. (ICPDR 2009b)

Since agriculture has continuously been a central source of income, its share in the pollution of the Danube has increased. Fertilizers and pesticides used by the farmers or agro-industrial units find their way in the river. These agricultural practices contributed to soil erosion and the pollution of groundwaters and surface waters. Another problem is the

[31] 60 percent of the wastewater discharged in the Danube is caused by municipalities.

transformation of wetlands into farmland. The ICPDR expects an increased pollution by the agricultural sector because countries in Eastern Europe are intensifying their agricultural production. (ICPDR 2009c)

The reasons aforementioned reasons xplain the importance of the Danube from a human perspective, although the basin has a huge variety of plants and animals as well. Among the 5000 animal species, there are more than 100 fish species and 180 breeding birds. A number of human activities endanger the existence of animals and sensitive ecosystems such as wetlands. The construction of dams, the overexploitation of fish resources or the changes in the course of the river for navigational purposes are examples how the ecosystem of the Danube basin is disturbed by human activities. (ICPDR 2009d)

4.2. The Danube River Protection Convention

4.2.1. Actors and actor behavior

As mentioned above, the regime theory gives states and state actors a major role in forming and creating regimes. Basically, non-state actors are rather seen as starters or initiators of discussions. This chapter examines how state and non-state actors contributed to the formation of the Danube Protection Convention which gave birth to the regime in the river basin.

The initiative for the Protection Convention was primarily taken by certain states within the Danube basin, which initiated and pushed the issue on the political agenda. Two states which were vital in reaching this goal were Austria and Germany. They showed a lot of political engagement and supported the development of the convention (Nachtnebel Jun 2010; Schneidewind Jun 2010; Schwaiger Jun 2010; Stadler Jun 2010; Weller Jun 2010). Both countries had already been very active during the negotiations for the UNECE Water Convention. Furthermore, there were new dynamics in this sector (Schwaiger Jun 2010) and the environmental movement became stronger in Germany as well as in Austria (Nachtnebel Jun 2010).

However, other states contribute to the initiators as well, such as Romania which often played a special role within the Soviet Union and which is the last downstream country of the Danube, receiving the polluted water from all the other upstream states. Due to the fact that the Danube flows through Romania into the Black Sea, the country has an interest to keep the

river as clean as possible because the coast, and consequently tourism, is highly affected by polluted Danube water. (Schwaiger Jun 2010). At the beginning Romania advocated a regime encompassing exclusively the states along the Danube. However, this approach was displaced by the concept of a basin approach integrating also those states which contain main tributaries of the Danube. (Stadler Jun 2010)

A further initiator was Hungary, though the government in Budapest promoted a second convention for the Danube basin focusing on ecological questions. The draft version of the convention did not only aim to create an environmental management for the Danube but it also foresaw measures to protect human health, air, water, soil or climate. Consequently, the ecological convention followed a very holistic approach. (Linnenrooth-Bayer and Murcott 1996, p. 545**)** "Actually, these were partially competing projects", states Stadler of the Austrian Ministry of Forestry, Environment and Water Management (Stadler Jun 2010; translated from German by the author)[32]. After a certain time, Hungary ended its efforts to lobby the ecological convention and supported Austria in drafting the convention of 1994. Although the Hungarian initiative was not transformed into a convention, the Danube Protection Convention as well as the Water Framework Directive of the EU took over many of its key points. (Weller Jun 2010)

Stadler as well as Weller underscore (Stadler Jun 2010; Weller Jun 2010) the importance of the Global Environment Facility (GEF) as a source of international funding. In the 1980s there was an increasing awareness that many environmental problems call for transnational action and financial support. In 1991 the World Bank launched a three-year pilot program of the GEF and established the GEF as a permanent mechanism in 1994, becoming the largest multilateral donor for global environmental issues. [33] This also applies to water-related projects. The fund aims to help states overcome obstacles for regional cooperation, such as high costs or organizational problems, and to pave the way for a transnational approach, for example the management of transboundary rivers. (Gerlak 2004, p. 401-402) Beside the Global Environment Facility, there have been other donors funding Phase I of the EPDRB, like the World Bank operating through the GEF, the European Community, the United States Agency for International Development (USAID), the European Bank for Reconstruction and Development (EBRD), the United Nations Development Programme (UNDP), the United Nations Environment Programme, as well as the governments of Austria

[32] Original German quotation:"Das waren teilweise sogar konkurrierende Unternehmungen."
[33] During the first ten years of its existence the GEF allocated 4.2 billion US-Dollars.

and the Netherlands. (Linnenrooth-Bayer and Murcott 1996, p. 542) These actors provided financial support fostering the political cooperation in the Danube river basin. Since these funds allowed the organization of meetings and the implementation of concrete projects, they created a culture of cooperation and trust between the different states. The cooperation was characterized by an informal atmosphere which is, according to Stadler, one of the secrets for the successful governance of the Danube river basin (Stadler Jun 2010). Weller stresses the importance of international funds for the mutual exchange as the basis for the drafting of the convention as well. (Weller Jun 2010)

With regard to the formation of the regime, the influence of NGOs remained rather negligible. There are several reasons for this situation. Firstly, negotiations on international regimes have been and still are dominated by states and their representatives like diplomats. Although non-state actors have claimed as well as gained more importance in influencing international debates since the Stockholm Conference on Human Environment (1972), states prefer to keep the involvement of NGOs in the creation of regimes as small as possible. Until 1993 authorities in the Danube basin referred to public participation more in a rhetorical way and even after the ratification of the Danube Protection Convention in 1994 the broad public was not given a more significant role. (Milich and Varady 1999, p. 274-278) The lack of basin-wide civil society actors has remained a problem until today.[34]

Secondly, the tradition of the concept of civil society in Europe in general and Eastern Europe in particular is very young (Schneidewind Jun 2010). Doubtlessly, the civil society movements in the Soviet Union contributed to the collapse of Communism. Their roots go back to the first dissident groups at the beginning of the 1970s. However, the political circumstances in Eastern Europe did not allow the development of a strong civil society and NGOs, which has also affected the environmental sector. (Wnuk-Lipinski 2007, p. 33)

The appearance of ecological issues on the political agenda was fostered by the rise of ecological movements entering the public sphere in Germany and Austria in the 1970s and 1980s. They increased the awareness for environmental questions and problems. In particular in Austria and former West Germany environmental groups highlighted the pollution and degradation of waters. (Milich and Varady 1999, p. 277) However, the direct influence of

[34] The role of civil society and non-state actors in the current governance system is discussed in the forthcoming chapters.

environmental groups on the formation of the regime for the protection of the Danube stayed limited. (Schneidewind Jun 2010). [35]

4.2.2. Process

According to Levy et al., there are three possibilities as to how a regime is formed. They propose self-generation, negotiation or imposition. What is the case for the Danube Protection Convention? Imposing a regime on other states requires the existence of a state or a group of states which is powerful enough to force others to cooperate by forming a regime. In the Danube river basin, there has been no state possessing enough influence to force others to accede to the regime. Of course, there were some governments, as mentioned above, who showed more leadership and engagement than others in initiating the Danube Protection Convention. However, it does not seem that these states forced the rest of the signatories to ratify the agreement. On the contrary, there was a broad consensus among the riparian states for the necessity of a legally-binding convention under international law. (Stadler Jun 2010) Consequently, it can be stated that the Danube regime was not formed by one state or a group of states, which imposed this regime on the other riparian states.

Another option is the self-generation of regimes. This approach emphasizes the converging expectations of the participants who do not take conscious steps leading to an institutional design, like a convention. Of course, the states shared the common interest or expectation to create an efficient transnational management for the Danube. Though, the states intended to create a clearly defined set of rules regulating the utilization of the Danube. Such a legal framework has to be preceded by negotiations. Moreover, there was not one approach to the transnational governance of the Danube. Romania favored a convention covering exclusively the countries having direct access to the Danube. Hungary tried to put through its ecological convention. Finally, it was the version written by Austria on which the states agreed on. Evidently, it was necessary to search for a political consensus considering the different positions.

Consequently, the Danube Protection Convention falls under the category of a negotiated regime. There are a number of points supporting this point of view. Firstly, the riparian states gathered in Bucharest in 1985 where they adopted the Bucharest Declaration.

[35] The increased public awareness for environmental issues in the 1970s and 1980s naturally helped to promote political steps to protect the environment. However, the direct influence of NGOs on the formation of the regime was limited.

In the early 1990s several meetings dealt with the issue of the environmental protection of the Danube, such as the negotiations for the Environmental Programme for the Danube River as well as the Strategic Action Plan. On the eve of the year 1994, the states started the negotiations for the Convention on Cooperation for the Protection and Sustainable Use of the River Danube. (ICPDR 2006) These negotiations indicate a conscious effort towards a legally-binding convention. The participating states had a common expectation, namely the transnational management of the Danube river however; it needed conscious measure to reach this goal. [36] Obviously, at least two of the possible factors (self-generation, negotiation) appear in the case of the Danube but at the end the regime of the Danube is a negotiated regime.

4.2.3. Stages/ Historical development

Starting with the international regime in 1856, the governance of the Danube had remained limited to navigational issues, which had not touched any environment-related questions. The Joint Danube Fishery Commission was responsible for water quality and aimed to ensure that fisheries along the river are secured (e.g. safeguard of normal migratory movements of fish) but its impact was little. (Linnenrooth-Bayer and Murcott 1996, p. 534) During the 1980s it became evident that the increased use of the Danube led to environmental problems, in particular with regard to water quality. In 1977 the World Health Organization had already been worried about the lack of pollution control along the Danube. (Milich and Varady 1999, p. 277) Consequently, eight riparian states signed the "Declaration of the Danube Countries to Cooperate on Questions Concerning the Water Management of the Danube", or in short the Bucharest Declaration, in 1985 intending to reduce the pollution and to improve water quality. Linnenrooth-Bayer and Murcott state that "…this system is generally seen as insufficient and ineffective…" (Linnenrooth-Bayer and Murcott 1996, p. 537). One particularity of the Declaration was its multilateral character because during the era of the Soviet Union all treaties for the Danube were bilateral. The declaration represents an expression of political will and has no legally-binding character, such as a convention. The main reason for its ineffective character lay in the narrow financial possibilities of the riparian countries of the Soviet Union. (ibid, p. 534-537) Notwithstanding the ineffective character, the Bucharest Declaration was "…the first step toward an ecosystem-based approach to Danube basin management" (Milich and Varady 1999, p. 278). The states in the Danube

[36] A more detailed description of the different stages can be found in the chapter historical development.

region became aware that transnational governance of the river is necessary to protect it from further harm (Varduca 1997, p. 31). Additionally, it is the first official document in a row of further declarations, action plans or conventions. Therefore, during the first half of the 1980s the issue of the degradation of the water quality in the Danube gained prominence in the public debate. Jansky et al. confirm that

> "[P]ublic pressure against the increasing anthropogenic stress on the physical environment of the Danube, gave an impetus for the development of an integrated water management framework in the basin."
>
> **(**Jansky et al. 2004, p. 41)

The time period between the beginning of the 1980s and the adaption of the Bucharest Declaration in 1985 is the first (agenda formation) of three phases in the regime formation of the Danube Protection Convention. During this phase, the pollution of the Danube had enough prominence so that it was treated on a high political level within the international system, namely at the conference in the Romanian capital. This gathering of high-ranking representatives of Danube states marks the end of the first phase as well as the beginning of the second phase (institutional choice).

The intensified degradation of the Danube put into question the practice of managing this transnational river at a national or local level. Six years after the Bucharest Declaration, representatives of the riparian countries as well as the international community held a meeting in Sofia where the Environmental Programme for the Danube River Basin (EPDRB) was launched. (Nachtnebel 2000, p. 120-121) It tried to establish, for example, a consensus on priorities or to encourage the exchange of data between states. (Rodda 1997, p. 115) The EPDRB resulted from a broader context of environmental initiatives for the region of Central and Eastern Europe, which were discussed at a conference of European environmental ministers in 1991 in former Czechoslovakia. (Linnenrooth-Bayer and Murcott 1996, p. 542) The government of former Czechoslovakia initiated this first of seven ministerial conferences called Environment for Europe.[37] Ministers from 34 European countries, delegations from the United States, Japan, Brazil as well as from several UN bodies, INGOs and IGOs attended the meeting at Dobríš castle. The participants sought to strengthen the coordination in Europe on environmental questions. One of the most important results of the summit was the decision to

[37] The last meeting was held in Belgrade (2007). The 7th conference will take place in Astana (Kazakhstan) in September 2011.

regularly publish a joint report of the UN and the European Commission analyzing the environmental situation in Europe. Today this pan-European report is known as “Europe's Environment: the Dobris Assessment"**.** (UNECE n.d.) Bearing in mind the difficult environmental heritage of the USSR and its satellite states, the ministers decided to introduce the “Environmental Action Programme for Central and Eastern Europe” (EAP) having the objective to form an institutional base and attracting support from Western countries for environmental issues in the region. The EPDRB is one element of this framework and encompasses two phases. (Linnenrooth-Bayer and Murcott 1996, p. 542) Phase I of the program, between 1992 and 1995, focused on problems with the utmost priority, for instance areas where essential resources (health, water supply etc.) were highly threatened. The first phase emphasized the time factor and therefore, the EPDRB concentrated on the modernization of existing facilities. Moreover, among others, the establishment of a transnational alarm system enjoyed priority, which should guarantee an effective handling of industrial accidents leading to harmful consequences for the environment along the Danube. A third point concerns capacity-building aiming to strengthen the authorities or organizations participating in the management of the river basin. A shared standard of data is particularly important because otherwise there is no possibility to compare these data. Hence, the EPDRB fostered the improvement of data collection, analysis tools and planning facilities. Phase II, which started in 1996 and phased out in 2000, supported the implementation of the Strategic Action Plan (SAP). International as well as national donors provided the necessary financial resources. (Nachtnebel 2000, p. 122) Weller regards the EPDRB as one of the key programs for the formation of the Danube Protection Convention. (Weller Jun 2010)

The start of the EPDRB was accompanied by the creation of a Task Force in 1991. It constituted the principal coordination (e.g. scientific, financial, administrative support) and implementation body of the protection program. It united representatives of riparian states, international organizations or NGOs. Four states (Hungary, Romania, Austria, Bulgaria), the World Bank, the United Nations Development Programme and the Programme Coordination Unit built a group drafting the Strategic Action Plan (SAP Drafting Group). At the beginning several meetings were held in the countries where a draft version of the SAP was implemented. Afterwards the draft was transferred to the Task Force whose members modified the text several times until the government accepted the SAP in 1995. The Strategic Action Plan is the technically most specific plan in the Danube basin. (Nachtnebel 2000, p. 124-125)

The development of the SAP was one of the major tasks of the EPDRB with the aim to improve the consultation procedures. While the states worked on the SAP, they also started to draft the Danube Protection Convention at the end of 1993. During the formulation of the SAP, countries agreed to design it as a tool assisting the implementation of the Convention. (ICPDR 2006) Mediators from the World Bank helped in developing the SAP, particularly between 1992 and 1994. The Strategic Action Plan was particularly addressed to officials at each level (national, regional, local) because they were in charge of the implementation of the EPDRB as well as the Danube Protection Convention. (Nachtnebel 2000, p. 123) The Plan had four principal objectives:"

(1) Reduce the negative impacts of activities in the Danube River basin and on riverine ecosystems and the Black Sea
(2) Maintain and improve the availability and quality of water in the Danube River basin
(3) Establish control of hazards from accidental spills
(4) Develop regional water management co-operation."

(ibid, p. 123)

In 1992 the Convention on the Protection and Use of the Transboundary Waters and International Lakes (UNECE Water Convention) was signed in Helsinki and entered into force in 1996. Serving as a legally-binding framework for transboundary waters in Europe, the convention marked an important milestone on the road to the Danube Protection Convention. According to Rodda, the UNECE Water Convention "… is regarded as the 'father' of the Danube River Protection Convention" (Rodda 1997, p. 115). Schwaiger and Stadler confirm this position in an interview and emphasize the contribution of the UNECE Water Convention. (Schwaiger Jun 2010; Stadler Jun 2010) It served as a reference point for the Danube because several points of the Water Convention were integrated into the Danube Protection Convention. The fact that the states had already agreed on these points helped in drafting the convention for the Danube basin. Providing a legal framework for regional cooperation, the Water Convention influenced other agreements in Europe, such as those for the rivers Meuse, Bug, Scheldt or Rhine as well as the European Union's Water Framework Directive. (Bernardini n.d.) It intended to foster the management of transboundary surface waters and groundwaters in a way that took into account the protection of the ecological carrying capacity of European waters. Particularly, the precautionary principle and the polluter-pays principle play an essential role. (Enderlein 2002, p. 56) Whereas other framework conventions remain vague, the Water Convention contains very detailed

provisions (Wouters and Vinogradov 2003, p. 56). On the 29th June 1994 the states of the Danube river basin signed the 'Convention on the Cooperation for the Protection and Sustainable use of the Danube River'. It seems important to mention that the European Community was also one of the Contracting Parties.

The Convention has four parts (General provisions, Multilateral cooperation, International Commission, Procedural and final clauses) and 31 Articles as well as five Annexes. As in the UNECE Water Convention, the polluter-pays principle and the precautionary principle "…constitute a basis for all measures aiming at the protection of the Danube River and of the waters within its catchment area" (Danube River Protection Convention 1994, p. 3). Article 4 names two forms of cooperation; firstly, consultations and joint activities through the International Commission established by the Convention, and secondly, the exchange of information, documents and experiences on various issues, for instance bi-and multilateral agreements, legal regulations, water management measures or legal documents (ibid, p. 4).

Part II contains clear provisions regulating the multilateral cooperation among the signatory states. Article 7 deals with water quality objectives and criteria. For the purpose of limiting emissions the Convention, for example, lists certain industries and hazardous substances whose discharge should be significantly reduced (ibid, p. 5). Article 9 is dedicated to monitoring programmes and how states should work together by harmonizing their monitoring and assessment methods, fixing monitoring points or developing joint monitoring programmes (ibid, p. 6). Other articles include provisions for reporting obligations (Article 10), the exchange of information (Article 12), warning systems and emergency plans (Article 16) as well as mutual assistance (Article 17) (ibid, p. 7-9)

In Part III the Convention sets out the provisions with respect to the International Commission (ICPDR) and gives details in Annex IV. Article 19 stipulates that works done by the Contracting Parties within the framework of the Bucharest Declaration are transferred to the Danube Protection Convention. (ibid, p. 9-10)

Part IV encompasses several important provisions dealing with decision procedures (Article 22), amendments of the Convention (Article 23) or the settlement of disputes (Article 24) (ibid, p. 10-11). Finally, Article 27 states that the Convention enters into force after "…the deposit of the ninth instrument of ratification, acceptance, approval or accession" (ibid, p. 12).

By signing the Convention in Sofia in June 1994, the Contracting Parties end the second phase of the regime formation which lasted nearly 10 years; between the Bucharest Declaration (1985) and the meeting in Sofia (1994).

4.2.4. Driving social forces

There are several reasons that influenced the formation of the regime. Levy et. al, name three main categories: power, interests and knowledge. In the case of the Danube it was a combination of interests of the basin countries as well as a certain degree of commonly shared knowledge about the importance and the environmental degradation of the river.

After the collapse of the Soviet Union the environmental deterioration and damage became visible that had been hidden behind the Iron Curtain for decades. Many of these problems have their roots in choices made by the political elite of the USSR, who gave priority to the competition with the West, sacrificing the environment. Porfiriev argues that this approach can be traced back to the founding days of the Soviet Union. Its leaders saw the new communist state embedded in a hostile political world. Therefore, it was necessary to ensure a rapid industrialization and to become as autarchic as possible. As a consequence, military and industrial units were built in regions where environmental burdens were already high. The end of World War II and the start of the Cold War fostered an arms race between the United States and the Soviet Union with negative environmental impacts on the environment on both sides. The increasing difficulties of the USSR to keep pace with the economic and military power of the USA in the 1980s was another reasons to downplay the impacts of military and industrial activities on the environment and the population's health. (Porfiriev 1999, p. 45-46)

The contamination of rivers, like the Danube, was one indicator of these environmental damages (Schneidewind Jun 2010). The pollution of the Danube does not only affect the basin countries but the Black Sea as well because the Danube is one of its most important tributaries and the biggest contributor of nutrient pollution (Galatchi and Tudor 2006, p. 57). However, the existence of knowledge is not always sufficient for political action. This is the reason why Haas emphasizes, in addition to other factors, the significance of shared knowledge in his concept of epistemic communities. The consensual knowledge of experts, policy makers or states can support the formation of regimes (Levy et al. 1994, p. 22). Therefore, the consensual knowledge of states (as well as experts and organizations) that the Danube river is threatened by the unsustainable use of the basin countries represents a

fundamental reason for the creation of the Danube Protection Convention. The Bucharest Declaration expresses this consensus for the first time in 1985. Linneroth-Bayer and Murcott state that

> "…the changed political reality of the Danube region coincides with a decline in the credibility of both technocracy and centralized socialism and in a rise in the awareness of ecological interdependence. This changes the general perception of river management, from a view of exploiting the river for economic purposes to a view of integrated management of the river basin to promote sustainable development."
>
> (Linneroth-Bayer and Murcott 1996, p. 522)

Since the 1970s there was a scientific network of hydrologists from the Danube basin who have met regularly to discuss a broad spectrum of scientific issues in connection with the Danube. The exchange of data and information helped to build a transnational scientific cooperation which worked well in spite of the Cold War. Due to this early exchange of hydrologists, a huge collection of water-related data for the entire basin has been available. These data helped to create a common knowledge basis and supported the formulation of objectives in the 1990s. (Nachtnebel Jun 2010) Such activities fostered the development of awareness and a consensual knowledge of the environmental problems in the Danube river basin.

These points show that knowledge, as a driving social force, was relevant for the formation process of the regime and the current governance system. The establishment of a framework for transnational political cooperation would have been impossible without the consensual and shared knowledge of the degradation of the Danube river.

Interests, a second relevant driving social force, also influenced the creation of the regime. There have been two particular reasons that are regarded as important in this analysis. Firstly, there is the fact that the Danube plays an essential role for the water supply of most riparian states. Many countries depend on the river as a source of drinking water.[38] The ongoing pollution and the unsustainable utilization lead to problems in the areas of drinking water supply, irrigation, fishery and tourism affecting the interests of the population and its governments. The transboundary nature of the Danube only allows a transnational approach to meet the environmental challenges in an effective way. Since the river connects nine

[38] See chapter 4.1.1.: 20 million people depend directly on the Danube as a source of drinking water and all of the states downstream of Slovakia.

countries, a sustainable use lies in the interest of all riparian states, especially those which are located downstream. The factor of knowledge about the environmental problems and its consequences and the factor of interest to get these problems under control are interconnected with each other.

Secondly, the former states of the Soviet Union had a profound interest to get closer to Europe and the European Union. Especially, membership in the EU and NATO became a priority of the Central and Eastern European countries.

Shaped by their experiences during the Cold War, the Central European countries perceived it as necessary to end the Russian influence in economic as well as in security-policy respects. They regarded NATO as the best option to guarantee protection from Russian ambitions because of the United States membership. Thus, Central European countries seeking to ensure their military independence from the Russian Federation made intensive efforts to join the North Atlantic Treaty Organization as soon as possible. (Schulze 2006, p. 21) In the first wave of its Eastern enlargement (1999) NATO welcomed the Czech Republic, Hungary and Poland as members of the alliance. The second accession round (2002) integrated Bulgaria, Estonia, Latvia, Lithuania, Rumania, Slovakia and Slovenia into the Western military alliance. (NATO 2010)

While NATO was regarded as the best option in terms of security policy, membership in the European Union seemed to be the best way to solve the economic challenges of Eastern Europe after the collapse of the Soviet Union. Thus, most of the countries aspired to join the EU (Linneroth-Bayer and Murcott 1996, p.522) This became evident as Bulgaria (1995), Estonia (1995), Hungary (1994), the Czech Republic (1996), Romania (1995), Slovakia (1995) and Slovenia (1996) submitted their applications to join the EU. (EU 2007) Nevertheless, some countries, such as Poland, were more skeptical to join the EU than the NATO (Schulze 2006, p. 22). Membership in the European Union requires the fulfillment of the Copenhagen criteria laid down by the European Council in 1993. According to the third criteria, candidates have to accept the Community acquis, the body of common rights and obligations of the EU.

With respect to the environment, it means that members have to accept the environmental standards of the Union, like water-related provisions (e.g. water quality). The obligation to fulfill these standards was a precondition for an accession to the European Union, which became a priority for Eastern European countries. Consequently, they were

willing to engage in issues supporting their efforts to meet the EU standards (Nachtnebel Jun 2010). The Danube Protection Convention as the legal basis for the regime represented a possibility to serve the interests of the riparian countries in the former Soviet sphere of influence. Stadler mentions the possibility of knowledge exchange and the transfer of know-how as another factor (Stadler Jun 2010). This point falls also under the category of interests, specifically the state interest to obtain knowledge and advanced technologies.

In comparison with interests and knowledge, the category of power seems to be rather irrelevant. During the formation process there was not one hegemonic state or a group of dominant states. Of course, some states showed more leadership and played a more active role than others. However, it would be an exaggeration to define these states as dominant or hegemonic which imposed the regime on the other riparian states. Moreover, all countries supported the regulation with the help of international law.

4.2.5. Crosscutting factors

Crosscutting factors are encompassed by two elements: context and individual leadership. The formation of a regime takes place in a certain setting which influences its creation. Therefore, the context has to be integrated in the analysis of regime formation. (Levy et al. 1994, p. 24)

When the Bucharest Declaration was adopted in 1985, the international system was still characterized by bipolarity between the Soviet Union and the United States. This ideological division dominated from the end of World War II until 1989/1991. (Filzmaier et al. 2006, p. 103-106)

What does this mean for the Danube Protection Convention? With the exception of Austria and the Western part of Germany, nearly all other states in the Danube basin belonged to the Soviet sphere of influence. Although the international cooperation on Danube-related issues was better and more open than in other areas (Schwaiger Jun 2010), the separation hampered efforts to install a transnational governance system. Generally, the historical influence of the Soviet Union weighs heavily because after its demise, certain environmental problems which had been dealt with on a national level, gained an international dimension. Many former Soviet republics faced difficulties with regard to the management of transboundary water resources, such as in the Caucasus (rivers Kura and Araks), the Caspian

Sea Basin or the Aral Sea Basin. (Vinogradov 1996, p. 393-398) The USSR preferred bilateral coordination approaches between the riparian states, coordinating their national policies with one another without meeting in one common forum. Actually, the Danube basin was not regarded as a unified entity. (Milich and Varady 1999, p. 277) Weller confirms that "[T]he cooperation began in the mid-1980s but the fall of the iron curtain opened the door for a cooperation which would not have been possible before" (Weller Jun 2010). The collapse of the Soviet Union led to less tension between East and West, transformed the former members of the Warsaw Pact into market economies and profoundly changed the political landscape and spheres of influence (Linneroth-Bayer and Murcott 1996, p. 522). Nachtnebel shares this point of view by saying that the changes in Central and Eastern Europe were a major reason for the formation of the Danube Protection Convention (Nachtnebel Jun 2010). Furthermore, the disintegration of the USSR was accompanied by the constitution of Slovakia, Slovenia and Macedonia as independent states. This historical shift in the structure of the international system highly influenced the formation of the regime in the Danube basin. It demonstrated how contextual factors, in this case the collapse of the Soviet Union, rely on other processes, like the formation of international regimes.

Individuals often have a key role in negotiations on an international level. There are different kinds of leadership. Intellectual leadership appears frequently at the stage of agenda formation; for instance scientists who frame debates and bring new perspectives into discussions. Entrepreneurial leaders are mediators who produce consensus among actors. This kind of leadership mostly appears at the stage of institutional choice. (Levy et al. 1994, p. 23) However, it is sometimes difficult to identify those leaders since they remain in the background, like diplomats or unknown officials.

In the case of the Danube Protection Convention, Nachtnebel mentioned in an interview an Austrian official from the Ministry of Agriculture, Forestry, Environment and Water Management who wrote the draft version of the Convention. (Nachtnebel Jun 2010) Stadler confirmed the role of Wilhelm Kittinger, a former Head of Unit in the Austrian ministry who provided leadership in two ways. First, Kittinger chaired the creation of the UNECE Water Convention, which influenced the Danube Protection Convention and second, he chaired the efforts for the Danube Protection Convention. Afterwards, he became President of the Interim International Commission for the Protection of the Danube river. He knew the different positions from the negotiations for the Water Convention and tried to transfer as

much as possible to the Danube Protection Convention because the states had already agreed on many provisions in Helsinki. (Stadler Jun 2010)

4.3. The Danube and its current transnational governance system

The following chapter discusses the current governance system of the Danube and takes a closer look at the actors, the ways they interact with each other and the role of non-state actors. Nevertheless, a profound analysis of the regime formation was necessary due to the fact that the Convention of 1994 constitutes the basis of transnational water governance in the Danube basin, apart from navigational issues regulated by the Convention which was signed in Belgrade in 1948. The formation of regimes covers three phases. By signing the Danube River Protection Convention in Sofia (1994), the signatory parties introduced the third phase (operationalization phase) described by Levy et al. as "…all those activities required to transform an agreement on paper into a functioning social practice" (Levy et al. 1994, p. 22). After a ratification process of four years the treaty came into effect on the 22nd October 1998 after the ninth state had ratified the document.

A huge variety of different actors and their relations form the structure of the governance system in the Danube basin. This encompasses states, NGOs, IGOs, companies as well as scientists.[39]

4.3.1. Arenas of governance and cooperation

The Convention created three major arenas where the different actors participate in the governance process: the Conference of the Parties, the Standing Working Group and the Technical Expert Groups. Firstly, Article 22 determines the provision for the Conference of the Parties which has the right to pass decisions or recommendations if three quarters of the Contracting Parties are present (Danube River Protection Convention 1994, p. 10). Therefore, it is the principal body for legally-binding decisions with regard to the areas touched by the Danube Protection Convention. Further details are written down in Annex IV Article 3 and 4. The delegations meet at least once a year for an ordinary meeting convened by the ICPDR. Extraordinary meetings are convened by the President on the request of three delegations. Each delegation has one vote. Consequently, states have the exclusive right to vote on legally-binding issues, whereas non-state actors are excluded from the voting procedure. However,

[39] As basis for the choice of non-state actors serves the list of observers to the ICPDR.

observers have the right to participate in the meetings. The Convention ensures that decisions and recommendations are adopted by consensus. In the case that no consensus is possible, the Conference decides by a four-fifths majority except for decisions or recommendations which have financial implications. These votes always require a consensus. (ibid, p. 17-18)

Non-state actors can become observers to the ICPDR whereby the decision is made by the International Commission, which is composed of the delegations nominated by the Contracting Parties. The candidate has to fulfill five conditions to achieve an observer status. (ICPDR 2005a, p. 4) As soon as an organization or body is accepted as an observer, it obtains certain privileges. For example, it has the right "to participate in meetings organized in the framework of the Convention, in which they are entitled to participate, with the possibility to express their position and views, and to have them reflected in the relevant documents" (ibid, p. 3).

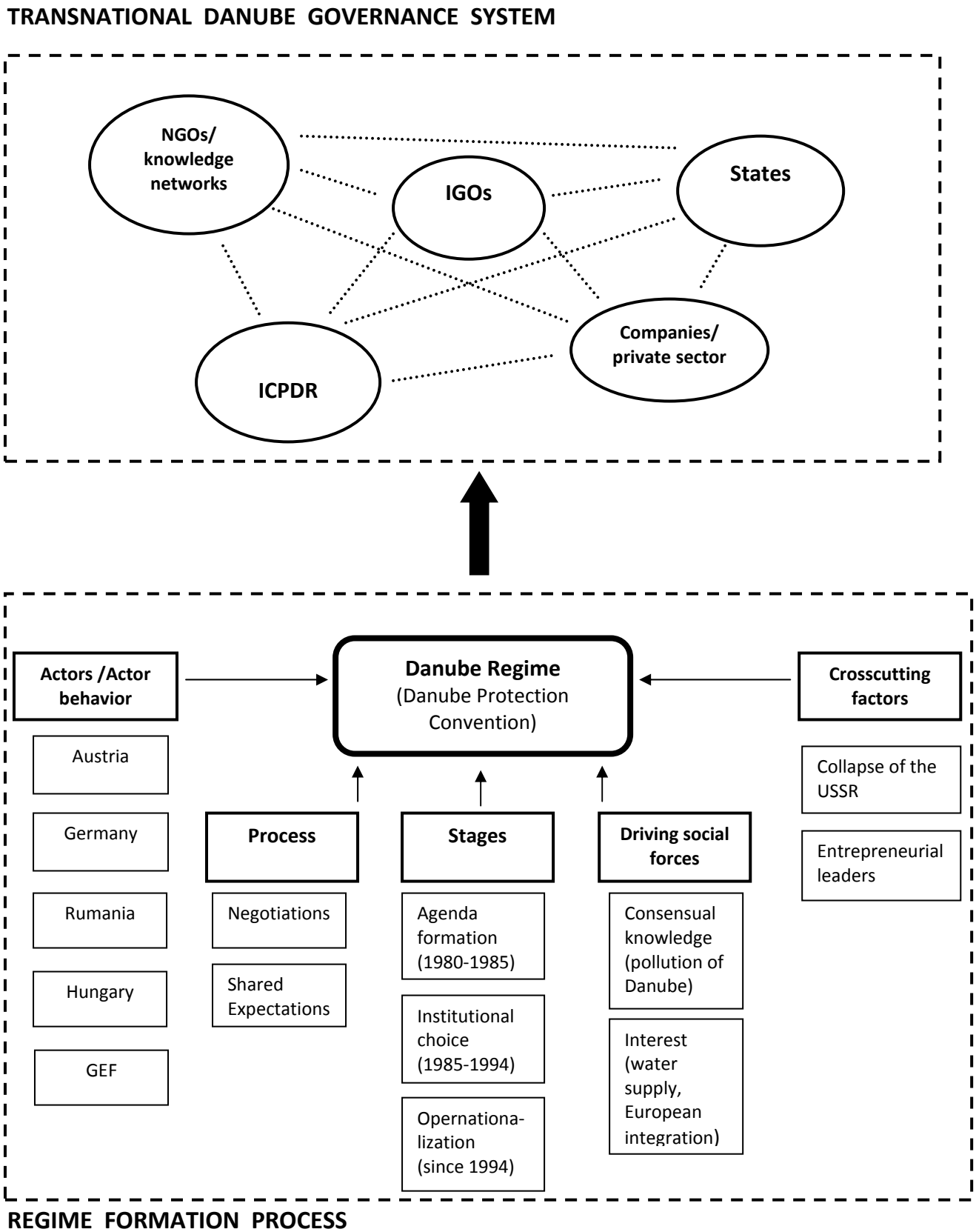
Furthermore, they have the right to get access to certain documents of the Commission or to be informed about the details of the meetings in which they are entitled to participate. Until October 2010 the ICPDR admitted 19 observers from different backgrounds. [40]

Secondly, Article 6 in Annex IV creates the Standing Working Group, which gives political guidance.

Thirdly, there are the Technical Expert Groups which prepare technical background documents supporting the work of the ICPDR. The seven expert groups encompass four technical-related groups: the Expert Group on River Basin Management, the Pressures and Measures Expert Group, the Monitoring and Assessment Expert Group and the Flood Protection Expert Group. The remaining three bodies, the Ad-hoc Public Participation Expert Group, the Ad-hoc Strategic Expert Group as well as the Ad-hoc Information Management and Geographical Information System Expert Group are dealing with specific issues and support the Technical Expert Groups. During the meetings of these bodies, representatives of the Contracting Parties as well as the observers to ICPDR can exchange expertise and data.

[40] Oberservers to the ICPDR: Black Sea Commission, Central Dredging Association (CEDA), Danube Environmental Forum (DEF), Danube Commission (DC), Danube Tourist Commission (DIE DONAU), European Anglers Alliance (EAA), European Barge Union (EBU), European Water Association (EWA), Friends of Nature International (NFI), Global Water Partnership (GWP/CEE), International Association for Danube Research (IAD), International Association of Water Supply Companies in the Danube River Catchment Area (IAWD), International Hydrological Programme of the UNESCO (IHP/Danube), International Sava River Basin Commission (ISRBC), RAMSAR Convention on Wetlands, Regional Environmental Center for Central and Eastern Europe (REC), VGB PowerTech e.V. (VGB), via donau, World Wide Fund for Nature – Danube-Carpathian Programme (WWF-DCP).

Figure 9: Regime formation process and the resulting transnational governance system in the Danube basin



Source: own illustration

Moreover, an expert group can create task forces if an issue requires more specific expertise. The work of these Task Forces is time-limited.[41] (ICPDR 2009e) In these Expert Groups the different actors (states, NGOs, scientists) come together to discuss issues, try to find compromises and thus, prepare decisions. Even though only Contracting Parties are allowed to vote, these expert meetings give other actors enormous possibilities to take part in the Danube governance, to bring in their positions and pre-frame forthcoming decisions which a legally-binding character. [42]

4.3.2. ICPDR

At the same time as the Danube Protection Convention came into effect in October 1998, the International Commission for the Protection of the Danube River started its work. The Secretariat has been based in Vienna. The provisions concerning the International Commission are subjects to the Articles 18 and 19 of the Convention as well as Articles 1 to 13 of Annex IV. The main bodies are the Conference of the Parties, the Secretariat and the Expert Groups. The Permanent Secretariat in Vienna holds responsibility for the support of the ICPDR and its expert groups or helps to develop and implement projects. The Secretariat is led by the Executive Secretary.

In spite of its principal role as supportive body, the Secretariat and its Executive Secretary can indirectly assume leadership as well, which goes beyond its competences defined in the Convention. The possibility of the Secretariat in general and its Executive Secretary in particular to take over such a leadership role highly depends on the individual presidencies and their approach towards the Danube protection. For example, a Contracting Party which holds the presidency and has no profound interest in Danube-related issues stays more passive. Consequently, it does not strongly engage in the process of the ICPDR and the Secretariat has the chance to fulfill this vacuum by taking over a kind of leadership. (Stadler Jun 2010) In 2000 the ICPDR was chosen by the Contracting Parties to become the coordination body for the implementation of the Water Frame Directive of the European Union. This new task strengthened the position of the ICPDR in the Danube basin. According to the Executive Secretary of the ICPDR, the Commission is not just an institution, but also a forum where different sectors like agriculture or energy can discuss their interrelations and

[41] The exact tasks of the individual Technical Expert Groups can be found under http://www.icpdr.org/icpdr-pages/tor_workplans.htm.
[42] Due to the fact that there is an own chapter about arenas of governance dealing with the Conference of Parties and the Expert Groups, this chapter only discusses the Secretariat.

developments. This forum function will become more important in the coming years. Due to the fact that the protection of the Danube is not limited to environmental issues, it is necessary to get in touch with other sectors like business or other ministries. (Weller Jun 2010).

The activities of the Commission are overwhelmingly funded by the Contracting Parties and their annual contributions. The Annual Report 2009 discloses contributions of 1,024389.65 Euros

4.3.3. States

At the moment the Danube Protection Convention has 15 Contracting Parties which are all states apart from the European Union. These are Austria, Bosnia-Herzegovina, Bulgaria, Croatia, The Czech Republic, Germany, Hungary, Moldova, Romania, Slovakia, Slovenia and the Ukraine as well as the European Union. During the formation phase of the regime, some states showed more leadership and pushed the Convention, for example Austria, Germany, Hungary or Romania.[43] Weller identifies Austria and Germany as those states that had the strongest voice prior to and in the first years after the signing of the Convention. He argues that the membership of the two countries in the EU supported their leadership and dominance. (Weller Jun 2010). However, this situation is changing visibly by an increasing participation of upstream countries in Eastern Europe. Stadler and Weller observe an emancipation process within the governance system leading to a stronger participation from other basin states (Stadler Jun 2010; Weller Jun 2010). Initiatives from the two upstream countries Austria and Germany are more frequently contested. At the same time Eastern European states are becoming more confident and actively asserting their points of view. The Eastern enlargement of the European Union played a key role for this development because it helped to overcome the enormous economic imbalance between Austria and Germany and the other basin states. Downstream countries in Eastern Europe lacked the economic power to provide financial resources for water-related projects like waste water treatment. With the help of EU funds, the Czech Republic, Slovakia, Hungary and Slovenia developed quickly and were able to ensure the financing of activities for a more sustainable use of the Danube. Bulgaria and Romania are undergoing the same development now. (Weller Jun 2010)

[43] See chapter 4.1.2.1.

States are the dominant players in the governance of the Danube basin. There are a number of reasons supporting this argument. Firstly, only states have the right to vote and to fix legally-binding rules for the water management in the river basin: "[T]he Conference of the Parties is competent to pass recommendations or decisions…" (Danube River Protection Convention 1994, p. 11). Of course, non-state actors have opportunities to participate in different ways but not in voting on legally-binding rules.

Secondly, states, followed by the EU and the International Financial Institutions (IFIs), are the most important financial sources for projects and water management activities as the Joint Action Programme (JAP) indicates. The JAP laid out specific measures aiming to achieve the environmental goals of the Danube Protection Convention between 2001 and 2005. According to the DABLAS report of 2004, there were 354 investment projects[44], which are divided into municipal investment projects, industrial projects, agro-industrial projects and wetlands as well as land use projects. The estimated investment costs amount to 3.822 billion Euros. Furthermore, the report breaks down the funding sources of all projects, whereby states invested 1.374 billion Euros, the European Union 1.230 billion Euros and the IFIs 252.8 million Euros.[45] (ICPDR 2004, p. 94) The fact that national funds contributed more than 48% to the financing of these projects demonstrates the weight of states as actors in the governance of the Danube basin. However, it is very likely that the economic crisis will have a significant impact on the funding of water-related projects since states have to balance their budgets in the forthcoming years (Schwaiger Jun 2010).

Thirdly, the strong role of states can also be explained by the absence of a strong civil society in the Danube River basin. All basin countries lack a long tradition of civil society movements and some states even hinder the development of these movements because they sometimes regard actors such as NGOs as disruptive. Generally speaking, the activities of basin wide environmental NGOs remains limited. (Schneidewind Jun 2010)

Although states are one group of actors, they are not an unified actor. Basin countries sometimes share profound disagreements in issues concerning the Danube. One of the most prominent cases that attracted international attention was the conflict between Hungary and Slovakia about the Gabcikovo-Nagymaros project. The project can be traced back to the early 1950s, when both countries shared the same socialist regime and economic imperative

[44] Projects in Austria and Germany are not included.
[45] The gap of 1.025 billion Euros are missing financial resources. Some countries have a funding gap of more than 60% (e.g. Croatia or the Ukraine) whereas others manage to keep the gap small (e.g. Hungary: 0.2 or Slovakia: 1.6).

determining their objectives. The idea was to build a twin-dam system for better flood control and hydropower generation. In 1977 Hungary and Czechoslovakia signed a treaty that regulated the details of Gabcikovo-Nagymaros. Though Hungary expressed its environmental concerns as well as financial constraints and unilaterally denounced the treaty of 1977. Slovakia, which shared the Gabcikovo part of the project, insisted on the implementation of the dam system. In 1993 both governments called the International Court of Justice which published its decision four years later. (Jansky et al. 2004, p. 43-44) The verdict hardly changed the situation. To this point (March 2011) Hungary and Slovakia have still not found a solution for this case, worsening the already strained bilateral relationship.

The intra-state division of competences varies from state to state. In some countries, the competent authority is the Ministry of Water Management or the Ministry in charge of water issues (e.g. Austria, Bulgaria). In other countries, like the Czech Republic or Poland, more than one ministry or an additional water authority share responsibilities.[46] (ICPDR 2005b)

4.3.4. NGOs and knowledge networks

This chapter does not address small local NGOs, but rather only basin-wide organizations. Non-governmental organizations fulfill important functions and there are a number of possibilities for them to participate in the governance of the Danube.

Generally, the number of NGOs working on a basin-wide scale remains rather small in number. However, there are some examples for the active engagement of this category of actors: the WWF, the Danube Environmental Forum and scientific networks.

The World Wildlife Fund (WWF) shows a strong presence along the Danube river (Schwaiger Jun 2010; Stadler Jun 2010; Weller Jun 2010) by providing, for instance, knowledge concerning environmental-related issues. Like 18 other organizations or corporations, the WWF also possesses the status of an observer to the ICPDR. The WWF Danube-Carpathian Programme is the centerpiece of transnational WWF activities in the Danube basin and aims, for example, to protect the biodiversity or to promote the sustainable use of natural resources (e.g. water or forests) within the basin. (WWF n.d.) Due to its cooperation with the national branches of the WWF and its partners, the Danube-Carpathian

[46] A detailed discussion of intra-state competences would be beyond the limits of this thesis.

Programme has a strong transnational structure, which enables the organization to act on a basin-wide scale and to participate in the Danube governance. Although, there are other NGOs as well, the WWF seems to be the only one possessing the capacity to act on a regional or basin-wide level and consequently, can effectively influence the governance process. The NGO can have an important impact, for instance, on public opinion. (Weller Jun 2010)

For this purpose, the WWF carries out communication activities to raise awareness for certain target groups or the general public. Furthermore, they try to influence decision makers on different levels or to assist governments or NGOs in building up capacities with respect to the protection of the basin. The Programme is financially supported by several public and private bodies, such as the European Commission, Coca Cola, UNEP and GEF, as well as the national WWF bodies. (WWF n.d.)

Beside these activities, the WWF is part of the governance system by having an observer status to the ICPDR. Consequently, its representatives take part in meetings of the expert groups as well as the plenary sessions. Particularly, the working sessions of the expert groups give non-state actors in general and the WWF in particular the possibility to bring in their positions. (Weller Jun 2010) The World Wildlife Fund often shows a high degree of useful expertise in water-related issues during these meetings (Stadler Jun 2010).

A second regional NGO is the Danube Environmental Forum (DEF) which was founded in 1999. The DEF describes its mission in the following way:

> "The Danube Environmental Forum (DEF) is a Danube River Basin-wide platform of non-governmental, non-profit and politically independent environmental organisations. DEF fulfils its mission through encouraging cooperation among governmental and non-governmental organisations in the Danube River region, supporting the exchange of information, and promoting public participation in environmental decision-making."
>
> (DEF n.d.)

Precisely speaking, it is a platform or network of NGOs, rather than an NGO itself. However, its network gives it the possibility to act at a regional level. Initially, the platform had been established in 1994 and was reactivated under its actual name in 1999. It has more than 170 members from 15 countries of the Danube basin. At the beginning, the DEF was strongly funded by the GEF. (Gerlak 2004, p. 409) As long as there was funding from the GEF, the DEF was very visible and active. However, funding was significantly reduced in the last years and therefore, the NGO platform struggles to carry out basin-wide activities.

(Weller Jun 2010) Notwithstanding, it still has observer status to the ICPDR, although the DEF does not frequently participate in expert meetings (Stadler Jun 2010).

The number of scientific networks or organizations playing an active role in the Danube basin is limited. The most prominent scientific player has been the International Association for Danube Research (IAD), which has been in existence since 1956. Today it is present in 12 countries and aims to support coordination in areas such as limnology or water management. It possesses observer status to the ICPDR and is a member of four expert groups (Pressures and Measures Expert Group, Monitoring and Assessment Expert Group, River Basin Management Group, Flood Protection Expert Group). Moreover, IAD has a broad spectrum of Danube-related topics on which its members do research, like nutrient content of the Danube, microbiological and hygienic assessment or studies on fish ecology. (IAD n.d.) Especially during the Cold War, such networks offered the possibility to share data and cooperate with each other, in spite of difficult political circumstances (Nachtnebel Jun 2010). Although there are no strong networks of scientists with regard to the Danube basin, the IAD has lost importance in the last couple of years. In comparison to other regions, the role of scientific networks has remained small in the Danube basin. The Baltic Sea region, for example, has a network of universities as well as research programs contributing to the management of the water resources. (Weller Jun 2010).

4.3.5. Companies and private sector

Governance is not only a matter of states or NGOs but also involves representatives from companies and the private sector. Several sectors have a profound interest in large and transnational rivers like the Danube: hydropower companies, tourist associations, water suppliers or in general companies that use the river by extracting water or releasing substances related to their activities. Of course, many companies have no interest in a sustainable use of waters and consequently, do not engage in governance processes. However, the integration of private actors and business seems necessary because their practices can highly affect the water body.

The International Association of Water Supply Companies in the Danube River Catchment Area (IAWD) unites 27 water supplying companies from 11 countries. Its main objective is to ensure a high water quality by eliminating and avoiding contamination. As mentioned above, more than 20 million people within the basin depend directly on the

Danube for their drinking water supply. The work of the IAWD is supported by the Technical-Scientific Advisory Committee (TWB) as well as the Technical-Economic Advisory Committee (WBB). The TWB mainly manages the measuring programs of the IAWD and participates in the ICPDR's Joint Danube Survey. (IAWD 2010) Particularly, in the last few years, the association intensified its activities with respect to the Danube governance process (Stadler Jun 2010). The IAWD is also observer to the ICPDR. Another example is the Danube Tourism Commission (DTC). Under its umbrella seven national tourism organizations cooperate with each other.

In 2008 the ICPDR has started a partnership initiative called "Business Friends of the Danube". A member company of this fund is obliged to give a minimum donation of € 25000 per year and to guarantee responsible water practices in their operations. If this is not the case, the partners have to show progress towards this objective. In return the companies are allowed to use the fund name as well as its logo for CSR activities. Until October 2010 Coca Cola, Coca Cola Hellenic, Borealis and the Austrian Broadcasting Corporation ORF joined the initiative. (ICPDR 2010)

4.3.6. IGOs

Beside private actors, there are international governmental organizations that enjoy an observer status to the ICPDR such as the Black Sea Commission or the Danube Commission. These organizations share an interest in the Danube basin. The Danube is one of main tributaries of the Black Sea and therefore, it has a significant influence on that ecosystem and environment. Additionally, the Black Sea has only a limited exchange with other waters, so it is more prone to environmental degradation. The five coastal countries of Bulgaria, Georgia, Romania, the Russian Federation, Turkey and Ukraine signed the Convention for the Protection of the Black Sea against Pollution in 1992 and established the Black Sea Commission. It aims to reduce the pollution from different sources such as the main inflowing rivers Danube, Dnieper and Don. (Black Sea Commission 2009)

A second IGO dealing directly with the Danube itself is the Danube Commission which was created in 1948 when the Convention regarding the regime of navigation on the Danube was signed in Belgrade. Today, the Commission counts 11 member states[47] and eight

[47] The member states of the Danube Commission are Austria, Bulgaria, Hungary, Germany, Moldova, Russia, Romania, Serbia, Slovakia, Ukraine and Croatia.

states have an observer status. However, the organizations' position suffered following the collapse of the Soviet Union. According to Linnenrooth-Bayer and Murcott it is widely perceived as"…a highly-politicized and ineffectual hangover from the Communist era" (Linnenrooth-Bayer and Murcott 1996, p. 539). Furthermore, the appearance of the ICPDR weakened the Danube Commission because the possibility to enhance its position by integrating issues concerning the sustainable use of the Danube no longer existed. Notwithstanding, navigation remains an important activity along the Danube. Consequently, the Danube Commission still plays an important role.

4.4. Conclusion

The governance system of the Danube, as it exists today, has its roots in the 1980s, when the issue of a transnational governance of the Danube basin gained political momentum (e.g. Bucharest Declaration 1985). This development was influenced by a number of factors, which culminated in the ratification of the Danube Protection Convention in 1998. The regime formation process can be split up into three phases: (1) the agenda formation between the early 1980s until 1985, (2) the time between 1985 and 1994 when states negotiated the regime (phase of institutional choice) and (3) from 1994 onwards the phase of operationalization. Although riparian countries had diverging approaches with respect to the Convention, they shared the view and knowledge that the ongoing degradation of the Danube called for cooperative action. Consequently, there was a strong internal drive within the basin to establish a legal framework serving as a basis for the future transnational governance. At the beginning, Austria, Germany and Hungary were pushing for the establishment of a convention. Beside the consensus among the basin countries, other factors fostered the creation of the Danube regime. The collapse of the Soviet Union changed the political landscape in the Danube region and led to a supportive context with regard to multilateral cooperation. As a consequence, the former states of the USSR put their integration into the structures of Western Europe on the top of their political agenda. This meant membership in NATO and EU. Particularly, the preparations for an EU membership pushed activities with respect to environmental protection and therefore, water-related issues such as the Danube. Additionally, many countries in Eastern Europe depend on the Danube as a source of drinking water. Therefore, they have an interest to improve the water quality of the Danube as well as that of its tributaries. A further positive catalyst was the successful ratification of the UNECE

Water Convention in 1996, which served as an orientation and reference point for the Danube Protection Convention.

The current governance system encompasses many different actors, including states, NGOs or scientific networks. Although, non-state actors have the possibility to participate in expert groups within the framework of the ICPDR where they can present their positions, the governance in the Danube basin is characterized by a dominant role of states. Beside the WWF, there is hardly a basin-wide organization that effectively takes part in the governance process. One reason is the fact that the political systems of the basin countries do not have a long tradition of civil societies. Therefore, non-state actors participate in the governance process, but the states are the center of governance activities. Following the categorization of Peters and Pierre, the Danube governance system can be seen as 'Liberal'. They define the liberal type of governance as follows: "Involvement of limited number of societal actors, selected carefully by state institutions. Pluralist, with government choosing the legitimate actors" (Peters and Pierre 2006, p. 212). Of course, there are other non-state actors that are active in the Danube basin. However, the focus is on states and the ICPDR. The national delegations of the ICPDR grant the observer status to non-state actors. Therefore, they have a kind of gate-keeper position, which gives them the possibility to choose those who has better and more privileged access to the transnational governance process.

Among the riparian states, the Eastern European countries have become more self-confident in the last few years. At the beginning Austria and Germany took over an uncontested leadership position. However, since the enlargement of the European Union in 2004 this position is challenged because the new member states participate more actively in the governance process of the Danube basin.

Finally, there is the question of whether the basin states of the Danube regard the river as a common property resource. As mentioned in the theoretical discussion, Ostrom developed eight points guaranteeing a stable arrangement for common property regimes. The author sees this as an essential indicator to determine if states perceive a river as common property resource or not. The Danube regime fulfills most of the eight conditions, such as a clearly defined user community, a clearly defined resource, effective monitoring systems or resolution mechanisms with cheap and easy access. Therefore, it can be said that the Danube countries regard the Danube as common property resource.

5. TRANSNATIONAL WATER GOVERNANCE II – THE NILE [48]

5.1. Physical features of the Nile basin

The Nile is the longest river in the world and has a length of 5584 km, measured from the main source of the White Nile at Lake Victoria to the Mediterranean Sea. The White Nile has its main source at Lake Victoria in Uganda, from where it flows to Sudan and merges with the Blue Nile at Khartoum. The Ruvyironza river which rises in Burundi, flows through flowing to Rwanda, Uganda and Tanzania before ending in Lake Victoria can also be referred to as a source of the White Nile. In this case the Nile has a length of 6693 km. The Blue Nile rises in the Ethiopian Highlands close to Lake Tana. The Main Nile starts 322 km below Khartoum and flows through Egypt to the Mediterranean Sea, where its delta is 190 km wide. (NBI 2010a) The contribution to the total amount of water in the Main Nile varies. Whereas the Blue Nile provides 59% of the Nile water, the White Nile and the Equatorial Lakes only contribute 14%. The rest comes from the Baro-Akobo river (14%) and the Tekezze river (13%). The Nile river is shared by ten countries: Rwanda, Burundi, the Democratic Republic of Congo, Tanzania, Kenya, Uganda, Eritrea, Ethiopia, Sudan and Egypt. Apart from Egypt and Kenya, all riparian states belong to the least-developed countries in the world as classified by the United Nations. (Swain 2008, p. 202)

The average precipitation in the Nile basin countries is 7000 billion m^3 per year while the Nile basin only has an average annual precipitation of 1660 billion m^3. However, only 84 billion m^3 of the Blue Nile reach the regions downstream of Khartoum in Sudan. (Abu-Zeid 2008, p. 96) The distribution of water is highly uneven in the Nile basin because in comparison with upstream countries, the downstream countries Sudan and Egypt have scarce water supplies. Due to the agriculturally based economies, the use of water for irrigation purposes plays by far the most important role. [49] (Swain 2008, p. 203)

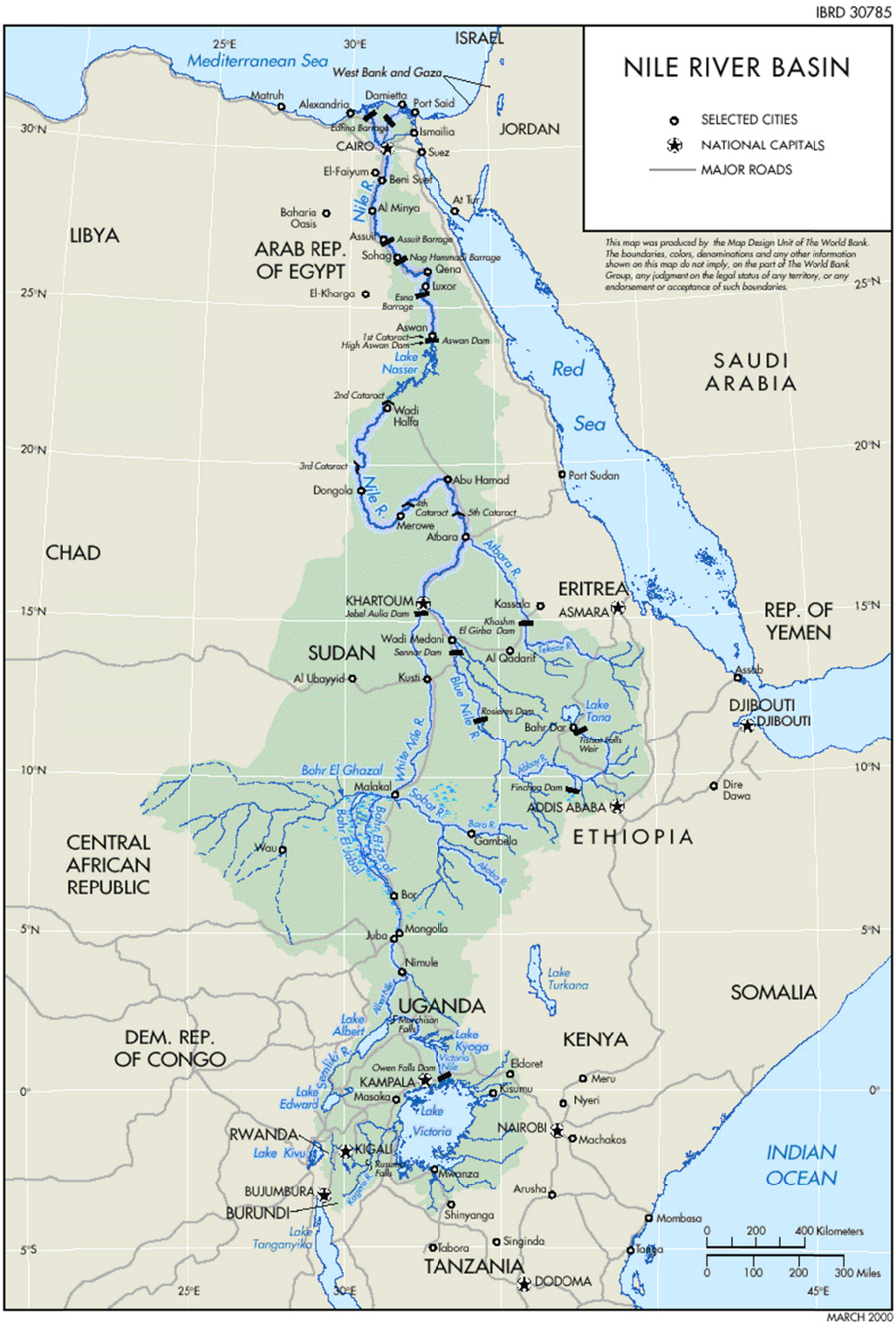
Today, more than 300 million people live in the Nile basin, which is of crucial economic importance for these people. According to Belay et al., the population of the riparian countries is expected to double to 600 million by 2035. This development has the

[48] The author conducted five interviews with experts on the governance system of the Nile. These interviews were given by the following people in August 2010: Khaled Abu-Zeid (Centre for Environment and Development for the Arab Region and Europe, Cairo), Callist Tindimugaya (Ministry of Water and Environment of Uganda, Entebbe), Patrick Kahanigre (Former Executive Director of the Nile Basin Initiative/former Director of the Directorate of Water Development in the Ministry of Water and Environment of Uganda, Kampala), Hamere Wondimu (Former Coordinator of the Shared Vision Program of the Nile Basin Initiative, Entebbe) and a representative of a Western donor organization.

[49] Irrigation is responsible for around 75% of the total water withdrawal.

potential to cause grave difficulties not only in the area of water, but also for the environment as well as the stability of the societies in general. (Belay et. al 2010, p. 8) The estimations of the FAO even see the possibility that population will go up to nearly 700 million by 2030 (FAO n.d.).

Figure 10: Nile river basin



Source: World Bank (2010): http://go.worldbank.org/1J4ISEE170 [accessed 29.9.2010].

Figure 11: Political vs. natural borders of the Nile basin

Source: Zeitoun, M. (2010), p. 235.

5.2. Historical features of the Nile basin

In the last century, several developments and events have influenced the current situation of transnational governance within the Nile basin. This chapter discusses some of the main elements, starting with the agreements of 1929 and 1959.

The current situation in the Nile basin with respect to hydro-politics was shaped by historical developments, in particular in the late 1920s. Many of the riparian countries of the Nile were colonies of European powers like Great Britain, Belgium or France. Only Ethiopia remained independent for most of the time. Therefore, the colonial period has had a huge influence on the current situation (Kahangire Aug 2010). Activities of the European states pre-determined the hydro-political context of the Nile basin, particularly concerning the relations among the riparian countries (Mekonnen 2010, p. 423). At the beginning of the 19th century, the world market demanded more cotton and put pressure on Egypt and Sudan to increase their production. Such an augmentation of cotton production required a permanent irrigation system independent from the seasonal floods. Thus, a period of intense water development along the Nile was heralded, laying the foundation for future disputes between upstream and downstream interests. Gradually, it became apparent that an agreement was needed, which allocated the waters of the Nile. Based on the proposals of a commission, Egypt and Britain, on behalf of Sudan, signed the Egyptian-Sudanese Nile Waters Agreement in 1929. Article II ensured that no changes along the Nile would be undertaken by Sudan or countries under British administration, which could affect the quantity or quality of the water flow into Egypt. The agreement also guarantees Egypt that there will be no activities modifying the arrival date of the Nile waters. Furthermore, the treaty fixed the annual allocation of the Nile and gave Egypt a share of 48 billion m³ and Sudan a share of 4 billion m³ per year. (Kameri-Mbote 2005, p.3) According to Cascao, this agreement "…helped to institutionalise the belief that Egypt and Sudan had 'natural and historic rights' to Nile waters" (Cascao 2009, p.245). Egypt still refers to these historical rights in its position (Abu-Zeid Aug 2010).

This distribution of the Nile waters remained untouched until 1959, three years after Sudan gained independence from Britain. In the early 1950s Egypt established plans to build the High Aswan Dam, although it was not clear if there would be cooperation with Sudan or if Egypt would have to act unilaterally way. An Egyptian military mission to Sudan faltered in 1956. (Kameri-Mbote 2005, p. 4) The coup d'état against the democratically elected government in Sudan served as catalyst for the negotiations because the new military regime

of General Ibrahim Aboud showed high interest in establishing good relations with the northern neighbor, who was pushing for a signature of a new agreement. (Deng 2007, p. 45) Finally, in 1959 a new volumetric allocation was agreed upon by Egypt and Sudan in the Agreement of the Full Utilization of the Nile Waters. The new treaty, replacing the agreement of 1929, gives Egypt an annual share of 55.5 billion m^3 and Sudan of 18.5 billion m^3. Another 10 billion m^3 were calculated for evaporation. (Tindimugaya Aug 2010) Whereas Egypt and Sudan, as independent countries, signed this agreement, other countries located upstream the Nile were not included. During the negotiations for a Cooperative Framework Agreement the on agreement of 1959 represented the big unsolved question.[50] The legitimacy of the treaty and its legal foundation are still highly contested, particularly, by upstream states, like Uganda, Tanzania and Kenya, which were administrated or governed by Britain at this time (Mekonnen 2010, p. 432-436).

5.3. Challenges in the Nile basin

The countries in the Nile basin face a number of challenges such as poverty, disease (malaria, AIDS), environmental degradation, increased demand for food production and population growth. All these issues are interconnected with each other; for example, the growing population of the riparian countries and the socio-economic development cause environmental and water problems. However, this chapter focuses on the problems and challenges in direct relation to the water of the Nile.

Apart from advantages of dams, like reduction of drought effects, energy production or stable water flows, their positive consequences also have a price. The Aswan High Dam, for example, satisfies many needs in Egypt; it controls annual floods and prevents damage to cropland, it helps to ensure a permanent irrigation of farmland and the dam produces around half of Egypt's electricity. Furthermore, the dam improved navigation and transport possibilities. However, the negative consequences of the project are numerous. The total amount of water flowing into downstream Egypt has decreased and a lot of water evaporates from Lake Nasser. Due to the dam, nutrient-rich silt does not reach the farmlands as well as the Delta. Consequently, farmers are forced to use artificial fertilizers. Increasing amounts of sediments build up behind the dam and are responsible for a possible increase in flooding in Sudan. (Wiebe 2001, p. 736-739)

[50] The dispute resulting from the agreement of 1959 as well as the different arguments are discussed below.

Moreover, there are industrial sources of water degradation, for instance, factories close to Lake Victoria and all along the Nile river. A third factor is the growth of population accompanied by an increasing urbanization of the riparian countries. This means an higher demand of fresh water and additional pollution from the urban areas resulting in water scarcity. (ibid, p. 741-742)

5.4. Country-specific features in the Nile basin: Egypt and Sudan against the rest?

Every river or river basin has the characteristic that downstream countries have to deal with the consequences of activities by upstream countries. This is the natural constant of every governance system of transboundary or transnational rivers. However, the Nile basin possesses some factors which amplify the upstream-downstream problem, in particular to the fact that the downstream countries have hardly other water resources, whereas Egypt is more affected than its southern neighbor. A quick look at the average annual amounts of precipitation illustrates the different grades of dependencies on the Nile as a fresh water resource. Upstream countries have a relatively high annual precipitation (e.g. Kenya: 1260mm, Ethiopia: 1125mm) whereas the downstream countries suffer from small quantities (Sudan: 500mm, Egypt: 15mm). (Zeitoun et al. 2010, p. 232) Abu-Zeid speaks of a ‘natural dependency’. He argues that these other freshwater resources should be taken into account when countries negotiate quantitative issues. In his view, upstream countries do not use this green water in to a sufficient extent; much of this green water is wasted. Moreover, all other countries, except Egypt, have other water resources for meeting their demands. The problem in the upstream states is a technical problem because most of them do not lack water, but instead lack the infrastructure to treat it and transport it. On the contrary, downstream regions do not lack the infrastructure but water itself. (Abu-Zeid Aug 2010)

Figure 12: Average annual precipitation in the Nile countries

Country	Upstream (UP)/ downstream (DOWN)	Average annual precipitation (mm)
DR Congo	UP	1245
Burundi	UP	1110
Rwanda	UP	1105
Tanzania	UP	1015
Kenya	UP	1260
Uganda	UP	1140
Eritrea	UP	520
Ethiopia	UP	1125
Sudan	DOWN	500
Egypt	DOWN	15

Source: Zeitoun, M. (2010), p. 232.

5.4.1. Egypt: Between dependency and the unwillingness to share

Due to the fact that Egypt receives 96% of its renewable freshwater from the Nile, the most downstream country is highly vulnerable with regard to water. Consequently, water in general and the Nile waters in particular are also seen as a matter of national security. Each Egyptian has less than 1000m³ of water per year available so that Egypt, according to international standards, falls into the category of regions with chronic water scarcity. The growing population will reduce this amount significantly to maybe 500m³ per capita per year. (Hefny and Amer 2005, p. 42) This factor of a steadily increasing population is one of the main reasons that water issues will become even more influential. The United Nations projects that 95 million people will live in Egypt in 2025 and that this number will go up to 114 million in 2065. Today Egypt has around 79 million inhabitants. (Khalifa 2000, p. 2) The trend towards a higher population and the increasing demand for water, food and energy leads to Egyptian ambitions to use more Nile water than the volume fixed in the agreement of 1959 (RDO Aug 2010).

All governments in Cairo have followed a number of strategic policy areas defining the Egyptian foreign policy. As a result of the permanent pressure to ensure the supply of

water from the Nile, they made it to one of their top foreign policy activities. Hassan and Al Rasheedy identify four strategic areas:

- The protection of the southern borders
- The protection of the southern Red Sea area
- The guarantee to ensure the flow of the Nile water
- The guarantee that Egyptian interests are heard in this area

They see the Nile as an environmental factor influencing the cognitive behavior of those who develop the foreign policy. However, the method of reaching the objective of ensuring the flow of the Nile waters has varied in the last 100 years. Particularly, Mohammad Ali and governments until 1952 tried to gain total control over the Nile waters. After the revolution of 1952, Egypt has placed more stress on cooperation and diplomacy. During the colonial period, Egyptian water policy was completely determined by the British administration and London's geo-strategic interests. Good relations with Sudan and the observation of activities by other states in Sudan have been important because Sudan or powers influencing Sudan can potentially threaten the water supply of Egypt. Therefore, Egypt has constantly paid special attention to its neighbor in the South. (Hassan and Al Rasheedy 2007, p. 29-33)

In comparison to the other riparian states, Egypt has already started the development of technical facilities to control and use the river and its water resources in the 19th century and expanded them in the 20th century. This is best illustrated by the construction of the High Aswan Dam between 1960 and 1970. Furthermore, Egypt is clearly the strongest, most diverse and most globally-integrated economy in the Nile basin. This gives it an advantage in developing capacities for the use of the Nile. (Cascao 2009, p. 248) In 2009 the country had a GDP per capita of 6000 US-Dollars. (CIA 2010a) Cairo has good relations with international donors and Western states, in particular with the United States, for whom Egypt is important due to its strategic location. (Cascao 2009, p. 248)

Over the decades Egypt also managed to successfully establish the dominating discourse in the Nile basin by highlighting questions of water dependency or historical rights. Additionally, it prevented the rise of alternative discourses, for instance, socio-economic development in the upstream countries. Over the last decades, the course of Nile negotiations was mostly determined by the government in Cairo; for example, by defining the 'redline' of talks and deciding what is on the water-political agenda.

5.4.2. Sudan: Moving upstream?

Regions within the territory of Sudan vary widely in climatic respects and the grade of dependency on the Nile as a source of freshwater. In the northern part rain is rare and average annual precipitation reaches 200mm. The situation is similar to Egypt. However, in the southern regions of Sudan, the average annual precipitation is around 700mm. (Hamad and El-Battahani 2005, p. 28) Like in Egypt, the population of Sudan is growing quickly. In 2005, Sudan had a population of 38.7 million people, which is expected to increase to 56.7 million in 2025 and 75.9 million in 2050. (UNESCEA n.d.) This increase will not remain without consequences for the availability of water. In 2007, the availability of renewable water resources per capita was 1707 m^3 per year. According to projections of USAID, this number will fall to 272 m^3 in 2015.[51] (USAIDa n.d.) Beside the growing population, Sudan faces other factors like desertification or land degradation (Swain 2008, p. 205).

Several issues, such as civil war, economic isolation or a water policy lacking coherence have been responsible for Sudan being unable to use the Nile waters to its full extent. The growing population also demands more energy and a more efficient and productive agricultural system to ensure food security. Although Sudan has areas where annual precipitation is relatively high, it depends on irrigation infrastructure and dams to develop its potential for agriculture or power production. In recent time the government in Khartoum made the creation of new facilities in these areas a priority. What does this mean for Egypt? The agreement ensures that Egypt and Sudan are bound together with regard to their Nile policy. This water alliance guarantees that the neighbors take a common stand in Nile issues aiming to defend their shares in accordance with the agreement of 1959. (Cascao 2009, p. 257)

Beside Ethiopia, it is Sudan which needs additional sources of water for several purposes (Kerisel 2001, p.153). The Sudanese plans to intensify use of the Nile waters have the potential that Egypt and its southern neighbor will become competitors instead of remaining close allies. It is unlikely that this will happen in within the next few years but in the long run Sudan will lose its interest in such a close cooperation. It has a profound interest to use more water from Nile, which conflicts and this collides with the Egyptian position. There are already small signs that support this view. Particularly, in informal talks, Sudanese

[51] The availability of less than 500 m^3 per year and person falls under the category of absolute water stress.

representatives express their disagreement with some of the Egyptian positions on the Nile waters. (RDO Aug 2010) So Sudan will perhaps move politically upstream in the future.

5.4.3. Ethiopia: unused potentials

In the Ethiopian Highlands lies the source of the Blue Nile, which consists of 59% of the Main Nile. Although Ethiopia is situated directly at the Blue Nile source, it has harnessed its potential neither for irrigation and agriculture nor for power production. It has only cultivated, for example, 11% of the economical irrigation potential or 2% of its potential for hydropower production. (Swain 2008, p. 206-207) Pressured by constant population growth and its effects, like increased food and energy demand, Ethiopian decision makers identified the stronger use of the Nile waters as a priority of the political agenda. After turbulent times, political stability as well as a growing economy allow the country to articulate its interests in the Nile basin and to initiate concrete measures for using the river's potential. (RDO Aug 2010).

Today, Ethiopia has 85 million inhabitants (CIA 2010b). According to projections of the UN, the total population of the country will reach 106 million by 2020 (UNECA 2006). Although Ethiopia receives much more rainfall than Egypt or Sudan, the situation of water availability is tense. In 2007 there were 1355 m^3 of renewable water resources available for each Ethiopian. However, this amount will fall to 1000 m^3 in 2015, giving Ethiopia the potential to become a country with chronic water stress. (USAIDb n.d.)

Economic and social development represents the main interest of many Nile basin countries in Sub-Sahara Africa. Ethiopia ranks number 171 out of 182 states in the Human Development Report of 2009 (UNDP 2009, p. 145) and had a GDP per capita of 900 US-Dollars in 2009 (CIA 2010b). Although, as mentioned above, the country has overcome political instability, there are other internal as well as external factors constraining the ability of Ethiopia to harness its water resources. Internal constraints have been a lack of knowledge, insufficient sources of funding and a lack of organizational capacities. (Arsano and Tamrat 2005, p. 18) Aiming to foster its economic development, a number of irrigation and dam projects should be implemented in the forthcoming years. Authorities pushed particularly for the construction of micro-dams in the Blue Nile and the Ethiopian Highlands as well as the Tekezze dam, a large-scale hydropower dam. Since Ethiopia delivers the most water to the main Nile through the Blue Nile, Egypt has always been worried about large projects. (Cascao 2009, p. 257) These activities contest the undisputed dominating position of Egypt on water

governance in the Nile basin which started diplomatic initiatives against Ethiopia or blocked projects by vetoing them so that they received no international funding, for instance, from the World Bank. Its policy (World Banks Operational Policy No. 7.50) requires the consensus of all countries potentially affected by projects from obtaining money from the World Bank. (Arsano and Tamrat 2005, p. 257) Like in the case of Sudan, Egypt is partly in favor for dam projects that are not of a consumptive nature, like irrigation schemes. Therefore, some hydropower projects lay in the interest of Cairo because they prevent a higher sedimentation of the High Aswan Dam. (Swain 2008, p. 207)

5.4.4. Equatorial Lakes countries

Apart from Kenya, all equatorial lake states (Burundi, DR Congo, Rwanda, Tanzania, Uganda) belong to the least-developed countries in the world. In comparison to Egypt, their GDPs per capita are very low.[52]

Figure 13: GDP per capita of the Nile basin countries (2009)

Country	GDP per capita in US-Dollar (2009)	Rank HD Report 2009
DR Congo	300	176
Burundi	300	174
Rwanda	1000	167
Tanzania	1400	151
Kenya	1600	147
Uganda	1200	157
Eritrea	700	165
Ethiopia	900	171
Sudan	2300	150
Egypt	6000	123

Source: own illustration

[52] The author would like to emphasize that the GDP does not serve as an ideal indicator of economic performance and social progress any longer because it ignores a number of important elements like sustainability. The Commission on the Measurement of Economic Performance and Social Progress, chaired by Joseph Stiglitz delivers interesting views on this topic and questions this current mainstream for economic performance and social progress.

Population growth is a shared challenge of these countries. According to the FAO, the population of all these states together will double and go up from around 179 million in 2005 to 366 million by 2030. Additionally, the population concentration will be focused in the region around Lake Victoria. (FAO n.d.)

With respect to water governance in the Nile, the Equatorial lake countries share a common position with Ethiopia. Particularly, Kenya and Tanzania pursue a hard rhetoric against Egypt and its Nile policy, although hydrological configurations along the White Nile have only a limited effect on Egyptian water shares because the White Nile only contributes 14% to the total Nile flows. Ethiopia managed to formulate a strategy favorable for its position, which is supported by the upstream countries around Lake Victoria. Although these countries, in comparison with Ethiopia, contribute a small amount of water to the Nile in Egypt their support strengthens Ethiopia's position in the Nile basin (Whittington 2004, p. 22). Nevertheless, within this group there are also upstream and downstream countries, for instance Uganda, which receives its waters from the other states. Therefore, it sometimes benefited from Egyptian criticism because it addressed Ugandan problems, but Uganda did not have to raise its voice and damage its relations with its neighbors. The DR Congo often played a neutral role because it only shares a small part of the Nile basin but it is loyal to the upstream countries. One reason is their interest to get closer to the East African Community (EAC)[53] and to cooperate with its member states on infrastructure development. (RDO Aug 2010)

5.5. The Cooperative Framework Agreement

Beside the Nile Basin Initiative, the Cooperative Framework Agreement (CFA) is a second cooperation track initiated by the riparian countries of the Nile basin. The cooperative framework seeks to establish legal as well as institutional principles, which should serve as a basis for cooperation concerning the use and the management of the Nile waters. (Beyene and Wadley 2004, p. 31) Since the CFA would have the character of a framework convention, it is about general principles and not about detailed legally-binding provisions (Kahangire Aug 2010). Intensified cooperation of some of the Nile countries started with Hydromet in 1967, but lacked a legal framework. In 1997 states agreed to change this situation and entered into talks for a legally-binding framework agreement. After more than ten years of negotiations

[53] The East African Community was founded in 2001. Its founding members are Kenya, Uganda and Tanzania. In 2007 Burundi and Rwanda joined the EAC.

(1997-2010), riparian states have not reached an agreement yet, although only one provision has remained on the table. Article 14b became the apple of discord between upstream and downstream countries within the basin. For three years, the parties were negotiating on this article, but in May 2010 five sates decided to open the agreement for signature. Despite the frequently-expressed opposition of Egypt and Sudan against the current version, Ethiopia, Kenya, Rwanda, Tanzania and Uganda signed the agreement in May 2010. (Tindimugaya Aug 2010)

The following chapter examines the underlying dichotomy of upstream and downstream countries. Sub-chapters 5.3.2. to 5.3.6. will deal with some factors of the regime formation process, such as actors and actor's behavior or driving social forces. Finally, there is a closer, deeper analysis of the current developments and their consequences for the multilateral cooperation.

Finally, it is important to emphasize that no regime has been established in the Nile basin yet. Despite consensus on most points, there are still disputed issues.

5.5.1. Actors and actor behavior

In 1997 the riparian countries started negotiations for the Cooperative Framework Agreement. However, it had not always been clear that the establishment of a legal framework for the Nile basin played such a prominent role. The issue of forming a regime was pushed by internal as well as external players.

At the beginning it was particularly Ethiopia, as an internal player, which pushed the issue on the political agenda. The Nile River Action Plan encompassed 22 issues dealing with water, environment and other questions with regard to the management of the Nile. Among those 22 sectors, the creation of a regime was only one part of the puzzle. Like under UNDUGU, Ethiopia had only observer status under TECCONILE so it was not even a member. At that time it was clear that a transnational and comprehensive governance of the Nile waters necessitated the participation of Ethiopia due to the fact that the sources of the Blue Nil are located in the Ethiopian Highlands. The government in Addis Ababa had a profound interest in renegotiating the share of the Nile waters because it refused the monopoly of Egypt and Sudan guaranteed by the agreement of 1959. Therefore, Ethiopia stayed away from any active involvement under the umbrella of the Nile River Action Plan

and TECCONILE as long as there were no negotiations on a legally-binding convention. Due to the fact that the other basin states wanted to bring Ethiopia on board, the chapter proposing negotiations for a Nile regime got first priority. Consequently, Ethiopia's threat to stay out of the Nile cooperation put pressure on the others and indirectly forced them to enter into serious talks on the CFA. During the time, more and more countries became active and supported the Ethiopian position. (Kahangire Aug 2010)

Although all states decided to enter into negotiations and nearly all provisions of the agreement reached a consensus, the process towards a convention is in a dead lock because of article 14b dealing with water security. The riparian countries formed two groups that favor different wordings of this article. One group encompassing all upstream countries has gathered around Ethiopia and opposes a proposal of Egypt and Sudan for this article. Ethiopia formulated most parts of the position and set up the alliance. Nevertheless, it is Kenya and Tanzania who speak for the upstream countries and pursue a very critical rhetoric against the Egyptian and Sudanese position. (RDO Aug 2010) Even though the negotiations on the Cooperative Framework Agreement were finished in 2007, there is still no convention and the countries are separated into two camps. It is difficult to identify pushers and blockers in this situation. Despite this, five countries took the lead by opening the agreement for signature in May 2010.[54]

Apart from internal actors, there were also external players who fostered the initiation of the regime negotiations with their activities. Most specifically, the Canadian International Development Agency (CIDA) and the United Nations Development Programme (UNDP) supported the process and helped to push this issue forward. In the mid-1990s the creation of river basin organizations was regarded as a central element of river governance. Therefore, the UNDP came on board and delivered funds from the Global Environment Facility (GEF). (Kahangire Aug 2010) One reason for the involvement of external players is the fact that the relevance of the Nile goes beyond the basin itself. Consequently, the international community has an interest to support cooperation in this region. (RDO Aug 2010)

NGOs and non-state actors face difficult circumstances in the basin countries because most of their political systems are characterized by a very hierarchical structure (RDO Aug 2010). Governments do not foster the development of strong NGOs and some of them are even suppressing them. Generally, the states prefer to find a consensus among themselves

[54] Current developments and their consequences are discussed in chapter 5.5.6.

before they open the process to non-state actors. (Kahangire Aug 2010) The NBI aimed to build up a network of NGOs and to bring together the civil society. However, the role of NGOs is still weak. (Wondimu Aug 2010) Consequently, non-state actors played practically no role in the process of regime formation for the Cooperative Framework Agreement.

5.5.2. Process

As mentioned before, Levy et al. discern between the three categories of self-generated, negotiated and imposed regimes although, it is likely that all three elements appear during a formation process.

In the framework of the TECCONILE a Nile River Action Plan was established, which identified a number of areas where concrete measures should be implemented. Ethiopia and Kenya were only, observers but the other countries knew that the participation of Ethiopia was essential for an effective governance of the Nile waters. So they wanted to convince the government in Addis Ababa to become actively involved in the governance process. Ethiopia agreed to cooperate if the negotiations for an agreement that established a legal regime got priority. (Kahangire Aug 2010) The strong wish of the other basin states put Ethiopia in a powerful position enabling it to pressure the members of TECCONILE. The country took advantage of its position as the state where the Blue Nile, which contributes most to the Nile waters, springs. Of course, Ethiopia possessed no power to force the basin countries to agree on the start of negotiations, but it could influence their positions to a certain extent. So the regime and the negotiations were not directly imposed because the other states participated voluntarily. However, Ethiopia forced others to give this point utmost priority.

With regard to the CFA, there have been common expectations, such as the necessity of a legal framework. All the basin countries agreed upon the importance of having a convention and a regime guiding the transnational governance process. (Tindimugaya Aug 2010) Consequently, they expected to successfully finish the negotiations and set up a regime. However, the expectations have not been fulfilled. Different positions on article 14b and the interlinked question of the agreements of 1929 and 1959 led to diverging expectations. The prominence of this issue and the different expectations on how to deal with it caused a deadlock in the process of regime formation since 2007.

In 1997, the Nile basin countries started a negotiation process, which lasted for ten years. Although the negotiations were declared as finished in 2007, governments worked until May 2010 to present a convention satisfying the approval of all states. Consequently, delegations negotiated for more than ten years to reach a consensus. Since May 2010 the agreement is open for signature and the phase of negotiations was finally finished. Due to the fact that there were planned and intentional talks between representatives of the basin states, the regime on the Nile, if it will come into existence, can be regarded as a negotiated regime.

5.5.3. Stages/Historical developments

The Nile basin has seen several historical attempts to create cooperation, but not all of them focused on the waters of the Nile and its environment. UNDUGU, for instance, encompassed many policy areas (economic, cultural, social cooperation) and tried to foster basin-wide integration. Nevertheless, water and the Nile were part of it because the development of water resources was integrated in the sector of joint economic planning. (Brunnée and Toope 2002, p. 133) Of course, actors have already been aware of the fact that the Nile countries and their use of the river can influence each other in colonial times. However the colonial treaties as well as the agreement of 1929 pursued geopolitical goals instead of cooperation for the sustainable management of the Nile.

Although, the Nile Basin Initiative (NBI) and the Cooperative Framework Agreement are the most prominent and sincere efforts of cooperation, riparian countries have already initiated a number of other projects aiming to manage the Nile in a more transnational way than in the past. This has been the case since 1967. However, most of the processes did not go beyond a bilateral level and were limited by technical issues, while the sensitive political and legal questions were left out. (Tindimugaya Aug 2010) During this period, inter-riparian relations were characterized by a lack of trust, a plethora of incompatible interests as well as a lack of serious basin-wide integration efforts. The first bilateral agreement was signed between Egypt and Britain in 1953. Britain signed on behalf of Uganda, claiming the status of a protectorate. It obliged Uganda to deliver all the meteorological and hydrological data collected by its Hydrological Department to Egypt. Several years later, some riparian countries set up a technical cooperation aiming to asses and monitor the waters of the lakes Victoria, Albert and Kyoga. After heavy inundations and floods in the 1960s caused by a strong increase of rainfalls in the region of the Equatorial Lakes, riparian states decided to

start a the Hydro-meteorological Survey of the Equatorial Lakes (Hydromet) survey, for the purpose of collecting and analyzing data of these lakes. (Mekonnen 2010, p. 424).

From this point of view, it was Hydromet that marked the beginning of the technical cooperation in the Nile basin (Tindimugaya Aug 2010). As Mekonnen states: "…Hydromet was a cooperative arrangement which grew in reaction to the dictates of nature rather than the deliberate decision of the riparians involved" (Mekonnen 2010, p. 424). Egypt, Kenya, Sudan, Tanzania and Uganda participated in the Hydromet, which was supported by the UNDP and the World Meteorological Program. However, the difficult political circumstances in the 1970s and the decision of Kenya and Tanzania to withdraw from the program led to an early end of the process. (Nicol 2003, p. 22) Even though, Hydromet failed soon after its establishment in 1967 as well as included only five out of ten basin countries (Egypt, Kenya, Sudan, Tanzania, Uganda) it shows that the national authorities noticed the importance of transnational governance and cooperation for an efficient management of the Nile river. Finally, Hydromet laid the foundation for cooperation in the following decades.

In 1983 the Egyptian government undertook an effort to build up a group of basin countries with the objective to deepen the social, economic, cultural and technical cooperation. Egypt's move was preceded by a shift in its domestic politics, which re-orientated these politics towards a more cooperative approach with respect to Nile issues. (Mekonnen 2010, p. 426) Except for Ethiopia and Kenya, which only had the observer status, all other basin states became part of UNDUGU[55]. Despite the membership of nearly all Nile states, UNDUGU failed to achieve its ambitious goals, also in the area of water resource development. Despite its unachieved objectives, the UNDUGU group served as a forum for experts where Nile issues were discussed from a basin-wide perspective, instead of a sum of country-to-country perspectives. (Brunnée and Toope 2002, p.133) The initiative was highly supported by Boutros-Boutros Ghali. Several scholars identify the project as an Egyptian attempt to promote its interests in the Equatorial Lakes region and to meet its hegemonic aspirations in Africa. (Nicol 2003, p. 29; Brunnée and Toope 2002, p. 133). Whereas, Egypt fostered cooperation, particularly for joint electricity projects, it renounced in other areas the pursuit of a cooperative-oriented approach; for instance, concerning the use of the Nile waters. It continued projects that demanded huge quantities of water without coordinating them with the other countries of UNDUGU. (Mekonnen 2010, p. 426)

[55] ‚Undugu' means brotherhood in Swahili.

Failing in its efforts to create momentum for profound cooperation, UNDUGU was succeeded by the Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile (TECCONILE). Some external factors fostered its development, such as the increasing water scarcity in many riparian countries at the end of the 1980s and the beginning of the 1990s. In 1988, the precipitation pattern in the Ethiopian Highlands changed tremendously with far-reaching consequences for Egypt. The water yield of the Blue Nile reached its lowest point ever and hydropower generation at the Aswan Dam was hardly possible. (Peichert 2002, p. 124) Founded in 1992 by DR Congo, Egypt, Rwanda, Sudan, Tanzania, Uganda and the other countries joining as observers, it focused on technical instead of political cooperation. Sensitive political issues, such as the sharing of the Nile waters between the riparian countries, were hardly touched. (Mekonnen 2010, p. 426) For a better understanding of the CFA, it is necessary to start from the TECCONILE because it was the starting point for the idea of a regime (Kahangire Aug 2010). The name of the initiative already indicates that the Nile and its development, as well as the protection of its environment, build the focus of attention of basin-wide cooperation. The long-term objective of the committee was to ensure a sustainable development and protection of the Nile waters whereas its short-term goal was to create a basin-wide management plan integrating the national management plans of the riparian countries. (Nicol 2003, p. 23) Furthermore, a series of meetings, called Nile 2002 Conferences, started in 1993 and ended in 2002. They consisted of, in total, nine conferences in different basin countries whereby each meeting was devoted to one special topic.[56] These meetings fostered the development of confidence and trust among the countries and created a vital learning environment. (Hefny and Amer 2005, p. 46) Both factors contributed to ameliorate the climate for cooperation and the negotiations on the CFA. Between 1993 and 1995, the countries formulated the Nile River Action Plan. It defines 22 projects, which are summarized in five categories[57]. At their meeting in Arusha, the water ministers approved the plan. Although Burundi, Ethiopia and Kenya had an observer status, they backed the Nile River Action Plan in 1995 and supported its formulation. The programme foresaw investments of around 100 million US-Dollars. Evidently, all states acknowledged and became aware of the value of transnational governance. One of the projects under component D (Regional cooperation) touched the creation of a basin-wide

[56] Conferences with date and topic: 1993: Aswan („Getting Started“), 1994: Khartoum („The Vision Ahead“), 1995: Arusha („Taking Off“), 1996: Kampala („An Action Plan“), 1997: Addis Ababa („Basis for Cooperation“), 1997: Kigali („Benefits for all“), 1998: Cairo („A Shared Vision“), 2000: Addis Ababa („Priorities for the Millenium“), 2002: Nairobi („Building a Nile Basin Community“).

[57] The five components of the plan were “Integrated water resource planning and management”, “Capacity building”, “Training”, “Regional cooperation” and “Environmental protection and enhancement”.

framework for legal and institutional arrangements. Particularly, Ethiopia pushed this project by convincing the others to grant it high priority. Generally, the Nile River Action Plan failed to implement a vast majority of its projects. On the one hand, countries lacked the financial capacities to realize the envisaged projects; on the other hand basin countries did not manage to completely overcome their competitive behavior. (Brunnée and Toope 2002, p. 134-135) Furthermore, some upstream countries regarded the plan as a collection of small-scale projects, which would have no positive effect on their economies and support the status quo favorable for Egypt (Allan 1999, p.8) Nevertheless, the work done under TECCONILE and the Nile Basin Action Plan was not useless since many elements were integrated in the framework of the Nile Basin Initiative[58]. However, the plan provided the seed for the start of the negotiations in 1997 with the purpose to establish a framework agreement. So the phase or stage of agenda formation in the narrow sense can be identified between the creation of TECCONILE in 1992 and the start of the negotiations in 1997. Nevertheless, it is justified as well to fix the start of the agenda formation in 1967 when the Hydromet programme was launched.

According to Levy et al., the phase of institutional choice encompasses the time between the acceptance of the issue as an international priority and the creation of a regime. The process for the establishment of the legal framework started in 1997 when the basin countries created an expert panel encompassing three experts from each state. Its members had the assignment to deliver an institutional and legal framework for the Nile waters. Within three years they worked out a draft version, which was presented in 2000. However, some issues remained unsolved and necessitated further political negotiations. For this purpose, riparian states formed negotiation committees, each of which was headed by a legal as well as an hydrological expert. (Amer et al. 2005, p. 4) At the same time, the Nile conference series continued until 2002, when technical expertise was exchanged and informal forums for Nile issues were provided. Although these meetings did not negotiate the convention per se, it was a possibility to meet in an informal environment and to establish mutual confidence. (Hefny and Amer 2005, p. 46) During a period of sensitive political negotiations, the Nile 2002 Conference series influenced the political climate among the participating nations. CIDA, UNDP and the World Meteorological Organization were highly supportive of this initiative. At the meetings individual papers examining important issues and country papers dealing with national challenges were presented and followed by open discussions. Although all

[58] Chapter 5.6. takes a closer at the Nile Basin Initiative.

countries participated in the conferences, Burundi, Eritrea, Ethiopia and Kenya declared themselves as observers. However, the status of the countries possessed no relevance because the conference series had an informal character. The strong technical nature of the conferences allowed for a frank and open exchange of opinions, but the meetings were not devoid of political or legal discussions such as questions touching the dispute between representatives of equitable utilization and the no-harm principle. Therefore, these meetings often entailed normative instead of technical discussions, which were sometimes criticized, particularly by Egypt and Sudan. (Brunnée and Toope 2002, p. 135-136) In 1999 the Nile Basin Initiative[59] was launched, but it was kept strictly separated from the negotiations on the CFA. So the countries decided to choose a two-track-approach; on the one hand was a technical track (NBI) and on the other was a political track (CFA). The idea behind this approach was to prevent the negotiations from disturbing the implementation of the projects at the technical cooperation. The projects within the framework of the NBI should help to build confidence and capacities. Additionally, countries should see the advantages of cooperation fostering the development towards a positive finalization of the negotiations on the legal and institutional frameworks. (Tindimugaya Aug 2010) However, the value and success of this strategy is contested. Although the different positions converged in some areas during the negotiations and the technical cooperation remained untouched by the political disagreements, there are negative consequences as well, for example, the fact that the technical level hardly created positive spill-over effects on the political level and the CFA. Donors underestimated the potential of conflict surrounding these negotiations and many countries closed their eyes, ignoring the sensitive questions instead of dealing with them. (RDO Aug 2010) In 2007 the first draft of the Cooperative Framework Agreement was submitted to the ministers of water at their meeting in Entebbe, Uganda. During the Nile-COM, several points were subject of intensive discussions. Nevertheless, the ministers could not agree on Article 14 of the CFA[60] concerning water security. In 2007, the ministers officially declared the negotiations as finished and transferred the issue, in particular the question on Article 14, to the heads of state. The countries started a number of efforts to find a consensus on this provision, for example the Nile-COM meeting in Kinshasa (2008), where the ministers intended to search for ways to conclude the framework. One year later, in July 2009, the ministers met again in Alexandria to discuss the issue and agreed to work another six months and consult with international experts and representatives of the riparian states. (Mekonnen 2010, p. 428-429)

[59] The NBI is discussed in chapter 5.6.
[60] The role of Article 14 is subject to chapter 5.5.6.

The Nile-Technical Advisory and Negotiators Committee held three meetings to pave the way for the conclusion of the CFA. The first meeting took place in Kampala in September 2009, followed by a gathering in Dar es Salaam in December 2009. After the time had expired, it was clear that the gap could not be bridged and that countries would stick to their positions. In April 2010 the nine ministers of water affairs met in Sharm El-Shiekh, where seven countries decided to continue the process for the Cooperative Framework Agreement by opening the agreement for signature in May 2010. This step did not draw the support of Egypt and Sudan. However, it meant the end of the official negotiations because the states would either sign it or renounce to support it. (NBI 2010b)

Finally, due to the fact that the Nile basin countries have not ratified the CFA and have not yet established a regime, the second phase (institutional choice) is not over. Consequently, the process of regime formation is stuck in this phase so that the third phase (operationalization) cannot be analyzed. The decision to open the agreement for signature created a fait accompli with the possible scenario that important countries like Egypt and Sudan would stay away from the continuing process. [61]

5.5.4. Driving social forces

Interests, knowledge and power are factors summarized as driving social forces that influence the process of regime formation. What role have these elements played with respect to the Nile basin?

Concerning interests, some riparian countries started their first initiative for a transnational governance system in 1967. The Hydromet marked the beginning of technical cooperation in parts of the Nile basin. Despite failed cooperation efforts (e.g. UNDUGU), countries kept working together on technical questions. However, in the 1990s, states declared their interest to give their technical coordination a legal as well as institutional framework (Tindimugaya Aug 2010; RDO Aug 2010). A framework agreement fixes the principles guiding the cooperation of states and help to make the governance arrangement more efficient because the fundamental rules of cooperation are agreed upon, for example, the decision making process. Moreover, such arrangements can foster the integration as well as coordination, and certain forms of cooperation need a legal status. The Nile basin has no basin

[61] The recent developments (since the beginning of 2010) and their consequences are dealt with in the following chapters.

commission that possesses a legal status allowing it to work more independently and effectively. The Nile Basin Initiative is only a provisional arrangement without a legal status of an international organization.

Secondly, international donors and investors play an important role in fostering the socio-economic development of countries in the Nile basin. Western donor countries and the World Bank are funding Nile-related projects like dams or irrigation facilities. Donors wish to have certainty about the destination of their money so that they know who gets it and who is responsible for it. Therefore, a basin commission would be an organization with a clearly-defined legal status to which the donors can give their money. (Tindimugaya Aug 2010) So this can be another underlying interest to attract international funding for the socio-economic development of the basin countries that do not have the financial capacities to realize certain projects.

The Nile Basin Action Plan suggested the creation of a legal and institutional framework agreement. All participating countries agreed to grant this point highest priority due to the Ethiopian position. Ethiopia coupled its participation in the Action Plan and environmental as well as water-related projects with the start of negotiations for this framework agreement. Moreover, the question of water shares should be subject to this convention as well. The Blue Nile, which begins in Ethiopia contributes, most of the waters of the major Nile. Due to this fact, a comprehensive and sustainable governance of the Nile has to include Ethiopia. This explains the importance of Ethiopia and the wish of the other basin states to take it on board. Therefore, Ethiopia had a certain degree of power to influence the position of other countries for whom the framework agreement was not important or even problematic. (Kahangire Aug 2010)

On the other hand, we see that Egypt, as the most powerful country in the Nile basin in political, economic and military terms, has successfully managed to block further development of the regime. Beside Sudan, whose Nile policy is highly influenced by Cairo, Egypt was the only out of nine riparian states that refused to accept the wording of Article 14b. After a decade of negotiations, this article remained the only issue on the table for more than three years. Cascao, for instance, describes Egypt as an hegemon in the basin, which posses a number of political instruments to define the direction of Nile politics. She names its close ties with Western states, especially the United States, and the establishment of a discourse favorable to their position by stressing historical rights as well as its dependency on the Nile waters. (Cascao 2009, p. 248) Therefore, it is possible to integrate power as a factor

of this regime formation process. However, in this case it is a factor that does not always foster but rather hinders the creation of the regime. Power is fluent and not static. The decision of seven countries to open the agreement for signature challenges the hegemonic role of Egypt with respect to Nile politics.

Shared knowledge is a third factor that can influence the development of international regimes. The formulation of the Nile River Action Plan shows that there has been, at least to a certain extent, a commonly shared knowledge concerning the needs and the situation of the Nile river. The plan encompassed five sections, whereby one of them dealt with environmental protection and enhancement, although this section principally touched the White Nile. Having the same data basis of a river represents an important element for consensual knowledge. Therefore, data sharing and information exchange between basin states is an indicator for efforts to develop common problem definitions and analysis. Data sharing started in the 1960s within the framework of Hydromet. More recent attempts have been made, for example, by the FAO or by TECCONILE, which included strengthening Geographical Information Systems (GIS) or to set up a network for data sharing. (Nicol 2003, p. 23) As mentioned above, there was the Nile 2002 Conference series where experts exchanged their views on Nile-related issues, not only from a hydrological but also from a legal or political point of view. These events foster the confidence building and additionally, give experts from different backgrounds the possibility to exchange data as well as information. Such events facilitate the construction of shared knowledge basis. As experts, the participants of these conferences influence policy makers in their domestic governments, and the shared knowledge can lead to a convergence in the political sphere. (Brunnée and Toope 2002, p. 154) However, the main dispute among the Nile countries concerns the water quantity and Article 14b. This issue is highly politicized and shared knowledge is difficult to reach. With respect to the critical questions of the CFA, experts are much more advanced in the convergence of their positions than their political counterparts (RDO Aug 2010).

5.5.5. Crosscutting factors

Regime formation always happens within an historical context or is influenced by other (political) events. The status quo in the Nile basin with regard to the Cooperative Framework Agreement has been strongly determined by contextual factors.

Firstly, the colonial era and the developments during this time have consequences that have led to enormous difficulties in the inter-riparian relations in general and the CFA negotiations in particular. Almost all basin states are former colonies or protectorates, which for the most part, gained their independence in the 1960s. Already under British administration Egypt enjoyed a privileged role in comparison to other regions, for example through the treaty between the British Empire and Ethiopia in 1906, Ethiopia was obliged to get confirmation from the British government for modifications of the Blue Nile. Further examples are the agreements of 1929 (Egypt and UK) and 1959 (Egypt and Sudan). (Lasserre and Boutet 2002, p. 504) Egypt and Sudan refer to these treaties to reinforce their position towards the upstream countries, especially in the treaty of 1959, which fixes the shares with 55.5 billion m^3 for Egypt and 18.5 billion m^3 for Sudan. On the one hand, these volumes still define their position in negotiations for the Cooperative Framework Agreement and the discussions on Article 14b. The Egyptians want to integrate the acknowledgment of their historical rights and the water shares fixed in the agreement in 1959. On the other hand, in 1959 most of the other basin countries were not independent and consequently, the British government concluded bilateral treaties on behalf of these states or accepted bilateral agreements between Egypt and Sudan. One example is the bilateral agreement between Great Britain (on behalf of Uganda) and Egypt concerning the recording and organization of data from the Equatorial Lakes (Mekonnen 2010, p. 424). The upstream countries, like Uganda, Tanzania or Kenya refuse to accept these treaties because they had no say under British administration that would have allowed them to participate in the decision-making process. Egypt insists on the validity of the agreements. Therefore, the disputes in the Nile basin do not only concerns water issues but also questions of sovereignty (RDO Aug 2010; Wondimu Aug 2010) Thus, some scholars, like Mekonnen, emphasize the heavy colonial legacy for the transnational governance on the Nile.

A second factor is the political as well as economic development in the upstream countries during the last 10 to 15 years, particularly Uganda, Kenya, Tanzania or Rwanda. Many of these countries faced internal conflicts, such as the civil war in Rwanda or the fights between the Ugandan military and the Lord's Resistance Army in Northern Uganda. Consequently, the absence of political and economic stability prevented a stronger engagement of the upstream countries in the process of Nile governance. The weak economic situation prevented the development of capacities allowing the governments to formulate coherent policies with regard to the Nile and articulate them in negotiations. Due to a better socio-economic development, these countries are able to set up better administrative

capacities which give them a stronger voice in the Nile basin. (RDO Aug 2010) An indicator for this new self-confidence is the creation of the East African Community (EAC) in 1999. The EAC also deals with water-related issues and established the Lake Victoria Basin Commission in 2001. (Cascao 2009, p. 253) However, the EAC does not exclusively focus on further integration in water issues but also in other areas like trade or economic cooperation. In a nutshell, the improved political and economic situation in several basin countries gave these countries the ability to really engage in negotiations on a Cooperative Framework Agreement and to participate better in transnational governance processes like the Nile Basin Initiative.

Thirdly, for all basin countries, the Nile is an important source of hydro-power production, irrigation and agricultural purposes, drinking water or transport. One challenge shared by all basin states is rapid population increase and the simultaneously increasing demand for food, water and energy. As estimations of the FAO show, the population in the Nile basin can go up to 700 million by 2030. This would mean that the number of people living in the Nile basin would double within 20 years. Additionally, this increase of people does not only implicate a growing demand for food, water and energy but also leads to higher pollution of the Nile waters because most of the countries' populations live within the Nile basin. So downstream countries in particular should have a profound interest in transnational governance and management of the Nile basin since they will be most affected by these developments. The increasing pressure of population growth and its consequences (degradation of Nile waters, energy, food production etc.) represents a contextual factor, which touches every basin country and can foster the creation of a regime that helps to manage the Nile waters in a sustainable manner.

5.5.6. Remaining obstacles and current developments

Despite 13 years of negotiations, no framework agreement has been signed that would build the basis for a transnational governance of the Nile basin. Between 1997 and 2007, countries met to develop a draft version and transferred it to the level of heads of state. The last obstacle between the governments remains the wording of Article 14b dealing with water security. Article 14 says: "Nile Basin States therefore agree, in a spirit of cooperation: (a) to work together to ensure that all states achieve and sustain water security;" (Agreement on the Nile River Basin Cooperative Framework). According to Kahangire, this is a standard phrase

in international water regimes (Kahangire Aug 2010). At the end two proposals for the wording of Article 14b were on the table. Upstream countries proposed the following clause: "Nile Basin States therefore agree, in a spirit of cooperation: … (b) not to significantly affect the water security of any other Nile Basin State" (Agreement on the Nile River Basin Cooperative Framework). Egypt and Sudan rejected this wording and suggested to formulate the article as follows: "…Nile Basin States therefore agree, in a spirit of cooperation: … (b) not to adversely affect the water security and current uses and rights of any other Nile Basin State" (ibid). The integration of "current uses and rights" is a clear reference to the agreement of 1959. If the other states sign this version, they will indirectly accept the validity of the treaty between Egypt and Sudan, as well as the fixed shares of 55.5 billion and 18.5 billion m^3. In the eyes of representatives of the upstream countries, such a clause would make the negotiations for a CFA senseless because it does not change the status quo (Tindimugaya Aug 2010). In mid-December 2010 the countries had scheduled an extraordinary meeting of the Nile-COM in Nairobi, which was canceled.

In May 2010, seven countries[62] decided to open the Cooperative Framework Agreement for signature. States have the opportunity to sign it until May 2011. Egypt and Sudan refuse to support the current version, which follows the decision of the Nile-COM in Kinshasa in 2009. This decision foresees that both proposals for Article 14b are put into the Annex. The Nile Basin Commission, which will be created if the CFA is ratified, should resolve this question within six months after its establishment. In the meantime five countries[63] have already signed the agreement but they have not ratified it.

The consequences and reactions of the biggest downstream country Egypt are ambiguous. On the one hand, Egypt, as well as Sudan, do not participate in important meetings dealing with data exchange or the preparation and planning of mutual infrastructure. Therefore, the technical cooperation at the level of the NBI became more difficult due to the decision to open the CFA for signature. Before the seven basin states decided to sign the agreement, high-ranking Egyptian officials had announced that Egypt will leave the Nile Basin Initiative if they would open the CFA. However, this did not happen. On the contrary, in September the Egyptian Wael Khairy took over the position of the Executive Director of the Nile Basin Initiative. Furthermore, the Egyptian government noticed that the bilateral relations with the other riparian states have to be improved to gain more support in Nile-related questions.

[62] Burundi, DR of Congo, Ethiopia, Kenya, Rwanda, Tanzania and Uganda.
[63] Ethiopia, Kenya, Rwanda, Tanzania and Uganda.

Therefore, Cairo started an initiative to create a better environment for its position in the upstream countries. (RDO Aug 2010) During the last few months, several members of the Egyptian government responsible for economic and investment issues travelled to upstream states. Egypt and Ethiopia even established an Ethiopian-Egyptian commerce partnership. (Seide 2010) All these points are indicators that Egypt continues its engagement in the basin and intensives its efforts on a bilateral level.

At the beginning of March 2011, a sixth country, Burundi, signed the Cooperative Framework Agreement. (Doya 2011) This means that a sufficient number of governments have signed the CAF to start the ratification process. The treaty has to pass the parliaments of these six countries. Afterwards it can enter into effect. The start of the ratification process is an important success for the upstream countries and puts Egypt and Sudan in a defensive position.

5.6. The Nile Basin Initiative (NBI)

While the riparian states are still searching for a consensus on the Cooperative Framework Agreement, they have already worked together within the framework of the so called Nile Basin Initiative (NBI). Consequently, there are two tracks with regard to the governance in the Nile basin, which should slowly converge to one track of transboundary water governance. Since the preceding chapter dealt with the development of the CFA, the following chapter is devoted to the second track, which is generally more technical. The NBI is a transitional mechanism and does not possess the legal status of basin commission. Although the CFA and the NBI were kept strictly separated for more than a decade, the future of the project is closely connected with the CFA.

The NBI did not appear out of nothing. On the contrary, the basis for this enhanced effort for transnational governance of the Nile was laid at the beginning of the 1990s by the creation of TECCONILE. Within the framework of TECCONILE, the Nile River Action Plan was established but the riparian countries lacked the necessary financial resources for its implementation. At first, the World Bank hesitated to deliver the money. However, in 1997 the development bank decided to support the initiative. For this purpose, the International Consortium for Cooperation on the Nile (ICCON), a consultative group, was established in 2001. (Peichert 2002, p. 125) The ICCON encompasses the World Bank, UNDP, CIDA, FAO, GEF as well as the governments of Denmark, Sweden, Norway, Sweden, Germany,

Italy, the Netherlands, the United Kingdom and the United States. The consortium aims to foster the cooperation in the area of water development and management and held its first meeting in Geneva in 2001. (Deng 2007, p. 55-56).

In February 1999, the NBI was created and in September 1999, the secretariat was opened in Entebbe, Uganda. Its launch has marked the beginning of a governance and cooperation process which, in comparison to preceding efforts, led to serious coordination of the Nile riparian countries. (Brunnée and Toope 2002, p. 137)

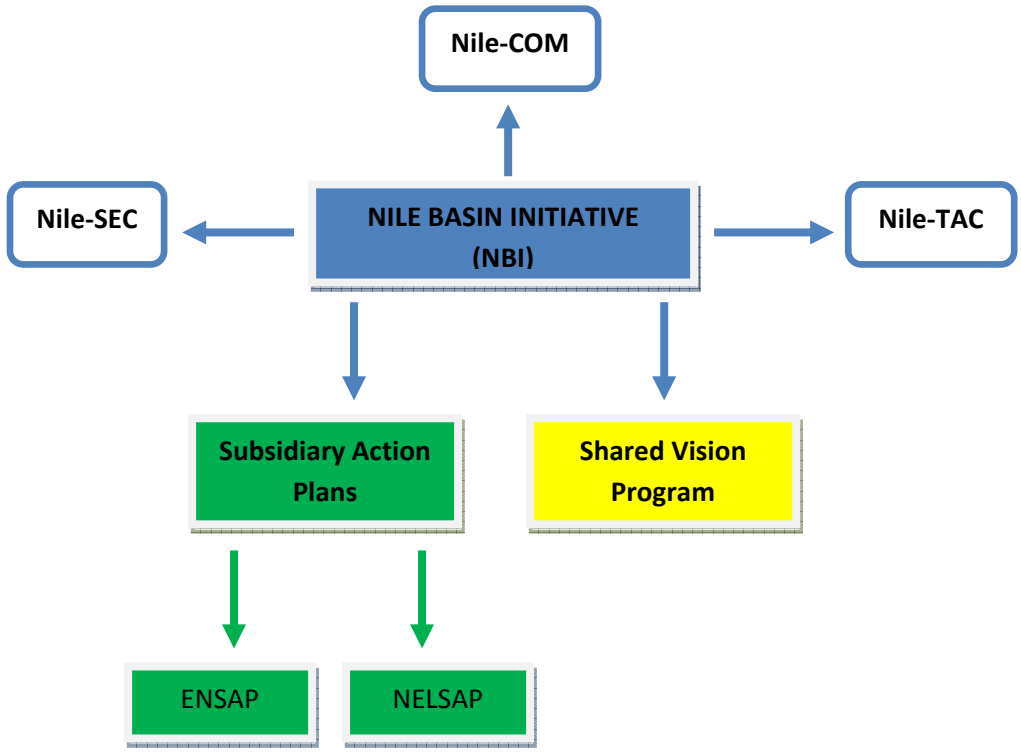
This chapter describes the NBI and its structure, has a closer look at its main sources of funding as well as projects, discusses its relation with the CFA and the context for its future work.

5.6.1. The NBI and its structure

The three main bodies of the NBI are the Council of Ministers of Water Affairs of the Nile Basin Countries (Nile-COM), the Technical Advisory Committee (Nile-TAC) and the Secretariat (Nile-SEC). All three organizational parts have their respective function. Encompassing the water ministers of the riparian countries, the Nile-COM is a political body. Since it is the highest decision-making body, the council defines the guiding principles for the Nile management. The presidency rotates every year among the states.

The Nile-TAC carries out technical assistance to the Nile-COM and consists of two representatives of each country. (NBI 2010c) Finally, there is the Nile-SEC, an administrative unit that supports the work of the other two components. It is headed by an Executive Director who is appointed by the ministers of water affairs and whose term lasts two years. The Secretariat renders several services for the Nile Basin Initiative, for example, the coordination of the Shared Vision Program (SVP). The office of the NBI is located in Entebbe, Uganda and its staff is recruited from the basin countries. (NBI 2010d)

Figure 14: Overview NBI



Source: own illustration

5.6.2. The Subsidiary Action Plans and the Shared Vision Program

The NBI defines its mission as follows: "…to achieve sustainable socioeconomic development through the equitable utilization of, and benefit from, the common Nile Basin water resource" (NBI 2010e). For the purpose of implementing the objectives of the mutual cooperation, the countries developed a Strategic Action Program, which consists of two elements. Firstly, there is the Subsidiary Action Plans, which encompasses the Eastern Nile Subsidiary Program (ENSAP), as well as the Nile Equatorial Lakes Subsidiary Program (NELSAP). Secondly, there is the Shared Vision Program (SVP), whose activities are primarily funded by, for example, the World Bank, the African Development Bank or the UNDP. (Belay et al. 2010, p. 10).

The Eastern Nile basin includes Egypt, Sudan and Ethiopia, cooperating via the ENSAP, a transnational investment program led by the Eastern Nile Council of Ministers (ENCOM). The Eastern Nile Technical Regional Office (ENTRO) was launched in 2002 and has its seat in Addis Ababa, where the coordination and preparation of the ENSAP projects

takes place. One of these projects is the Integrated Development of the Eastern Nile (IDEN), which aims to finance regional multi-purpose projects within the three countries. Under its umbrella, Egypt, Sudan and Ethiopia work on concrete sub-projects; for instance the Eastern Nile Planning Model, which fosters a joint planning and implementation of transnational investment projects; or the Eastern Nile Power Trade Program Study, which has the objective of a joint planning as well as development of power generation and transmission interconnections as a basis for cross-border energy trade. (ENSAP 2008)

The second investment program, NELSAP, encompasses all other states (excluding Eritrea) of the Nile basin. Like ENSAP, there is a Nile Equatorial Lakes Coordination Unit (NEL-CU), launched in 2001, which supports the basin countries by planning and coordinating their projects. Hydropower generation and transnational energy trade are central to the NELSAP projects as well. Therefore, it seeks to build interconnections between Kenya and Uganda, Burundi, the DR of Congo and Rwanda as well as between Rwanda and Uganda. Other projects concern natural resource management such as fishery projects or enhanced agricultural productivity. (NELSAP n.d.)

Beside the SAPs, there is a second component of the Strategic Action Program called Shared Vision Program (SVP). The SVP includes seven projects whereby each of them is devoted to one particular issue.[64] It fostered particularly the dialogue between the countries and the involvement of the civil society, both of which are still very weak in the Nile basin. (Wondimu Aug 2010). Normatively, the role of civil society is of high importance in the international water discourse. International donor organizations, such as the World Bank, link their funding with special conditions to the involvement of non-state actors. However, in reality, the situation is different in the Nile basin. Although, the NBI initiated several projects to stimulate the civil society, its actors do not play a role with regard to decisive questions. Most of the NGO activities are project-based. (RDO Aug 2010) This is the reason why the basin-wide engagement of NGOs has nearly stopped because most of the NBI projects expired and the lack of funding allows no further activities (Wondimu Aug 2010).One example is the Nile Basin Discourse, a network of civil society organizations in the Nile basin. Its initial funding was granted by CIDA, but its financial basis is not ensured for a long term. Moreover, it seems quite unlikely that authorities in the riparian countries will provide

[64] The seven elements of the SVP are: Nile Transboundary Environmental Action Project, Water Resources Planning and Management Project, Nile Regional Power Trade Project, Applied Training Project, Confidence-Building and Stakeholder Involvement Project, Socio-economic Development and Benefits Sharing Project, Efficient Use of Water for Agriculture Project.

financial assistance to civil society actors. (Mbote 2005, p. 8) This leads to another reason for the absence of a basin-wide civil society. The nature of the political systems in the Nile basin is strongly hierarchical and in some cases authoritarian. Most governments do not support the development of NGOs and some even actively suppress the evolution of non-state actors within their societies.

5.6.3. Influence and future of the NBI

The NBI proved to be an alternative sphere in which the Nile basin countries could work together, in particular to plan and implement transnational projects. A close cooperation on a technical or practical level fosters the confidence building and the mutual understanding of the participating countries. Without the NBI, there would have been no forum where representatives could meet and interact with each other because the CFA negotiations are only accessible for certain government actors and they are highly politicized. According to Wondimu, the NBI projects had a positive influence on the political cooperation and the negotiations for the CFA. (Wondimu Aug 2010)

However, the future of the NBI is mostly determined by factors that lay outside of its influence. Firstly, the question of future funding is not clear. At the moment the Nile Basin Trust Fund (NBTF), a funding mechanism, harmonizes the different donor contributions to the NBI. The fund was established in 2003 and is administered by the World Bank on behalf of the contributing donors. [65] The fund is overseen by the NBTF Committee which ensures that the use of the resources is in accordance with the NBI goals. Not all donors contribute to the trust fund. Consequently, they do not become members of the NBTF Committee but they are part of the ICCON Consultative Group. (NBI 2010f) The fund will expire in 2012 and donor countries are irritated by the fact that the riparian countries have not agreed on the CFA, which that would transform the NBI into a permanent Nile Basin Commission. Therefore, they are reluctant to give any financial commitments for projects in the Nile basin. Without sufficient funding beyond 2012, the achievements of the NBI are potentially put into question.

Although the NBI and the negotiations for the Cooperative Framework Agreement have been kept separated, the future of the NBI is closely interlinked with the result of the

[65] These donors are: Canada, Denmark, the European Commission, Finland, France, the Netherlands, Norway, Sweden, the United Kingdom and the World Bank.

negotiations. Firstly, the NBI would become the Nile Basin Commission. Secondly, as mentioned above, further financial commitments of many Western donors are bound to the ratification of the CFA. They expected that a legal and institutional framework will be fixed in 2012. Consequently, the NBI process is in danger due to the difficulties with respect to the CFA. (Wondimu Aug 2010)

5.7. The role of the World Bank and China as donors in the Nile basin

The lack of financial capacities in the countries of the Nile basin forced them to search for international donors who would give their support for the projects. Although the World Bank became involved in the late 1990s, it is not the only international donor. In the last few years, China strongly intensified its activities in Africa and also in the states along the Nile. This fact has important implications for the position of upstream countries.

5.7.1. World Bank

In 1995 the riparian states developed the Nile River Action Plan within the framework of TECCONILE. Although the Canadian International Development Agency was present in the basin for several years, its commitments were not sufficient to finance all the projects of the NRAP. Therefore, the governments approached the World Bank with the request to support the implementation of the Action Plan and the donor organization agreed.

This decision marks the starting point of the World Bank activities. During the last decade the World Bank developed a very strong position in the Nile region and also influenced the region's governance process. Since the NBI possesses no legal status or financial resources, it highly depends on the funding of the Nile Basin Trust Fund, which is managed by the Bank. Consequently, the cooperation between the countries is in some areas donor-driven. However, the World Bank played a role, which went beyond its core business as an international development bank and became a political actor as well. This double role implicated that the institution lost its neutrality in certain issues. Generally, many basin countries perceive the World Bank not as objective, and regard it as highly influenced by the United States with their close relations to, for example, Egypt. (RDO Aug 2010) They were disappointed because many expected not only a source of funding but also a neutral political

broker. The operational policy 7.50 of the World Bank (Projects on international waterways) says with regard to these projects:

> "The Project Appraisal Document (PAD) for a project on an international waterway deals with the international aspects of the project, and states that Bank staff have considered these aspects and are satisfied that…the other riparians have given a positive response to the beneficiary state or Bank, in the form of consent, no objection, support to the project, or confirmation that the project will not harm their interests;…"
>
> (World Bank 2001)

Other international development banks, like the African Development Bank, integrated such clauses as well. They give downstream countries, such as Egypt, the possibility to veto projects in the upstream countries and to block funding by the World Bank. (Cascao 2009, p. 260)

Nevertheless, the decision of the World Bank to deliver financial support was important with regard to two reasons. Firstly, the Bank gave money itself and secondly, other investors were attracted. The engagement served as a political signal to other international investors to become active in the basin. (Kahangire Aug 2010)

Due to the fact that the Nile Basin Trust Fund will expire in 2012, the future role of the World Bank in the Nile basin remains unclear. However, the Bank already started to slowly withdraw and step back during the last two years. Maybe the World Bank will stick to its core business and stay out of the process of institution building. (RDO Aug 2010)

5.7.2. China

Whereas the Western engagement is likely to be reduced in the forthcoming years as a result of austerity programs after the financial crisis, another actor enters the stage with a lot of noise. China massively increased its activities in African states, for instance, by offering them resource-backed development loans. This means that Beijing gives African countries loans which they repay with resources like oil. China has had positive experiences with this model because Japan also offered its neighbor such loans in the late 1970s. As a consequence, China has concluded such deals with a volume of 14 billion US-Dollars since 2004. (Brautigam 2010)

China is also present as an infrastructure financier in the Nile basin countries, in particular in Sudan, Ethiopia and the DR of Congo. The World Bank approach to development aid differs from China's way because China does not have any conditionalities like good governance or privatization and offers aid with low interest rates. Particularly, the conditions of the World Bank, which sometimes had grave consequences, became a major point of criticism. Additionally, the People's Republic of China does not require any consultations or consent among riparian countries with regard to projects along international waterways. Therefore, the Chinese presence in the Nile basin region has important implications for its countries. Especially in the Eastern Nile basin, countries like Sudan or Ethiopia got access to an alternative source of funding enabling them to move forward with projects even against the resistance of downstream countries. Ten years ago no donor would have supported these projects in the upstream states. The advent of China potentially weakens the position of Egypt, which used its good relations with donor countries and its veto position in the World Bank to block the development of a number of Nile-related projects in the upstream countries. Some examples for Chinese supported dam constructions in Africa are the Merowe Dam in Sudan, a hydro-electrical dam at the Tekeze river in Ethiopia as well as two hydropower dams in Uganda. (Cascao 2009, p. 260-261)

The stronger role of China as an international donor in the Nile basin opens new sources of funding and gives the African countries the possibility to use this situation politically in term of negotiations with the Western donor countries or organizations. Furthermore, the amount of money needed for the realization of projects in the Nile basin countries requires more financial resources than the Western countries can or want to provide. Consequently, the Chinese investments do not replace but rather complement the Western funds because there is enough demand for development aid in the Nile basin. Moreover, it seems likely that the Western commitment to the Nile basin region will decrease in the forthcoming years due to the global economic crisis and the resulting financial constraints. (RDO Aug 2010)

5.8. Conclusion

Notwithstanding the future challenges of the Nile basin countries, the region has still a vague and informal governance system, lacking strong basin-wide institutions. However, particularly in the 1990s the countries became aware of the necessity of transboundary governance and started to negotiate a legal framework in 1997. The phase of institutional

choice was preceded by the phase of agenda formation (1992-1997). During this time the question of transnational Nile governance gained prominence on the international political stage. The most important step was the development of the Nile River Action Plan, which could not be implemented, but highly influenced the Nile Basin Initiative. Beside these efforts, there were other initiatives in the past such as UNDUGU, a cooperation initiative of Egypt, or Hydromet in the late 1960s.

The current governance process in the Nile basin is highly state-centered and hardly integrates non-state actors on a basin-wide scale. Following the concept of Peters and Pierre, the system shows clear elements of an 'Etatiste' governance model. The 'Etatiste' governance model is characterized by a dominant role of state institutions and limited involvement and feedback from society. Except from the Nile Basin Initiative, which tries to integrate non-state actors, the monopoly of action is located in the hands of governments and states. The lack of civil society engagement also has internal reasons. Most of the political systems in the Nile basin do not foster the development of NGOs and some even suppress their activities. Consequently, there is no strong basis of non-state groups in the individual riparian states. Additionally, due to the fact that the funds for the NBI are expiring and the negotiations on the Cooperative Framework Agreement constitute the focal point of the governance process, states continue to play this dominant role. Non-state actors are excluded from the negotiations on the legal framework. A further reason is the fact that some Nile countries, especially Egypt, define the political debate on the Nile waters as a security policy issue. Therefore, states prefer to keep non-state actors out of the negotiations process.

The political deadlock, which developed around article 14b, reflects the different positions of upstream and downstream countries. Egypt and Sudan insist on the recognition of their current volumes based on the agreement of 1959. The upstream countries refuse this position not only with regard to water shares, but also with regard to sovereignty because most of them were not independent in 1959. Since the heritage of the colonial agreements frames the current political debate about transboundary governance, it is central to understand the history of (non-)cooperation in the Nile basin.

As long as the future of the CFA remains unclear, there is a potential threat that the weak governance structure falls apart. The challenges faced by the Nile basin countries, like population growth, increased demand for energy, food or water can create different contexts; either a cooperation-stimulating context where riparian countries accept their interconnection via the river, or a cooperation-humbling context where states reduce their cooperation to a

minimum and choose a rather unilateral approach. Moreover, there is a big question mark on the stability of Sudan, where people voted in a referendum for the independence of Southern. This could bring another player into the arena. As a consequence of the two-tracks approach, the technical level's influence on the political sphere stayed modest. Of course, there are some spill-over effects, but they were not strong enough to unite the different positions on the hard issues.

In May 2010 seven riparian countries decided to open the agreement for signature and five of them signed it as well. This step has consequences for the cooperation in the Nile basin. Firstly, Egypt and Sudan, opposing the current version, stay away from several meetings on the technical level. Secondly, Egypt intensified its bilateral efforts to enhance its relations with the upstream countries to create a more favorable political environment for its position. However Burundi, as the sixth country, signed the CFA in March 2011. This means that the sixth countries can start the ratification process. If the CFA passes all parliament the way is paved for an international regime in the Nile basin.

The Nile countries strongly depend on the Nile in many areas. The development of some factors like population growth, energy and food demand or water degradation suggest the pressure to use the river in a sustainable way will increase tremendously in the next five to ten years. Consequently, it is justified to ask the question if the riparian states perceive the Nile as a common property resource. An indicator for such an approach is the commitment to common property regimes. Following the concept of a common property regime introduced by Ostrom, the countries do not regard the Nile as a common property resource because most of the elements cannot be found with respect to the Nile basin.

6. Conclusion

The analysis of the governance of transboundary rivers from a global and transnational perspective brought a number of interesting insights. From a global perspective, the governance system of transboundary rivers shows a high engagement of non-state actors, whereas states have seemed to be rather passive. Particularly in the 1990s, additional non-state actors appeared and started to organize big international conferences on water governance. Although there was a positive context for environmental and also water-related issues after the UN Conference on Environment and Development in 1992, government activities became less on a global level. However, there was a series of regional agreements for integrated basin water management that were established and signed during the 1990s. The attempt to create a global legal framework for the governance of transboundary rivers has failed to this point (March 2011). The small number of states that have ratified the UN Convention on the Law of the Non-Navigational Uses of International Waterways indicates that the global governance of transboundary rivers is not a top priority for governments. Therefore, the global level lacks a clear legal framework and strong institutions dealing with this issue. In a nutshell, the current global governance system of transboundary rivers is still developing. It does not work in a way that would ensure to meet the ecological challenges with regard to transboundary rivers in an effective manner. There are a number of reasons which support that conclusion. Firstly, there is no framework convention that defines legally-binding rules (legal deficit). Secondly, there is a lack of government activities and efforts to establish such an international agreement for transboundary rivers. Thirdly, different actors with various backgrounds (UN bodies, INGOs, governments, TNCs etc.) are part of the governance system. However, they often compete with each other instead of developing synergies. The increasing number of international forums causes difficulties in coordinating the efforts and to increase the efficiency of the governance system (structural deficit). Consequently, a better coordination and cooperation of the global actors seems to be useful. A fourth reason is the rather poor public attention and awareness in comparison with other ecological issues such as climate change (attention deficit). It seems that international environmental policy is reduced to the question of climate. A possibility to change this situation is the strong role of non-state actors. Although there are difficulties to coordinate them, their high engagement could help, for example, to raise more public attention for the issue of water governance. In this case, the global civil society could replace governments and try to initiate a new global discourse on water-related policies. The role of INGOs is a starting

point for further and deeper studies in this area. Moreover, further research could help to examine the reasons for the reluctance of states to push a global framework convention.

Since 1998 the Danube basin has had a governance system with clear regulations outlined in the Danube Protection Convention. There were a number of factors that fostered the creation of a stable and cooperative governance structure. Especially, the enormous changes of the international political landscape at the beginning of the 1990s and an increasing awareness of the environmental degradation of the Danube pushed the development of the Danube governance system. Furthermore, the former states of the USSR made membership in the European Union to one of their top priorities. The condition to reach a certain level of environmental protection (legal standards etc.) pushed activities to improve the environmental situation including issues of water management. The formation of the regime took around 14 years, if one integrates the phase of the agenda formation, which is the phase where the issue gained enough prominence to get on the international agenda of the riparian states. Although non-state actors have the possibility to obtain an observer status to the ICPDR, the governance of the Danube is still state-centered. One reason is the lack of basin-wide NGOs. Solely, the WWF has the sufficient size and capacities to become active at a basin-wide level. However, the integration of observers into working groups gives them the chance to bring in their positions and to frame discussions from the beginning. Observers have no right to vote on legally-binding issues. The Danube basin possesses a well developed governance system that gives states the possibility to choose a basin-wide approach for its management and, therefore, deal with ecological challenges. Of course there still is the necessity to improve mechanisms and procedures for the basin management like a better support for the development of a basin-wide civil society. Nevertheless there are established institutions and mechanisms which can provide legally-binding decisions for the Parties of the Convention. A main reason for the transnational governance system is the fact that the basin states share the perception of the Danube as a natural resource which has to be protected. Generally, basin countries have shown a strong internal drive. Moreover, they are willing to cooperate with each other to guarantee a sustainable and better use of the river. The shared conviction of basin states that the ecological protection of the Danube is a legitimate and important goal constitutes a fundamental reason for the positive development of the governance system.

The Nile governance system is facing enormous difficulties. There are several points, supporting the conclusion that the current status of the governance system is still developing

and does not allow the riparian countries to solve the ecological problems or guarantee the sustainable use of the Nile river.

Firstly, the questions of water volume shares and sovereignty create a difficult context for an efficient basin-wide cooperation. These issues have their roots in the colonial times and the agreements that were signed during this time. Particularly on a technical level States have recognized that a transnational approach is necessary to ensure the protection of the Nile waters, on which many countries do highly depend on. In spite of numerous initiatives for cooperation in the past, the NBI, launched in 1999, brought a breakthrough. However, the two-track approach chosen by the basin countries has separated the technical from the political issues. Since 2007, the riparian countries struggle to agree on the wording of one provision of the Cooperative Framework Agreement that would give their cooperation clear rules and the governance system the necessary stability. However, the question if the rights of Egypt and Sudan, fixed in an agreement of 1959, should be integrated in the new convention is highly disputed and led the Nile basin into a political deadlock. This deadlock is already endangering the progress made on a technical and practical level within the framework of the NBI.

Secondly, although there is certain awareness on the technical level that transnational action is needed to solve current and future ecological problems, there is a lack of such awareness on the political level. Political decision makers seem to regard the river primarily as a subject to national interest and exclusively as an economic and not as a natural resource. Therefore, they are reluctant to participate in a transnational governance mechanism. Consequently, they lack political will to set the necessary steps towards a deeper cooperation in the Nile basin.

Thirdly, there is practically no basin-wide non-state actor who could promote a stronger transnational approach to the management of the Nile. Following the concept of Peters and Pierre, the system shows clear elements of an ‘Etatiste’ governance model. The ‘Etatiste’ governance model is characterized by a dominant role of state institutions and limited involvement and feedback from society. Most of the political systems in the Nile basin do not foster the development of NGOs and some even suppress their activities. Efforts to promote the development of a civil society is threatened by the fact that the funds for the NBI will expire in 2012 and donors are reluctant to promise further funds as long as the basin countries have not reached a consensus on the CFA. Therefore, at the moment, the governance system can be described as unstable. The threat for non-cooperative tendencies is

real because the Nile is essential for many societies, in particular Egypt and Sudan, and the developments in the area of population growth, energy, food and water demand, as well as water pollution, increase the pressure on governments to find a quick solution. However, it seems that a quick solution on a basin-wide will be difficult. A potential starting point for further research are the recent political developments in the Nile basin and their influence on the development of the transnational governance system. It would be interesting to ask if the end Hosni Mubarak's regime in Egypt and the referendum on the independence of Southern Sudan have an impact on the CFA.

Transboundary rivers serve as a source for drinking water, irrigation facilities, energy production and serve as transport way. But do states see them as a common-property resource? The results of this analysis suggests that they do not regard transboundary rivers as common-property resources at a global level as well as in the Nile basin, whereas the Danube basin states seem to have accepted the river as such a resource. The reason for this conclusion is the fact that the Danube has a regime that follows the concept of common property regimes developed by Ostrom. Such regimes indicate that states are willing to create a legal framework where a sustainable regulation and governance of natural resources is possible. As mentioned above, there are practically no activities of states on a global level that aim to establish an international legal framework for transboundary rivers. It seems unlikely that the group of countries which have signed or ratified the UN Convention on the Law of the Non-Navigational Uses of International Watercourses will grow in the near future. With regard to the Nile basin, there is a real chance for a new perspective on the Nile basin as a common-property resource if the Cooperative Framework Agreement is ratified.

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Abstract (English)

Several natural resources on our planet are under heavy pressure due to human activities and have drawn an increasing attention from the international community and, therefore, the studies on international relations. One of those natural resources is water and transboundary rivers. Transboundary rivers are crucial sources of fresh water, energy production, irrigation or transport. Since they flow through more than one country, their use affects many people in different countries. The analysis has a closer look on the global and transnational level and examines if the current governance systems and mechanisms ensure a sustainable use and help to meet ecological challenges. It describes relevant actors, their interactions and analyzes if and how states cooperate with each other. Furthermore, the thesis identifies reasons why states in the analyzed cases cooperate or why they tend to follow a rather non-cooperative approach. With regard to transnational governance systems of transboundary rivers, the author has chosen the Danube and the Nile. For this purpose, expert interviews with government officials, scholars and representatives of IGOs were conducted. The results show that the global governance system on transboundary rivers is still developing and lacks mechanisms that would ensure the efficient governance of this natural resource. With regard to the Danube, the study suggests that there is a well established governance system, constituting a multilateral framework to manage the river basin. On the contrary, the Nile basin is still struggling to set up a stable governance system. Political developments in the near future will highly influence if such a stable governance system can be established.

Abstract (Deutsch)

Aufgrund von menschlichen Aktivitäten befindet sich eine Reihe von natürlichen Ressourcen auf diesem Planeten unter starkem Druck. Dies hat dazu geführt, dass die internationale Gemeinschaft diesem Thema eine erhöhte Aufmerksamkeit schenkt und folglich auch die Politikwissenschaft im Bereich der internationalen Politik. Eine dieser naürlichen Ressourcen sind transnationale Flüsse, die eine wichtige Süßwasserquelle darstellen und eine zentrale Rolle in der Gewinnung von Energie, der landwirtschaftlichen Bewässerung oder dem Transport zukommt. Da transnationale Flüsse durch mehr als ein Land fließen, beeinflusst deren Nutzung eine Vielzahl an Menschen in unterschiedlichen Staaten. Die vorliegende Analyse unterzieht die globale sowie die transnationale Ebene einer genaueren Betrachtung und untersucht, ob die momentanten Governancesysteme and Mechanismen eine nachhaltige Nutzung ermöglichen bzw. helfen mit den anstehenden ökologischen Herausforderungen umzugehen. Die Studie beschreibt relevante Akteure, deren Interaktion und geht der Frage nach, ob respektive wie Staaten miteinander kooperieren. Weiters identifiziert sie Gründe, weshalb Staaten in den unteruchten Fällen zusammenarbeiten bzw. zu einen weniger kooperativen Zugang tendieren. Im Hinblick auf die transationale Governancesystem grenzüberschreitender Flüsse hat der der Autor die Donau und den Nil ausgewählt. Zu diesem Zweck wurden Experteninterviews mit Regierungsbeamten, Wissenschaftlern sowie Vertretern von internationalen Regierungsorganisationen geführt. Die Ergebnisse der Diplomarbeit zeigen, dass das globale Governancesystem transnationaler Flüsse noch in Entwicklung begriffen ist und einen Mangel an Mechanismen aufweist, die eine effiziente Regulierung dieser natürlichen Ressource erlauben würde. Im Bezug auf die Donau last sich ein gut etabliertes Governancesystem feststellen, das einen multilateralen Rahmen für das Management des Einzugsgebiets der Donau zur Verfügung stellt. Im Gegensatz dazu wird im Nileinzugsgebiet noch um die Bildung eines stabilen Governancesystems gerungen. Politische Entwicklungen in der nahen Zukunft werden stark beeinflussen, ob es gelingt ein solches stabiles Governancesystem zu etablieren.

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SPRACHEN

Deutsch (Muttersprache), Englisch (verhandlungssicher), Französisch (fließend)