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Peace and Development Work Master Thesis

The Water Wars

- *A Summer Game or Serious Business? A Qualitative Content Analysis of the Narratives Behind the Debate*

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Abstract

In the decade of the 1990's, people started to foresee a dark future wherein wars over the precious resource water would be a reality. This was to be called the water wars thesis and implied that countries would go to war to safeguard their own access to water. This sparked a debate over the legitimacy of the thesis. Although, even in 2018 the debate lives on and the water wars thesis still prevails as a quite influential thesis in media and on policymakers table. Therefore, an intriguing question arises as to why and how the thesis survives even when met with empirical data pointing to the other direction, cooperation. This research paper is examining this intriguing question by adopting a qualitative content analysis approach together with an analytical framework called narrative policy analysis. This framework seeks to explain complex policy issues such as the water wars thesis by examining the policy narratives behind them. Therefore, this will be used to examine documents and publication with the aim to observe policy narratives within the debate that may assist in explaining the prevalence of the water wars thesis. Thus, this research paper indicates that the prevalence of the water wars thesis may have roots in how the different positions portray the issue of water wars. Hence, this study has also indicated a divergence in what system beliefs the positions take.

Key Words

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Acknowledgments

List of Abbreviations

IPCC – Intergovernmental Panel on Climate Change

NPA – Narrative Policy Analysis

OECD – Organisation for Economic and Co-operation and Development

UN – United Nations

UNW – United Nations Water

WEF – World Economic Forum

WB – The World Bank

WWT – Water Wars Thesis

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1 Introduction

"Climate change is now being recast as a threat towards international peace and security…"

(Brown et al. 2007:1141)

At the turn of the millennium, voices had been raised concerning the serious effects that environmental changes, especially forced by humans, had on both national and international security. Questions were asked whether these changes could severely lead towards conflicts on both local, regional and global scales. It was proposed that environmental scarcity could lead to a range of different violent conflicts because power may shift between nations or that the gap between rich and poor nations may increase even further, thus increasing tensions within nations (Homer-Dixon, 1999:3; Gleick, 1989:333-334; Shaheen, 2000:137). Especially the resource of freshwater has become a resource that holds a high rank when it comes to countries motivation to dispute over it (Brochmann & Gleditsch, 2012:519).

Hence, the link between conflicts and resources (Gleick et al. 2018:587), the effects climate change may have on international security and access to freshwater (Brown et al. 2007:1141; Glecik, 1989:338; Poff et al. 2003; Swain, 2015:447) and the increased, vital and strategic role water plays within different regions around the world (Morrissette & Borer, 2004:88) has pushed the last, water scarcity, to become an important factor that may have the serious possibility to affect international peace and security around the globe (Orlando, 2015:101). Frey and Naff (1985) already raised a concern for the water development in the Middle East during the 1980's (Frey & Naff, 1985). Consequently, as proposed, countries may need to think about

climate change and resources as a question of "securitization" (Brown et al. 2007:1141).

This is reinforced by Dolatyar and Gray (2000a) who gives water the title of being "…the principle challenge for humanity from the early days of civilisation." (Dolatyar & Gray, 2000a:6) and Alam (2002) who states that "Controlling access to water is vital for national security and, therefore, highly political." (Undala, 2002:341). One may understand this serious tone when hearing about statements such as Châtel's (2007) that "Around the world water is becoming an increasingly scarce and valuable resource: 40 percent of the world's population in 80 countries suffers from serious water shortages…" (Châtel, 2007). Also, news emerges about immediate threats of violence around regions such as with Sudan, Egypt, and Ethiopia over a dam (Cook, 2018).

With this in mind, it may not come as a shock that a convincing thesis emerged in the 1990's which became known as the "Water Wars Thesis". These water wars were plainly "…understood as international wars between states triggered and sustained solely over issues arising over water." (Pradhan, 2017:12; Undala, 2002:341) and therefore implying a direct war between two or more countries solely over water. During the subsequent years, the thesis was either supported and reinforced with different studies and claims by high ranking profiles or countered with empirical testing by academics and scientists (Rahaman, 2012:4-5). As examples, quotes by Ismail Seragaldin (at the time vice director of the World Bank) "The wars of the next century will be over water." (Katz, 2011:12) and Kofi Annan (at the time general secretary of the United Nations) "Fierce competition for freshwater may well become a source of conflict and wars in the future." (Jarvis, 2010:346) can be mentioned here.

The thesis has been a long debated by mainly two positions, the ones supporting (Starr, 1991; Bulloch and Darwish, 1993; Küffner, 1998; Shiva, 2002; Amery, 2002) against the position disproving their claims (Shaheen, 2000; Dolatyar and Gray, 2000b; Postel & Wolf, 2001; Uitto & Wolf, 2002; Yoffe et al. 2003; Selby, 2005; Barnaby, 2009). Although, this debate has gone on to the present day and maybe more alive than ever. People still debate and publish materials supporting or claiming the validity of the thesis (Brooks, 2011; Engelke & Sticklor, 2015; Engelke, 2016) as people still trying to disprove the thesis as a myth (Mis, 2015; Cascao et al. 2018) or still at least discussing it (e.g. Petersen-Perlman et al. 2017). Hence, concerning the longevity of the thesis, Cascao et al. (2018) have observed a revival of the thesis, wherein it is once again gaining ground as a quite prominent and pervasive idea of the future of water. The authors even questions how it may be the fact that the thesis has been revived again and how it prevails (Cascao et al. 2018). This is a question that has been raised before, but seemingly unable to be answered (Katz, 2011; Barnaby, 2009; Wang, 2013; Newton, 2015).

This revival may not come as a shock, as studies show an increased attention that is directed towards water issues. Water scarcity and water stress is increasing dramatically (Arsenault, 2012; OECD, 2012; Barnaby, 2009) and is becoming the most severe threat to global stability (Sadoff et al. 2017). Also, experts indicate that almost two-thirds of the global population may live with a daily water shortage as early as in the year of 2025 (Northeast Today, 2018). Thus, within the World Economic Forum (2018), water crises and climate change adoption has been ranking high the last years up to 2018 (World Economic Forum, 2018) as making the content of the water wars thesis as contemporary as ever.

With this background, the objective of this research is to investigate how the water wars thesis prevails. This is carried out by facilitating a qualitative content analysis accompanied by a theoretical framework called Narrative Policy Analysis. This framework includes components that will observe narratives within documents and publications, that will be examined, and which may assist in reaching the research objective and try to answer how the thesis prevails. The research objective and accompanied research questions are outlined in chapter **1.2**.

1.1 Literature Review

Firstly, the literature on the existence, or nonexistence, of water wars and the environments relation to conflict is extensive. Regarding literature supporting the water wars thesis, one can find examples such as Starr (1991), Homer-Dixon (1994, 1999), Bulloch and Darwish (1993), Küffner (1998), Shiva (2002) and Amery (2002). Regarding authors that have contributed towards the debate and criticism against the thesis, one can find examples such as Shaheen (2000), Dolatyar and Gray (2000b), Postel and Wolf (2001), Yoffe, Wolf and Giordano (2003) and Barnaby (2009). Thus, there exist a great amount of contributions and academic literature that has in some way contributed to the debate over the water wars thesis.

Concerning the academic literature unto the prevalence of the water wars thesis and its longevity, two author stands out. Firstly, Katz (2011) was intrigued by the fact that the thesis seemed to survive and prevail even when it was contradicted by empirical data and evidence. Katz did not take an active stance either against or for the thesis, but rather investigated the incentives for why actors chose to support or use the thesis and for what purpose (Katz, 2011). Herein, this research paper could contribute to this research by applying a different theoretical framework, the Narrative Policy Analysis, that investigates narratives rather than incentives behind the debate.

Moreover, Wang (2013) has rather emphasized this exciting question as a discussion subject on The European Commission's webpage under "Capacity4Dev". Herein, even though Wang does not do any empirical testing, he raises the issue of how come the thesis prevails and survive, even though countered extensively by several authors with empirical data and evidence (Wang, 2013).

With that said, Barnaby (2009) also raised this as an issue with stating "Yet the myth of water wars persists" (Barnaby, 2009:283) and it is indeed an interesting observation and thought of how this can be the fact. Henceforth, this is also reinforced more recently by Cascao et al. (2018) wherein the authors behind the article questions how the thesis has been a revived and in this way, indicates that the debate is still alive. The authors clearly question why it is back and for what purpose (Cascao et al. 2018).

Therefore, how the thesis prevail is an intriguing question to ask, and if one examines the latest report from the World Economic Forum (WEF) (2018), one can see how the topics and issues surrounding climate, water crises, and adaption to environmental changes has gained a higher rank in both highest impact and risks. Concerning impacts, water crisis and failure of climate change adoption is located at the top of the rank during the years of 2015 and 2016. Meanwhile, during both 2016 and 2017, climate change adoption was on the third place on the same list (World Economic Forum, 2018). With both Katz (2011), Wang (2013) and Cascao et al. (2018) in hindsight, it is still interesting to investigate how come the thesis prevail at present day and hence could be considered to remain as a hot topic discuss. Thus, there seems to not exist a great amount of academic and literature that seeks to explain this phenomenon (although one example is Katz, 2011) and it is exactly where this research is trying to contribute.

1.2   The Research Objective

The research objective is to *investigate how the water wars thesis prevails and survives*. This is an attempt to understand why the water wars thesis is still existing after being met with heavy criticism and empirical data. Thus, the main hypothesis in this research is that the water wars thesis still prevails because of how the issue of water wars are projected and promoted within the debate.

The relevance of the research objective lays in what has been raised in **chapter one.** Much seems to have changed from when the water wars thesis was first introduced and the debate between two different positions is still active after having seen a revival, which makes it contemporary. Thus, climate change, increased water scarcity, population growth, increased tensions and the amplified perception of environmental changes as a security issue for nations shows that the issue of water wars may be as contemporary as ever. Also, this could possible assist other fields of study in how to address complex debates with two or more polarised positions.

1.2.1   Research Questions

With the research objective, this research will apply several research questions. The purpose of these research question is to guide the research towards its objective, which is to investigate the prevalence of the water wars thesis. The different research questions are therefore as stated below:

- *What are the standpoints within the debate of the water wars thesis?*
- *What are the differences and similarities between the standpoints?*
- *How can these similarities and differences be explained?*

Firstly, question number one is descriptive with the aim to outline the debate to understand the context and content of the water wars thesis. What a descriptive question indicates is that this style of research questions seeks to methodically collect and present findings that illuminates a specific subject

or topic (Ejvegård, 2009:34). As these questions reveal, the aim here is to illuminate the debate around the water wars thesis.

Secondly, question number two also has a characteristic of being descriptive, as it seeks to illuminate the different positions within the debate, what their standpoints are and how they portray the issue of water wars. Lastly, question three is the analytical core of this research, which seeks to investigate both the differences as well as similarities within the debate and therefore to answer the question of how the water wars thesis still prevails.

1.3   Outline of the Research Paper

The structure of this research paper is as follows. The **first chapter** introduces the reader to the topic, the research objective and the relevance of this area. Subsequently, **chapter two** describes the theoretical framework, how it is being applied and for what purpose. In **chapter three**, the methodology of the thesis is outlined, thoroughly to justify the method chosen for this research. This is conducted with the goal to justify and explain how the methodology coincides with both the research objective and the theoretical framework.

In **chapter four**, the results and findings are presented and analysed continuously to observe and examine potential policy narratives (what policy narratives are and consists of will be explained in chapter two). Hence, in **chapter five** the aim is to continue the analysis and observe any similarities and differences between the positions. In this chapter, the research also aims to explain these differences and similarities. Lastly, **chapter six** is concluding this research paper with chapters addressing both suggestions, future research and end comments. This is conducted with the aim to thoroughly close the loop.

2 Theoretical Framework

This chapter outlines the theoretical framework and it is thoroughly presented and elaborated in both how it will be applied and for what purpose. The choice of the specific framework is based on the research objective and therefore part of achieving it.

The theoretical framework chosen for this thesis has its base from Roe (1994) and is called *Narrative Policy Analysis* (NPA). This is an approach and framework focusing on analysing complex and uncertain policy issues by examining the narratives behind claims that may exist within distinctive policy issues and debates (Roe, 1994). Narratives or what Molle (2008) calls "…cyclical, discoveries of ideas and theories that inform or inspires practice for a number of years." (Molle, 2008:131) is something that is part of different fields of study, also within development science. The narratives are being twofold. For some people, narratives are only "catchwords" and something that will not remain relevant for long. Although, for other people, narratives are their own worldview and can, therefore, show a power and important tool, certainly if they belong to people that can exercise this power to spread this idea and narrative (Molle, 2008:131). As an example, prominent people may be able to influence because they possess a role wherein the person can affect and(or) change the focus in a certain policy issue through their *policy narrative* (what a policy narrative consists of will be thoroughly explained in chapter **2.2**).

Applying the Narrative Policy Analysis on cases that have an anchoring within environmental issues has been operationalized before in earlier studies and been proven to be effective (Pierce et al. 2014:30). Moreover, in Pierce et al.'s (2014) research, 19 documents were studied to observe how the Narrative Policy Analysis was applied in other studies (utilizing the same framework). The results from this study revealed that 16 out of the 19

documents examined was applying the NPA on "…environmental and energy issues." (Pierce et al. 2014:30). Hence, the use of the NPA on a specific policy issue connected to the environment has gained more ground in recent years. Pierce et al. (2014) also raise a need for narrative policy frameworks and analyses to "…expand beyond the environmental policy domain to help determine the strengths and limitations of the framework…" (Pierce et al. 2014:30). This is an interesting perspective as this research paper could contribute to this by conducting a research anchored in international relations. The research subject may still be an issue connected to the environment, this through water, but is still a topic that links water to international relations and security as the water wars thesis do.

2.1   Narrative Policy Analysis and Framework

"…Stories commonly used in describing and analysing policy issues are a force in themselves, and must be considered explicitly in assessing policy options."

(Roe, 1994:2)

The former quote by Roe (1994) raises an interesting perspective on how to understand, examine and address policy making and complex policy issues. It is the role policy narratives play within policy development processes that policy scholars have taken a more interpretive stance against. Thus, claiming that these narratives have an influential role in the processes (Roe, 1994:1; Pierce et al. 2014:27; Weible et al. 2016:422). Henceforth, this does reinforce the importance of studying the narratives behind policy processes.

Something that researchers within the field of public policy have been studying and thinking about for a long time is the recognition that there exist factors more than only science that may guide and affect policy decisions. Herein, a great force is acknowledged to be the person itself, that do face and uses the science. Thus, the "belief systems", and how the person chose to use

it, is of great importance to understand the process of policies (Jones & Crow, 2017:2).

Continuing this, Roe (1994) specifies three main pillars that exist around a specified policy issue. These policy issues are defined by *uncertainty*, *complexity*, and *polarization*. One important question to ask regarding both uncertainty and complexity is who they belong to. As Roe states "One of the strength of narrative policy analysis is demonstrating how useful it is for the analyst to clarify just whose uncertainty and complexity are at issue." (Roe, 1994:10-11). Hence, this is a clear strength and attribution to the NPA as it may assist in analysing to whom the uncertainties and complexities belong to.

As outlined before, a strength with the NPA is its objective to highlight the importance that policy narratives have on public policies. Hence, it is assisting in observing systematic patterns of arguments and narratives that plants the base for policy decisions within complex policy issues. (Roe, 1994:1). As Molle (2008) states "Influential concepts in policy making are not merely neutral or scientific; They do not change but, rather, are the emanation of complex webs of interest, ideologies, and power." (Molle, 2008:131). This is in line with the debate that encompasses the water wars thesis. Herein, two different positions seem to have different ideas and beliefs regarding the future water wars, and therefore what will happen. The key theme here is that one of the narratives supporting the idea that wars over water will be present in the future seems to have been endorsed by prominent people that have had a high position in international organizations such as the United Nations and the World Bank (See quotes from chapter one). This is a clear connection to what the NPA highlights as an important factor part of complex policy issues.

2.2 Operationalization of the Narrative Policy Analysis

When conducting an NPA study, it is different aspects that are important to thoroughly explain before applying the framework. A question that always appears is what a policy narrative is constituted of. This is a challenging question that has divided scholars before, because of the complexity to properly define the concept and what it includes (Weible et al. 2016:422). Weible et al. (2016) raise this issue as "A fundamental challenge in understanding policy narratives is the inconsistency and lack of precision in how policy narratives, and their constitutive elements, are defined." (Weible et al. 2016:420). Henceforth, this research recognizes this issue and therefore seeks to elaborate and combine both Roe's (1994) explanation together with Shanahan et al. (2017). As stated, this is conducted to have a theoretical framework with clearly defined components that will make the research paper operationally and the data collection easier.

2.2.1 The Components of a Policy Narrative

As stated, in any given NPA study it is important to define what a policy narrative consists of. This, as it guides the study and visibly outlines the components or elements of the policy narratives that one seeks to investigate within the publications and documents (the data) (Shanahan et al. 2017:4). Therefore, this subchapter will elaborate around the definition of a policy narrative and which components that this research will adopt.

Starting with Roe (1994), a policy narrative is simply "…stories (scenarios and arguments) which underwrite and stabilize the assumptions for policymaking in situations that persists with many unknowns, a high degree of interdependence, and little, if any, agreement." (Roe, 1994:34). Hence, a story is seen to include a beginning, a middle and an end that circles around a set event or position that indicates that something will occur (Roe, 1994:36). Moreover, a story or narrative that meets the "conventional definition" of a story also includes different characters, a plot and a certain style of

storytelling (Roe, 1994:53). These components do overlap with what Shanahan et al. (2017) include in their definition of a policy narrative, although these authors may be even more specific in their descriptions.

In the research of Pierce et al (2014), where different applications of the NPA (although they phrase it as framework), the result showed that most NPA's concentrated "…on the setting (policy domains and level of government), characters (heroes, villains, and victims), and the moral of the story (policy problems and solutions)." (Pierce et al. 2014:30-31). Therefore, within these three elements, the setting suggests a specific situation of the policy narrative. A character indicates the need to identify at least one character and one policy preference, and the moral of the story suggests that at least one policy preference, as either a problem or solution, is presented (Pierce et al. 2014:30-31). The last perception of a moral of the story, to create something and act, is something that Roe (1994) do also raise as an important part of an NPA study. Here, it is important to take it seriously the need to "act upon" and "do something" about what people already know drives an issue (Roe, 1994:12).
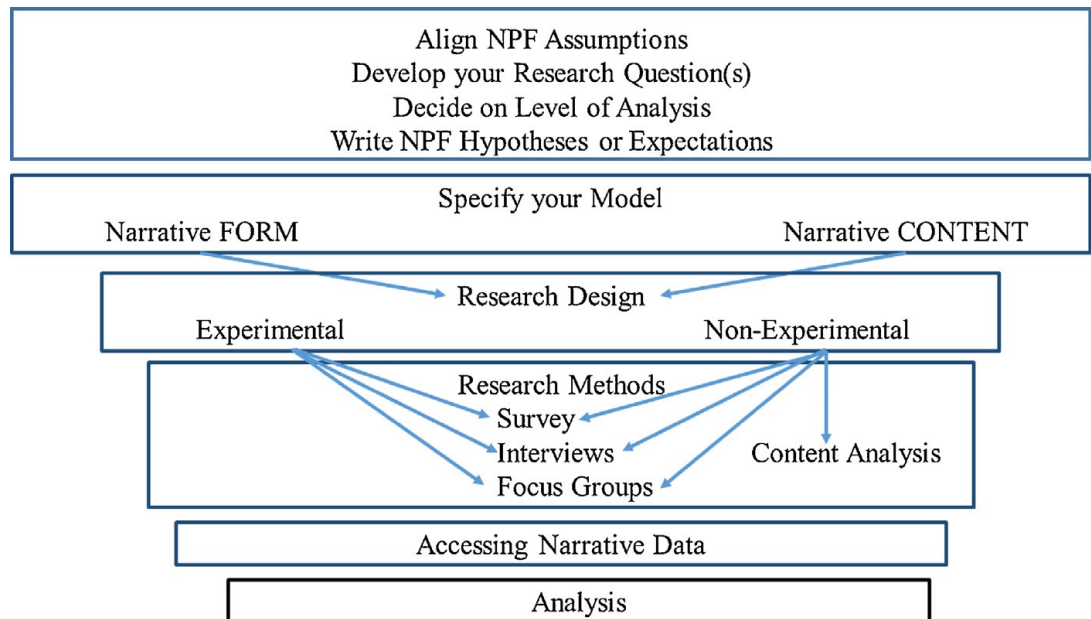
(**Figure one**. "Research approach in the Narrative Policy Analysis" retrieved from Shanahan et al. 2017:2)

Furthermore, Shanahan et al. (2017) has created a schematic of how to manage a Narrative Policy Analysis (Once again, they use the word framework instead of analysis), see **figure one**. These steps are an example of how a researcher could operationalize an NPA study. The authors also confine the components of a policy narrative into two different categories, the *Narrative Form* and the *Narrative Content* (Shanahan et al. 2017:4) which has both parts of Pierce et al. (2014) proposition. Accordingly, to which extent a policy narrative includes these components defines the narrative index, which therefore is a measuring tool for how high "narrativity" that exist and therefore the robustness of the policy narrative (Shanahan et al. 2017:6) although this is still an under-researched area of what may be considered a high "narrativity" or low and what effects it may have. This research does not seek to investigate any narrativity but includes the concept here as it is an interesting and important aspect to raise. One could probably at least indicate which narratives that includes the most components.

2.2.1.1 Policy Narrative Form

Firstly, For Shanahan et al. (2017) a policy narrative form is the specific and identifiable components of every policy narrative, or as stated by the authors the "…structural building blocks of narrative…" (Shanahan et al. 2017:5). These components do constitute the form of a narrative, what makes the narrative possible to even detect and examine (Shanahan et al. 2017:5).

These narratives could include components such as:

- A Setting (e.g. space and time),
- A Character (e.g. heroes, villains, and victims),
- A plot (e.g. organize action) and
- A moral of the Story (e.g. policy solution).

<div align="right">(List created from Shanahan et al. 2017:4)</div>

These are coinciding with the ones presented from the findings of Pierce et al. (2014) as being the most identified in NPA studies.

Regarding the four components, **the setting** refers to a certain place in both time and space, wherein the narrative is happening. Thus, it is the context of the policy and could be both an "immediate surrounding" or for example a geographical, political or social context (Shanahan et al. 2017: 4).

About **characters**, these indicate the existence of characters that either act or are acted upon and could be someone as listed earlier. Interestingly, discussions have arisen whether a character could be non-human (Shanahan et al. 2017:4; Weible et al. 2016:422). A proposal is therefore that the characters should be able to be non-humans and therefore things as money, the environment or animals could be taken into consideration when applying the framework (Weible et al. 2016:422). Thus, characters are also defined by the descriptions (verbs/adjectives) that are applied to a character (Shanahan et al. 2017:4). Hence, what a character does (verb) and how it affects (adjective) guides the researcher in defining the character as either a hero,

villain or victim. As an example, the use of "the greedy governments" could indicate them as being the villain because of the adjective "greedy", compared to "the helpful governments" that could indicate them as being the heroes because of the use of the adjective "helpful".

Continuing, **a plot** has its function so that it links all elements together, both characters, the setting and the moral of the story so as it creates to an extent the content of the story and what it circles around (Shanahan et al. 2017:5). This is then a policy issue or complex issue within a debate.

Lastly, the **Moral of the Story** is the idea that there is a solution for the issue at stake, that there is an action to be taken. Although, throughout the literature and several applications of the Narrative Policy Analysis, it is occasionally the case where no solution or action is proposed. Rather is a proposal for what is needed to do (Shanahan et al. 2017:5). The difference here is that most of the time somebody may indicate that "we need to take action" but do not properly present any examples of how to take this action.

One important thing to recognize is that not all elements are necessary to be included in an NPA study to examine a policy narrative, but Shanahan et al. (2017) argues that at least two components are needed. These are a character and a policy issue of interest (you could say the plot) (Shanahan et al. 2017:5).

2.2.1.2   Policy Narrative Content

Policy narrative content is what Shanahan et al. (2017) imply gives a meaning to the policy narratives. Within the content of a policy narrative, different kinds of *belief systems* and *strategies* exist that gives the policy narrative a sort of policy reality. Hence, the meanings behind a narrative can be measured by narrative content (belief systems and strategies) (Shanahan et al. 2017: 5).

Therefore, a **belief system** refers to a stable set of values and ideologies that people, societies, and groups have adopted. This is an important aspect of any policy narrative because it is significant to understand the underlying values and beliefs that affect the debate or policy issue that is debated or discussed (Shanahan et al. 2017:5). Therefore, this lays the base for the perception and understanding one person may have towards a specific policy issue.

Continuing, **strategies** essentially indicate that policy narratives are communicated out in a way that is supposed to persuade, affect or to inflict uncertainty into the audience (Shanahan et al. 2017:5-6). Narrative strategies are something that may be hard to detect, although there could be traces of strategies that one may raise as a possible strategy throughout policy narratives. Although, it is important to not speculate too much, but rather suggest.

To summaries section **2.2.1.1** and **2.2.1.2**, a policy narrative consists of both a narrative form and a narrative content. It does differ from one NPA study to another which component are included and it is part of the final subchapter (**2.3**) to explain which components this research paper is implementing throughout this study.

2.2.2   The Four Steps of Analysis

Before summarising the different components that this research will implement it is needed to explain what Roe (1994) calls the "Four Steps of Analysis". Roe implies that for any person adopting an NPA, one usually goes through four different phases of analysis (Roe, 1994). These four steps are to guide the analyst so that it is easier to identify different narratives. These four steps are a good framework that could guide the analyst and hence to structure the analysis to make the research more amenable. The following list outlines these four steps as proposed by Roe:

- **Step I** is to define stories and to identify policy issues that correspond to the definition as outlined earlier. This may be the policy narrative that dominates the complex policy issue that is debated.

- **Step II** is to identify what Roe names *counter-stories* (Roe, 1994:3), which are stories and narratives that do not coincide with the definition of the dominant policy narrative. Sometimes it can also be *nonstories*, which indicate that the response to the dominant narrative is just critiquing with no solution presented at all (Roe, 1994:53) and remains as solely critic.

- **Step III** is to compare both identified narratives, the dominant policy narrative, and the counter story. This is done to be able to create what Roe defines as a *metanarrative* (Roe, 1994:4). Hence, the metanarrative is the story that is created by the comparison between both narratives.

- **Step IV** is the last step of these four proposed. Thus, here the researcher analyses whether it is possible to create a metanarrative and if this narrative reproduces the policy issue in a style that makes it for decision making.

(List created from Roe, 1994:2-4)

These four steps are helpful in applying an NPA on your research and will, therefore, be part of this research. Concerning **Step I**, the identification of a narrative or story is done within a policy area that is described as having a high level of *uncertainty*, *complexity*, and *polarization*. Consequently, the narrative is also viewed as being partly the dominant one by laying the foundation for the assumptions behind policymaking. Furthermore, the narrative in **Step I** is observed as having both a beginning, middle and end (Jones & McBeth, 2010:335; Roe, 1994:2-4) **Step II** and **III** is as already described in the list above. Step **IV**, the metanarrative seeks to establish a narrative that assists policymaking by offering a bridge between two

oppositions of an issue. These two positions may be so heavily divided by their different values, ideas and interests that a metanarrative may offer a middle ground for policymakers to make decisions from. Although, there exist no assurance for the existence of a metanarrative. Sometimes the case is that no metanarrative is possible to create if the issue is to complex and polarised (Roe, 1994:4).

Hence, the water wars thesis debate falls nicely into this picture of two different positions with different ideas over the future of water wars. With **Step IV**, the goal is to understand and show a metanarrative that may give a more balanced perspective on the debate which could assist by decreasing the high levels of uncertainty, complexity, and polarisation within the policy issue and between the different positions. Also, a comparison and creation of a metanarrative will seek to reach the objective of this research, which is to understand how the water wars thesis prevails.

In the end, these four steps will be part of this research together with the explanations of the different components from Shanahan et al. (2017) that should be the base of how to distinguish a policy narrative, but this will be summarised in chapter **2.3**.

2.3   Summary of the Theoretical Framework

After elaborating around the important components and steps retrieved from both Roe (1994) and Shanahan et al. (2017), this subchapter describes how the theoretical framework will be applied and operationalized throughout this research paper.

This research seeks to investigate and address the policy narrative behind the water wars thesis by adopting firstly Roe's four phases of operationalization (the four steps of analysis described in subchapter **2.2.2**). Therefore, **I**. the partly dominant, story or narrative needs to be defined **II**. A counterstory or narrative needs to be defined and elaborated around as being a contrast

towards the initial narrative **III**. A comparison between the both needs to be done. This, to achieve step **IV**, which is to investigate the possible existence of a metanarrative that can be used to reach common ground between the two positions and make a complex issue as water wars amenable.

Secondly, important components from Shanahan et al. (2017) that needs to be included, and has been proven to be important in other NPA studies (Shanahan et al. 2017), will be used and operationalized in this research. Thus, this research aims at adapting to the policy narrative forms that have been elaborated in **2.2.1.1** which include defining potential characters, realizing the setting, highlighting the plot and, if visible include the moral of the story. These components are important to distinguish a policy narrative from a non-narrative and will be an essential contribution to the operationalization of the research as it will be the base for which data that is collected. Moreover, narrative content is part of the framework applied in this research. Thus, potential system beliefs, as well as potential strategies, will be examined and investigated to understand the underlying structures and views behind the positions within the debate about the water wars thesis.

Lastly, the objective here and onwards is to apply and use this framework to examine and identify policy narratives within different documents, publications and sources that are collected and presented in chapter four.

3 Methodology

This chapter explains the methodology behind this research and why it has been chosen. The aim is to link the topic of this research and the theoretical framework to the chosen method and research design. This, too both reach the objective of the research as to justify the choice of method. Firstly, it is needed to elaborate around both the epistemological and ontological position in this research paper.

3.1 Epistemology and Ontology

Epistemology refers to the nature of how knowledge is retrieved and what makes it valid. Secondly, ontology refers instead to what positions social actors have towards the nature of social entities. The focus of this subchapter is to elaborate the epistemological and ontological standpoint of this research.

3.2 The Nature of Epistemology

An issue at stake regarding epistemological considerations within the social science discipline is how to approach and study the social world around us. The question is concerning if it should be observed by the same principles that natural science has applied or not. Hence, this inquiry has led to debates about the true nature of science within social science (Bryman, 2016:24).

Consequently, this matter has led to an "epistemological clash" (Bryman, 2016:26) between two different standpoints, one being positivism and the other hermeneutics. The first standpoint highlights the need to approach social science in the same method as with natural science. Hence, this could imply several principles, one being *phenomenalism* (knowledge confirmed by our own senses) and another being *deductivism* (the main goal for a theory is to produce a hypothesis that can be empirically tested) (Bryman, 2016:24-25).

Regarding the other standpoint referred to as hermeneutics, this position takes a critical stance towards positivism and its application of natural science principles and methods onto the social world. Thus, this position is grounded in a belief that the social world and all its components are different from natural science. Therefore, a great contribution to the hermeneutic position is *phenomenology* which main thought is to examine and understand how human beings interpret the world around them (Bryman, 2016:26). With other words, it exists a reality that is coloured by the beliefs of the human beings and these beliefs may differ from one person to another.

3.3 The Nature of Ontology

Compared with epistemology, ontology examines the nature of social entities. The questions are if these entities should be regarded as being objective, with a reality aside from the entity or if these entities are mere "constructions", by the social, subjective perceptions and actions of social actors (Bryman, 2016: 28).

Two standpoints are prominent here, namely objectivism and constructionism. Objectivism has its foundation in the belief that "social phenomena's" are out of reach or something that we as humans cannot control. Hence, the existence of it is independent of any actions or perceptions from social actors (Bryman, 2016:29). Herein, one can trace these thoughts to a realist ontology, which firmly believes that there exists an "external reality" that is controlled by "enduring natural laws". Thus, a person with a realist ontology believes the objective of science to be to describe this reality and strives to achieve "ultimate truth" (Guba & Lincoln, 1989:119). Therefore, implying that this is possible, to reach ultimate truth.

Continuing, constructionism rather suggests that that the social reality is not solely an objective reality that human beings cannot influence and are constrained by. Instead, this position suggests that human beings have a role

in this reality and that it is influenced by the social actions of human beings. Thus, humans can shape this reality (Bryman, 2016:30; Guba & Lincoln, 1989:43). Roughly, a constructionist believes that there could exist as many realities as individuals but indicates that these realities could be shared among many individuals (Guba & Lincoln, 1989:43). Consequently, human beings are considered to influence the reality, and that this reality is therefore not just an objective reality that restricts us but is rather created by us.

Furthermore, part of the constructionist ontology, a relativist ontology declares the existence of manifold, different realities that have been socially constructed. The constructions are also "ungoverned by natural laws" and the "truth" is the "best informed" construction. Although, there could exist several constructions that meet the criteria of being the "truth" (Guba & Lincoln, 1989:84).

Lastly, the position one takes regarding epistemological and ontological beliefs is both important to clarify in the research but it is also an important part of the study's focus. Especially within this research, these two "-ology's" may very well be part of the belief systems and strategies that actors have within a policy narrative, which is an important component to examine if visible.

3.3.1 The Epistemological and Ontological Position in this Research

The position this research adopts to is a hermeneutic understanding of how knowledge is produced and do also embrace an ontological standpoint closely related to constructionism. This, as the belief, is that there exists a reality, but the reality is also perceived differently by different people and therefore could be affected by social beings, us humans. Hence, the objective of this research lays in understanding how people interpret their surroundings and what the project out of this. Regarding constructionism, this research has the belief that people influence and shape their own perception of the reality.

Together with the objective and theoretical framework, it is necessary to investigate how different people observe their surroundings.

3.4 Method and Research Design

After elaborating epistemological and ontological positions within science and this research, it is now the aim to explain the method chosen for this research paper.

This thesis is principally a desk-study focused on a qualitative content analysis approach. The reasons for this are several. Firstly, a qualitative desk-study approach invites the researcher to in a thorough way qualitatively illuminate a certain topic or area of choosing. Hence, the choice for this is coinciding with the objective of the research, both to illuminate a certain policy issue as water wars but also to qualitatively examine the policy narratives behind the positions within the debate. Therefore, descriptive questions are part of the initial research questions that are asked, to collect valuable knowledge (Ejvegård, 2009:34) about the debate.

Moreover, a qualitative content analysis seeks to investigate "hidden messages" and parts of a text or documents that are perceived as more interesting and important than other parts (Esaiasson et al. 2012:210). A qualitative content analysis, therefore, seeks to investigate more than what is solely manifested in texting and words (Mayring, 2000) and hence, pursues to understand the underlying message, logic of inquiry and content (da Silva, 1996:169-170). This coincides with both the objective of the research and the chosen theoretical framework that seeks to examine certain components within a text that are of greater interest then solely words. An important part of the framework is system beliefs, which ultimately aims at understanding underlying ideas and assumptions behind the positions. In summary, with all mentioned factors, the choice of a content analysis approach is argued to suit this research paper well because of its research objective and topic.

Henceforth, qualitative research is a method that has features of having an epistemological position termed as "interpretivist", indicating that the research is more inclined to observe how the social world is constructed through the perception of the participants within that same world (Bryman, 2016:375). Thus, this is in line with the epistemological position outlined in chapter **3.3.1.** Also, the ontological position within qualitative research is also one originating from the constructionist side (Bryman, 2016:375) wherein this as well coincides with the standpoints of this research.

Moreover, the theoretical frameworks logic of inquiry is abductive. This means that the theory used to explain a certain phenomenon rather than testing the theory itself, in this way the research examines the best explanation for the phenomenon (Walton, 2013:4-5). In this research paper, this indicates that the theoretical framework, the Narrative Policy Analysis, is being applied with the objective to explain how the water wars thesis prevails.

Continuing the content analysis approach, this approach empowers the research to methodically examine different publications and data to identify certain traits that exist within documents, publications and different data sources (Esaiasson et al. 2012:210). Thus, this does correspond to the thesis objective which is to investigate the narratives behind the policy issue of water wars. This does require the researcher to descend towards the roots of the different publications. Therefore, an important contribution from the theoretical framework is the components of a policy narrative that will be the base for what to look for within the data. Henceforth, it is important that these components are visible within the data for it to be included in the findings and be part of this research. Thus, the components which to use to investigate and to detect a policy narrative is outlined in **figure two**.

Components to look for (As presented in Chapter two)
The Setting
The Plot
The Characters
System Beliefs
Strategies
Moral of the Story

(**Figure Two**. The components to look for.)

For a description of each component, see chapter **2.2.1.1.** and **2.2.1.2**.

3.5   Data and Unit of Analysis

The data that is collected in this research consist of both primary and secondary sources. As primary sources, documents, speeches and public announcements from different kinds of authors are collected. Here, it is of utter importance to clearly state why certain documents were chosen, as to increase the chances of replicability of the study (Pierce et al. 2014:39). Hence, as described in chapter **3.4**, the components outlined in **figure two** should be visible within the data for it to be included in the findings when the aim is to investigate the narratives. Hence, the data that is gathered needs to have a relevance wherein the collected publications must address the water wars thesis explicitly, and furthermore as well to include traits a policy narrative.

Worth discussing here is the notion of either primary or secondary sources. This research paper argues that primary sources are collected as the text, documents or publications in any form that is examined to include policy narratives do directly contribute to the debate and are the main focus of the research. Hence, if they include policy narratives, they could be observed as

being primary sources compared to authors rather contributing to the general debate without presenting a narrative. This as narratives is the focus to examine which therefore indicates that several publications are the primary source to be investigated.

Thus, in summary, as stated both under section two and under section three, the components of policy narrative are the base for which to decide if a data should be collected or not. These components need to be included in a document or publication about the water wars thesis to be considered data. Thus, the overarching criteria for the collection of data are the components outlined in **figure two**.

Concerning secondary sources, articles, publications, and books are collected to illuminate and understand the underlying debate of the water wars thesis and to gain a broader understanding of the issue at hand and what it is all about. This is done to gain knowledge and understanding about the whole debate.

3.6 Delimitations and Limitations

Within this research there exist some delimitations as well as limitations. These are important to both recognized and address. Hence, in this subchapter, these are both elaborated and discussed thoroughly by starting with limitations and then delimitations.

3.6.1 Limitations

Concerning limitations, one clear limitation is the languages part. This research does only have the possibility of examining published materials in either the Swedish language or the English language. Even though most of the publications may very well be in English, one cannot discard the possibility that there exist sources in a different language that may be inaccessible for the author. Thus, even though the risk of being unable to

interpret a source is considered small this is a limitation this research wants to highlight.

3.6.2   Delimitations

One active delimitation in this research paper has been to explicitly focus on the debate around the water wars thesis. This indicates that no focus is directed towards physical implementations of any policies deriving out of the debate or in connection to issues that are handled in the debate.

This is a delimitation that has been done as the research objective is to investigate how the water wars thesis prevails, rather than investigating which impact the debate has had on policymaking. This delimitation will be discussed in chapter six, in the subchapter about future research as a further elaboration of what one could to in the future concerning investigating impacts on policy decisions or policies that have been deployed.

Also, as a result, practical cases projecting water security and conflicts is not necessarily directly approached in this thesis and as the water wars thesis imply, water is the prime and central resource within the debate and is therefore the main resources to focus at.

3.7   Ethical Considerations

Even though this research is purely a desk-study there could be ethical considerations that should be done and it is the responsibility of every researcher to thoroughly think about this. With that said, within this research, it is argued to not exist any no major ethical considerations that need to be done and taken.

4 Findings

This chapter examines the findings and results of this research and is mainly guided by the research question of *what is standpoints of the debate of the Water Wars Thesis*. Thus, the background of the debate will be examined to see what the policy issue is about and from there continue with the two standpoints of the debate. An essential part here is to highlight the different levels of uncertainties, complex and polarisation that constitutes a policy issue.

As stated, the two subchapters will examine the positions behind the debate and this to investigate the nature of them. In the second part of this chapter, the aim is to investigate the possible policy narratives that may exist within the debate. Moreover, this research is not confined to a certain timeframe because of the focus on the whole debate. Still, it could be of interest and importance to highlight when and where the different contributions come from.

4.1 The Background of the Debate

The policy issue behind the debate is coloured by high levels of uncertainties and complexities. Also, the complexity lays in both the numbers of actors involved in the policy issue as together with the complex relationship between countries, individuals and how to manage water. Many questions could be addressed as one being what the consequences could be over increased water scarcity. Moreover, there exists a high degree of polarisation between the positions in the debate, where both at least to a degree seeks to prove each standpoint or argument by for example invalidating the other positions argument. This is, therefore, an intriguing debate, as it is highly uncertain to foresee the future.

The academic literature of the water wars thesis has a history since the beginning of the 1990's. During the subsequent years, articles, books, and

research has been published, both supporting and criticising the thesis. Some have also been more moderate, solely describing the thesis Rahaman, 2012:4-5).

One can argue for at least two positions of the debate. The more optimistic position highlighted cooperation between actors regarding water issues. For this position, this was an accepted claim. Although, the other position suggested earlier events in history with violence, war, and conflict over water resources. Therefore, this was claimed to be a risk of the future (Rahaman, 2012:4-5). As an example, Glecik and Heberger (2009) has been working with a chronological list of conflicts that are linking conflicts (in different forms) with water throughout the history, (Glecik & Heberger 2009; Rahaman, 2012:5) although not purely wars, but to prove the relationship between conflict and the decrease of resources, and in this case water.

4.1.1 Water Wars will Emerge in the Future

Concerning the first positions opinion about water and wars, this position has a more negative view of the relation between the both for the future, where war could be an increasing reality. To some extent, historical events are used and linked to reinforce the idea that it has happened before and could very well happen, increasingly, in the future (Rahaman, 2012). Hence, position one is often said to have adopted a Neo-Malthusian approach to the understanding of the relationship between scarce resources and a general population growth, that will ultimately, inevitably lead to war (Fröhlich, 2012:140).

As being somewhat of forbearers, during 1980's Thomas Naff and Ruth Matson argued that water was an increasingly important subject in politics in the Middle East. Therefore, they were intrigued to analyse which exact place water could play within the relationships between riparian states. Thus, with years to come, several different authors immersed into the research of

publishing evidence that would reinforce the link between water and war (Trottier, 2015:6).

This position has claimed that water wars have happened before and often points to the 1967 Arab-Israeli War as an example (Dolatyar & Gray, 2000b:65-66). Also, in 1991, Buzan (1991) highlighted the risks around small-scale, ecological threats that could affect one country as a result out of another country's behaviour. With that said, Buzan thought it was not all too imaginable that disputes about the distribution of water alongside shared river systems would in the future lead to the use of military forces (Buzan, 1991:132) or at least that it could be a contributing factor.

In an article from 1991, Starr (1991) highlights the at the time increasing demand for observation of the situation around the Middle East and North Africa. At the time, Starr even described the water scarcity issue in the region as being "…irrefutable evidence that the region is approaching dangerous water shortages and contamination…" (Starr, 1991:17). For Starr, the increasing water shortages around North Africa and the Middle East were signs of incoming, potential conflicts over water (Starr, 1991) and therefore something that the world would need to address soon.

Bulloch and Darwish (1993) wrote a book about Water Wars and therefore about coming conflicts in the Middle East. As an example, it is mentioned that a risk assessment report from the Central Intelligence Agency, at the time, estimated that there existed ten possible places in the world where the war over water could emerge (Bulloch & Darwish, 1993:16-17). Thus, even though the book highlights the possibilities for cooperation et cetera, the claim is that the Arab-Israel war from the 1960's shows that it is possible countries address water issues violently and that when the Turks filled up the Atatürk Dam they showed that nations may deprive other countries of water (Bulloch & Darwish, 1993:181).

Furthermore, Homer-Dixon (1994) began his research paper by describing the world in fifty years, where the world would at that time have seen a sharp decline in both the amount of land used for agricultural purposes as well as a general increase of scarcities of renewable resources. Consequences of this development were at his time an agenda to investigate which ended up in being a research paper in 1994. The research results Homer-Dixon (1994) present in the article was that environmental scarcities around the world were already a contributing factor towards violent conflicts, especially around the developing world. Even though the author does not use the concept of WWT, it is indicated that water is a resource included in the article as an important resource that could decrease sharply over time (Homer-Dixon, 1994:5-6).

Küffner (1998) seems to take a balanced approach towards the water wars thesis, and the author suggests that conflicts and tensions have appeared on different levels over water and the author even states that "Water has been the cause of many conflicts. Farmers are known to have fought, even killed each other over the access for water." (Küffner, 1998:72). Also, it is indicated that international disputes and conflicts are harder to solve, and receives more attention. Thus, people have used these to highlight a risk of these evolving into, and predicting, water wars. Although, Küffner also states that "The same authors usually quote politicians who threatened neighbouring countries with war if they initiated some water development works which would reduce the flow of water." and henceforth continues by asking the question of whether these threats are something to fear or not (Küffner, 1998:72).

Moreover, Homer-Dixon (1999) continued his research about environmental scarcity and its linkages to conflict and war. What he established and concluded of his research is that "…Preliminary research indicates that scarcity of renewable resources – or what I call environmental scarcity – can contribute to civil violence, including insurgencies and ethnic clashes."

(Homer-Dixon, 1999:177). In other, words, the author proposed a clear linkage between scarcities within the environment that could lead to violence and conflicts. Moreover, Homer-Dixon saw an increased risk for developing economies as these often tend to rely more upon renewable resources in the beginning, indicating that the depletion of these resources could go faster than in other places (Homer-Dixon, 1999:178).

Shiva (2002) contributed to the general debate about environmental scarcities and especially water wars in 2002. In the work, the author states that "Water is the matrix of culture, the basis of life." (Shiva, 2002: 1) to highlight the need and essence of having access to clean, drinkable water. In this work, it is indicated that water wars are not something for the future, because they already exist among us. They exist although people do not recognize or project them as water wars, but disguise them as for example either "…ethnic and religious conflicts." (Shiva, 2002).

In recent years, the debate over water conflicts seems to still be on people's agenda. As a response article to Barnaby's paper on the potentials for water conflicts Meek and Meek (2009) highlights that the increasing gap between poor and rich countries throughout the world are increasing and could contribute to how nations address international issues. Also, water shortages are indicated to increase, which will be an issue to address soon (Meek & Meek, 2009:31). In the same response article, Kundzewics and Kowalczak (2009) also indicate the increased likelihood for water conflicts as both the demand and supply of fresh water will decrease together with population growth in these areas of the world increases rapidly (Kundzewics & Kowalczak, 2009:31).

4.1.2 Water Wars will not Emerge in the Future

The second position within the debate concerning potential water wars has a more optimistic approach. Thus, cooperation and agreements are the reality rather than any war over water (Rahaman, 2012). Also, nations going to war

has become to be an unrealistic alternative to striking agreements and this has increased in being recognised as a true for international environments and settings (Petersen-Perlman et al. 2017:107).

Within this position, here history is as well used as a tool to highlight the prevalence of cooperation rather than conflict (Rahaman, 2012). Thus, Dolatyar and Gray (2000b) state that:

"…the evidence does not support the view that water scarcity has caused wars in the Middle East. Water scarcity may have been used as a pretext for war by combatant sides (part of the political rhetoric); water installation may have been targeted by warring armies; water conflict may even have served as an occasion or flash point for war - but in none of these instances has water scarcity been the (fundamental) cause of war."

(Dolatyar & Gray, 2000b:66)

Shaheen (2000) questioned the hypothesis of future water wars by examining the case the Arab-Israeli conflict from 1967. The objective was to examine whether one could apply historical and past conflicts in the water wars thesis. Shaheen indicated that it was not easy to link a conflict to water, explicitly, and continues to state that "…most of the evidence gathered to construct the water-war thesis is either speculative, based on intelligent calculations (hence the forecast of doomsday) or obsolete…" (Shaheen, 2000:138). This clearly shows a stance that neglects and discards the rationale behind a hypothesis such as the WWT and it is interesting that two positions within a debate may examine the same conflict with different outcomes (e.g. Bulloch & Darwish, 1993:181)

Two other members of this position, that dismiss the water wars thesis is Postel and Wolf (2001). In their article, they indicate that the likelihood of war over water is not high. The authors state that "Remember the last time two nations went to war over water? Probably not, since it was 4.500 years

ago." As an indicator of the low risk of war over water. This is backed by evidence of agreements that is and has been stricken rather than war. It is mentioned that over the last 50 years (up to 2001) over 1.831 international water-related disputes was analysed and showed the over two-thirds were solved through cooperation. Although, they indicate that the risk of disputes over water could increase and is an issue that needs to be handled correctly and effective (Postel & Wolf, 2001:60).

Alam (2002) questioned the hypothesis as a contribution to the debate by highlighting the fact that there had not appeared any war over water between India and Pakistan where all the "pre-requisites" for a war existed. Consequently, the parties instead negotiated and concluded an international agreement rather than resorting to violence which had lasted for over 40 years at the time. Therefore, in his work, the author goes on explaining the success of this agreement and therefore questioning the rationale behind the claims of the water wars thesis (Undala, 2002:341).

Furthermore, Yoffe, Wolf, and Giordano (2003) researched about the historical indicators that could foresee either conflict over water or cooperation. By their results, it was stated that cooperation was overwhelmingly represented as the consequence concerning disputes over water. The authors criticise other scholars work about water wars and conflicts as "Existing work often consists of case studies from the most volatile basins and excludes examination of cooperation…". In other words, the authors investigated if these claims and theories had validity. Their conclusion was simply that cooperation outnumbers, by far, conflict over water. (Yoffe, Wolf & Giordano, 2003:1109, 1124).

Another contribution towards the debate between both positions is Zeitoun and Mirumachi (2008). The authors state that the water wars thesis has gained ground at a broad spectrum of different people, both in media as among general secretaries of the United Nations (UN). For these two authors,

the water wars thesis is very persuasive in its arguments and still sticks around among practitioners even though others seem to discredit the thesis as being "…unfounded hyperbole…". Their work is in part of investigating the relationship between conflict and cooperation as something that could coexist (Zeitoun & Mirumachi, 2008:298).

4.1.3   Summarisation of the Debate About the Water Wars Thesis

Chapter **4.1** aimed to answer the research question of *what is standpoints of the debate of the Water Wars Thesis*. This has been done as both subchapter **4.1.1** and **4.1.2** clearly demonstrates the different positions within the debate.

In summary, the debate about the water wars potential existence has gone on since at least the beginning of the 1990's. Although, the magnitudes of the debate may have been different. The claims that predicted wars over water in the future seem to have been both proposed with the backing of some case-studies but more extensively by both media and prominent people within policy-making organizations. Hence, the water wars thesis has been countered by extensive empirical data. One stands out in this debate is that research regarding environmental scarcities in general, and these linkages to conflicts, has gained ground academically (e.g. especially Homer-Dixon, 1994; Homer-Dixon, 1999; Gleick et al. 2018). In contemporary times, it seems that there still is a debate (as Cascao et al. 2018 indicate) and that the debate about the water wars thesis may see a revival. Together with this, climate change, population growth, and other factors have decreased the number of resources accessible today which makes present day different than how the world was during the 1990's.

All these components within the debate add to the uncertainty, complexity, and polarisation that the policy issue of water brings and therefore includes the three components surrounding a policy issue as described in chapter three (uncertainty, complexity, and polarization). This makes the debate about the water wars thesis greatly contested.

The next two chapters will evaluate the possible existence of policy narratives of the two positions. Therefore, these two chapters will adapt to have some parts already analysed, as these parts may point out and comment the potential components.

4.2   Standpoint of Position One

It is in chapter **4.2** and **4.3** that the research question of *what are the differences and similarities between the standpoints* are answered. From now on, Position One refers to the first position that supports the water wars thesis. Herein, the objective is to outline the standpoint of this position, how they portray the policy issue of water wars in the future and see how they project the different components that should exist within a policy narrative by the measures of the established theoretical framework in chapter three. The aim here is as well to examine documents to investigate whether they include policy narratives or if the even do that. The reasons for this is to answer question and two (See chapter **1.3**).

In 1991, Starr (1991) pictured the Middle East and the Northern parts of Africa as being a centre of possible future water wars. The title of the article is even "Water Wars" clearly stating the issue at hand. The setting is put in the Middle East and parts of North Africa, where Starr states that people have neglected the "…irrefutable evidence that the region is approaching dangerous water shortages and contamination…" (Starr, 1991:17). This region is still top-ranked on how high risks there exist for conflicts and wars fuelled by water (United Nations University, 2011). Moreover, Starr states that "As early as the mid-1980s, U.S. government intelligence services estimated that there were at least 10 places in the world where war could break out over dwindling shared water…" (Starr, 1991:17) indicating what could happen if nothing was done about it. Hence, these ten places were mostly located in the Middle East or North Africa (Starr, 1991:17) and could have been included by Starr to add to the immediate threat decreased water

access pose. Worth to mention here is that at the time Starr (1991) was working as a specialist on the Middle East, with focus on "water security issues" as well as being the chairman on "Global Water Summit initiative" (Starr, 1991:17). Hence, the clear call for action may not come as a surprise but would rather be part of the strategy to focus on a certain policy issue.

In the end, Starr also projects a quite negative future for the region if nothing is changed, the water scarcity is at the brink and if governments keep being passive in their approach towards water issues the future is doomed to not reach any peaceful settlements (Starr, 1991:35-36). This perspective on the future in 1991 from Starr is something that more authors have adopted. In 2002, Hoffbuhr (2002) as well called for action where "The challenges ahead require real commitment and concrete action, or our future might indeed include water wars." And following this up by stating that "The UN and governments must act early to settle simmering water disputes". (Hoffbuhr, 2002:6). The author here as well pictures a future where the access and availability of water is decreasing in alarming rates, and where population growth will put enormous pressure on the access to water both for drinking but also for producing necessary food (Hoffbuhr, 2002:6).

Clearly, a neo-Malthusian approach is visible in the documents here wherein population growth will severely lead to lack of enough resources for the world's population. What this neo-Malthusian perspective address is firstly a concern for the poor and people not only within their own countries but also globally (Rao, 1994:45). The origins of neo-Malthusianism spring out of Thomas Malthus (1766-1834) who critically discussed and implied that population growth will ultimately lead to famine, war and different diseases (Heywood, 2014:415). Hence, the assumption made by neo-Malthusians is that food production around the world cannot keep up with the global population where the latter grow geometrically. This epistemic community that then emerged during the 1900's rather viewed population growth as a

"problem" or issue for the future (Frey, 2011:79). With this, it is not the intention to put labels on anyone, but rather to highlight the possible prevalence of neo-Malthusian traits within the narratives from position one wherein population growth is indicated as a potential problem as water scarcity increases.

This rhetoric is like Shiva's (2002) in her work on the existence of water wars. Shiva although even goes to length as introducing in the preface with the notion that "…water wars are not a thing for the future. They already surround us…" (Shiva, 2002, preface). Water is protracted as the most essential thing for life, therefore highlighting the importance of the issue and thoroughly pictures the access to water as being under threat in especially India but also the rest of the world and that it may affect the poorest people (Shiva, 2002). The difference compared to Starr is therefore that Shiva puts even more pressure on stating that water wars are a feature of today, not the future.

The water is becoming a scarce resource which has led to water crisis's around the world and globalization has had a part as it replaces the opportunities for collective management with the notion of privatizations instead (Shiva, 2002:12). For Shiva, population growth has had a part but is not the only reason for increased scarcity of water, excessive use of it is a major contributor (Shiva, 2002:1-3) and this is something that Hoffbuhr (2002) also points to by stating that "More effective and efficient water use is also key to counteracting the increasing competition for water resources" (Hoffbuhr, 2002:6). Consequently, Shiva protracts that "…the story of water scarcity has been a story of greed, of careless technologies, and of taking more than nature can replenish and clean up." (Shiva, 2002:2) and in other words, Shiva indicates that water is a scarce resource already now, where the world is heading in a dangerous direction if not properly reorienting the strategies behind water management and use.

What Hoffbuhr, Shiva, and Starr describe is something that is still depicted in more recent years. Especially within media, the water wars thesis has been quite depicted (Engelke & Sticklor, 2015; Engelke 2016; Brooks 2011; Mansharamani, 2015) with clear narratives like the already mentioned one. Both Engelke and Sticklor (2015), Engelke (2016), Brooks (2011) and Mansharamani (2015) pictures present day and the future as one where water is diminishing at a rapid rate. Brooks (2011) and Mansharamani (2015) indicates that clearly, United States Foreign Officials are starting to focus greatly on water issues as related to conflict, and especially security when it comes to human, economic and national security. Thus, one clear threat for the future is what position two has often leaned towards, cooperation. It is stated that "But many of these agreements were low-hanging, diplomatic fruit, unlikely to be so easily negotiated or resolved again, particularly as demand for fresh water continues to rise. The peaceful relations in three river basins in particular are beginning to show signs of strain" (Brooks, 2011). Hence, even when cooperation has worked before, it is indicated that cooperation may not work as well in the future and the ones already established may risk deteriorating and break (Brooks, 2011).

Also, Brooks indicates that it is entirely correct that water starts to receive the attention within diplomacy, political and intelligence sectors as it should (Brooks, 2011). Engelke and Sticklor (2015) also state that population growth is skyrocketing as together with severely decreased access to water and this is increasing the tensions and uncertainties of access to water in the future. Moreover, both these authors together with Engelke (2016) implies that it is not too good to rely on the past to guide the future, as the world is drastically changing (Engelke & Sticklor, 2015; Engelke, 2016). This implies that it may not be possible to foresee or tell how the future will look like, therefore adopting more of a position that leans towards that there exists no truth or set-truth for what will happen in the future.

Clearly one could see the essence in both Starr's, Shiva's and Hoffbuhr's rhetoric as well as from Brooks, Engelke and Sticklor and Engelke. All have visible components of a policy narrative as established in chapter two. Firstly, for Starr, the setting and plot is clearly being in the Middle East and North Africa as well as being about that water scarcity is increasing in the region. Moreover, this could lead to increase interstate conflict between nations that severely rely on water access. Moral of the Story is visible the realization that there should be creative solutions towards cooperation over water resources, and especially dwindling resources, that must be done quickly. For Shiva, the setting is not as clearly stated as being in the Middle East or North Africa, but rather focus is primarily on India (may be natural as she originates from India) but the world, and the third world in general, are mentioned as being the ones losing the most out of scarcity of water. Moreover, the plot is the same with the realization that water is a scarce resource that is vital for human beings, and the management of it is poor.

As already mentioned, one who publicly supported the thesis of water wars in the future was Ismail Serageldin, both through a speech in 1995 in Stockholm, when he was vice director of the World Bank, but also in a more contemporary article from 2009. (Seregaldin, 2009). Serageldin stated in 1995 that "The wars of this century have been on oil, and the wars of the next century will be on water … unless we change the way we manage water" (Serageldin, 2009) when being the vice director of the World Bank. This is important to recognize as he is also from Egypt, a downstream riparian nation that receives most of its water from the Blue Nile, hence highly dependent. With this, there was maybe a potential strategy from Seregaldin to put the focus on water issues by doing these claims in a time where the water wars thesis gained ground.

Moreover, in the mentioned article, which is from 2009 (important to notice that the quote is from 1995), Serageldin (2009) states that firstly "…we have

not seen the full range of expected environmental, demographic and political challenges unfold." And "Water may also become a *casus belli* between states…" (Serageldin, 2009). Casus belli means that something may be a cause for states to launch a war, so even though the article from 2009 does not have the same extreme rhetoric as from the quote from 1995, the content seems to be similar. Concerning the components of a policy narrative, the speech seems to include both plot and moral of the story. This, as it is highlighted what is at stakes, namely the water and how precious it will be in the future. Moreover, the plot as well reveals that it will be wars over water in the future unless it is managed better, the moral of the story. Also, war could be seen to be projected as the villain, something with a negative connotation. From both the quote and the article, the hero seems to be how we will manage water, between and within states. So, one could distinguish the difference between the hero and the villain and therefore see the policy makers and decision makers as potential heroes.

4.2.1 The Narrative from Position One
Now when the standpoints from position one have been established it is possible to distinguish the narrative, how the positions portray the policy issue of water wars in the future.

The Setting	The Middle East, North Africa. Water wars because of poor management with increased scarcity of water and increased population growth.
The Plot	Increased water scarcity which ultimately lead to war, it is inevitable.
Characters	*Heroes* as being right water management and to a degree the governments. *Villains* could be observed as the war, as it is the end road and what will bring destruction and disaster. *Victims* as the poor people, underdeveloped world.
System Beliefs	Traits showing a neo-Malthusian approach towards population growth and resources. Water issue is more treated as a question of securitization and national security. Water related issues are connected to peace and security, conflict and international relations. It is important to treat water issues as this.
Strategy (If possible to detect)	"Doomsday" prophecies. Strike fear to raise awareness and to put emphasis on acute action to combat "potential wars". Already established agreements and cooperation's will not necessary survive increased pressure.
Moral of the Story	People to realise the situation regarding water scarcity and population growth. Questions if war is the inevitable outcome of this. Also, not overusing existing water resources available.

(Figure three. A summarisation of the Policy Narrative from position one.)

As we have seen in the previous section, the policy narrative from position one has been and is still a narrative circling around the importance of water and how the future is about to look like. From position one, water is also perceived as an extremely vital and important resource for human existence. Hence, this is one reason for why nations would even fight for it because they would need to. One could agree that it is much as a "doomsday

prophecy", as the setting and plot reveal that war between nations will occur because water becomes too scarce and that this reality will force countries to launch a war as to safeguard their own access to water. Hence, the argumentation from position one could be said to have some protectionist view on how countries would react to a situation like that and to an extent showing neo-Malthusian traits about the relationship between population growth and resources and this as being the potential future.

Much alike, the moral of the story within the policy narrative, and therefore to an extent the solution, is increased focus on the precious resource and addressing the poor management of shared water sources that are said to threatening both the quality and quantity of water. Herein, the narrative works as a "whistle-blower" that management is not sustainable as it is today and questions how well already established agreements will withstand increased pressure from water scarcity. Thus, position one also seems to investigate and examine water issues in relation to conflict management, international relation and do sometimes point to a need to approach this issue from a security perspective, or at least that the issue me evolve into being treated as that.

4.3   Standpoint of Position Two

As in chapter **4.2**, from now on, Position Two refers to the second position that discarded or criticises the water wars thesis. This position emerged as a response to the first position and could be viewed as a counter-narrative. The objective is the same here as in chapter **4.2** to examine documents and investigate whether they may be traces of policy narratives that, in this case, goes against positions ones' beliefs and assumptions.

In much, position two has a positive perspective on the much complex, polarised and uncertain topic of the future of water and its accompanied scarcity. In one way, position two produces a policy narrative wherein it is,

quite harshly, the opposition against the narrative from position one. In 2006, Wolf et al. (2006) reply to the "doomsday prophecies" from media that wars over water will soon be a reality. Water is projected as being vital for mankind, so vital that nations do not simply fight over it, because it is too expensive to do it. Much alike, the cooperation and agreement are the central themes as they are the forbearer of the future of water, even when it is scarce (Wolf et al. 2006:1; Uitto & Wolf, 2002) as it has been proven throughout history that countries tend to negotiate and strike agreements over water.

This last notion of cooperation and agreement is something that Uitto and Wolf (2002) also points to and raises a need for countries to "…to move beyond looking at water as a commodity to be divided – zero-sum, rights-based approach – to developing an approach that equitably allocates not the water but the benefits derived therefrom – a positive-sum, integrative approach." (Uitto & Wolf, 2002:292). This is interesting as it shows a positive perspective on water issues, that issues are likely to be resolved with a positive-sum game where no one would lose out on cooperating.

This is a view that is partly still supported even in 2015. Orlando (2015) do as well point to the role water plays in everything, from agricultural to industries and from ecological balances to all kinds of developments and the right management has played a vital role in history in adapting to water scarcities and water stresses (Orlando, 2015:101). So, from Wolf et al. (2006) and Orlando (2015), both mention the two themes of cooperation and agreements that will be the guidance towards the future. This, as history, claims that these themes are the common thing nations turns to safeguard access to water. War is therefore not seen as the final stop when water scarcity hits countries, even though conflicts and disputes (although not wars) may occur within and among nations. Rather, cooperation is a pathway to peace, and as history has shown, *the pathway* and that this is what will happen in the future as well. So, in other words, the position that supports the

thesis of water wars is neglecting the promising way to prevent wars, which name is called "…cooperative water resources management" *(*Wolf et al. 2006:1) and as this could be the hero within the policy narrative Barnaby (2009) also highlights cooperation and especially "Virtual Water" as a mean for countries to safeguard their water and explicitly states that "Water management will need to adopt" when talking about future cooperation and management of water (Barnaby, 2009:283).

This is a view that is supported by many, the view over about the water situation around the world. Fröhlich (2012) pictures the future as very uncertain as well, where overuse of water is increasing, global population is rising and the question how to address is rightfully asked and especially population growth is mentioned by many authors, such as Barnaby (2009) which state that "As a country becomes richer, it may require more water overall to sustain its booming population" (Barnaby, 2009:282) and Orlando (2015) even states that "…analysts see a grim future for the world's water resources…" (Orlando, 2015:102) when describing how water scarcity, water quality, and access are developing. As mentioned, The Middle East is as well seen as a region where the pressure deriving from this may be visible the most (Fröhlich, 2012:139-141) and Barnaby (2009) also includes this region as a kind of focused region (Barnaby, 2009:282) as where Orlando (20015) focus at the developing world, where it seems like water scarcity is both most visible and has the most and greatest impact in humans (Orlando, 2015:102) as it is now. This last piece from Orlando clearly demonstrates traits of portraying victims within the narrative.

Although, Wolf et al. (2006) among many authors part of position two do not discard the fact that violent conflicts over water have happened, within nations among for example farmers or people competing for a source of water, but still stands with the belief that water is never either the single or only cause for a conflict (Wolf et al. 2006:1-2) and therefore takes a firm

standpoint against the water wars thesis. Rather, Aaron T. Wolf has pointed to the need to recognize that wars and conflicts are more complexed then just one factor, therefore there is impossible to reduce the reasons behind a war to just one single cause, such as just that being water (Orlando, 2015:103-104). Thus, Barnaby (2009) as well recognize this, although goes to lengths as stating that:

"…it is still important that the popular myth of water wars somehow be dispelled once and for all. This will not only stop unsettling and incorrect predictions of international conflict over water. It will also discourage a certain public resignation that climate change will bring war, and focus attention instead on what politicians can do to avoid it…"

(Barnaby, 2009:283).

This statement clearly demonstrates the general standpoint of position two, concerning the water wars thesis and that it is a hyperbole, a myth that needs to be "dispelled" because of the lack of empirical evidence it has and that the position two have published their empirical evidence pointing to the opposite.

Although, Förhlich also has a claim that indicates that cooperation and striking agreements are more common than nations waging wars against each other (Fröhlich, 2012:139-141) as also Barnaby (2009) highlights in her essay on water wars. Here, Barnaby states that "Countries do not go to war over water, they solve their water shortages through trade and international agreements" and more indicate that political leader may use rhetoric such as threatening for war just to gain ground within a policy issue such as with water. Consequently, the facts are stated indicating that cooperation is and has been the dominant response to water disputes, not war. (Barnaby, 2009:282). Thus, this is once again a central theme from the contributions to

position two wherein exactly these components are the main components within the narrative.

Even with this stated, Fröhlich (2012) (as other authors) also highlights that water has a part in conflicts within nations and disputes between nations Fröhlich, 2012:142; Kramer et al. 2013; Wolf et al. 2006; Orlando, 2015; Cascao et al. 2018), and water scarcity could have the risk of slowly starting a "rural exodus" that alters the balance within the nations that also pressures the stability and order (Fröhlich, 2012:142). This could to an extent be a shift in the way narratives are projected by authors from position two, wherein water is maybe started to be viewed as a factor that may influence, severely, world peace. As Orlando (2015) quite harshly states "There is a general consensus among experts that water scarcity in the twenty-first century will seriously threaten world peace." (Orlando, 2015:101). Clearly, one could see a small shift in how water scarcity is projected within the narratives from being something that may increase (for example Kramer et al. 2013; Wolf et al. 2006; Barnaby, 2009) but not having that kind of effect on peace and security to something that may seem to inflict serious damage on international relations and peace and security (for example Fröhlich, 2012; Orlando, 2015).

Thus, Orlando (2015) even states that "…water has not lead to major interstate clashes, at least not *yet*." Even though continuing with stating that "The question now is how we cope with increasing water stress so as to continue fostering cooperation?" (Orlando, 2015:101-102). Orlando does contribute to position two with policy narratives aimed at cooperation and the right management, although interestingly the moral of the story and plot do slightly shift from earlier contributions. This, as water firstly is projected as being able to severely alter world peace and secondly that water wars have not happened yet, putting emphasis on yet, indicating that still, there maybe could be a risk of war over water in the future. This more recent standpoint

could still be compared with the standpoint projected from Cascao et al. (2018) which seems to have change rhetoric to be quite aggressive against the resurgence of the water wars thesis narratives re-appearing again (Cascao et al. 2018). The authors here question on what basis the thesis is once again increasing in popularity and even states that "There is a recent and worrying trend towards a renewed "water wars" narrative in some policy and media circles." (Cascao et al. 2018) and this is interesting as it seems like this is showing a greater focus on the water wars thesis itself rather than showing the strengths of what position two earlier projected.

Conflict and tensions within nations over the access to the resource water is, in general, a shared perspective by many people but they also agree on that water is never a single cause for a war or a conflict. Hence, nations do not wage war over water, as a sole reason (Wolf et al 2006; Kramer et al. 2013; Fröhlich, 2012).

In 2013, Kramer et al. (2013) moreover indicated that issues still exist around both the Middle East and New Mexico, connected to the management of water and they later connect the water wars thesis as being focused on the Middle East, where the climate and environment regarding international relations is hostile. Often from position two, empirical evidence is raised to discard the water wars thesis (Kramer et al. 2013; Wolf et al. 2006; Barnaby, 2009; Fröhlich, 2012) and highlights the importance cooperation have had over time and that water has been a pathway for peace in the way that it works as a bridge between nations and foster cooperation. Moreover, a flaw with the water wars thesis is therefore raised as being the "…lack of evidence." (Kramer et al. 2013:4, 6) clearly stating a huge difference between both positions, from the perspectives of position two.

Noteworthy here is that Kramer et al (2013) together with Orlando (2015) do point to the importance of institutional capacity, therefore capacity building, as a key theme, or key for success in cooperating over water issues (Kramer

et al. 2013; Orlando 2015). This was even triumphing over both system of governance and if a country is rich or not. Interestingly, the authors also talk about the future and how it may be very different from today. They conclude with the recognition that "These changes suggest that tomorrow's water disputes may look very different from today's" (Kramer et al. 2013:10, 12) which is partly what some authors and contributors have indicated form position one, pointing the risks of water wars in the future.

One could also take notice that Kramer's et al. (2013) article about water cooperation and conflict was published and projected through United Nations Educational, Scientific and Cultural Organization's (UNESCO) *A World of Science* (volume eleven, number one) journal. Also, the article has been updated and reproduced, after originally have been published in 2005. This is interesting as one could observe a potential strategy from the United Nations through UNESCO to influence a policy debate or issue by examining exactly what they publish and which message it brings and when they do it, as in the case this mentioned article. Moreover, the background of the authors is noteworthy, at the time, Annika Kramer was working at a research institute focusing on policies on environment, development and foreign policy in Germany. Aaron Wolf was in the United States of America, as a professor in geography with a focus on water conflict management. Alexander Carius was at the time working as a director for Adelphi, which is the same institute in Germany where Kramer worked. Lastly, Geoffrey Dabelko was a professor and director within environmental studies at the Voinovich School of Leadership and Public Affairs in USA (information about the authors is retrieved from Kramer et al. 2013:12).

Three out of four of the mentioned authors works in a field focused on the environment, although two also worked with either foreign policies or conflict management connected to environmental studies at locations within either Germany or the United States of America. This is an interesting fact as

it may explain underlying system beliefs that are the base of their perspective and narratives. As could be mentioned here as well, Cascao et al (2018) clearly state that "Ultimately, we believe that transboundary water cooperation is primarily a development issue and one that should remain in that space." (Cascao et al. 2018). This, as well, clearly demonstrates a system belief, wherein the authors clearly state where water issues should be considered and in relation to what. In this case, water issues and cooperation should clearly be located purely within the development business, not in for example conflict management or international relations. This is something Uitto and Wolf (2002) also raised already in the year of 2002, wherein the authors state that "We also believe that geography provides a valuable perspective to help us better understand issues related to the management of and conflict over water resources" (Uitto & Wolf, 2002:291).

Commonalities between different authors or people are visible here, the policy issue is water, water scarcity and how to react or manage this. Hence, the focus is in general on cooperation, that water issues foster cooperation as water disputes could work as a bridge between nations instead of a facilitator of war. Thus, this is as well backed up by empirical data, data thy perceive usually points to their justification.

Also, disputes and conflicts between nations are common, but it is a war that has never happened before. The setting is the Middle East but also the developing world is mentioned. This may be a result of the focus from position one, as position two is a counter-narrative that has reacted to the claims of position one.

The Plot the intrinsic subject of water and water scarcity. Moreover, the Moral of the Story most often leans towards promoting even more cooperation and looking at the right management over the resource water. An example from Kramer et al (2006) and Orlando (2015) is the focus on institutional capacities within nations to manage, cooperate and solve

disputes efficiently and effectively. Herein, institutional capacities may assist in fostering better and more enduring cooperation and agreements. Furthermore, they state "In international river basins, water management typically fails to manage conflict when there is no treaty spelling out each nation's rights and responsibilities.". (Kramer et al. 2013:10). This clearly shows the importance of "right management" the position two highlights often.

4.3.1 The Counter-Narrative from Position Two

The policy narrative from position two circles around key concepts such as cooperation, negotiations, and agreements. Even though the narrative indicates as well as the position one that the world is heading in a direction where water scarcity is becoming more common for each year and even for each day and highlight, how essential and vital water is for human beings, in many different forms and aspects. In this way, water is a finite resource that needs to be cared for with good water management and cooperation between countries. See **figure four** for a summarization of the examined components from position two.

The Setting	Middle East, North Africa and the developing world and within the policy area of water management.
The Plot	Water scarcity and increased shortage of water, both in quality and quantity. Also, a counter-narrative to the water wars thesis.
Characters	*Heroes* as being the concept of cooperation. Ideally of governments and water initiatives that strike agreements. *Villains* not as visible but at one point portrayed as people projecting the water wars thesis as it increases tensions and strike fear in people. *Victims* not as visible as in position one.
System Beliefs	Water issues as a development issue rather than anything else.

	Geographical, Environmental and Ecological fields of study. Water management could be a "positive sum-game".
Strategy (if possible to detect)	Downsizing the importance of the Water Wars Thesis. Discard and dispel it with empirical evidence. "De-securitization" by treating the issue within a certain field.
Moral of the Story	Increased, enhanced focus on the right water management strategies. Support and promote cooperation and institutional capacities. Foster mutually beneficial agreements. Traits of a belief for "win-win" situation is possible.

(**Figure four**. A summarisation of the Policy Narrative from position two.)

This is a reality that people wake up in and it needs to be dealt with in a good manner. This manner is not seen as being war, the ultimate consequence of water scarcity within narratives supporting the water wars thesis, but rather here, cooperation has worked as and still does work as a facilitator for negotiations and cooperation that leads to hopefully mutually beneficial agreements. Thus, the focus is put towards how the right management could rather look like and how institutions could foster better water management.

Hence, nations between themselves do not simply fight over water or launch a war because it is too precious and vital for the human existence. It is needed in every aspect of human's daily lives, from industries, agricultural and social spheres. Therefore, a cost-benefit analysis cannot justify the use of launching wars against each other and hence making it unrealistic and irrational. Water is viewed as a resource that instead could be the pathway to peace, a resource that connects countries and foster cooperation.

Moreover, water is projected as not being able to be the sole reason behind a war or conflict or even disputes, because these are too complex to be

narrowed down to one single factor. Hence, it is impossible to do a hypothesis about future wars over a single resource such as water. Although, position two both indicates and highlights that water can still be part of for example disputes and conflicts within and among countries, still, not just the single one and the single reason behind a war. Therefore, this position perceives conflict and disputes as being ultimately complex web of factors that all contribute in different ways.

Henceforth, concerning system beliefs and strategies, position two seems to have their backgrounds within fields not entirely devoted to conflict management, preventions or international security and relations. Mostly, geographical, environmental and ecological fields of research are highlighted within these findings, which in extent could justify which system beliefs that were possible to detect. What does it mean that authors are part of a different field of studies? As in this example, several authors have their position within geography, environmental and ecological studies. This does imply that the authors could have a different perception of how to address and investigate water-related issues and for what will happen.

Therefore, it is interesting that Cascao et al. (2018) clearly demonstrates and indicates, by their perception, a need to keep and treat water management and water issues in general as a developmental issue rather than an issue that could be connected to conflict management and international relations. What the purpose is for this is worth discussing. Firstly, claiming a need for the issue to be dealt with and treated like a developmental could be part of both a system belief but also be part of a strategy. It is the timing here which is of the essence. This claim comes in 2018 when the author has seen a revival of the water wars thesis which they clearly discard. The question is then if this statement could be a sign wherein in the authors aims to "de-securitize" the discussions concerning water issues, in so to decrease all tensions that may arise when treating it as a national security, or conflict, problem. This is

although an interesting finding which demonstrates the position they take within the debate about water wars. Also, the question is if one finds security in leaning towards cooperation or if one finds security by leaning towards preparing for war.

5 Analysis

This chapter is investigating whether there are chances of observing any middle-ground or common ground between both positions in the debate. As a base is the research question of *how can these similarities and differences be explained?* This is being done with the objective to develop a metanarrative (is developed in chapter **5.2**) that could be an alternative narrative to assist in policy decisions regarding how to approach the two contradicting narratives about water and war.

In this case, a so-called metanarrative could assist in explaining the differences but also the similarities between the two examined positions wherein the middle ground could create a bridge between two sides within a very complexed, uncertain and polarised policy area and hopefully make the issue more amenable for people to address.

5.1 A Comparisons Between the Both Positions

In chapter four, the background of the debate concerning water wars and the two examined positions was outlined with the objective to investigate the potential policy narratives behind the two positions. In this subchapter, the aim is to compare, cross-analyse and investigate for similarities and differences between them. In **figure five**, a summarization of the comparison is presented in list form to easily observe what the findings and analysis revealed.

The Setting	Do coincide with the realisation of increased water scarcity, access to water and its quality. Water is essential for different spheres of human beings lives.
The Plot	Is considered water scarcity and the increased attention to it. Although, the comparison differs between the end of the plot, namely war or cooperation.
Characters	Do not entirely coincide, although governments and policy makers in general are portrayed as a key player in water management and could be observed as being the *heroes*. *Villains* do differ between the positions wherein even position two at one point indicates the supporters of the water wars thesis to increase insecure and tensions. *Victims* do also not necessarily coincide, although position one has emphasised the effects water wars would have on developing countries and poor people.
System Beliefs	Do not coincide wherein the analysis indicate a fundamental difference in their belief system as how to treat water issues and if it is possible to foresee the future.
Strategy (if possible to detect)	Do not fully coincide wherein position one use a description of the issue as to raise awareness wherein position two leans towards decreasing fear and tensions by disproving the thesis and point to cooperation.
The Moral of the Story	Do to large extent coincide where both positions highlight better management, cooperation (to some extent) and a mutual understanding in general.

(**Figure five**. A summarisation of the comparison between the Policy Narratives from position one and two.)

Firstly, the plot and the setting do for most of the time coincide with both positions, in the data where policy narratives were possible to detect. In the complexed issue of water wars thesis, the plot circles around a dangerously increasing water scarcity in the world. This is something that both positions speak to as an issue that needs to be addressed and cared for. Hence, within the debate, the role of water is highlighted as the core issue, how to react and manage water scarcity and what that will come from this.

The reason for this could be the act that position two works as a counter-narrative, a narrative that reacted against the claims from position one, therefore, it may not come as a shock that the plot at least coincides as both positions address this.

Furthermore, seems to be a consensus about the beginning of the plot, although the ending differs enormously. Where position one points to war, in a neo-Malthusian fashion where population growth will surpass enough existing resources on the planet, and in this way making war inevitable, position two firmly points to the realization that this cannot and will not happen but rather cooperation between countries will happen instead. This is a claim backed by facts and empirical evidence, in their perception, that points to this, making war extremely unlikely.

In one way, water scarcity is protracted to lead to either war, therefore having the possibility to be a reason for war, against being a factor that leads to peace and cooperation. This is a fundamental difference between the positions in how they portray the whole plot and could be a difference in system beliefs, where one position is creating narratives influenced by Neo-Malthusian thoughts and addressing the issue from a conflict oriented-perspective, against another position more devoted to liberal, cooperation influenced thoughts treating the issue more towards environmental, geographical, and development influenced perspective. Latter, where this is

possible and the forbearer of peace. Also, positions two tends to observe, as one data indicates, water management as a positive-sum game for countries.

Moreover, the first position supporting the water wars thesis seems to aim at answering for what will happen in the future. Most often, in later years pointing to the fact that we cannot count on the future to be the same as history has been. In other words, wars will happen in the future over water if we do not manage to tackle the intrinsic issue of increased water scarcity and water stress throughout the world. This is an inevitable fact of increased tensions, decreased access to water and increased population growth will force countries to safeguard their water. Although, if we observe position two, that "discards" the water wars thesis, the aim seems to be that they point to the present time and to history, that cooperation is happening now and has happened before, therefore this management will prevail over wars because it has always been this way. Hence, often highlighting their perspective that it is 4.500 thousand years since the last war over water occurred. In this sense, position one argues with the realization that the future will not look the same and therefore there is a risk for war and position two argues with the realization that throughout history, cooperation has been the pathway to mutual understanding and peace. This does create a great difference between the two positions.

It is harder to examine the potential characters within these documents. To some extent, the villain, projected by position two, could be the promoters of the water wars thesis, as this adds more tensions, uncertainties and scares the public opinion about the future with claims based on vague empirical data. This is especially supported by Cascao et al. (2018) where the focus seems to rather be on pointing out the faults with supporting the water wars thesis. The heroes (from the same position), one could argue is a non-human one, namely cooperation, or at least policy makers and decision makers that may foster the cooperation. Cooperation is throughout position two named as the

forbearer and is arguably seen as the "saviour" of the future. Hence, that cooperation will solve the intrinsic issue of water, water scarcity, and its management. The extent to which victims is visible is also arguable.

Maybe the fact is that this position two do not project victims to the same extent as the ones from position one. This is something worthy of discussing why. There could be a force in that position one pictures victims which gives the narrative increased power in its impact on people, that is by first and foremost projecting the villain as being the war. Against this, maybe position two do not picture victims in their narrative to the same extent as they are confident enough in their empirical claims and evidence? This is interesting questions to think about. Through position one, it is easier to observe poor people and the developing world as examples of victims, but this is not entirely the same in position two. This could be the reality because position two do not create a narrative that foresees any violent, doomsday anytime soon but rather sees water issues as a possible positive-sum game, where everyone could win on cooperation.

One could also discuss the difference in how to treat science and if it is possible to establish the "truth", especially when observing the differences in system beliefs. As position two often points to the empirical evidence showing that cooperation outmanoeuvres wars this could be an indication that they believe it is possible to foretell the future by their studies. Position one do also point to evidence, not as extensive as position two, and recently some narratives from position one points to that the agreements and cooperation that has safeguarded water management in history may be "shallow" and not so resistant against present days' context. This is interesting as one could discuss whether you could trust a "truth" as cooperation, that is cemented as being the future, or if this is simply one perception from one position.

5.2 Addressing the Complex Issue Together

This subchapter is examining the metanarrative, what can we learn from the two positions and how can we address the complexed policy issue of how to manage water scarcity and water stress. In other words, this subchapter is analysing the existence of a middle-ground, if any, that may shed some new light and make the issue more amenable. The metanarrative becomes an extension to the comparison between the two positions, that has been evolved in chapter **5.1**. Although, the focus here is to explain what these mean for the debate regarding the water wars thesis.

So how could we now address the water wars thesis debate by observing the two positions? Firstly, even though there exist fundamental differences, as for the notion of war over water or cooperation, both positions indicate that water is essential for life and therefore, it is an issue that affects many different spheres within countries at the same time. Thus, water management is an issue that demands the right strategies and the right management, the question is rather what is right.

Moreover, both positions seem to coincide in how they analyse the present-day situation. Even though the notion of the future may have been more divided in earlier 1990's and 2000's, today it seems like both positions acknowledge that there is a lot that is changing around the world. This, especially when observing increased water scarcity and stress, partly accelerated by climate change, and increased population growth. This is important as it shows to some degree a mutual understanding between the two positions and displays that narratives maybe can change over time. Hence, how the counter-narrative from position two was projected in early 2000's seems to have changed slightly with findings from 2015, wherein it is an agreed phenomenon that water scarcity could inflict instability onto international peace.

Something that does not seem like coinciding is regarding the system belief and strategies behind the two positions. The findings from especially Cascao et al. (2018) shows an emphasis from position two to treat water issues as a developmental issue rather than anything else. This is done with a firm belief that this should be the case. If compared to position one, here there is proposed to be a need to investigate and treat water issues as part of international security, global stability, and national security, especially as position one foresees a future of wars. What this indicates is that the system beliefs between the positions are different in how to address the issue. This does make the complex issue even more complex and makes it harder to find common ground. Consequently, the analysis is indicating a difference between epistemic communities, and if the question is how to treat water issue, either within developmental issues or within securitization and international relation, it is hard to find any common ground for a metanarrative.

This is not to say that the framework has failed, because as Roe (1994) indicated, sometimes a metanarrative is impossible to find or evolve. Even though a lot of the findings point to similar narratives, at least when it comes to the plot, setting and the moral of the story, the biggest difference within the debate seems to be regarding system beliefs and strategies. One could ask or think about which effects it has when considering water issues either through the perspective of being a developmental issue or considering it as a problem directly linked to securitization and international peace and security. Hence, the difference could be if either the Minister of Defence or the Minister of Irrigation sits around the negotiation table when discussing water issues. This is an interesting finding that seems to be partly reinforced by the statement of Zafar Adeel, who was the Chairman of United Nations Water (UNW), in 2011 that "It is increasingly important in that context, therefore, for nations to agree how water security should be defined." when discussing

the differences among countries in how to define what water security indicates. Examples mentioned were either defining it as human security, a human right or national security and therefore how to address it (United Nations University, 2011).

Thus, what this analysis show, is a fundamental difference within the debate in how to address the policy issue of increased water scarcity and this may be the greatest task to overcome to reach a mutual understanding or common ground. Hence, it is hard to reach a middle-ground and to create a metanarrative within the debate of the water wars thesis.

5.2.1   How the Water Wars Thesis Prevail

The research objective was to *investigate how the water wars thesis prevails and survives*. What the Narrative Policy Analysis has shown is how the different components of the debate of the water wars thesis are projected. What one can learn is that one of the probably strongest reasons for the thesis to survive is how the global world is developing, as much focus is brought to the urgent need to address climate change, water scarcities, and water stress. This does make the thesis still relevant as it highlights a highly uncertain and complex policy issue. The NPA framework has assisted in the analysis to observe this pattern and therefore has given an indication of why the thesis may be prominent, sought after, and still used.

Moreover, the NPA framework has also indicated a vast difference among the system beliefs within the debate about water wars. This could be an indication that the different positions are too divided to find a common ground, more than the policy issue at hand.

This research does in some respects correspond to the findings of Katz (2011) that was developed in chapter one. Herein, the water wars thesis is as, Katz indicates, used quite prominently by both media and within policy circles. This is something that also this study reinforces, as much of the

findings of narratives from position one derives from media outlets. What this study has added to Katz work is to address how the water wars thesis is projected from the perspective of a narrative policy analysis and how different positions may project the same policy issue.

6 Conclusion

What can be learned from this thesis one may ask. The issue of water scarcity is a highly political, complex, uncertain and polarized topic that, as the findings show, has a great need to be addressed. Thus, as water is the essence of live makes the topic greatly harder to talk and discuss because of everything that the issue is comprised of. The objective of this research was to investigate how the water wars thesis comes to survive and prevail, even when being empirically tested against. One answer to this has proven to be by applying the Narrative Policy Analysis framework wherein this research has shown how the narratives from especially position one (supporting the water wars thesis) has projected the issue in a fashion which may have made it easier to comprehend and to strike fear in people because of the seriousness in the policy issue. Henceforth, the findings have also shown a difference in what system belief both positions may adopt, which could be a reason for why the debate continues. This, as the differences, maybe is to fundamentally different to reach a common ground.

One of the contributions of this research paper is partly the figures which have been developed out of applying the narrative policy analysis onto the debate about the water wars thesis. **Figure three** (page 41), **figure four** (page 50) and **figure five** (page 53-54) is introducing a new perspective on how to structure and observe the debate of water wars in line with the NPA framework. It has hopefully added to the understanding of the debate how both positions project the policy issue through policy narratives. Moreover, this way of structuring the contributions to a debate may be a strategy that can be useful in other debates as well, as it assists in easily structure how different positions within a debate project a specific policy issue.

What more that can be learned from this research is what effects narratives may have within policy debates as well as how one may or may not find

middle grounds within a complex, uncertain and highly polarised issues. Hence, this research showed that between the located positions, position one and two, had similar traits and aspects within both narratives that did coincide, indicating that the positions may not be that greatly divided as initially thought. Although, some major findings do still indicate that the issue is highly complex with a division of for example different system beliefs, a slightly different projection of characters and a bit different strategies. Although, one of the main components that did coincide was the moral of the story. This showed that both positions do project the moral of the story as one wherein better management of water between countries and better use of water could be the solution.

6.1 Suggestions

It is not the aim of this thesis to outline policy recommendations for international leaders or policymakers to adopt, that would require a wider set of examined data, which upon assumptions could be made, and a slightly different method and approach. Rather, this thesis aims to shed new light and explain both the relevance of policy narratives within the debate about the water wars thesis as well as highlighting how the world in the present day is regarding water issues. The world today seems to have changed quite a bit regarding climate change, population growth and accessibility to both water quality and quantity. Thus, the revival of the water wars thesis, as raised by Cascao et al. (2018), may not come as a to great shock and one could understand the increased focus on what will happen and how to react to this.

A small suggestion out of this thesis findings would be to not be too quick in neglecting or discarding any side in a debate such as the water wars thesis as you may lose out on important factors and perspectives that may have an impact. What this research shows is that there may exist polarised position within a debate with similar policy narratives, even though they differ. What the theoretical framework assisted in this research is to show a common

ground between the positions regarding some components, but it did not manage to create a full metanarrative, a potential new narrative about the water wars.

6.2 Future Research

Research on both the water wars thesis, the relationship between environmental scarcity and conflict and water stress (scarcity) has been greatly developed throughout the years. Although, research regarding the results presented in this research indicates that an area and subject that may be developed even further is exactly how much policy narrative has affected policy decisions within this debate of the water wars thesis. Hence, this approach would then be aimed at actual policies implemented to combat water scarcities or promoting cooperation or decreasing the risk of war.

This research is solely confined to examining the prevalence of the water wars thesis through the perspective of narrative policy analysis, but has not been able to examine and investigate exactly which impact these policy narratives may have had on the debate and therefore on the potential policy-making within this policy area. Thus, this is a potential area for further investigation to fully grasp the impacts policy narratives may have and may have had in this policy area. Hence, a proposal would be to employ a case-study approach to single out certain cases wherein policy narratives are visible and in this sense, investigate the potential impact they have had, or have not had, on policy-making. For example, on a certain, specific policy that was developed and adopted regarding water scarcity and its potential risk for conflict. This could be fruitful as it may show specifically how certain policy narratives may have an effect (or not) on a policy process.

Another topic for future research is regarding the theoretical framework itself. Even though this thesis research is connected to the environment (through the water as a resource), the focus is rather towards conflict and

international relations. Earlier it has been mentioned that it has been proposed that the Narrative Policy Analysis (or framework) should be applied on a broader spectrum of subjects, not solely environmental. Hence, as this research has applied the framework on conflict and international relations (the water wars thesis) future research could continue this trail, and analyse conflicts or wars through the perspective of narrative policy analysis to broaden the spectrum of how the Narrative Policy Analysis could be applied within these areas.

6.3　End Comments

It is an impossible task to foresee the future and what will happen, no one can really answer that question. Therefore, it is important to take a nuanced approach to complex issues such as water wars and the claims one do. This, as what have earlier mentioned, it is impossible to foresee the future and one should be careful in claiming the right to "tell that future". It is important to value all possibilities; even how unrealistic they may be portrayed as, and value all contexts where these values derive from.

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