

Spatial hydropolitics between the upstream and the downstream states

A case study of the state, territory and identity formation of
the Rogun HPP

Abstract

By using the variables politics of scale, politics of position and politics of place, the dispute concerning the hydropower plant Rogun between the upstream country of Tajikistan and the downstream country of Uzbekistan can be explained from three spatial angles. The Rogun dates back to the Soviet era and under recent times the relations between Tajikistan and Uzbekistan have become tense since Rogun can bring significant development changes. This case study explores the effects and consequences in the political and environmental discourse concerning the Rogun. The research questions will be based on the concept of sustainability and transboundary water management. The indicators state, territory and identity will be used to explain how the discourse is being portrayed. The research findings show a highly politicised discourse that has contributed to Rogun being framed differently depending upon what kind of concerns are being presented on the national scale between Tajikistan and Uzbekistan.

Keywords: *Rogun Hydropower Plant, Tajikistan, Uzbekistan, spatial politics, politics of scale, politics of position, politics of place, sustainability, transboundary water management*

Table of Contents

List of abbreviations	1
1 Introduction	2
1.1 Disposition.....	3
1.2 Aim and research problems	3
1.2.1 Hypothesis of case	4
1.3 Selection of case	5
1.4 Previous research.....	5
2 Research design	6
2.1 Research method.....	6
2.2 Indicators for the independent variables.....	7
2.3 Demarcations	8
2.4 Material.....	9
2.5 Source of criticism.....	9
2.6 Validity and reliability.....	10
3 Theoretical framework	12
3.1 Spatial politics	12
3.1.1 Politics of scale – <i>State</i>	13
3.1.2 Politics of position – <i>Territory</i>	14
3.1.3 Politics of place – <i>Identity</i>	15
3.2 Sustainability	16
3.2.1 Indicators for sustainability.....	17
3.3 Transboundary water management.....	18
3.3.1 Indicators for TWM	19
4 Analysis	21
4.1 Background.....	21
4.1.1 Soviet Central Asia	21
4.1.2 The Aral Sea	22
4.1.3 The Rogun HPP construction.....	22
4.2 Sustainability	23
4.2.1 Politics of scale – <i>State</i>	23
4.2.2 Politics of position – <i>Territory</i>	24
4.2.3 Politics of place – <i>Identity</i>	25

4.3	Transboundary water management.....	27
4.3.1	Politics of scale – <i>State</i>	27
4.3.2	Politics of position – <i>Territory</i>	28
4.3.3	Politics of place – <i>Identity</i>	29
5	Conclusion	31
5.1	Results	31
5.2	Suggestions for further research	32
6	References.....	33

List of abbreviations

Rogun HPP	Rogun Hydropower Plant
Nurek HPP	Nurek Hydropower Plant
TWM	Transboundary Water Management
WCED	The World Commission on Environment and Development
ICWC	The Interstate Coordinating Water Commission
IFAS	The International Fund for Saving the Aral Sea
ICAS	The Interstate Council on the Problems of the Aral Sea Basin
USSR	The Union of Soviet Socialist Republics
TEAS	The Techno-Economic Assessment Study
UNGA	The United Nations General Assembly
EU	The European Union
OSCE	The Organisation for Security and Cooperation in Europe

1 Introduction

When resources become treated as commodities, a certain value is being attached to those particular resources, making them a source of revenue. Values play an important role in cases where subjects give objects a degree of importance which can re-scale the subject's position in space. A good example of subjects creating a striking place-based attachment to objects is when a mutable object – water, is coupled with a fixed object – a hydropower plant. These two objects can give rise to place identification for those subjects that view the fixed object as a solution for ending poverty. The social constructions of values to objects by subjects correspond to the statement made by Tuan, who declares that: “[...] the power of the symbols to create place depends ultimately on the human emotions that vibrate in a field of care” (Tuan 1994:455). This means that the strong need to eliminate intrastate resource scarcity and poverty can produce a national identification to the mutable and fixed objects, but a type of identification which clash with a neighbour who views the objects differently. The value of the fixed object can even be seen as a threat to the neighbour, whose dependence over the mutable object is at stake. Without *modus vivendi* the two neighbours would encounter rather difficult situations which can bring forth an intense conflictual climate over water resources.

The state of affairs described above is an example of the asymmetrical water sharing scenarios between the upstream (Tajikistan) and downstream (Uzbekistan) water users in Central Asia. The downstream user is generally deemed more affected by water fluctuations than the upstream user (Van der Zaag 2007:1994). In the case with hydropower plants, the benefits for the downstream user are for instance flood protection and enhanced irrigation. Usually the downstream user does not experience these benefits, and as a consequence, tensions between the upstream and downstream users increase. In addition, the upstream user is able to regulate the volume of water (Jenkins-Young 2013:5, 9) which results in the downstream user portraying the upstream user as an antagonist.

The Rogun Hydropower Plant (Rogun HPP) has contributed to an uneasy atmosphere due to the: “vociferous rhetoric exchanged between Tajikistan and Uzbekistan” (2013). This is the region which does not have the ability to provide the constancy or the capability to lessen the political grievances over water (Central Eurasia Standard 2013:2). According to Water Politics, the international water rights drift amid both political and environmental disaster (Water Politics a). To begin with, the political implications originate from the Soviet Union. The Soviet policy plan on hydropower plants was aimed at expanding the downstream cotton production. This resulted in downstream dependence over regular water releases from the upstream snowmelt waters in the Tien Shan and Pamir mountains (Hiscock 2012:63; Water Politics b). After the dissolution of the Soviet

Union the states became independent and neglected the importance of water cooperation (Water Politics c). Secondly, the environmental perspective is important to take into consideration since it is a vital biocentric¹ source for survival. If the natural resources are threatened, national destabilisation might occur and the path towards sustainable development would be questionable. Though, these two perspectives are not the only ones having large impact on the water resource discourse. In fact, the discourse would be incomplete without the others, but due to restricted time and space, this thesis will only touch upon these two above mentioned perspectives.

1.1 Disposition

The thesis will begin by presenting the aim and research problems a) and b). In conjunction with the research problems, a hypothesis will be expressed where pre-given thoughts are professed. Furthermore, the introduction will finish off with a presentation of the type of case and the previous research made on the Central Asian region. The research design will constitute of various tools that have been chosen for analysing the case study. The theoretical framework will present the three independent variables followed up by the concept of sustainability and transboundary water management (TWM). The analysis constitutes of six parts, each reflecting back on the independent variables in the theoretical framework. The conclusion will present the results of the research problems and suggestions for further research.

1.2 Aim and research problems

The aim of the thesis is to conduct a case study which will explain the *effects* and *consequences* of the construction of the Rogun HPP. In general, hydropower plants do affect geographical space, but the effects differ between regions and countries. The water in the Central Asian region is classified as transboundary (Water Law & Governance [no date]) and the countries are obliged to provide each other with the amount of water they are entitled to. To date, the Rogun HPP has contributed to a strained relationship between the upstream country of Tajikistan and the downstream country of Uzbekistan. These tensions can pose a great challenge for the future stability of the region.

¹ Biocentric derives from *biocentrism* which refers to the equality and rights of all living things (Oxford Dictionaries).

The thesis will study the research problems from the concept of sustainability and TWM, focusing on explaining the concepts with the help of three approaches within spatial politics. The independent variables are: politics of *scale*, politics of *position* and politics of *place*. Each approach will be assigned an indicator and shortly presented in the research design and more thoroughly in the theoretical framework. The inspiration to write about spatial politics came from the article: “The Politics of Scale, Position and Place in the Governance of Water Resources in the Mekong Region”, written by Luis Lebel, Po Garden and Masao Imamura. The article explains the various dynamics that exist between the diverse actors within the Mekong region (Lebel et al. 2005). These three approaches provide a deeper understanding over the case, exposing the interrelated political processes from their level, place and relation in space. The variables can be applied to any case wanting to analyse the geographical processes occurring in space, regardless of theoretical framework. This case study chose sustainability and TWM for an in-depth analysis because both of them will illuminate the discourse of the Rogun HPP and the countries’ struggle over proper water management. The two research problems underpinning this thesis are as follows:

- A) *Which environmental and political effects do politics of scale, politics of place and politics of position have on the sustainability and transboundary water management discourse of the hydropower construction?*
- B) *Seen from a sustainability and transboundary water management discourse, which are the consequences between the downstream and the upstream country in the development of the hydropower plant?*

1.2.1 Hypothesis of case

The thesis expects to find a highly politicised discourse relating to water management. This assumption came from observing the geographical timeline over the desiccation of the Aral Sea. Since the sea has only been shrinking over the past decades, questions were raised concerning the internal discourse relating to the water management and why the shrinkage has continued for so long. This is also one of the reasons why sustainability was chosen to be part of the theoretical framework. The interest fell on studying the Rogun HPP between Uzbekistan and Tajikistan because without this demarcation, this thesis would stretch over several pages and chapters.

1.3 Selection of case

The case study is a representation of where empirical observation is connected to theoretical assertions. The selection of case is about water management. Sustainable development could be facilitated if there is an established negotiation and cooperation between the actors. Agreements related to TWM have been implemented at times but the results have only been temporary. The Vakhsh River is located in Tajikistan but connected to the Amu Darya River which flows through the territory of Uzbekistan. According to Water Law and Governance, rivers are classified as international when they fall under the criterion of being under the sovereignty of several countries, either because they separate two countries or because they cut across two or more countries (Water Law & Governance [no date]). Since the rivers in Central Asia are Transboundary Rivers, the two countries are obliged to find means for cooperative agreements on equal distribution of water.

1.4 Previous research

The interest to write about the Central Asian region had much to do with the Aral Sea disaster and one of the authors who have written extensively about the issues related to the Aral Sea is Philip Micklin, former professor at the geographical department at Western Michigan University. Philip Micklin was one of the editors and authors of the anthology: “The Aral Sea: the Devastation and Partial Rehabilitation of a Great Lake”. The book presents the pre and post condition of the Aral Sea (Micklin et al. 2014).

Another important source of research is the article: “Building a nation through a dam: the case of Rogun in Tajikistan”, written by Filippo Menga, research fellow at the University of Manchester (The University of Manchester [no date]). The article presents how an object – the Rogun dam, can be framed and constructed to fit the national discourse in a country – Tajikistan. The article gave much insight to the multi-layered political atmosphere in Central Asia and has been used extensively in the analysis.

2 Research design

2.1 Research method

The thesis will be of a qualitative nature, driven to understand empirical material from a context-specific situation. A qualitative analysis will provide an in-depth and broad understanding of the hydropolitical issues neighbouring the Rogun HPP and endowing the analysis with more details on the characteristics and qualities of the issue (Golafshani 2003:600). The qualitative method will be undertaken by a single case study with surrounded units. The single case study will analyse the political and environmental effects and consequences related to the construction of the Rogun HPP. The problems will be examined from the perspective of the upstream country of Tajikistan and the downstream country of Uzbekistan, since these countries are in a dispute over the hydropower plant (ECC Platform Library [no date]). The benefit with a single case study is the focus on one specific occurrence in time and space which has caused instability between two neighbouring countries that are dependent upon the same natural resources. Single case studies with embedded units provide more depth as well as an expanded understanding of particular phenomenon. This will then add weight to what has already been researched in previous case studies (Baxter & Jack 2008:549-550).

Sustainability and TWM represent the theoretical framework and are two concepts which can provide frames that take into account the upstream and downstream countries need for water resources. Sustainability and TWM have generally been known to be problematic in Central Asia, both in terms of equitable and reasonable water utilisation and in cooperation and negotiation of water allocation (Hashimova 2014; ECC Platform Library [no date]; Camm 2013; The European Times 2012; Muckenhuber 2013; Parshin 2010). For this case study, the effects are referring to the direct results of a particular issue and the consequences are about the indirect causes of a particular issue. Both the negative and positive aspects will be highlighted next to each other because together they will shed more light on the problematic factors linked to the Rogun HPP.

The analysis will have an explanatory approach, intended to discern the political and environmental effects and consequences of the Rogun HPP. The dependent variables, sustainability and TWM, are aimed at explaining the research problems of the hydropower construction, whereas the independent variables will strive to explain the variation in the dependent variables (Teorell & Svensson 2007:28-29). The independent variables are as follows:

1. *Politics of scale*

2. *Politics of position*
3. *Politics of place*

Causality will not be adopted in a strict sense due to the fact that several aspects are existing simultaneously that can explain why sustainability and TWM are problematic in reaching equitable water agreements. This means the issues reach beyond the political and environmental factors which this thesis is solely embarking upon owing to the restricted time frame and space availability for writing. The causality will therefore only have a partial explanation of the cause and effect relation. The focus is in explaining the effects and consequences of the research problems that are related to the water resources surrounding the Rogun HPP (Teorell & Svensson 2007:27).

2.2 Indicators for the independent variables

The independent variables will be divided into three indicators, one for each independent variable. These indicators are connected to the first four parts of the theoretical framework. Together with a model (Figure 1.), they will be shortly introduced below and conducted in detail in the theory. This method of presenting the independent variables was chosen so as to connect them with respective indicator and give a throughout explanation of what each of them stands for. The inspirational choice of indicators came from political geography, a branch within human geography, which is concerned with the political implications and processes occurring in space. The three well known indicators within political geography are: *state*, *territory* and *identity*. These indicators will be tailored within the theoretical framework to fit the hydropolitical discourse of the Rogun HPP between Tajikistan and Uzbekistan. The concept of sustainability and TWM will be used as the dependent variables. The *state* is concerning the politics of *scale*, *territory* is pertaining to the politics of *position* and *identity* is related to the politics of *place*.

The *state* is likened to the entity holding the role as the legitimate authority over its own spatial boundary. States are considered dynamic entities, which reflect processes through which territories, and those living in that territory, are controlled. Territoriality is neatly tied to the state since the state exerts power in a particular demarcated spatial location (Jones et al. 2004:21, 28; Cox 2002:2, 250).

Territory is a bounded geographical space where territoriality is referring to the attempts to control that space. Territorial behaviour might be viewed as a political strategy designed to achieve particular ends. Hence, spatial control can be used to assert or maintain power, or to resist the power of a dominant group. They serve to convey messages of authority, power and control (Jones et al. 2004:39; Cox 2002:1, 3, 5-6).

Identity is tied to the notion that place is a particular point in space, inscribed with particular characteristics (Jones et al 2004:3). Identity is both the identification to certain environmental judgements, cultural associations and emblematic relationships. The politics of individuals are shaped by aspects of their identity, most notably their national identity (Jones et al. 2004:55).

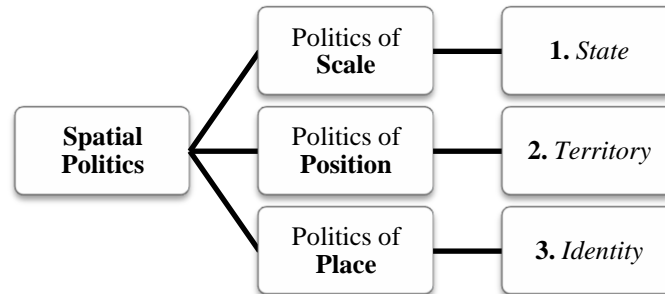


Figure 1. Schematic model over the independent variables and their respective indicators. The three independent variables are connected to the field of spatial politics.

2.3 Demarcations

The concept of sustainability and TWM will be examined through the environmental and political perspective. The reason for this is two. First, the noted damage which has happened to the large sea in Central Asia – the Aral Sea, has been due to poor regulations on water utilisation and the introduction of cotton plantations during the Soviet Union era. The construction of the Rogun HPP was made controversial by Uzbekistan, who viewed the construction as an obstacle for their agriculture. Second, the political discourse has been tense under a long time between Tajikistan and Uzbekistan. The water is classified as transboundary, which means both of the countries need to participate in water sharing. Even though water agreements have taken place in the past, the results have not been permanent. None of the perspectives have had permanent positive outcomes for either state (Škoba 2013:1, 3; Ibatullin 2015; Water Law & Governance [no date]; International Crisis Group 2014).

With the help of an explanatory approach, this thesis will excavate the environmental and political aspects of the sustainability and TWM discourse of the Rogun HPP. The analysis will be comprised of a top-down-approach, but only the top – the national scale, will be analysed. Hence, other perspectives related to the natural resource issue will not be incorporated. This is to avoid a too broad presentation over the water resources. Breadth instead of depth would result in a case study which is unclear and does not contain the intended empiric evidence.

2.4 Material

The material will be built upon previous research over the Central Asian region and the spatiality of politics. It will constitute of writings such as articles, books and theses which are relevant for the hydropolitical issues between Tajikistan and Uzbekistan. The chosen material will be from individuals that have made extensive research and contributed with their knowledge and understanding over the problems related to hydropolitics – general hydropolitics as well as hydropolitics specifically related to the Central Asian region.

The thesis itself will use a combination of theories which have not been used simultaneously between these two countries before. The empirical evidence will be examined with the help of the theoretical framework. Hence, the thesis will in its own way become cumulative (Teorell & Svensson 2007:281; Bjereld et al. 2009:24-25). These empirical findings are of immense importance since the standpoint of the thesis relies on pre-empirical evidence made by researchers. Therefore, triangulation will be used to increase the understanding of the concept of sustainability and TWM in regard to the dispute of the Rogun HPP. The purpose is therefore to gather information from various sources for the purpose of describing attributes and factors of a large research field (Eck 2011:165; Stake 2010:136-137).

The material will mainly be composed of secondary sources. The empirical material is categorised as being soft data since it has been collected to understand the reality from the perspective of individuals (Teorell & Svensson 2007:11).

2.5 Source of criticism

The concept of sustainability has at times been under scrutinisation for its hazy definition and direction. Its critics are arguing that the term has an all too obscure definition to be able to be used as a tool for research. By arguing in favour of this statement, using concepts and terminologies that can mean anything to anybody is posing problems for further investigation since it does not contain a solid account over, for instance, the norms and values which are needed in order to direct actions related to water exploitation into one specific direction. Due to the imprecise definition, the concept of sustainability can for example be used and abused by institutions with corrupt practices. Nevertheless, the term is valuable in a world which is being exploited beyond measure and where social unrest is a worrying factor that can trigger domino effects on a large scale. Terms like sustainability and TWM can enable actors from different disciplines to find potential solutions to problems which could in other respects have severe

outcomes. Despite the fact that concepts like sustainability lack concrete direction, they have their value and ought to be considered if conflicts and other problems are to be solved. Munier point out that: “[s]ustainability is a difficult and complex issue, and an elusive one. It is enormously important since it has to do with nothing less than the chances of humankind surviving on this planet” (Munier 2005:1). Water is life, and exploiting it in this anthropogenic era means disrupting the crucial biotic balance.

Spatial politics and the scale discourse have also been under criticism. Herod point out that by starting an analysis on a given geographical scale, without incorporating or barely incorporating other scale formations, is considered antagonistic because, for instance, political processes do not reside on one particular scale and are not operating repeatedly on one scale. Instead, the political processes are occurring simultaneously on various scales at the same time. Therefore, demarcating a theory on one certain scale is, according to Herod, not a starting point for a research project (Herod 2011:19). Although this is true, the demarcations are necessary in cases such as these in order to focus on particular issues in particular places. This will enable the analysis to draw out important details and reach a deeper understanding over the chosen variables and the geographical scale. With this, sweeping statements can be minimised which could have otherwise caused significant information to go unnoticed.

2.6 Validity and reliability

The credibility of the thesis is aimed at obtaining high objectivity and low subjectivity as possible, being independent of private valuations (Teorell & Svensson 2007:54). The quality of the analysis ought to reach a level which is devoid of value-laden or exceedingly private arguments. Still, objectivity cannot be completely ensured and is therefore in need of intersubjectivity to make the analysis less biased and more neutral (Teorell & Svensson 2007:280-281).

The validity is more important than the reliability because of the significance in reaching a coherent empirical material which corresponds to the theoretical premises and the aim of the case study. To increase the validity, triangulation will be observed where different academic disciplines will be incorporated to give the analysis a broad empirical understanding over the issue of the Rogun HPP. Thus, the focus of the validity will be in incorporating several aspects from the theoretical framework to the indicators of the independent variables (Bjereld et al. 2009:113). The thesis is also more concerned with the external validity, the idea related to generalisability. The inspiration to use three variables from the field of spatial politics had to be considered before they were applied to the geographical location. The importance was that there had to be enough empirical evidence to back up the explanations in the analysis (Yue 2010:961).

The reliability indicates that the measurements are time-specific, meaning the results might not be the same in the future. Even slight modifications show that the reliability is constricted to the time and space it is occurring, but the method itself can be replicated with these variables and indicators for another case. The reason for this is that the political climate and environmental factors within and between countries are not stagnant, they shift and change scale and nuance as time goes by. Nonetheless, the reliability will serve as assistance for obtaining conformability and dependability in the qualitative analysis. However, the various selected empirical sources – triangulation, prove the reliability of the case study (Bjereld et al. 2009:116; Golafshani 2003:601-604; Ward & Street 2010:800, 802).

3 Theoretical framework

3.1 Spatial politics

The politics of space is the conceptualisation of space as being shaped by the various interactions occurring within and between different spatial divisions. With every interaction, power is being translated unto that space where actions and interactions are taking place. This power is different for instance between geographical locations, social levels in a country or region and among the individuals living in the same geographical area. Space and power cannot be separated since both of them give the place in space a certain character which has subsequently been formed by social interactions such as cultures and ideologies. The simultaneous relation between space and power has therefore political connotations, which interplay with the various units of social interactions (Massey 2009:17). Hence, spatial politics has later been associated with the ontological view that space is a social construct, formed by the people (Jones et al. 2004:103). However, social constructions are not stagnant because they relate to the fact that spatial divisions change, either by presenting something new or taking away something redundant. Massey presents three characteristics for the conceptualisation of space. First, space is constituted by a complex web of networks, connections and linkages, from the local to the national or global scale. This means space has been produced by the interactions and relations of these networks, connections and linkages. The second characteristic is referring to space being multi-dimensional; hereby meaning spatial interactions are not and cannot be one-dimensional because they are continuously being influenced by different objects. The third characteristic is indicating that space is under constant change, which is closely related with the two former mentioned characteristics. This means interactions will change over time and play out in another way in the future (Massey 2009:17-18).

The politics of space also relate to the terminology of position. The position, in this regard, can refer to a physical location in space, for example a territory. The different positions in space are the essential factors for actors in forming their political identity and discourse respectively. But the political activities in themselves help shape or reshape identities and spatial relations. Space is the relational and multi-dimensional concept which is being continuously recomposed by political activities (Massey 2005:183). The connection between political identity and discourse make locations form boundaries between themselves and others that do not adhere to the same rules and regulations. Due to the construction of boundaries, the territory can encounter conflictual spatial relations

with other territories if their political identity and discourse differ in such a way that it creates hostility between them (Massey 2005:185-186).

3.1.1 Politics of scale – *State*

The concept of scale, coined by Neil Smith, is used in reference to particular differentiations, orders and hierarchies among geographical scales. Scales are distinguished units, differentiated from each other. These units can build hierarchical structures within the one and same scale. An example of this could be the national scale. The national scale is one unit which has actors scattered on different positions but they are all connected to each other on the same scale. Scales make known how socio-spatial structures are organised, constructed and produced (Herod 2011:26-27). The spatiality of politics of scale can also be referred to the struggles occurring within political processes on how actors transcend scales by securing their interests over land resources and defending their standpoint within decision-making processes. The scale jumping ability is within reach of actors who intend to make their concerns known beyond their own scale, for instance the national scale wanting to reach the global scale. Though, Cidell points out actors have power within their particular scale but they do not have: “power as scales” (Cidell 2006:196-197). This can be referred to an actor – *a*, wanting to secure their political interests but that those interests might be a hindrance for a neighbouring actor – *b*, who is being negatively influenced by the actor *a*:s interests. In this case, actor *a* cannot appeal, for instance, to the International Community – *c*, without *c* taking into account *b*:s own interests in the discourse.

The state is the politically constructed unit which can be represented by the national scale and is not only distinguished by which scale it constitutes but also has the ability to make use of power centralisation, both in regards to the interstate and intrastate scale (Herod 2011:28-29; Cidell 2006:197; Storey 2012:68). Jones et al. refer to Max Weber when they present the conceptualisation of the state, and argue that the state is an anthropocentric communal space that can, if it wills, claim monopoly and legitimacy to use its power to defend itself (Jones et al. 2004:27). Even the state’s external relations are composed of different scalar constructions, such as the territorial, economical, political and strategic (Jones et al. 2004:38). The political scale refers to the degree a given state is exerting its political control or influence over other states. In this case, the political control being alluded to is of an informal character (Jones et al. 2004:39), where the state is trying to influence another state in its own decision-making. According to Jones et al., this notion can be traced back to the realist school, which describe this situation as the state’s aim to: “[...] develop its political status in the face of other states equally concerned with their own self-interest and status” (Jones et al. 2004:45).

The power of the state legitimises it to later on utilize the resources which are within reach. It has also been put forth that the natural resources are connected to the states' aptitude to consolidate their power (Jones et al. 2004:25). The effective way for states' to have power over their resources is by exerting control within a border which is shielded from other states (Jones et al. 2004:34). Though, this cannot be the case if the resources are classified as common between two or more states, usually implemented by the international community. Thus, this creates pressures as well as tensions among the states when their power exertion is being compromised by a third actor. Any type of struggle for a certain amount of centralised power is linked to the struggle over natural resources (Jones et al. 2004:88). Internal as well as interstate pressure builds when concepts like sustainability and TWM are weakening that supremacy.

3.1.2 Politics of position – *Territory*

The politics of position is referring to the positions and relations with other spatial units within the same hierarchically configured place or region (Herod 2011:27). In this case, the position in space will represent a location occupied by the state, which is a defined territory (Paasi 2003:111). In a physical sense, the territory is important for the state since the state see it as their obligation to govern a demarcated boundary. Consequently, it enables the state to have power control over the territory it is claiming, which is a significant aspect for the state because they derive their legality by having a specific territory in space to govern (Jones et al. 2004:21). The territory itself takes on different attributes depending upon where in space it is located and by what kind of actors the territory is occupied by. The power centralisation that states exercise to secure their territory from other states is in correspondence with the statement made by Paasi, who conveys that: “[t]erritories are always manifestations of power relations” (Paasi 2003:111, 113). These power relations acknowledge the importance of boundaries in the constitution of territories, due to the fact that states are defined as conceptualising space in the “us and them” theorem. In this case, the fault of the neighbouring state is strengthening the domestic state's qualities (Jones et al. 2004:94).

Spatial boundaries exercise sovereignty, internally as well as externally. Usually, disputes on the state sovereignty occur where borders meet. But other scenarios can impinge a territory even if the impacts are not strictly located at the border. In regards to transboundary issues, the states sovereignty is challenged since the boundaries are more fluid, causing the state power to compete for political dominance (Storey 2012:43; Newman 2003:124-125). The significance of governing a demarcated territory extends itself to the ability of using the resources for self-interest. But if the territory is compromised by an outsider or a resource which is regarded as transboundary, it creates territorial tensions and bring out a conflictual atmosphere between the involved (Jones et al. 2004:21). In

cases where water issues are present, tensions and conflicts can arise when a river is shared across rather than along a border (Gleditsch et al. 2006:362).

The artificial borders of states are the product of political constructions, but they have serious real-life implications if they are being trespassed or provoked by another (Storey 2012:46, 48). If political boundaries are not in a stage of reaching cooperation over shared waters, the states will resort back to their old habits of water utilisation and fiercely protect their territories from other states. But these actions would put their territories on trial because continuous exploitation of water resources is equal to unsustainable development.

3.1.3 Politics of place – *Identity*

Politics of place is representing the identity formations of particular landscapes or objects within a demarcated boundary. Territories differ between each other in, for instance, their political viewpoints, cultures and traditions, which make their identities dissimilar (Yung et al. 2003:855, 857). Examples of how politics of place can be formed is when opinions relating to the environment are created through various social actions, how attachments towards certain types of localities can contribute to a certain type of identity formation, the relationship between sense of place and environmental values and how different types of symbols are connected to landscape meanings. Both sense of place and the politics of place are political in nature because they are expressing these connotations from an objective perspective, which give rise to underlining political messages (Yung et al. 2003:857). Storey presents national identity as being composed of different elements. In this respect – the *territorial* and *political* elements are most applicable to describe the issues on the water resource discourse. The territorial element is referring to the: “attachment to a clearly demarcated territory” (2012) and the political is alluding to the notion of: “claiming the right to rule itself” (Storey 2012:80).

Yung et al. convey that place meanings are not merely viewpoints since individuals carry out these viewpoints which later portray themselves in physical form in the landscape. Since thoughts are put to action, they come to have powerful meanings, conveying a certain political opinion to a certain group (Yung et al. 2003:857). Symbols though are but one aspect connected to the broad concept of place. Symbols differ between territories and function in many cases as a form of legitimacy and reinforcement of the status quo within a particular territory. They are also a representation of a position of the state in space which distinguishes them from other sovereign states. These distinctions can for example be flags, statues and buildings (Reynolds 1994:235; Paasi 2003:113). Altogether, the territory represents the ideological basis of state power and plays an important role in sustaining the state’s ideological integrity (Jones et al. 2004:21, 28).

The formation of identity outplays itself in the ever-changing society and shapes the view for the future-coming generations. In order for sustainability to

persevere, the identity formation needs to go from being fixed to being mutable. This means that any form of rigidity in place identity which is not taking the environmental factors into account which will benefit the future generations cannot be regarded as working in favour of sustainable development (Manenti 2011:1104-1105). Enhancing cooperation will work if the involved actors are agreeing to build a society which will bring benefits to the now and the spatial development in the future.

3.2 Sustainability

The frequently cited definition of sustainability dates back to 1987 when the World Commission on Environment and Development (WCED), nowadays known as the Brundtland Commission, presented development as the one: “[...] that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Potter et al. 2008:118, 230). Another definition is submitted by Munier, who depicts sustainability as: “[...] a vision of the future that provides us with a road map and helps us focus our attention on a set of values and ethical and moral principles by which to guide our actions” (Munier 2005:10). Both of them emphasise the importance of responsible utilisation of natural resources, but distinguish themselves in that the former is about the technical details in reaching a desirable outcome, whereas the latter is focusing upon the valuations of right and wrong actions. Even though these definitions to some extent differ, the very heart of the concept of sustainability is practically similar and it is the need to obtain a stage of equilibrium between basic resources and their continuing exploitation without jeopardising the resources for the upcoming generations (Potter et al. 2008:186; Munier 2005:10). One of the more straightforward arguments regarding water utilisation is provided by Armstrong, who argues that sustainability is not an option for societies; it is a must to have a sense of responsibility towards the utilisation of resources. This ethically normative approach is being likened to a heritage by Armstrong, which is handed down by generations and should therefore be valued as the finite natural resource that it is (Armstrong 2006:9). The definition provided by Munier reflects Armstrong’s view over the ethical considerations on water consumption. Not only are these principles essential to reconsider, Potter et al. put across the reason why sustainable development work as a cornerstone for continuous recognition over natural resources, because: “[...] past patterns and processes of development cannot be sustained environmentally over time” (2008). Complex relationships which significantly slow further development, both technically and socially, are present where unsustainable frameworks are combined with environmental degradation (Potter et al. 2008:230).

Despite the efforts to attain sustainable development, a growing awareness into the 21st century exists which present a close linkage between natural

resources and civil conflict. Potter et al. convey that the attractiveness of the concept of sustainability can be used to support for instance a variation of socio-political agendas (Potter et al. 2008:230). These agendas are those that can bring about stagnation in sustainable development for those which are in need of it. Also, having agendas based on self-interests without consideration to the surrounding countries can lead to the creation of conflictual atmospheres. The tense climate does not end there because several scales within countries need to be taken into account so as to avoid building up a climate of inequality. This is in accordance with Giovannoni and Fabietti, who transmit that sustainability cannot be achieved in isolation. Instead, it should be an integrated effort which is simultaneously operating with the help of a number of aspects within a society, such as the economical, social and environmental (Giovannoni & Fabietti 2013:22). In other words, external and internal cooperation between and within countries need to operate at the same time in order to reach equilibrium. According to the framework presented by the Brundtland Report, countries have key roles in promoting patterns and processes which are sustainable and which take account of their stewardship as well as their development role. One of them is in managing natural resources, which includes state-owned as well as collective commodities. Countries are also answerable for internationally negotiating towards the establishment of multilateral environmental agreements. In many cases though, the governments exacerbates environmental problems instead of seeking solutions to them, for instance, in situations where powerful groups have control over environmentally damaging activities and where they are displaying resistance to relinquish their actions (Potter et al. 2008:314).

3.2.1 Indicators for sustainability

The first indicator for sustainability (Figure 2.) is referring to the *intention* of the state of Tajikistan in constructing the Rogun HPP. The *operation* is alluding to the place it is built upon, and the third indicator is referring to the notion that a *construction* can portray ideological and symbolic characteristics.

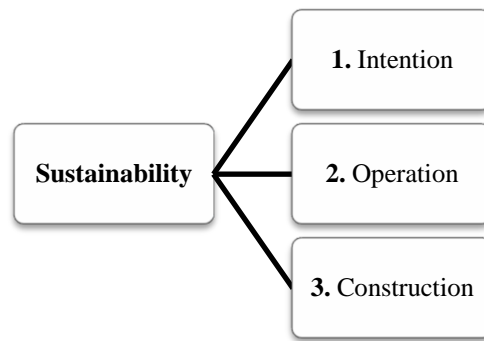


Figure 2. The three indicators relating to sustainability.

3.3 Transboundary water management

The management of water resources is considered vital for both conflict prevention and preservation of resources for the future-coming generations. Many conceptual approaches problematise water distribution and one of them is TWM. TWM is focused upon management related to institutional approaches towards water resources, both in enhancing cooperation and establishing frameworks for negotiation between countries. Uitto and Duda convey that concepts like TWM can provide a ground for cooperation and shared benefits instead of conflict, but solely in circumstances where the potential threat is recognised from an objective perspective and where the formation of institutional structures are present (Uitto & Duda 2002:366). If such institutional arrangements are not present, cooperation between countries with transboundary waters would result in a possible conflictual atmosphere. Like other concepts, TWM constitutes of principles aimed at increasing integrated cooperation between actors. Principles that need to be worked upon differ with basin. Some are presented by Rahaman, which concern the theory on limited sovereignty, equitable utilisation of water resources, negotiation, cooperation and settling disputes peacefully (Rahaman 2009:160, 162-163). However, arguments have been put across which convey the fact that countries will develop tense relationships between each other instead of building cooperation. Abdullaev point out that water management will become an increasingly political issue where the allocation and distribution of limited water resources will give rise to political tensions in parts of the world where demand for water is high. Abdullaev state that these scenarios will be profound in transboundary river basins where inter-sectoral competition is coupled with interstate aspects. Circumstances that may worsen the stability are weak and incompetent water management institutions, lack of responsive governance and where the absence of long term basin plans are present. This is not only an

assumption; it is in view of the fact that underlining political implications have been discovered within many TWM facilities. Therefore, Abdullaev believes the solution to cooperation within transboundary river basins will be of a political nature and that: “strong, inclusive and participatory water management institutions will be precondition for sustainable water management” (Abdullaev 2012:48). Earle et al. convey that politicians have great impact on the outcome of any TWM. Consequently, they have influence over water management due to the responsibility to protect the country’s sovereignty and national rights. Also, they emerge as the collective group with the highest authority. This could for instance be over the quality of the transboundary water interactions. Earle et al. further state that there is a limit to what the water resource community can achieve. For example; if deficiency in political willpower is present, then this deficiency can create a barrier for a functional cooperation to become institutionalised. However, with any given basin, TWM will be influenced by the sovereign power in that place, with both cooperative and non-cooperative actions being evident (Earle et al. 2010:4).

The multi-complex nature of cooperative agreements does not have one golden direction that can solve water disputes and very few shortcuts along the way. Consequently, dilemmas like these make cooperation too strong to handle for weak institutions. Therefore, each conflictual case needs to be tailored to the characteristics of a given basin and at the same time reflect the environmental, economical, hydrological and political circumstances to be successful (UN Water 2008:3). These specific problems, which are correlated with individual transboundary water systems in every country, hold factors such as fear over national sovereignty, political sensitivities and national self-interests. Because of the fact that these issues are different in time and space for regions and countries, developing international principles for the management and control over resources is challenging. In some cases, large institutional bodies such as the UN have consciously stayed away from intervening in the disputes in international rivers due to the politically sensitive relations between actors (Potter et al. 2008:238). Despite these problems, concepts like TWM serve as an example of how cooperation can be organised to lessen the tensions over water resources.

3.3.1 Indicators for TWM

The first indicator for TWM (Figure 3.) is related to the *legitimacy* over each states’ right to the water resources. *Sovereignty* is referring to how the states utilise the water within their borders and the third indicator is related to the *national identity* and how identity surrounding the Rogun HPP is being framed in the water dispute.

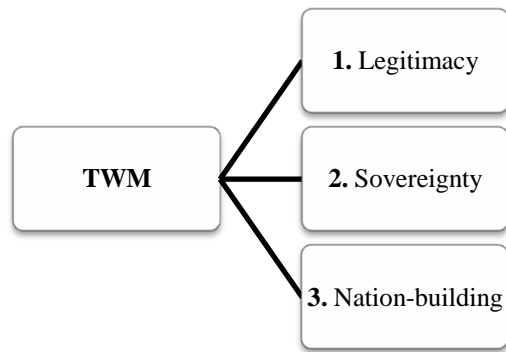


Figure 3. The three indicators for the TWM.

4 Analysis

4.1 Background

4.1.1 Soviet Central Asia

The implications on water management in the Central Asian region came to have profound impacts when the Soviet Union conquered the space and implemented its rules on water distribution. The *ex post* Bolshevik Revolution was the beginning of the partition of the Central Asian region into smaller units. At first, two upstream countries emerged – Kyrgyzstan and Tajikistan, both whom were rich in water resources and with great potential for hydropower. Thereafter, three downstream countries with large potential for agriculture came to be – Kazakhstan, Uzbekistan and Turkmenistan. The promotion of the Virgin Lands Campaign in 1954 led to the expansion of cotton production downstream. The authoritarian Soviet Union developed a collective integrated water system and the water resources became common (O’Hara 2000:429; Ito et al. 2015:2). The water reservoirs provided water for the downstream irrigation and in return, the downstream countries supplied the upstream with gas and coal for energy (International Crisis Group 2014; Bekchanov et al. 2015:859).

Water management became centralised after 1980, leaving decision-making and allocation financing in the hands of Moscow. The advanced engineering projects by the Soviet amplified rivalry among the countries. Kyrgyzstan and Tajikistan were in need of storing water during the summer to be able to generate energy during the winter. However, this did not coincide with the seasonal pattern of the downstream countries irrigation, which needed the water in the summer. This resulted in a back and forth water management duet that Moscow decided should work in favour of the downstream countries (O’Hara 2000:430; Water Politics c). The collapse of the Soviet Union in 1991 resulted in the five republics meeting in Almaty in 1992. The Almaty agreement was signed, and the five countries made a treaty to maintain the former Soviet principles on water allocation. The Interstate Coordinating Water Commission (ICWC) was later established to administer water distribution (Wegerich 2011:275; Micklin 2014:1; Hurvitz Singer 2012). Furthermore, the presidents agreed upon a mutual decision to form the International Fund for Saving the Aral Sea (IFAS) and the following year the Interstate Council on the Problems of the Aral Sea Basin (ICAS)

(Micklin 2014:5). However, after the collapse of the Soviet authority the equitable and rational use of water did not improve. Instead, the situation became to a large degree stagnant (Lioubimtseva 2014:423).

4.1.2 The Aral Sea

The Aral Sea, an endorheic lake located in the middle of the desert area in the Central Asian region, between the downstream countries Kazakhstan and Uzbekistan. The terminal lake was comprised of surface inflow but no outflow. The fundamental water level balance in the sea was there by determined by the two large rivers – Syr Darya and Amu Darya (Micklin 2014:1). Until the 1960s, the sea was the fourth largest sea in the world. Since then it underwent rapid change in water volume. The unsustainable expansion of irrigation caused it to shrink and the after effects have been in the form of ecological degradation, worsening in human welfare, climate changes, economic consequences and salinisation. By the latter part of 2011 the sea had divided itself into four separate divisions with shrinking volume. These rapid changes led to consequences which reached beyond the river body, affecting millions living several kilometers away (Micklin 2014:2-3).

One of the very prominent causes for the Aral Seas shrinkage is related to the Vozrozhdeniya Island. During the early 1950s, the Soviet Union military chose the island as a strategic place, which was isolated and located in the Aral Sea, as their prime testing base for secret biological weapon programs, involving genetically modified pathogens such as anthrax, plague, typhus and smallpox. The programs ended after the collapse of the Union of Soviet Socialist Republics (USSR) in 1991. The Soviet military took measures to decontaminate the island from any leftover pathogen toxins. As time went by, the Vozrozhdeniya Island grew in size and the sea shrunk even more. In the late 1980s, the Soviet Union launched programs of improvements when they publicly announced that there were troubles with the Aral Sea. In 2001, the island united with the mainland to the south. This raised the concern that decontaminated pathogens still had survived and were now spreading to the mainland. (Micklin 2014:4).

4.1.3 The Rogun HPP construction

During the Soviet Union period, large dams were on the writing desk and planned to be constructed. However, after dissolution of the Soviet power, the plans became stagnant for a while. Tajikistan eventually restarted the construction of the Rogun HPP on the Vakhsh River. The construction is located further up the river than the approximately 300 meter high Nurek dam. The Nurek HPP has a capacity

of 3000 megawatts, and if Rogun HPP is completed, it will have the ability to generate around 3600 megawatts (Micklin 2014:116-117; Menga 2015:481, 483; Ikrami 2012).

The Rogun HPP was envisioned in the 1960s with a dual purpose – irrigation management and hydroelectricity, both mutually corresponding to the upstream and downstream need for development. The year 1993 was the original year for the first unit to produce electricity, but the upper cofferdam was washed away by a flash flood, causing large reconstruction to be done. In 2005, the reconstruction restarted up until 2012 when it became suspended by the Tajik government due to the viability from the World Bank (Menga 2015:483; Water Politics b). The 2007-2008 energy crisis, which left many Tajik homes without electricity and heating, was a deal breaker that made the government of Tajikistan determined to proceed with the Rogun HPP, despite the fact that strong opposition came from Uzbekistan (Menga 2015:484; Micklin 2014:117).

4.2 Sustainability

4.2.1 Politics of scale – *State*

The intention behind the construction of the Rogun HPP is in providing the state of Tajikistan with additional energy supply by releasing water from the reservoirs during the winter months. Tajikistan is one of the states in the Central Asian region which has substantial water reserves originating from approximately 14 500 glaciers with a concentration of around 845 km³ of water, making the potential of the hydropower plant a lucrative source of revenue. The revenue could enable Tajikistan to secure energy independence and hence decouple from the periodic blockades coming from the downstream state of Uzbekistan. The blockades cause energy blackouts during the winter months when the supplementary energy is essential. In this case, the significance of the water is imperative to the national development of Tajikistan and represents an example of the first definition of scale – how an intended object, that is disseminated on the national scale, can influence the regional scale by creating relational tensions with the downstream user over the transboundary water resources (Global Water Partnership 2013:2; Botting 2013; Lewis 2010; Howitt 2003:138; Water Politics d; Bekchanov et al. 2015:856-857).

The other side of the spatiality of politics disclose the political processes occurring between the upstream state of Tajikistan and the downstream state of Uzbekistan. It refers how the two states transcend scales, each in its different way, to defend their water interests. Tajikistan argues for the potential increase in

national development and suggests that the storage of water can provide the downstream state with water during the dryer months of the year when water supplies are deficient. Uzbekistan argues for the potential ecological and infrastructural damage the hydropower plant might have on the surrounding area and also how it can compromise the supply of water it depends on for irrigation by releasing large quantities of water which cause flooding (Cidell 2006:197; Water Politics d; Bekchanov et al. 2015:857).

Both states jump scales and create a relational gap within the political discourse which complicates the situation further since the equilibrium stage becomes harder to reach. This politically diametrical averse discourse over the construction of the Rogun HPP can be illustrated with the example when the state of Tajikistan raise their national concern over the energy scarcity and exclude the interest and consent of the downstream neighbour's concern over the territorial fragility in the surrounding area where the planned Rogun HPP is to be located (Cidell 2006:196; Siegfried 2009). According to Uzbekistan, the release of water, which has been accumulating during parts of the year within the reservoirs, can cause flooding which thereafter impact the environment. This scenario illustrates how scale-shifts contribute to the relationally unstable connection between the state of Tajikistan and the state of Uzbekistan. The Rogun HPP is considered to be an object of benefit for Tajikistan and an object of opposition for Uzbekistan who is in need of the water coming from the tributary Vakhsh River. The cross-scale tensions between the upstream state of Tajikistan and the downstream state of Uzbekistan create unsustainable political discourses which infringe upon the ecological balance and their mutual relationship (Howitt 2003:138; Siegfried 2009; Putz 2015; Bekchanov et al. 2015:857).

4.2.2 Politics of position – *Territory*

The desiccation of the Aral Sea, antecedent in being one of the world's fourth largest seas, nowadays regarded as one of the worst man-made disasters causing large-scale infrastructural damage (Micklin 2014:2; Bekchanov et al. 2015:859). The reasoning put forth by Menga is that the shrunken volume of the sea was due to the plans of the Soviet Union in constructing hydropower plants across the Central Asian region. According to Bekchanov et al., the Soviet aimed at enhancing: “[...] summer water availability for downstream irrigation and to prevent flooding” (Bekchanov 2015) in reference to the expansion of cotton production (Menga 2015:488; Bekchanov et al. 2015:859, 870). Furthermore, Bekchanov et al. transmit the utterance made by a former researcher who argued that the: “upstream dams were planned and constructed at locations where they were more technically [...] relevant” (Bekchanov et al. 2015:870). However, concerns have been passed on which emphasise the high risk of earthquakes near the planned Rogun HPP construction. The seismicity occurring in the geographical location is ranging between 6-9 points on the Richter scale, making

the place a potential prey of upstream dam failure, downstream flooding, landslides and cracks on the surface of the land. The information put forth by Eshchanov et al. convey that the creation of the Nurek dam, located lower downstream than Rogun HPP with approximately 300 meters in height, had a reservoir volume of 10,5 km³ which did increase the seismicity. Though, the restoration of the Rogun HPP would most likely increase the seismic activity even more due to the estimation of reaching 13,5 km³ in reservoir volume potential. Askarov convey the announcement previously presented by the president of the state of Uzbekistan, Islam Karimov, where Karimov disclose that the construction location is not ideal due to the seismic activity (Bekchanov et al. 2015:857, 871; Askarov 2012:67-68; Eshchanov et al. 2011:1576; Garcés de los Fayos 2014:7).

The water storage in the Rogun HPP operation could provide water for downstream irrigation at times during the year when there is water scarcity or when droughts are threatening the agriculture. In conjunction with the release of water, additional electricity can be produced through the hydropower turbines. Large hydropower plants are considered to be less damaging to the environment than for example thermal power plants on coal. This makes the construction of the Rogun HPP a more sustainable alternative (Bekchanov et al. 2015:857; Eshchanov et al. 2011:1577). In addition, Garcés de los Fayos convey that the Techno-Economic Assessment Study (TEAS) came to the conclusion that the expected height of the Rogun HPP: “would have the capacity to withstand the ‘maximum credible *earthquake* [my emphasis] and the ‘probable maximum *flood*’ [my emphasis]” (Garcés de los Fayos 2014:4). However, Water Politics transmitted that the IPCC noted a decrease in the volume of the glaciers in the upstream mountains which could eventually cause failure in the water flow of the Amu Darya River (Water Politics 2015). Askarov point out that the already dry climate could become drier alongside the Rogun HPP. This would cause an acceleration of saline and salt marsh accumulation which incur soil infertility, decline in crop yields and alteration of the seasonal pattern of water releases – the one thing which is particularly important during the hot summer months for Uzbekistan (Askarov 2012:71; Bekchanov et al. 2015:857).

4.2.3 Politics of place – *Identity*

The combination of symbolic significance of specific locations and the sense of identification which comes from living and associating with it give place a meaning on a deeper level. This combination can ignite conflicts or social togetherness, depending upon the kind of interactions and relationships objects have towards each other. The statement made by Tuan about sense of place: “places are locations that have visual impact” (Tuan 1996:444-446) fit the viewpoint that large constructions such as the Rogun HPP can have an acute ability to portray a sense of dominance which may go unnoticed among the untrained eyes. In the case with Rogun HPP, the height is one of the examples on

how dominance is depicted. The message behind the intention in building a large object is precisely what can cause the state power to increase influence and control over the territory they are claiming. The height of the Rogun HPP is one of the reasons a conflictual atmosphere exists between Tajikistan and Uzbekistan (Menga 2015:480, 482). The estimated height is around 335 meters which, when completed, will make it the tallest water dam in the world. A smaller hydropower plant, according to Menga, would still be able to bring the predominant benefits Tajikistan needs. Menga also point out that the persistence in realising the large project and portraying the construction as a domestic achievement has led to the perception of a “Rogun ideology” (2015). Hence, the hydropower has become a social construction in space and a powerful political tool for the state to gain leverage and also, as Menga express it, a potential public symbol representing: “patriotism and success” (Menga 2015:480, 484; Paasi 2003:113; Penrose & Mole 2008:17; Tuan 1996:450).

For the state of Tajikistan, the height of the Rogun can project the image of a state which has dual scale power, national as well as regional, and a state which associate their sense of identity with the Rogun HPP because of the struggle to gain recognition and national development. The smaller sized hydropower plants could potentially be more sustainable and safe due to them not causing such a dramatic effect as the large construction has contributed to and also have a lesser impact on the water flow in the Amu Darya River (Menga 2015:484; Potter et al. 2008:479). Large dam constructions can contribute to poor performance, leaving states with political instability and environmental consequences such as high biotic mortality due to altered salinity. Drought is one of the factors contributing to political instability, especially in drier desert like areas which Tajikistan and Uzbekistan potentially fall into (Potter et al. 2008:467, 479; Bardeen 2016; Reuters 2016). Nevertheless, the framing of the Rogun HPP has been about the development of clean energy that can help the state of Tajikistan in achieving sustainable development. Ito et al. put across the fact that Tajikistan’s presentation of the Rogun HPP in providing clean energy and being a supporter for sustainable development is but: “[...] one strategy for obtaining international emphasis and support for the Rogun HPP” (Ito et al. 2015:8). Unsustainable actions have shown to be both written and spoken for Tajikistan and Uzbekistan. The historical background gives evidence to this fact, since actions and assessments have not led to permanent solutions. The introduction of the Rogun HPP and national identification only intensifies the problem further.

4.3 Transboundary water management

4.3.1 Politics of scale – *State*

Menga notes that the hydropower plant has in recent times turned into a: “centrepiece of an ideological production propagated by the government” (2015). This statement was based on the notion that after the hydropower had been framed as a necessity for the domestic development of Tajikistan, the framing switched focus and later came to portray a self-legitimation and need to gain consensus to perceive with the project that would thereafter enable it to assert regional power (Menga 2015:484) and decouple from being dependent on natural resources coming from the downstream area. A disquieting factor was expressed by the downstream state of Uzbekistan when Tajikistan during the summer month of July 2014 earned the World Bank approval in continuing with the project. The Uzbek objection was pressing on the fact that the Rogun HPP did not conform to the international safety norms the assessment team at the World Bank had put forth, presenting the argument that inconsistencies existed in those assessments (Putz 2015). The proclamation of Tajikistan as a benevolent state with the legitimate right to use its resources as it pleases, which include the hydropower plant, and the one state which: “[...] advocates for mutually beneficial regional cooperation” (Menga 2015:489) further aggravated the relationship with Uzbekistan whose legitimacy was challenged by the proclamation. The outcome of the announcement resulted in Tajikistan having the power to retain legitimacy over its resources and simultaneously strengthening the one they already possessed. The uneven legitimacy over rights produced struggles to attain interstate balance between fair allocation and the right to complete the project. Though, Tajikistan required that the Rogun HPP be accepted on the international scale and to depict it as the state that encourages water cooperation (Menga 2015:488). The struggle to attain water resources is connected to the power centralisation of each state. Since the water is transboundary, none of the states can trespass each other’s legitimate right to water resources.

In the case with the downstream state of Uzbekistan, regular water releases are essential because it is dependent upon the pattern of upstream reservoir releases (Bekchanov et al. 2015:869). According to Askarov, Uzbekistan has the legitimate right to insist on water resources to be: “coordinated in a coherent, rational, and reasonable manner” (2012), due to it being the state which has been much affected by the desiccation of the Aral Sea. The basis for this statement which Askarov presents is the starting point in the legal UN instruments for regulating water sharing. The instruments are fundamental for and, according to Askarov, ought to be implemented between the states. This includes the UN conventions on the “Protection and Use of Transboundary Watercourses and

International Lakes” and the “Law of the Non-Navigational Uses of International Watercourses” (2012). The above mentioned documents determine that all decisions made on the use of transboundary rivers ought not to resort to harm the environment or violate the interests of other states nearby (Askarov 2012:67). Furthermore, paragraph 31 of the General Comments presents that states should respect each other’s share of the water resources and not to cause additional hardship (Askarov 2012:68) by resorting to hydroegoism. However, the reasonable and rational utilisation of water has not taken place between the states, which is clearly shown in their conflictual discourse over the Rogun HPP construction. The misdirected water management puts obstacles in both of the states path towards progressive development and also further aggravates the environmental issues (Askarov 2012:66).

4.3.2 Politics of position – *Territory*

The original intention behind the Rogun HPP was to provide Tajikistan with additional energy to increase the national development. Though, Menga point out that the construction became framed differently after the conflictual dialogue with Uzbekistan. The direction shifted towards emphasising the state sovereignty of Tajikistan instead of the actual natural resources. The opposition from Uzbekistan made Tajikistan convinced over the value of the Rogun HPP. The opposition further spurred the state to hold up the construction as: “a symbol of self-determination and success” (Menga 2015:486-487). Hence, the opposing argument and strained relationship between Tajikistan and Uzbekistan exhibit the political positions they take in order to exert their own opinions on what they view is optimal for their development (Eshchanov et al. 2011:1574). Both are having a strong claim for their actions which reflect a prominent external hydrosovereign standpoint.

Tajikistan appealed to international forums such as the United Nations General Assembly (UNGA), the European Union (EU) and the Organisation for Security and Cooperation in Europe (OSCE) to have their support in portraying the state as a responsible user of water since the construction is located within their territorial borders. Menga point out that the depiction has more to do with receiving permission to continue with the construction and make the territory independent from Uzbekistan and in enabling it to develop a powerful sovereignty which does not need to be confined to the rules and regulations of another state, than actually reaching sustainable development and water cooperation (Menga 2015:488). Conveyed by the Central Eurasia Standard, the report from 2012 by the US Intelligence Community presented the fact that inadequate management capacity in the river basin could otherwise turn into a triumphant water cooperation and negotiation. Not only is it considered potentially successful, but the Vakhsh River is strongly in need of it due to water quality degradation and flow disruption (Central Eurasia Standard 2013:2). Even the argument put forth

by Bekchanov et al. transmit the fact that they would be able to find a balance if they were to cooperate and strive to obtain an optimal level of revenue together. The balance would result in neither state having the power to increase their revenues beyond what they already have (Bekchanov et al. 2015:867). This aspect would then diminish any overload of hydrosovereignty that they have.

In order for management to function, agreements on water sharing rests entirely on the states initiative to set up institutions which will regulate the water utilisation (Bekchanov et al. 2015:867-868). If unilateral benefits were to become maximised, the restriction on water within the territory of Tajikistan would result in Uzbekistan incurring significant losses in agriculture which could set out a chain reaction and potentially destabilise other imperative institutions. Bekchanov et al. point out that despite unilateralism, the energy production would just marginally improve the situation for Tajikistan. Bekchanov et al. further write that the object is not merely an electric energy generation, but also a political tool to gain sovereign power over water resources (Bekchanov et al. 2015:870).

4.3.3 Politics of place – *Identity*

The embankment dam – Rogun HPP, one of the major water projects in recent times, has been argued by Menga to have the ability to: “[...] contribute to the creation of a common national identity” (2015). The formation of the national identity would distinguish the state from the other states in the region. The formation of a Rogun HPP identity could, with great possibility, lead Tajikistan to become internationally recognised. Though, at one point, Uzbekistan made the Rogun HPP international controversy, and this ultimately resulted in Tajikistan strengthening the self-determination and in fulfilling the long-term plan in completing the hydropower plant (Menga 2015:484, 487). By looking from Uzbekistan’s viewpoint, the spatial politics of the identity formation of the Rogun HPP might be a part of a strategy to: “block changes that may be destructive of place and social relations (Staeheli 2003:166). Despite the opposition, Tajikistan continued with the reconstruction. Uzbekistan’s identification with the mutable object is on the other side of the national scale, which contributes to the creation of the classical “us and them” scenario.

The argument put forth is that Rogun HPP is more about representing a political viewpoint rather than an issue related to the energy scarcity or the water resources. Hence, the concern over water and energy would be considered indirectly related to the tense political discourse between the two states. In conjunction with this, the birth of Tajikistan in the 1920s also meant the birth of a collective national identity among the population in Tajikistan. The national identity is being projected in the political discourse between Uzbekistan. Rogun HPP is one of the more recent examples of this. However, both Tajikistan and Uzbekistan have cultural similarities, but those similarities do not coincide with the states regional agendas. Their national identification and relationship with the

Central Asian region and its natural resources have been two aspects which cause their relationships to continuously clash with one another. In this case, the political implications have proven to have the upper hand. Tajikistan was able to make the Rogun HPP work as an emblem to project a certain image to the international community of it being a “water-country” (Menga 2015:487-488).

According to Menga, the Rogun was the national idea put forth by the president of Tajikistan, Emomali Rahmon. This idea has afterwards come to increase the complex relationship between Tajikistan and Uzbekistan. By taking into account the symbolic attributes of the construction, the understanding would increase and enable the balancing of power relations between two nations to become even. The two states have a history of differences of opinion and are driven to put forth their own political opinion (Menga 2015:485-486). The discourse constructed by Tajikistan of the Rogun HPP is presenting a source of pride, well-being and vital achievement in the development of the state and the one country which advocates for mutually beneficial regional cooperation. Tajikistan launched several global initiatives, including the proclamation of 2005-2015 as the “International Decade for Action Water for Life” and 2013 as the “International Year of Water Cooperation”, to strengthen their cooperative image (Menga 2015:485, 488-489). Though, Isaacs convey how the states have used nation-branding to reach out and present an image of the state to unknown others on the international scale. This is one reason why symbols and narratives become important characteristics to increase the legitimacy. Another reason the states resort to these actions are: “[...] to justify their rule and the centrality of their leadership to state sovereignty, prosperity and survival” (Isaacs & Polese 2015:374).

5 Conclusion

This thesis has performed a qualitative study with an explanatory approach. The dependent variables – sustainability and TWM, were used as a base to explain the research problems, whereas the independent variables – politics of scale, politics of position and politics of place with its respective indicators, aimed at explaining the variations in the dependent variables. The indicators – state, territory and identity, have answered the two research problems and below are the collective effects and consequences presented. The hypothesis, which was presented in the beginning of the thesis, has shown to be valid. The discourse is highly politicised but also very environmentally damaging, because the self-interests are still present which can be a block for sustainable development and towards the frameworks for water management.

5.1 Results

Effects	Consequences
<p>The intention behind the construction of the Rogun HPP was in providing Tajikistan with additional energy because the contemporary energy supply was not enough during the year.</p>	<p>The proclamation evoke opposition from Uzbekistan who argued that it would affect the water flow, seasonal patterns for irrigation and make the environmentally degraded space even worse. Tajikistan therefore experienced periodic blockades by Uzbekistan that caused energy block-outs during the winter months.</p>
<p>The Rogun HPP was planned upstream to minimise the risks of seasonal flooding that could damage the infrastructure downstream. The construction is also more sustainable then thermal power plants on coal.</p>	<p>The location is susceptible to seismic activity which raised concerns on how sustainable a large construction such as the Rogun HPP would be in a location that ranges between 6-9 points on the Richter scale.</p>
<p>The framing of the Rogun HPP has been about providing clean energy. The size of the Rogun HPP will enable it to generate 3600 megawatts, which will be able to generate heat during the entire</p>	<p>Large dams make visual impacts and the Rogun HPP contributed to the creation of an emblematic identity which stands for dominance and power and could make Tajikistan increase</p>

winter.

In the summer month of July, Tajikistan earned the approval of the World Bank to proceed with the project and was later proclaimed to be a benevolent country with the legitimate right to use the resources that are within its territory, which also means the hydropower plant.

When Tajikistan appealed to international forums for support to portray the country as a responsible water user it was because of the fact that the Rogun HPP is located within their own boundary.

When Uzbekistan made the Rogun HPP international controversy over the inadequate investigation of the potential risks in constructing the water dam and how their interests and consent have not been included.

their territorial influence.

This scenario creates uneven legitimacy between Tajikistan and Uzbekistan, where Tajikistan can use this proclamation to increase their influence in the region and strengthen the power they already have. The interstate balance with Uzbekistan may amplify conflicts that can lead to further environmental degradation and strained political relations.

The opposition from Uzbekistan made Tajikistan exert their sovereign standpoint. This has only made the discourse grow in hostility.

The upshot resulted in Tajikistan strengthening its determination to proceed with the construction. Afterwards, Tajikistan framed the water dam differently. Instead, Tajikistan presented it as a source of pride, as a collective national identity and well-being for the national development.

5.2 Suggestions for further research

The demarcations set out in the thesis have only been related to the political and environmental aspects concerning the Rogun HPP. The national discourse between the two countries has been included to strengthen the empirical findings concerning the Rogun HPP. Suggestions for further research include perspectives such as the historical, economical and social. The reason is that the research problems cannot answer the whole problem without incorporating other aspects that have contributed to the extent of the problem. Further research on scale and how identity formations contribute to a certain type of political framing would illuminate on the issue of the dynamic interactions occurring on the local, national and international scale and how they relate to each other.

6 References

- Abdullaev, Iskandar, 2012. "Transboundary Water Management in Central Asia", in Dennis Tänzler & Alexander Carius (eds.). *Climate Diplomacy in Perspective: From Early Warning to Early Action*. Berliner Wissenschafts-Verlag: Berlin.
- Armstrong, Adrian, 2006. "Ethical issues in water use and sustainability", *Area*, (2006) 38.1 pp. 9-15.
- Askarov, Murad, 2012. "The Significance of Being Downstream: Uzbek Concerns Over the Rogun Dam", in Michael R. Edelstein, Astrid Cerny & Abror Gadaev (eds.). *Disaster by Design: The Aral Sea and its Lessons for Sustainability*. Emerald Group Publishing: United Kingdom.
- Bardeen, Sarah, 2016. Drought: Hydropower's Achilles Heel. *International Rivers*, 16-05-2016. URL: <https://www.internationalrivers.org/blogs/433/drought-hydropower-s-achilles-heel>. (10-05-2016).
- Baxter, Pamela & Susan Jack, 2008. "Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers", *The Qualitative Report*, Volume 13, Number 4, pp. 544-559. [online] URL: <http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf>. (05-05-2016).
- Bekchanov, Maksud, Claudia Ringler, Anik Bhaduri & Marc Jeuland, 2015. "How would the Rogun Dam affect water and energy scarcity in Central Asia?", *Water International*, Vol. 40, Nos. 5-6, pp. 856-876. [online] URL: <http://www.tandfonline.com/doi/abs/10.1080/02508060.2015.1051788>. (02-04-2016).
- Biocentrism. Oxford Dictionaries. URL: <http://www.oxforddictionaries.com/definition/english/biocentrism>. (23-05-2016).
- Bjereld, Ulf, Marie Demker & Jonas Hinnfors, 2009. *Varför vetenskap?*. Studentlitteratur: Lund.
- Botting, Alexander, 2013. *Rogun Dam: The Waiting Game*. Diplomatic Courier, 06-03-2013. URL: <http://www.diplomaticcourier.com/rogun-dam-the-waiting-game/>. (15-04-2016).
- Camm, George, 2013. Tajikistan: Water Conference Produces Platitudes, Few Concrete Ideas. *Eurasianet*, 21-08-2013. URL: <http://www.eurasianet.org/node/67415>. (01-04-2016).
- Central Eurasia Standard, 2013. "The Rogun Dam: Regional Conflict and Opportunity", May 2013. [online] URL: <https://cestandard.files.wordpress.com/2013/05/rogun-dam-a-nexus-of-conflict-and-opportunity.pdf>. (10-05-2016).

- Cidell, Julie, 2006. "The Place of Individuals in the Politics of Scale", *Area*, Vol. 38, No. 2 (Jun., 2006), pp. 196-203.
- Cox, R. Kevin, 2002. *Political Geography: Territory, State, and Society*. Wiley-Blackwell: Hoboken.
- Earle, Anton, Anders Jägerskog & Joakim Öjendal, 2010. "Introduction: Setting the Scene for Transboundary Water Management Approaches", in Anton Earle, Anders Jägerskog & Joakim Öjendal (eds.). *Transboundary Water Management: Principles and Practice*. Earthscan: London.
- ECC Platform Library, [no date]. Rogun Dam Conflict between Tajikistan and Uzbekistan. *ECC Platform*. URL: <https://library.ecc-platform.org/conflicts/rogun-dam-tajikistan>. (03-03-2016).
- Eck, Kristine, 2011. "Survey Research in Conflict and Post-Conflict Societies", in Kristine Höglund & Magnus Öberg (eds.). *Understanding Peace Research: Methods and challenges*. Routledge: New York.
- Eshchanov, R. Bahtiyor, Mona Grinwis Plaat Stultjes, Sanaatbek K.Salaev & Ruzumboy A. Eshchanov, 2011. "Rogun Dam – Path to Energy Independence or Security Threat?", *Sustainability*, 2011, 3, pp. 1573-1592. [online] URL: <http://www.mdpi.com/2071-1050/3/9/1573>. (28-04-2016).
- Garcés de los Fayos, Fernando, 2014. "The World Bank considers feasible the building of the Tajik Rogun dam", *European Parliament*, 22-07-2014 [online] URL: [http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_IDA\(2014\)536392](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_IDA(2014)536392). (15-04-2016).
- Giovannoni, Elena & Giacomo Fabietti, 2013. "What Is Sustainability? A Review of the Concept and Its Applications", in Cristiano Brusco, Mark L. Frigo, Angelo Riccaboni & Paolo Quattrone (eds.). *Integrated Reporting: Concepts and Cases that Redefine Corporate Accountability*. Springer International Publishing: Switzerland.
- Gleditsch, Nils Petter, Kathryn Furlong, Hårvard Hegre, Bethany Lacina & Taylor Owen, 2006. "Conflicts over shared rivers: Resource scarcity or fuzzy boundaries?", *Political Geography*, 25 (2006) pp. 361-382.
- Global Water Partnership, 2013. *National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda*. Global Water Partnership: Central Asia and Caucasus, May 2013.
- Golafshani, Nahid, 2003. "Understadning Reliability and Validity in Qualitative Research", *The Qualitative Report*, Volume 8, Number 4, pp. 597-607. [online] URL: <http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf>. (03-05-2016).
- Hashimova, Umida, 2014. Rogun Dam Studies Set the Scence for Further Disputes Among Central Asian Countries. *The Jamestown Foundation*, 14-08-2014. URL: http://www.jamestown.org/single/?tx_ttnews%5Btt_news%5D=42754&no_cache=1#.V0RiR4eIqM8. (01-04-2016).
- Herod, Andrew, 2011. *Scale*. Routledge: New York.
- Hiscock, Geoff, 2012. *Earth Wars: The Battle for Global Resources*. Wiley: Singapore.

- Howitt, Richard, 2003. "Scale", in John A. Agnew, Katharyne Mitchell & Gerard Toal (Gearóid Ó Tuathail) (eds.). *A Companion to Political Geography*. Backwell Publishing: Malden, MA.
- Hurvitz Singer, Emily, 2012. Water Scarcity in Central Asia May Lead to Conflict. *Human Rights Brief*, 14-11-2012. URL: <http://hrbrief.org/2012/11/water-scarcity-in-central-asia-may-lead-to-conflict/>. (12-04-2016).
- Ibatullin, Saghit, 2015. Central Asia Must Unite to Revive the Aral Sea. *The Diplomat*, 25-08-2015. URL: <http://thediplomat.com/2015/08/central-asia-must-unite-to-revive-the-aral-sea/>. (25-03-2016).
- Ikrami, Dzhonon, 2012. From Nurek to Rogun. *The Embassy of the Republic of Tajikistan in Swiss Confederation, Permanent Mission of the Republic of Tajikistan to the United Nations Office at Geneva*, Januray 2012. URL: <http://tajikistanmission.ch/news/7-news/36-from-nurek-to-rogun.html>. (20-05-2016).
- International Crisis Group, 2014. *Water Pressures in Central Asia*. The International Relations and Security Network (ISN), Eidgenössische Technische Hochschule (ETH) Zürich, 29-09-2014. URL: <http://www.isn.ethz.ch/Digital-Library/Articles/Detail/?lang=en&id=183920>. (10-05-2016).
- Isaacs, Rico & Abel Polese, 2015. "Between "imagined" and "real" nation-building: identities and nationhood in post-Soviet Central Asia", *Nationalities Papers*, Vol. 43, No. 3, pp. 371-382. [online] URL: <http://www.tandfonline.com/doi/abs/10.1080/00905992.2015.1029044>. (19-05-2016).
- Ito, Sonoko, Sameh El Khatib & Mikiyasu Nakayama, 2015. "Conflict over a hydropower plant project between Tajikistan and Uzbekistan", *Water Resources Development*, August 2015.
- Jenkins-Young, Lucy, 2013. *Central Asia: Water War or Water Cooperation?*, *Senior Capstone Theses*, Paper 7, 16-05-2013. [online] URL: http://scholarworks.arcadia.edu/cgi/viewcontent.cgi?article=1002&context=senior_theses. (09-04-2016).
- Jones, Martin, Rhys Jones & Michael Woods, 2004. *An Introduction to Political Geography: Space, Place and Politics*. Routledge: New York.
- Lebel, Louis, Po Garden & Masao Imamura, 2005. "The Politics of Scale, Position, and Place in the Governance of Water Resources in the Mekong Region", *Ecology and Society*, 10(2):18. [online] URL: <http://www.ecologyandsociety.org/vol10/iss2/art18/>. (06-05-2015).
- Lewis, W. Martin, 2010. The Cold War Between Tajikistan and Uzbekistan. *GeoCurrents*, 21-04-2010. URL: <http://www.geocurrents.info/geopolitics/the-cold-war-between-tajikistan-and-uzbekistan>. (14-04-2016).
- Lioubimtseva, Elena, 2014. "Impact of Climate Change on the Aral Sea and Its Basin", in Philip Micklin, N. V. Aladin & Igor Plotnikov (eds.). *The Aral Sea: The Devastation and Partial Rehabilitation of a Great Lake*. Springer: Berlin Heidelberg.

- Manenti, Claudia, 2011. "Sustainability and place identity", *Procedia Engineering*, Volume 21 (2011) pp. 1104-1109.
- Massey, Doreen, 2005. *For space*. SAGE Publications: London.
- Massey, Doreen, 2009. "Concepts of space and power in theory and in political practice, *Documents d'Anàlisi Geogràfica*, Núm. 55 (2009) pp. 15-26. [online] URL: <https://ddd.uab.cat/pub/dag/02121573n55/02121573n55p15.pdf>. (22-04-2016).
- Menga, Filippo, 2015. "Building a nation through a dam: the case of Rogun in Tajikistan", *Nationalities Papers*, Vol. 43, No. 3, pp. 479-494.
- Micklin, Philip, N.V. Aladin & Igor Plotnikov (eds.), 2014. *The Aral Sea: The Devastation and Partial Rehabilitation of a Great Lake*. Springer: Berlin Heidelberg.
- Micklin, Philip, 2014. "Aral Sea Basin Water Resources and the Changing Aral Water Balance", in Philip Micklin, N. V. Aladin & Igor Plotnikov (eds.). *The Aral Sea: The Devastation and Partial Rehabilitation of a Great Lake*. Springer: Berlin Heidelberg.
- Micklin, Philip, 2014. "Introduction", in Philip Micklin, N. V. Aladin & Igor Plotnikov (eds.). *The Aral Sea: The Devastation and Partial Rehabilitation of a Great Lake*. Springer: Berlin Heidelberg.
- Muckenhuber, David, 2013. Breaking the Dam: Water Politics in Central Asia. *The Global Observatory*, 14-02-2013. URL: <https://theglobalobservatory.org/2013/02/breaking-the-dam-water-politics-in-central-asia/>. (25-03-2016).
- Munier, Nolberto, 2005. *Introduction to Sustainability: Road to a Better Future*. Springer: the Netherlands.
- Newman, David, 2003. "Boundaries", in John A. Agnew, Katharyne Mitchell & Gerard Toal (Gearóid Ó Tuathail) (eds.). *A Companion to Political Geography*. Backwell Publishing: Malden, MA.
- O'Hara, L. Sarah, 2000. "Central Asia's Water Resources: Contemporary and Future Management Issues", *Water Resources Development*, Vol. 16, No. 3, 2000, pp. 423-441.
- Paasi, Anssi, 2003. "Territory", in John A. Agnew, Katharyne Mitchell & Gerard Toal (Gearóid Ó Tuathail) (eds.). *A Companion to Political Geography*. Backwell Publishing: Malden, MA.
- Parshin, Konstantin, 2010. Uzbekistan vs. Tajikistan: Competition over Water Resources Intensifying. *Eurasianet*, 08-12-2010. URL: <http://www.eurasianet.org/node/62528>. (01-04-2016).
- Penrose, Jan & Richard C.M. Mole, 2008. "Nation-States and National Identity", in Kevin R. Cox, Murray Low & Jennifer Robinson (eds.). *The SAGE Handbook of Political Geography*. SAGE Publications: London. [online] URL: http://study.sagepub.com/sites/default/files/Ch05_Nation-States%20and%20National%20Identity.pdf. (09-05-2016).
- Potter, B. Robert, Tony Binns, Jennifer A. Elliot & David Smith, 2008. *Geographies of Development: An Introduction to Development Studies*. Routledge: New York.

- Putz, Catherine, 2015. Uzbekistan Still Hates the Rogun Dam Project. *The Diplomat*, 04-08-2015. URL: <http://thediplomat.com/2015/08/uzbekistan-still-hates-the-rogun-dam-project/>. (29-03-2016).
- Rahaman, Mizanur Muhammad, 2009. "Principles of Transboundary Water Resources Management and Ganges Treaties: An Analysis", *Water Resources Development*, Vol. 25, No. 1, March 2009, pp. 159-173. [online] URL: http://www.internationalwaterlaw.org/bibliography/articles/general/Rahaman-Ganges-Water_Res_Devel.pdf. (17-04-2016).
- Reuters, 2016. Tajikistan warns neighbours drought may be coming. *Reuters*, 01-03-2016. URL: <http://www.reuters.com/article/us-tajikistan-drought-idUSKCN0W3559>. (10-05-2016).
- Reynolds, R. David, 1994. "Political Geography: the power of place and the spatiality of politics", *Progress in Human Geography*, 18, 2 (1994) pp. 234-247.
- Siegfried, Tobias, 2009. Water and Conflict in Central Asia. *State of the Planet*, 18-08-2009. URL: <http://blogs.ei.columbia.edu/2009/08/18/water-and-energy-conflict-in-central-asia/>. (12-04-2016).
- Škoba, Liane, 2013. "Transboundary water management: The Rogun Dam in Tajikistan", *European Parliament*. [online] URL: [http://www.europarl.europa.eu/thinktank/en/document.html?reference=LDM_BRI\(2013\)130621](http://www.europarl.europa.eu/thinktank/en/document.html?reference=LDM_BRI(2013)130621). (07-04-2016).
- Staehele, A. Lynn, 2003. "Place", in John A. Agnew, Katharyne Mitchell & Gerard Toal (Gearóid Ó Tuathail) (eds.). *A Companion to Political Geography*. Blackwell Publishing: Malden, MA.
- Stake, E. Robert, 2010. *Qualitative Research: Studying How Things Work*. The Guilford Press: New York.
- Storey, David, 2012. *Territories: The Claiming of Space*. Routledge: New York.
- Teorell, Jan & Torsten Svensson, 2007. *Att fråga och att svara: samhällsvetenskaplig metod*. Liber: Malmö.
- The European Times, 2012. Water-energy problems in Central Asia and the role of Tajikistan its solution. *The European Times*, 09-10-2012. URL: <http://www.european-times.com/sector/energy-basic-materials/water-energy-problems-in-central-asia-and-the-role-of-tajikistan-in-its-solution/>. (03-05-2016).
- The University of Manchester, [no date]. Dr Filippo Menga – Personal details. *The University of Manchester; School of Environment, Education and Development*. URL: <http://staffprofiles.humanities.manchester.ac.uk/Profile.aspx?Id=filippo.menga>. (23-05-2016).
- Tuan, Yi-Fu, 1994. "Space and Place: Humanistic Perspective", in John Agnew, David N. Livingstone & Alisdair Rogers (eds.). *Human Geogrpahy: An Essential Anthology*. Blackwell Publishing: Malden, MA.
- Uitto, I. Juha & Alfred M. Duda, 2002. "Management of transboundary water resources: lessons from international cooperation for conflict prevention", *The Geographical Journal*, Vol. 168, No. 4, December 2002, pp. 365-378.

- UN Water, 2008. “Transboundary Waters: Sharing Benefits, Sharing Responsibilities”. [online] URL: http://www.un.org/waterforlifedecade/transboundary_waters.shtml. (01-05-2016).
- Van der Zaag, Pieter, 2007. “Asymmetry and Equity in Water Resources Management; Critical Institutional Issues of Southern Africa”, *Water Resources Management*, Volume 21, Issue 12, pp. 1993-2004.
- Ward, Kerry & Chris Street, 2010. “Reliability”, in Albert J. Mills, Gabrielle Durepos & Elden Wiebe (eds.). *Encyclopedia of Case Study Research*. SAGE Publications: London.
- Water Law & Governance, [no date]. Is the Vakhsh River internal or transboundary?. *Water Law & Governance*. URL: <http://www.waterlawandgovernance.org/en/legal-support/questions-answers/vakhsh-river-internal-or-transboundary>. (02-04-2016).
- Water Politics a, 2013. Central Asia’s Valuable Hydropower Potential. *Water Politics*, 24-08-2013. URL: <http://www.waterpolitics.com/2013/08/24/central-asias-valuable-hydropower-potential/>. (10-05-2016).
- Water Politics b, 2013. Emomali Rahmon: Tajikistan’s Hydropower Future. *Water Politics*, 18-08-2013. URL: <http://www.waterpolitics.com/2013/08/18/emomali-rahmon-tajikistan%E2%80%99s-hydropower-future/>. (10-05-2016).
- Water Politics c, 2013. Hydropower in Tajikistan: Folie De Grandeur. *Water Politics*, 30-07-2013. URL: <http://www.waterpolitics.com/2013/07/30/hydropower-in-tajikistan-folie-de-grandeur/>. (10-05-2016).
- Water Politics d, 2013. Central Asian Countries Assess Impacts of Rogun Hydropower Project. *Water Politics*, 18-02-2013. URL: <http://www.waterpolitics.com/2013/02/18/central-asian-countries-assess-impacts-of-rogun-hydropower-project/>. (10-05-2016).
- Water Politics, 2015. Repercussions of Climate Change and Water Politics in Central Asia. *Water Politics*, 22-07-2015. URL: <http://www.waterpolitics.com/2015/07/22/repercussions-of-climate-change-and-water-politics-in-central-asia/>. (10-05-2016).
- Wegerich, Kai, 2011. “Water resources in Central Asia: regional stability or patchy make-up?”, *Central Asian Survey*, Vol. 30, No. 2, June 2011, pp. 275-290.
- Yue, R. Anthony, 2010. “Validity”, in Albert J. Mills, Gabrielle Durepos & Elden Wiebe (eds.). *Encyclopedia of Case Study Research*. SAGE Publications: London.
- Yung, Laurie, Wayne A. Freimund & Jill M. Belsky, 2003. “The Politics of Place: Understanding Meaning, Common Ground, and Political Difference on the Rocky Mountain Front”, *Forest Science*, 49(6) pp. 855-866. [online] URL: https://nature.berkeley.edu/community_forestry/Workshops/2006/Yung%20et%20al%20Sense%20of%20Place.pdf. (26-04-2016).