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## THE ROLE OF HYDRO-POLITICS IN THE GEOPOLITICS OF CENTRAL ASIA

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### Summary

Central Asian region has always been a significant geopolitical area as being a bridge between Europe and Asia. It is located in the trade ways and it connects these two regions with an ancient trade route, called as silk road (Fedorenko, 2013). Beyond its image as a bridge, it contains highly remarkable aspects of geopolitics like rich natural energy resources which having been attracted by the western and eastern countries. Along with the dissolution of Soviet Union (S.U), geopolitics of the region has started to change. Due to the crucial but limited water resources that the region has, caused water politics to play a primary role in the geopolitics of the region. Hereby, this article aims to explain, how water politics contribute and reshape the geopolitics of the Central Asia since the collapse of the Soviet Union. After a brief information about the Soviet Union's effect and the conflicts in the Central Asia, the importance of water will be examined in order to be able to see the picture more clearly and to understand the way that is it being used as strategic tool. Subsequent to the mastering of the significance of water, Geopolitics and the Hydro-Geopolitics of the region will be investigated comprehensively.

**Key Words:** Hydro-politics of the Central Asia, Water politics, Geopolitics of Central Asia, Hydro-Geopolitics.

## Introduction

Prior to the dissolution of Soviet Union, Central Asian region had been located within the Union's territory. They had possessed one of the greatest territory (in terms of size) of all times and today, their successor Russian Federation has got the largest territory. At that time Soviet Union, beyond the Central Asia, had got numerous states and extraordinary rich resources within her boundaries. All the resources that different states have in the Union, are in possession of Soviet Union, hence, there were not any conflicts due to the share of natural resources. Disputes were mainly because of the ethnic conflicts or else. Furthermore, inside the Union, there was a division of labor and each state was specialized in different areas (Kaufman and Hardt, 1993, p. 34-57) which provides a great harmony when they were together. However, after the dissolution of the Union, all the states within the Union found themselves in trouble, because:

Before the dissolution, every country has certain economical duty which was limited to specific task and states were trading by what they were producing (Kaufman and Hardt, 1993, p. 34-57). This system was decreasing the burden on the countries and each states could afford to buy whatever they needed from the other states within the Union. Yet, when the Union had collapsed, that system was also collapsed with Union. Afterwards, Post-Soviet states realized that, they were deficient in every other areas except the one that they had specialized. Therefore, without the framework of the Union, trade relations were destroyed which eventually caused a respectable damage on countries' developments (Conway, 2012, chap. 3-5). All the harmony that they used to have, was just gone. Similar to that issue, disputes are occurred in every single sphere between the post-soviet countries. Specifically, the natural resources that they were sharing during the Soviet Union, were become controversial and conflictual issues between the countries.

Water resources are the obvious instances for the conflicts that have been occurred and will have been occurred in the Post-Soviet era within the region of Central Asia. Since the dissolution of the Union, main water based conflicts have been occurred between the Upstream and Downstream countries. Throughout the Soviet Union period, water plenty upstream countries and water scarce downstream countries were getting along perfectly. Upstream countries were not blocking the downstream countries' water flow in favor of the energy sources. It was all included into harmony. Thereafter, through the fall of the Union, Central Asian countries: Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan have started to clash each other. The conflicts in the region were mainly occurred among the Tajikistan, Kyrgyzstan (upstream countries) against the Uzbekistan, Kazakhstan, Turkmenistan (downstream countries) (Valentini, 2004). All these states are connected by two main rivers which are called as 'Amu Darya' and Syr Darya'. Former, has annually 40 billion cubic meter water flow and is being used by around 20 million people (Bernauer and Siegfried, 2012) and the latter has nearly 78 billion cubic meter water flow in a year and is shared by 6 countries (FAO-AQUASTAT, 2012).

Furthermore, there is also the fact that Aral Lake, which had been one of the largest lake in the region and even in the world, was dried almost ninety percent up. Due to the terrible water management during the Soviet Union and as it has mentioned above, due to the specialization of the regions, states namely: Kazakhstan and Uzbekistan, were directed to make an increase on the cotton production which caused an over usage of Amu Darya and Syr Darya rivers' waters for the cotton production by cutting their ways goes through the Aral Lake (Granit, Jägerskog, Löfgren, Bullock, De Gooijer, Pettigrew and Lindström, 2010). Consequently, consuming more than the annual water flow and blocking rivers' feeding to the lake, were eventually caused a ninety percent desiccation. Alongside already limited water supply in the region, imagine that world's 4th largest lake almost

dried up. Despite the increase in demand, there is a huge decrease in the supply and therefore, crises were became inevitable without a doubt.

These mentioned sources form the main water resources of the Central Asia for all purposes: Potable, for irrigation, for industry e.t.c. It affects almost every sector including agriculture, energy, industry and shortly, the progress level of the country and even further, survival and existence of the states are affected by the water resources. Hence, because of their existence in danger, states have no choice but to escalate a conflict. Moreover, in the case of Central Asia, lower stream countries are not the only ones who were affected negatively and suffered from the conflicts, Upper Stream states are also being affected negatively, because they lose their trade relation with lower stream states which also put them in danger on different areas such as: Energy Security in the case of Central Asia (Bernauer and Siegfried, 2012).

The main motivation of these states that causes problems, are mostly the uneven distribution or usage of certain water resources. It can be occur in several ways such as:

If one of the upstream country construct a dam in the basin or started to pollute the river because of the industrial wastes, then the downstream states' water will be effected in a very terrible way. Moreover, over usage or consumption by the upstream countries will also cause a huge decrease on the downstream states' amount of water which will eventually give rise to water scarcity.

Water Scarcity briefly means: Shortage of the most basic human and all living things need; hunger; environmental damage; incapable body functions and even death. Therefore, severe consequences of water scarcity trigger escalation of conflicts among states. All in all, these grievous facts lead us to the importance of water, which is a must to be well mastered in order to be able to evaluate situation in terms of water politics.

### **Importance of the Water**

Water is one of the core elements of life. Besides being a nutrition matter, it has an incredibly active role in any kind of biochemical reactions which occurs human beings' body due to the its structure that includes different kinds of minerals and components. Moreover, water executes numerous functions i.e Protecting ph balance; providing suitable dissolution atmosphere for the molecules in the cells and for the organs. Therefore, it is not possible to think of a life without water. Water is everything for the living things.

The fact that, the  $\frac{3}{4}$  of the earth has been covered by the waters, make the situation look better. It seems like, there are plenty of water in the earth however, 97.5 percent<sup>[1]</sup> of the total world water is saltwater and the rest 2.5 percent consists of the freshwater in which only 0.3 percent<sup>[2]</sup> can be drinkable.

In the last quarter of 18<sup>th</sup> century, at the beginning of the Industrial Revolution, the total population of world was 1 billion. Whereas in 2015, the total population of the world has reached to 7 billion people.<sup>[3]</sup> It was an extraordinary increase. The significant point is that, while the population continues to increase, the total water resources remain the same. Throughout the 100 years, population have been septupled whereas the sources have not. Alongside all these facts, irresponsible attitudes of the humankind, have caused and are still causing pollution in the drinkable water resources. Predictions demonstrate that, curve of increment in need of water and the decreasing clean water resources will be overlapped. From this context, its highly obvious that, all these factors give signal for an upcoming global crises (Özgüler, 1997).

In this context, the question of "Who are going to wage a war" or "In which regions such conflicts may occur or have already occurred" rises: The answer is complicated but identifiable.

Firstly, the topic of water plenty and water scarce countries should be investigated. If one country has plenty water sources while the other is dealing with the scarcity, then it will cause a conflict without a doubt. But, how are these countries being labelled as water scarcity or water plenty? To this end, *Falkenmark* has developed an indicator which divides regions or countries according to their annual water supplies. With respect to Falkenmark indicator, if a country has annual water supply less than 1000m<sup>3</sup> per capita, then they regarded as water scarce. Conversely, countries that have annual water supply more than 1700m<sup>3</sup>, considered under the category of water plenty countries. Furthermore, provided that a country has an annual water supply between 1000m<sup>3</sup> and 1700m<sup>3</sup>, then they called as water-stressed and the countries less than 500m<sup>3</sup> named as absolute water scarce countries (UN-Water, 2012). With regard to this classification, here are the regions' total renewable water resources withdrawn per capita: North America 1,629m<sup>3</sup>/year; Australia and New Zealand 1113m<sup>3</sup>/year; Middle East and North Africa 804m<sup>3</sup>/year; Europe and Central Asia 803m<sup>3</sup>/year; South Asia 666m<sup>3</sup>/year; Western Europe 555m<sup>3</sup>/year; East Asia and Pacific 522m<sup>3</sup>/year; Latin America and Caribbean 497m<sup>3</sup>/year; Sub-Saharan Africa 175m<sup>3</sup>/year.<sup>[4]</sup>

In this context, the water plenty, water scarce and water stress regions can be recognized easily. I should mention that all these data and classifications are not absolute but subjective and can be easily manipulated (Güler, 2016) nevertheless, it gives a general idea about the situation. In addition to that, it can work almost flawlessly if certain factors (the subjectivity reasons) are eliminated.

There are several reasons of their subjectivity: The first one is due to development levels of the countries. There are more industrialized countries whom are in need of more water than the less developed or less industrialized states. Even if they are considered as the water plenty country according to the Falkenmark criterion, they can define themselves as water-stressed or water-scarce because of their differences in supply and demand. Secondly, population can be a misleading instrument because: According to the *FAO Aquastat and World Bank Water Resources* data, specified regarding the years between 1998 and 2002, given above, East Asia and Pacific has 522m<sup>3</sup> annual water withdrawals per capita, however their population is way more than the region of North America or Australia, therefore this pattern may not reflect the exact truth (Güler, 2016).

In case of the Central Asian region which is regarded as undeveloped or under-developing area and doesn't have a population like China or India does, hence this kind of classification works properly. According to FAO AQUASTAT statistics given above, Central Asian region situated in the water-scarce area. Likewise Central Asia, Middle East and North Africa region has the same quantities and adequateness of water which is regarded as water scarcity and it causes extremely huge problems e.g Euphrates conflict between Turkey, Iraq and Syria (Imer, 2011). Moreover ongoing operation that Turkey operates in these days (Firat Kalkanı) has the purpose of providing security for Euphrates.

From this context, it is not surprising that Central Asia is having conflicts because of the Water Scarcity. It would not be wrong to posit that, crises in the region will be increased in the near future unless the proper precautions are taken or the proper management models are adopted.

### **Geopolitics of the Central Asia**

Every country in the world has geopolitical significance in both national and international spheres. Some of them has more, some of them has less. According to the *Halford John Mackinder*

who is regarded as one of the founders of geopolitics (Matikeeva, 2005) and had remarkable contributions to the geopolitics and geostrategy literature, Central Asian region possesses a great geopolitical importance. He formulated a geostrategic theory which is known as 'Heartland Theory'. The theory is basically posits that; "Who rules East Europe commands the Heartland; who rules the Heartland commands the World-Island; who rules the World-Island commands the world" (Mackinder, 1919). With respect to his work, taking control of the East Europe is crucial because, in the end you could dominate the whole world. The area, described as World-Island, includes the connected continents of Europe, Asia and Africa. The "world-island" is the landmass of Euro-Asia-Africa. Therefore, it was the largest, the most populated and the richest land combination. Briefly, according to the father of geopolitics, controlling Eurasian Region means controlling the World politics (Mackinder, 1904).

The critical point is, Soviet Union had controlled Eurasian for so long till they were collapsed. However, the turning point is, when they have dissolved, all these regions have declared their independencies. As a result of that, all the Geopolitics of the regions have changed.

The most obvious geopolitical aspects that Central Asia used to has before the collapse of S.U and still has: Possessing great amount of energy resources mainly gas and oil (Banuazizi, 1994, 261); sharing borders with the super powers like China and Russia; standing as a great economic market by its approximately 70 million people. Last but utmost, the non-shareable and conflictual 'Water Resources' (Banuazizi, 1994, p. 264-271)

Central Asian region supplies energy for plenty countries in terms of Oil and Natural Gas (Islam, 2012). Developed or industrialized countries are in need of great amount of energy supply, provided that their supply does not satisfy the demand, then there will be economical crises and industrial backwardness due to the inability of functionality of the manufactures or industries of the countries. Energy supply is also a must for developing countries to be able to maintain their improvements. When we consider the Central Asia as an energy supplier, that situated them in a very vital geopolitical place as a provider of energy supply security. At this point, it also ensures them a foreign policy tool by which they can put a pressure on purchaser countries for instance: threaten them with the possibilities of cutting off or causing a delay for arrival of Natural Gas or Oil. There are plenty of pipelines which connect them to several countries, in this way these pipelines provides and guarantees the geopolitical importance. These pipelines divided as Oil and Natural Gas pipelines. Former includes: Atyrau-Samara (From Kazakhstan to Russia), The Caspian Pipeline Consortium (Kazakhstan to Turkmenistan), Baku-Tbilisi-Ceyhan pipeline (even though it does not mainly transfer oil from Central Asia, Kazakhstan has joined to the route) and the Kazakhstan-China pipeline (Islam, 2012). Latter contain: Central Asia-Center Pipeline (Turkmenistan to Russia), Korpedzhe-Kurt-Kui pipeline (Turkmenistan to Iran), Tashkent-Bishkek-Almaty pipeline (Uzbekistan to Kazakhstan and Krygyzstan) (Islam, 2012). Besides the current ones, there are also pipelines which are under-construction. In this context, the connection, which bounds Central Asia and plenty of other countries, brings exceptional importance for the regions geopolitics.

Moreover, if we compare poor natural energy resources and rich natural energy resources countries, it is highly obvious that having rich natural energy resources provides a welfare. Even though it does not present a solid economical assurance, nevertheless puts forth a functioning economy and provides income compare to the countries that have nothing offer to make a trade with it i.e. poor African countries Sudan, Senegal e.t.c.<sup>[5]</sup>

Furthermore, it also attracts foreign countries attention which causes a danger over the maintenance of territorial integrity in terms of the possibility of an occupation or intervention. The case which was happened in Iraq, 2003 (Muttitt, 2011, chap. 1), can be seen as a proper example. In

that year, at the outset United States and Britain and thereafter, Australia and Poland had intervened the territorial integrity of Iraq. There is a diversity in scholars who have explained the issue of Iraq's occupation (Muttitt, 2011; Whyte, 2007; Price-Smith, 2015; Preble, 2004). None of their explanation can be accepted as the exact truth unless being declared by state officials. Nevertheless, each scholar includes the rich 'Oil' resources in their explanations as a contributing factor. Therefore, Central Asia has the same threat and nobody guarantees the security of their territorial integrity. As a result, even if it is not regarded as positive feature, it is a geopolitical aspect in either way.

Subsequently, sharing borders with super powers put forth Central Asia both into advantageous and disadvantageous positions. Firstly, proximity with super powers purports a great trade network. In this way, they manage to maintain their economical existence. However, it also stands for a vulnerability for exploitation. The reason of why it is named as economical existence but not as economical stability, is to emphasize the disadvantageous position. This situation can be simply summarized as following: The trade relations that have arisen because of the proximity in Central Asian case only ensures their existence and meanwhile assuring this existence, the proximate super powers also exploit the countries' economy and make dependent them to themselves. This process is being done by the core countries like China and Russia who sell highly costed technology or manufactured goods and get less costly raw materials in return (Wallerstein, 1974), thereby the countries, located on the periphery like Central Asia at first started to develop with the help of technological and industrial improvements which they import from the core countries. Afterwards, there occurs a great trade connections by which Central Asian countries perform both export and import action that enables their economic existence. In this context, the peripheral countries will eventually become foreign source dependent states in terms of costly industrial machineries, technologies or manufactural goods because, rather than producing, they import these goods in return their export of raw materials. As a result, along with technological and industrial backwardness, they run up into debts at the outcome of difference between the costs of goods and products that they import and export. In the end, in order to pay their debts to those countries, they'd have to keep their trade relations with these core countries. Even if they have paid all their debts, they would be obliged to maintain their same kind of commercial relation due to inability to produce by themselves.

The pipelines by which Central Asian countries supply energy to Russia and China (which are specified above) are the clear examples and furthermore, when we examine each Central Asian countries import partners one by one, In Kazakhstan, Uzbekistan, Kyrgyzstan and Tajikistan, Russia and China do always share the first two places and in Turkmenistan they are situated at the second and third places in the year of 2015.<sup>[6]</sup> Moreover, the goods that Central Asian countries import from core countries like Russian and China, are mainly machinery and equipment whereas, the main commodities, that they export to them, are crude oil and gas.<sup>[7]</sup> These are the proofs that how they are being exploited and how they become dependent and peripheral state. In the light of these information, actual picture becomes more clear.

Secondly, proximity means threat for Central Asian countries in terms of the China's and Russia's national security. Lets take the example of Ukraine, who shares border with Russian Federation and is the candidate of NATO membership (Kuzio, 2006), hence they have faced Russian aggression in the Crimea (Mearsheimer, 2014). Possibility of deploying NATO missiles in Ukrainian soil, caused so much trouble for Ukraine and her citizens (Mearsheimer, 2014). In the same manner, it would also cause the same problems for Central Asia which depends on their attitude. As you can understand, geopolitics do not always provide a beneficial and advantageous situations. Nevertheless, it paves a way for Central Asia to play a key role and gives opportunity to benefit

from both sides, if it is played thoroughly. All in all, this is what geopolitics really means, while ensuring an advantage, causes trouble and possesses disadvantage too.

Last but foremost, the issue of water resources as geopolitical aspect of Central Asia. Although water has always been a highly vital subject of geopolitics, it has started to occur as a part of the geopolitics of Central Asia during the post-soviet era. Actually, all the other geopolitical aspects, previously explained, are also become geopolitical factors of Central Asia during the post-soviet era, however, their importance had already been known all over the world even in Soviet times. In contrast, water resources importance have been realized after it has started to cause conflicts.

### **Hydro-geopolitics of the Central Asia: Water resources as a geopolitical aspect of Central Asia**

Hydro-geopolitics of the Central Asia is similar with the topic of geopolitics of Central Asia but it is a more specific topic which puts hydro-politics into the center of analyzes. Moreover, Eurasian region, according to its definition as located in the center of the world (Mackinder, 1944), it also includes basically the Central Asian water resources named as; Caspian and Aral Seas, Syr Darya, Amu Darya and Yenisei (Mackinder, 1944). Which indicates that, the borders of the world center were created by the most important water resources of the region. Was that a coincidence?

Hydro-geopolitics deals with the water sources, water conflicts and their effects on the geopolitics. Likewise the Mackinder's approach towards the geopolitics, Hydro-geopolitics consider the water resources and its management as a tool for ruling or controlling the certain region or the whole the world.

Mackinder put the Eurasian Region into center of the world and draw borders which include the main water resources in the region that is briefly indicated above within the Mackinder's Heartland theory. Which means that, whether intentionally or not, he created a heartland by the main water resources of the region. Furthermore, he explained the borders of the region firstly from the water resources besides its advantageous, natural mountainous geographical structure or else its natural energy resources. From this context, we can assume that who controls the water resources in the region, then commands the world. At this point, water has become a matter which has shouldered huge importance. In today's circumstances, rather than calling as commanding the world, it would be more proper to say that ruling the certain region. More delicately, who control the water resources of the region, would have the opportunity to take whole region under control and to possess the all other geopolitical aspects that they have.

### **Main Water Resources of the Region**

Before evaluating the hydro-politics of the area, first the water resources of the region ought to be very well-known. The rivers of the region are: Amu Darya, Irtysh, Syr Dayra, Hari River and Murghab River and also includes Aral Sea and Caspian Sea and Lake Balkhash. Even though it seems like the region has plenty water resources, low annual precipitation rates<sup>[8]</sup> of the Central Asian countries and the fact that those water resources are being shared by excessive amount of country, makes the situation problematical. After the region's main resources, let's take a look at the shared and conflictual ones:

Amu Darya river born in Tajikistan and Afghanistan goes through Turkmenistan and Uzbekistan and finally falls out to the Aral Sea. On the other hand, Syr Darya river born in

Kyrgyzstan passes through Tajikistan, Uzbekistan and Kazakhstan, eventually being poured into the Aral Sea Basin (FAO-AQUASTAT, 2012).

In this context, the general framework is more clear about the countries that share the same transboundary water resources however, there is one more important aspect, that is unequal amount of water that countries obtain from the indicated water sources, i.e., while Kyrgyzstan is enjoying approximately 26 billion cubic meters of the Syr Darya river's water, Tajikistan only has 1 billion cubic meters or Kazakhstan has around 2 billion (Granit et al., 2010, p.15). Hence, exceptionally uneven distribution of the common water resource, causes a conflictual situation.

Moreover, the world fourth largest lake called as Aral Lake or Sea is situated within the borders of Kazakhstan and Uzbekistan. It used to have 42 billion m<sup>3</sup> annual water inflow in 1960 and more than 60000 km square areas, whereas, in the year of 2001, annual water inflow declined to the 3.1 billion m<sup>3</sup> water (B.Gaybullaev, Chen, and D.Gaybullaev, 2012). Today, the whole area has declined to 10 percent of the total area that it used to have. Even though the increase in inflow numbers after the year of 2001, nevertheless, the water flow goes through the Lake basin has been started to decrease again and in the end Aral Lake has been dried nearly ninety percent up. It was one of the main water resources in the region and except for the Kazakhstan's recovering efforts, it has been abandoned for so long. Thus, it has affected several sectors including mainly agriculture sector because of the irrigation problems. As a consequence of the water shortage, irrigation systems have become unable to be used, hence, it has caused a decline on the number of crops and an increase on the agricultural market prices (Glantz, 1999, chap 8-9). Beyond agriculture, it has caused various problems. Here are the lists and characteristics of the main conflicts and conflictual water resources in the region.

### **What are conflicts and their fundamental reasons**

There are four basic reasons why have conflicts started to occur: Firstly, sharing or using of a certain water resources or shortly, transboundary waters with unequal terms. Secondly, uneven distribution of water resources in the adjacent regions. Thirdly, the water scarcity which covers all the water conflicts and causes almost all of it. Lastly, foreign countries provocation or intervention. It would be sufficient enough to cause a conflict by only having one of these motivations. In the case of Central Asia, three of the mentioned reasons have been seen and one of them has not been proven, but nevertheless, it has been contributing to the conflicts.

The first reason is the clear motivation of the conflict between Kyrgyzstan and Uzbekistan. This is the most significant, extended and large scale conflict that the region has ever faced because of the water, i.e., Kyrgyzstan demanded from Uzbekistan a payment for the Syr Darya's water of which, they share while it is passing throughout the Fergana Valley, located in the east borders of Uzbekistan and west borders of the Kyrgyzstan (Chatterjee, Gugarats, Caner, Du Jardin, Goss and Sahnai, 2013). According to the terms of the agreement, signed on 17th March 1998, on the issue of the Use of Water and Energy Resources of the Syr Darya Basin, and more specifically the Article IV (Word Bank, 2004) clearly declares that; Kyrgyzstan has water flow over than their requirements, therefore, exceeded water will be given to the Kazakhstan and Uzbekistan. As a return, these countries shall provide energy sources to the Kyrgyzstan. Despite the existence of their signature on the agreement, Uzbekistan refused the Kyrgyz demand, eventually Kyrgyzstan cut the water goes through the dam situated on the Fergana Valley. Kyrgyzstan's action was also a breach of another article of the same agreement, Article III (Word Bank, 2004: 28-30) that prevents parties to take any



measures one against the other. Kyrgyz side cut the water flow however article clearly indicates that, no measures can be taken against the other sides' right to obtain water. As a consequence of the Kyrgyz attitude, Uzbekistan respond it back very roughly by sending their troops to the Kyrgyzstan's border in 1999 to provide the security of the dam and water flow (Bichsel, 2009, p. 20-24). There were violations of the borders which constituted a grave danger for the territorial integrity of Kyrgyzstan and a possibility of full-scale war. Both sides' have started media propaganda in their countries. Uzbekistan has crossed the borders and occupied a territory in the border of Kyrgyzstan and constantly refused to leave there (Karaev, 2005). Moreover, Uzbekistan has applied strict visa regulation to the people who tries to enter the disputed regions in the border. Even though the tensions were mostly defused, conflict in the Fergana Valley border still continues to exist (Demirci, 2012).

Furthermore, because of the same reason explained above, disputes have been occurred between Kazakhstan and Uzbekistan. Kazakhstan accused Uzbekistan as violating the Article IV (Word Bank, 2004, p. 28-30) of 'the Use of Water and Energy Resources of the Syr Darya Basin agreement', by decreasing their water flow in the year of 1997 (Chatterjee et al, 2013). Mentioned article indicates that; Water shall be divided equally. Hence, according to the Kazakh claims Uzbeks violating the agreement's provisions. The attitudes that Uzbekistan showed against Kazakhstan, was exactly the same as they did towards the Kyrgyzstan. It was not last as long as the conflict between Kyrgyzstan and Uzbekistan, however Uzbeks caused border problems and applied visa, thereby they the trade relations were restricted (Chatterjee et al, 2013). However, at the beginning of the 2000s, except some parts, border problems have almost been resolved.

Slightly less tensed conflict between Kyrgyzstan and Kazakhstan was occurred because of the breach of the same agreement on 'Use of Water and Energy Resources of the Syr Darya Basin'. This agreement was signed by the parties of Kyrgyzstan, Kazakhstan, Uzbekistan and obviously it was a failure which could not able to prevent the conflicts. In the case of Kyrgyz and Kazakhs, Kazakhstan did not supply energy resources to Kyrgyzstan as payback of the water. Therefore, Kazakhs did not fulfill the provisions of the agreement, particularly the Article IV (Word Bank, 2004, p. 28-30). Not surprisingly, response of the Kyrgyz side was again cutting flow of the water which was a breach of the Article III (Word Bank, 2004, p. 28-30) like they did in the case of Uzbeks.

The other conflict was occurred between the Tajikistan and Uzbekistan about the Amu Darya river's water. It was fundamentally the same reason that causes the previous mentioned conflicts: Using the shared water resources in an unequal terms. At the outset, conflict was occurred due to the attempts of Tajikistan's, because of their shortage of energy ergo dependence on foreign energy resources (Mosello, 2008). Despite the shortage on energy resources, they have plenty of water resources unlike the other countries in the region like Uzbekistan, Turkmenistan, Kazakhstan. Their annual water flow from Amu Darya river is approximately 56 billion meter cube which is literally 11 times of Uzbekistan's water flow from Amu Darya or 55 times of the Turkmenistan's water flow from the Amu Darya River (Granit et al.,2010, p. 15). By this context, Tajikistan has tried to construct a dam, known as Rogun Dam, in order to generate hydroelectric energy from the Amu Darya river's sources. The attempts to construct that dam had started during the Soviet Era (Kleingeld, 2016). After the dissolution of the Soviets, due to the internal problems, project was postponed. However, the fact that their dependence of foreign energy resources, particularly Uzbek natural gas, was not changed. Thereafter, they wanted to finish the project that they had started. Meanwhile, they have faced with the Uzbekistan's protests due to the concerns on the amount of water that they have been using, particularly for irrigation. And Unfortunately, failure has not been

stopped to follow up on Tajikistan. Because of the disagreement on the project with the Russians, they have lost ties with Russia at this project (Kleingeld, 2016). Energy was a and still is a must for Tajikistan that has to be resolved immediately, thereby they have given most of their attention to the construction of Rogun Dam. In the absence of Russia, they have applied to the World Bank. World Bank has investigated the region and its suitability, and in the year of 2014, they have approved the construction (Kleingeld, 2016) which is estimated to be finished in 2018.

Thus far, all the explained conflicts have been occurred from the same first reason. However, Turkmenistan has been affected mostly from the second cause, which is indicated above. Turkmenistan has not have any pie from the Syr Darya river, because it does not cross their country. Furthermore, their annually water flow from the Amu Darya river is just 1.5 billion meter cube (Granit et al., 2010, p. 15) which is a dramatic scarcity. Every other country in Central Asia have more water resources than Turkmenistan has, therefore, it makes them a perfect example for the second reason. In this context, physically water scarce country like Turkmenistan, would naturally like to create a artificial lake, in order to maintain their water security, particularly for their cotton production (Baizakova, 2013). While constructing that artificial lake called as Golden Lake, Amu Darya river's water will be used to fill the lake out. On the one hand, there are strong supports for the project like, advanced sanitations or prevented soil from flooded water (Baizakova, 2013). On the other hand there are several concerns come along with the project such as an increase in salinity level or chemical contamination (Baizakova, 2013). Besides the every other negative opinions, we see the opposition of Uzbekistan with a concern of possible decrease on their water flow in the circumstances that Turkmenistan would sustain the water level in Golden Lake, with using up the Amu Darya river's water. This has caused a tension between Turkmenistan and Uzbekistan. All in all, Uzbek officials thought that all the tensions that are happening in the region, might be turned into an actual war.<sup>[9]</sup> This declaration is obviously put forth the seriousness of the situations.

The third is the main reason of the all conflicts happening in the region. However, even in the absence of water scarcity, conflicts are very likely to occurred. Because, besides their relations with the real scarcity, conflicts are also emerged due to the countries' greedy desires. Even being in a water abundance position, there is always a desire to have more. This is not an instance for the situations occurring in the Central Asia because all countries in the region suffer from the water scarcity, but it is a highly obvious and worrying fact. Alongside these information, in the case of Central Asia, there is an actual water scarcity, explained in the first chapter, that mainly causes disputes in the end. Region's annually water flow, is far below the level that is supposed to be. And the awareness of the countries about the severe consequences of the water shortage, force them to do anything to avoid it by all manner of means. Hence, eventually conflicts like the cases of Kyrgyz-Uzbek, Tajik-Uzbek or else Turkmenistan occur.

Last but not least, even though it is hypothetical and not proved, there is a high possibility of Russian or Western provocations in the region. Of course, none of the countries leave a proof or declare it publicly that they make provocations in order to cause a conflict or to sustain the current one. However, given the circumstances and possibilities like, one might think that, countries can be perfectly get along with each other in a win-win environment. As it has been exemplified, there are different types of countries in the region. States who possess energy resources are in a water shortage situation and the others who has water resources are in need of energy resources. In the win-win framework, states could have an excellent trade relation by supplying to each other whatever excessive commodity they have, however instead of doing that, they rather prefer to satisfy their demands in free of charge which causes a zero-sum situation in which, while one side is winning, the other side is losing. This is the barrier against the co-operation. The agreement between

Kazakhstan, Kyrgyzstan and Uzbekistan on the 'the Use of Water and Energy Resources of the Syr Darya Basin' is an initiation in a way goes through the win-win situation ergo collaboration. However, it was an unsuccessful attempt due to the desire of countries towards zero-sum tendencies. Furthermore, while analyzing these countries tendencies, outer effects ought to be taken into consideration which means, why did those countries change their minds after they had signed such agreements? An intervention from foreign countries can be the answer. Provided that all the countries in Central Asia live in a great harmony in which everybody wins, nobody suffers, then countries who have interests in the region like Russia or China in terms of oil, natural gas e.t.c., will not be able to intervene the region to satisfy their interests due to the absence of any conflictual area that they can use as a tool. From the Russian perspective, foreign countries provocation can cause a conflict or maintain instability in the region which eventually will estrange foreign investors or foreign institutions who are planning to be active in the region. In this circumstances, western institutions, particularly NATO's existences in the region will be prevented like the examples of Frozen Conflicts in the South Caucasus. Therefore, provocation or a persuasion of the leaders of the states, might be the reason of why states have changed their minds or attitudes. This is all hypothetical scenario but very likely to be happened.

Until now, all the conflicts and their reasons were explained in detailed. Yet, there are few more contributing factors which trigger the conflicts in a negative way;

### **Contributing factors of the current conflicts**

Water conflicts have a complex structure which needs a multidisciplinary focus. Firstly the effects of the Global warming on the water conflicts and secondly relations with the food security and water disputes ought to be taken into consideration. First of all, since the 1900s, earth's degree has increased 1 celsius from the level that it is supposed to be. It's effects on the glaciers can not be denied. The sea level has been raised with the rate of 3.4 mm per year and annually 400 billion tons of total glaciers have been melting since 1994.<sup>[10]</sup> Over and above, there is an expectation that on the forthcoming years, there will be 1 more celsius increase in the temperature which might have a catastrophic influence on earth. In this context, when we examine Central Asia, we can clearly posit that, with the effects of melting glaciers and probable increase in the following years on the melting glaciers, will cause floods in the rivers. Furthermore, along with the increase in vaporization, there will be a decrease on the river's flows. Besides the vaporization, temperature increase will also affect the amount of rains negatively. The current water scarcity in the region has already been affected from the changes in the world temperature and given the circumstances, the current water scarcity will be multiplied. In the light of these information, likelihood of a harsher and bloodier conflict is unfortunately very high.

Secondly, there is a direct relation between the food security and water conflicts. Particularly, conflicts, occurred in the region, contain the concerns on irrigation that is dependent on the annual water flow of the country. Most important aspect in the food security is sustainable irrigation, without it, cultivating process can not be done which would cause food shortage. Food shortage will definitely increase the food prices and in the end, it will bring unrest among the people. Unrest will cause a uprising and this process will end in a conflict between water plenty and water scarce countries. From this context, there is a mutual and dependent cycle between them: Water scarcity causes food insecurity, food insecurity brings conflicts. Turkmenistan, Kazakhstan, Uzbekistan are aware of this cycle and all of the conflicts that they caused besides the other reasons, included the threat of food insecurity.

## **How water politics become an aspect of Central Asian Geopolitics and the effects of the Water conflicts on the geopolitics of the region**

Water politics have become an aspect of Central Asian geopolitics in three ways:

### **I. Foreign countries intervention tool:**

Water can be used as an intervention tool from the foreign countries whom would like to play a key role or would like the control the whole region. This intervention can be accomplished by abusing the ongoing conflicts. In the Central Asian region, there are several conflicts that have been occurring. Due to the past experiences and continuation of the water scarcity, likelihood of breaking a new conflict is also exceptionally high makes the conflicts in the region become vulnerable for external intervention. For instance, conflict between Uzbekistan and Kyrgyzstan, has caused a violation of territorial integrity which still continues today. European Union, NATO, United Nations, Russian Federation can intervene to the countries internal affairs by first escalating and enlarging the conflict and then, forcing some measures, creating a commission for investigation or sending peacekeeping troops under the purpose of regional interests, particularly energy resources. Furthermore, intervention can be also achieved by capturing or at least threatening to capture the main water resources located in the region with a purpose of having supreme power over the whole area, thereby they would be able to enforce anything that fits on their interests. For instance, the map, that has been leaked by the United States military service official Ralph Peters (Peters, 2006), contains a newly established states whose borders has been drawn by the most important waters in the Middle East region. Iraq occupation, rivalry in the Turkey's eastern part, Syrian conflict are all included to the ambition of the establishment of that state. A state which includes every water resources in the region, would command the region and United States as a founder of that state would rule the whole region without a doubt. In the same context, it can be achieved in exact same way in the Central Asian region, by controlling the water resources in the region which possess great importance, explained above, can be used as an intervention, further than that, becomes a commanding tool over the region. The main feature which makes it a great tool is the indispensable characteristic that is has.

### **II. Sanction way of the countries to get what they would like to acquire:**

As an example to clarify the statement, countries like Tajikistan or Kyrgyzstan who are upper stream countries and have plenty water flow in contrast with the rests in Central Asia and they use the water before the other countries. As a consequences, they can cut off the water flow which goes through the downstream countries or rather than cutting totally, they can decrease it. At this point, provided that Kyrgyzstan is in need of natural gas, cotton, food or else and they ask from the downstream country to sell them with a price that Kyrgyz officials determine, however, the other side deny the price that the Kyrgyz side set forth, in the end Kyrgyzstan would cut the water flow off and force them to sell in a conditions that they desire. The counter state has two options, they would accept the conditions that Kyrgyzstan formed or would deny the conditions whatever it takes and send their troops to the water resource in order to secure their flow. In the same context, Uzbekistan has chosen the second option, since they have the military capacity to that, however, if the opponent state won't be able to take any military measures or does not have a retaliate power, then they will have no choice but to choose first option.

### **III. Can be used as a weapon of war:**

This is a very critical aspect by which states can threaten the other by using it as a weapon.

For instance: In 1986, North Korea declared their project in which they were planning to construct a dam on one of the stream that goes through the capital city of South Korea, brought conflict among two countries. South Korea was aware of the threat that North Korea can intentionally destroy the dam which would cause a flood over the Seoul (Kiran, 2005, p. 256). In this example, it is very obvious that it can be used as a war weapon and furthermore, because of the existence of such threat, South Korea has taken precautions in order to prevent or minimize the consequences of that threat. In this context, reservoirs or dams in the Central Asia can be seen as a jeopardy for the countries who possess, because of the possibility of its' usage as a war weapon by the opponent state.

Conflicts, that have been occurring in the region, open up a way of which countries can intervene into the internal affairs of the states, explained above. Foreign policies that countries pursue are being shaped by the conflicts emerging in the region. Some countries take advantage of the conflicts and the others are being harmed by the conflicts and thereby, constitutes policies according to their interests regarding the conflicts. Moreover, conflicts have drawn attention on the water scarcity in the region and have underlined the importance of water. By this context, the issue of water conflicts have become an agenda of both internal and international politics and at the same time it becomes an aspect of geopolitics as well. Each of these three features put forth the importance of Water Politics and explained why and how it has become an aspect of Central Asian geopolitics. Apart from these information, with the emergence of the conflicts and their tendencies to increase, water has been recognized as an aspect of geopolitics not just in Central Asian geopolitics but in whole world.

### **Conclusion**

Hydro-politics is one of the most important aspect of geopolitics. But only, it's effects does not seem clearly over some regions or countries. Central Asia was one of them until the disintegration of Soviet Union. Since the abolishment of Soviet Union, we see an alteration in the Central Asian geopolitics. As being situated in the center of Eurasian Region, Central Asia has always possess critical, strategic features. Furthermore, it's natural energy resources have always been attracting for the other countries (Europe, United States, Russia, China). Moreover, due to the significance of water and severe consequences that it has, emphasis of Hydro-politics have been dramatically increased. As result of the Central Asia's limited water resources and increased concern on water resources, conflicts become inevitable and consequently, all the indicated features of water politics were came along with the conflicts and were opened up a way of malfeasance. Hereby, hydro-politics joined into the Central Asian geopolitical arena.

Water politics have always been underestimated by plenty of scholars and its affects over the countries both internal and external policies have been overlooked. However, the enforcement power that hydro-politics have, is now more clear and neat. One of the most important instance about its enforcement power among all given information above, water resources could be used to rule the whole region or to become at least one of the most influential power over region by which states would be able to pursue their interests or maintain their interests' stableness which are the ultimate aims of every country (Jackson and Sørensen, 2016, p. 62-91). To conclude, though the help of water politics, countries become able to control or command the region; enforce sanctions; threaten opponents for its probable use as a war weapon. In the light of these information, Hydro-geopolitics has got one of the upmost importance for the countries in their domestic and foreign policies.

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[12]The statistical data have been reached via United Nations Educational, Scientific and Cultural Organization: [http://www.unescoetxea.org/ext/manual\\_EDS/pdf/04\\_recurso\\_ingles.pdf](http://www.unescoetxea.org/ext/manual_EDS/pdf/04_recurso_ingles.pdf) and also from the Global Development Federation's data: <http://www.gdf.world/water/>

[3]The population numbers have been taken from the United Nations' publication, World Population Prospects: [https://esa.un.org/unpd/wpp/publications/files/key\\_findings\\_wpp\\_2015.pdf](https://esa.un.org/unpd/wpp/publications/files/key_findings_wpp_2015.pdf)

[4]The statistical data have been retrieved from the followings: FAO Aquastat data from the years of 1998–2002: <http://www.fao.org/nr/water/aquastat/data/query/index.html?lang=en> and World Bank Water Resources Data: <http://siteresources.worldbank.org/INTMENA/Resources/App-all-Scarcity.pdf>

[5]Countries have been selected according to their natural resources and development records from World Bank indicators: <http://data.worldbank.org/region/least-developed-countries:-un-classification>

[6]The data about the major export and import partners of the indicated countries provided from the CIA factbook data: <https://www.cia.gov/library/publications/the-world-factbook/fields/2061.html>

[7]The data about the exported and imported commodities of the selected countries provided from the indicators of CIA factbook: <https://www.cia.gov/library/publications/the-world-factbook/fields/2058.html>

[8]Kazakhstan: 250mm, Uzbekistan:206mm, Turkmenistan:161mm, Tajikistan:691, Kyrgyzstan:533, data have been collected from: <http://data.worldbank.org/indicator/AG.LND.PRCP.MM?view=map>

[9]The Uzbek official's (former president) thoughts and expressions were taken accordingly from the following: <http://www.reuters.com/article/centralasia-water-idUSL6E8K793I20120907>

[10]The global warming data were provided from the NASA's global climate informations: <http://climate.nasa.gov/>

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