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Blue Diplomacy of Central Asia under Pressure of the Climate Change

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Abstract: The article explains the nature of transboundary water management system in Central Asia and identifies the most acute deficiencies in rational use of water, which may become the potential "casus bellum" of regional conflicts and threat to water security. The article sheds light on the national interests of regional states regarding water resources. The global warming is represented in two different dimensions: as a catalyst of wars for hydro resources and as a conciliator of long- existing "hydro political" tensions in the region. Potential recommendations for peaceful and sustainable water management are also briefly stated.

Keywords: Water management; Casus bellum, Climate Change Conference – 2015, Glaciers; Regional agreement; Central Asian Bank. Renewable energy.

1. Introduction

The universal Climate Change Conference held in Paris in the late 2015 represents a significant step of all nations toward saving the Mother Earth from the common threat - global warming. Representatives of nearly 200 states recognized the need for joint actions in transforming this "enemy" into a chance for safe environment with healthy generations. Central Asia, which calls to mind the memories of legendary Silk Road, scenes of statuesque ice-covered mountains, and picturesque nature, has also became a particularly vulnerable victim of the climate change. The long list of extremely dangerous threats, as natural disasters, human diseases, poverty, and hunger caused by the global warming, is extended with potential conflicts and wars for natural resources. Central Asia is a place where "hydro political" tensions have become a long-existent menace to a regional stability and water security. The absence of a binding general agreement, satisfying the interests of all regional states, ineffective use of water, increased number of populations, and the process of melting of glaciers - crucially deteriorate the status quo in the region.

However, the growing threat of the climate change may become a potential peacemaker and accelerator of constructive negotiations on water management issues. Water management in the "heartland" of Eurasian continent is expected to witness unpredictable effects of the climate change – whether peaceful or destructive. The purpose of the paper is to overview the reasons of the weak as well as highly unstable conditions of water diplomacy in Central Asia; the potential impact of the climate change on the stability of a region; and possible solutions for creation of a peaceful atmosphere in rational water management system. The paper is based on comparative research of relevant literature and credible Internet sources of news sites and scientific articles. The significance of the paper is that it evaluates the stability of the region and water security under the pressure of the climate change in Central Asia.

2. Roots of Hydro-Political Tensions

Hydro-politics – is a unique tool for understanding how power and politics determine who gets what, how much, and why in managing transboundary water resources (Stanley, 2015). Central Asia, which comprises Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, has always suffered from uneven distribution of water resources due to incompatible ambitions, physical geography of a region and irrational use of hydro resources. Crystal clear freshwaters come from glaciers formed in Kyrgyzstan and Tajikistan which feed the region's two main watercourses – *Amu darya and Syr darya*. These rivers are the main sources of "precious liquid" which sustain a life of more than 65 million people in the region and feed the Aral Sea Basin located between Kazakhstan and Uzbekistan. Syr darya – is the longest river in Central Asia with substantial amounts of water reserves. The river's 75, 2 % of water is formed in Kyrgyzstan, 15, 2% - Uzbekistan, 6, 9% - Kazakhstan, 2, 7% – Tajikistan. Amu darya – is the region's largest river, waters of which are formed in four countries: 74% - Tajikistan, 13, 9% - Afghanistan and Iran, and 8, 5% – Uzbekistan (Valentini *et al.*, 2004). Upstream countries - Kyrgyzstan and Tajikistan, are the poorest countries in the region, however, they control the supply of water to the downstream countries – Kazakhstan, Turkmenistan and Uzbekistan, which possess vast amounts of coal, oil, and gas resources.

During the period of the Soviet Union, Moscow implemented the regulation of water in such a way that upstream countries supplied water for irrigation needs to the downstream countries in summers, while the latter, provided coal and gas to the energy dependent upstream countries, accordingly in winters (Jakob et al., 2010). The exploitation of water resources was for the sake of the "progress" and aimed at production of large amounts of cotton and agricultural products without concern for the environment, which led to catastrophic consequences. The drying up of the Aral Sea is probably the best known case. After the dissolution of the Soviet Union regional states signed the Almaty Agreement, according to which they continued a traditional way of barter system of water and energy (Lisa et al., 2010). The treaty was signed in haste just after the gain of independency, and does not include Afghanistan, despite the fact Amu darya River covers 12% of the Afghan territory and 25% of Afghani population depend on this source of water (Weinthal, 2006). Very soon, upstream countries realized that water allocation was not fair and insufficient for their own agricultural needs. For example, during the 1996-1997s the downstream riparian countries continued to get the largest share: Turkmenistan and Uzbekistan got 22% and 31% respectively, Kazakhstan and Tajikistan - 10% each, and Kyrgyzstan only 0, 4% (Iskander, n.d.). Kyrgyzstan and Tajikistan, who are the regional "water kings" have argued that they were not only given unfair access to water, but they were also expected to pay for the upkeep and construction of the dams and reservoirs that control the flow of rivers, while the downstream countries reap the benefits.

Furthermore, hostilities started to increase when Kazakhstan and Uzbekistan, for the sake of self –reliance and development of energy sectors, started to demand hard currency at world prices from upstream countries. Kyrgyzstan and Tajikistan, lacking both money and fuel supplies, made a decision to generate hydropower in order to provide warm winters for their own populations (Weinthal, 2006). Kyrgyzstan's hydropower reservoir – *Toktogul* located on Syr darya River, and Tajikistan's *Nurek* on Vahsh River started to function in the "energy-generation" mode. It means that they are accumulating water during the summer season, and run the water in winters. However, it is absolutely against the interests of downstream countries, because they need more amounts of water in summers to irrigate vast hectares of lands; and unnecessary water in winters destroy their lands and create floods. At the same time, the upstream countries declared that according to the Dublin Conference of 1992:"*water has an economic value in all its competing uses and should be recognized as an economic good*" (The Dublin Statement, 1992). It created dissatisfaction of downstream states, especially in Uzbekistan, claiming that water is a good given by the God and should be free of charge. The uncertainty of payments and unfixed level of prices still remains unresolved. As a result, aspects of quantity of water shared, timing of supply, and pricing are the most disputable points in the region. In addition, water management is highly politicized and facing a challenge from the speedily increasing number of water users.

3. Fear of A "Tool of Manipulation" And Growing Populations

The ambitions of upstream countries to build large hydro electric stations, namely, the Kambarata – 1 and 2 in Kyrgyzstan and the Rogun Dam in Tajikistan, is another point of tensions. Water is the only abundant resource in these countries and the development of hydro electric projects is essentially important for the economies of the upstream states. There is a new project intended to be realized – "CASA 1000" (Central Asia- South Asia). Kyrgyzstan and Tajikistan, after the construction of new dams, will provide electricity to South Asian states, Afghanistan and Pakistan, where people suffer from shortages of electricity. It is of a special concern to Uzbekistan, the most populous post-Soviet republic in Central Asia, which relies on rivers that originate or pass through Kyrgyzstan and its other neighbor, Tajikistan, to irrigate its arid cotton fields and farmlands.

Uzbekistan claims that the hydropower stations are being built on high seismic activity regions, posing a threat to the downstream states (Demir, 2015). However, behind this rhetoric, Uzbekistan worries that the upstream countries will use their hydropower as a tool for political pressures and manipulations. In addition, there are numerous amounts of small-scale conflicts and tensions between all five states on the use of transboundary rivers due to the disputable territorial borders. The uncompromising demands of each side backed up with "inflexible minds" of politicians continue keeping the regional stability under strenuous threat. Another point which contributes to the regional instability is the increasing number of populations.

Today, there are about 65.7 million people and this number will increase by 20 million by 2040 (Water Pressures in Central Asia, 2014). Increasing demand for water is accompanied by the inefficient use of water resources. The infrastructure of the irrigational system and water pipelines is quite outmoded and posing a threat to the water quality. Poor quality of water is essentially under threat which affects the health of the population. Usually, there is a tendency to abuse the upstream countries for contaminated composition of water which worsens regional relations. The aspects of quality and quantity of inefficiently wasted water lead to the shortage of the fresh water which in turn leads to the regional rivalry and conflicts. Complicated nature of water issue in Central Asia is expected to be more unpredictable with the increasing impacts of the climate change.

4. Climate change: Peace or War?

Global warming has already become the sorrowful reality of "today". The speed of disappearance of glaciers in Central Asia may damage the water supply of millions of people within 50 years. For instance, glaciers in the largest mountain range, the Tien Shan, reach almost 7,500 meters in height, and are a vital source of water in Central Asia. Ice melted at four times the global average since the early 1960. By the mid of the 21st century, warmer temperature could cut up half of the remaining ice in the Tien Shian (Alex, 2015). In short term, region will have excessive water

supply, but by the end of the century the region will run catastrophic shortages. For example, in Turkmenistan the temperature has increased by 0.6-0.8°C over the past 50-70 years. In Kazakhstan and Uzbekistan the temperature has increased by 0.8-1.3°C over the past 100 years with increasing rates since the 1950s at 0.3°C per decade. In the small mountainous republics of Kyrgyzstan and Tajikistan, temperatures have increased by 0.3-1.2°C (Christiane and Alex, 2009). Climate change has negative effects on many parts of the economy and society such as agriculture, energy and hydropower, health, tourism. But will the climate change bring wars into Central Asia? Californian economist Marshall Burke made a research about how climate change affects the frequency of conflicts and violence. Results show that since the 1980s, hotter conditions of weather led increased amount of conflicts in Africa. "We found that a one standard deviation shift towards hotter conditions causes the likelihood of personal violence to rise 4% and inter group conflict to rise by 14%," Mr. Burke said (Steve, 2013). Exposure to hot temperatures causes psychological changes in how people deal with each other: people become less trusting, more aggressive, and more violent. Solomon Hsiang, another co-author of the study, stated that particularly in agrarian economies, people are likely to take up arms when the economy deteriorates, to maintain their livelihoods (Steve, 2013). It is obvious that the impacts of climate change can have obvious security implications: a growing potential for conflict arising from competition over dwindling water resources and the risk of countries taking unilateral measures with possible negative effects on other riparian countries (Kojokmatova Nazgul Satyndyevna, 2009). On the other side, there is an opposite approach. According to Steven T. Landis, American political scientist, when resources become less, all the forces of people are directed at adaptation to a new situation (Artem, 2015). The condition of "lack of resources" requires more necessity to negotiate with neighbors, and not enter into devastating war that can worsen already poverty-stricken country. Common dangers have an ability to push the thwart politicians to find a common ground and solve the unresolved problems in the face of a global "enemy". Struggle with the state which owns a vital resource is totally non- profitable. This approach gives hopes that catastrophic predictions of "water wars" will never take place. By and large, if the threat of climate change is taken seriously there is a big chance that along with solving water disputes, Central Asian states will mitigate territorial border disputes, feel more trust toward each other and accelerate regional economic integration which will better off each state.

5. Recommendations

First of all, regional governments must recognize the riskiness of current threats and the need for immediate actions. Only regional round table cooperation with the presence and assistance of international community can give tangible results. Third-part mediation would be highly effective in coming to regional consensus. The Indus-Waters Treaty, between India and Pakistan, shows that third-part mediation can be very successful. The World Bank, as a mediator, was able to negotiate favorable treaty for both sides mostly because of the decision to give Pakistan and India financial compensation and conduct fair access to hydro resources (Lisa *et al.*, 2010).Without assistance of a third-part, Central Asian states are unlikely could reach compromise due to enmity and distrust towards each other.

Second, the region needs an interstate agreement and water sharing policy which must become an essential part of national policy of each state. Up to the present time there are no strictly binding regulations on the use of water resources, and no cooperative institutions which would control and implement the rules and principles which are sound with international standards. It is highly important to emphasize that all regional agreements on water management must include Afghanistan as an important partaker of regional water sharing system. Otherwise, conflicts may spark with Afghanistan as well when it will openly claim its rights over water control. Taking into account the scarcity of water and lack of electricity in Afghanistan, Central Asian states must clarify the water sharing mechanisms with this state, a long before problems would definitely arise.

Third, creation of the Central Asian Bank, where all five states, including Afghanistan, will make contributions for finance of inventory, upkeep of water pipelines and dams, reparations and exploitation of general water system will make water management fairer and more effective. The water must be accepted as an economic good and price for this vital liquid must be determined (Bogomolov *et al.*, 2007). It would significantly change people's attitude toward water itself, leading them to treat and appreciate water than ever before, resulting in a more rational usage.

Fourth, in the face of the "global enemy", climate change, Central Asia must take steps toward development of renewable energy resources. Regional states have huge potential resources of renewable energy and favorable environmental conditions for the use of solar energy equipments and wind power stations. However, due to low electricity prices, lack of specialists on sustainable energy and limited number of investors, renewable energy remains largely uncompetitive (Komila, 2015). First, Central Asian states must develop legal frameworks for sustainable development and to create financial incentives for foreign investors (Komila, 2015). Second, governments must prepare specialists on renewable energy studies by providing grants and scholarships, and acknowledge the populations of the perspectives and benefits of the development of renewable energy sector. All abovementioned recommendations have a chance to be implemented through an accumulated efforts of regional states, open and constructive dialogs, and mutual compromise.

6. Conclusion

Water tensions in Central Asia have a very complicated nature which is backed up with threats of the climate change. Lack of common points of consent, bellicose statements of politicians, irrational and out-of-date system of water management, increasing level of demand of larger amount of water users, and the shrink of glaciers draw an unhappy picture of a future of Central Asia. The impact of the climate change is alarmingly unpredictable. It may

lead either to devastating conflicts or a long-awaited harmony and water security. The strenuous stalemate of "water relations" in Central Asia cannot continue for a long time and needs serious steps for its resolution. First of all, the third-part mediation may be very useful in resolution of tensions as it could be seen in international practice. Second, an adoption of a regional agreement with the inclusion of Afghanistan must be necessarily taken into account. Third, the creation of a Central Asian Bank would make water sharing system more fair and effective. Fourth, the shift to renewable energy development must become an important part of national policies, as it has very high potential to be successful. The achievement of sustainable water use and joint actions against the climate change must become the number one priority. There is an expectation that the ambitious agreement on Climate Change, which includes contribution of Central Asian states, will change the minds of Central Asian politicians stimulating their willingness to bring about peace and to act according to requirement of current demands. Central Asia is in need of immediate and pragmatic decisions eliminating vague guesses of millions who worry: "If our children will live in peace enjoying taste of water in abundance or witness bloody clashes for a drop of water?"

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