

ROLE OF WATER CONFLICT IN THE RUSSIA'S WAR ON UKRAINE

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Water Conflict Region

The North Crimean Canal was built for the drinking and irrigation water needs of Southern Ukraine and Kherson Oblast on the Crimean Peninsula. The construction of the canal started in 1961 and was completed in 1975. Before 2014, Ukraine supplied 85% of Crimea's freshwater needs through the North Crimean Canal, which connects the Dnieper river to the Crimean peninsula. After Russia annexed Crimea in 2014, Ukraine cut the water supply





Figure 1. North Crimean Canal Route and Dams (1)

The North Crimean Canal, which is approximately 400 km long, provided drinking and irrigation water to many dams and settlements on the peninsula through secondary channels, as seen in Figure 1. It also shows the off-stream reservoirs of the North Crimean Canal and the cities and towns, the water supply of which depends on these reservoirs

The population of the Autonomous Republic of Crimea before the annexation of Russia is given as 2.3 million people. After the annexation of Russia, 160 000 people settled in the peninsula from Russia and the Donetsk and Luhansk regions.

As of 2020, the population of the Crimean Peninsula has been determined as approximately 3 million people, of which 650 000 are unregistered. It is estimated that about 80 000 of these are military personnel. The dry periods and the increasing population in recent years have caused the water supply security to be at risk. This has increased the hydro political tension between Russia and Ukraine regarding the supply of water from the North Crimea Channel.

Form of Water Conflicts

Events are categorized based on the use, impact, or effect that water had within the conflict.

Trigger: Water as a trigger or root cause of conflict, where there is a dispute over the control of water or water systems or where economic or physical access to water, or scarcity of water, triggers violence.

Weapon: Water as a weapon of conflict, where water resources, or water systems themselves, are used as a tool or weapon in a violent conflict.

Casualty: Water resources or water systems as a casualty of conflict, where water resources, or water systems, are intentional or incidental casualties or targets of violence.

"We categorized water conflicts in three groups," says Peter Gleick. "As a 'trigger' of conflict, where violence is associated with disputes over access and control of water; as a 'weapon' of conflict, where water or water systems are used as weapons in conflicts, including for the use of dams to withhold water or flood downstream communities; and as 'casualties' or 'targets' of conflicts, where water resources or treatment plants or pipelines are targeted during conflicts."

Total Storage Volume and Water Potential of the Crimean Dams

There are 14 dams and ponds in Crimea that are fed by natural flow and have a total storage volume of 188 million m³. Apart from these, there are 8 dams and ponds with a total storage volume of 146 million m³ in Crimea and they are fed by the water coming from the North Crimean Canal. The annual water potential of Crimea varies between 430 million m³ and 915 million m³. The annual total water use of Crimea is known as approximately 1.4 billion m³. It is planned to take 1 billion m³ of water annually from the North Crimean Canal.

After the water from the North Crimean Channel was cut off, especially after 2018, the search for alternative solutions started due to the insufficient water resources in the peninsula. After Russia annexed Crimea, the peninsula's water needs were tried to be met from lakes and groundwater, but the over-drawing from the wells caused the seawater to mix and the water quality to deteriorate, especially in the coastal areas.

Solutions such as transporting water over the Kerch Strait from the new bridge, by rail tankers, transporting it to cities and towns by tankers, and treating seawater were discussed, but these alternatives were not put into practice. This situation has created serious economic losses and ecological problems by affecting sectors such as agricultural irrigation and the tourism sector in Crimea.

Water Shortage in Crimea

Increased attention of the federal center to the problem of water supply to Crimea is caused by several inquiries of deputies of the State Duma of the Russian Federation on existing mechanisms to address the problem of water shortage on the peninsula, which has led to a sharp decrease in sown area and falling yields in 2019.

According to the report by the leadership of the "Crimean State Committee on Water Management and Land Reclamation" (signed by the "Deputy Chairman of the Committee" Olena Timoshik), which was sent to G. Narayev, ...⁽¹⁾.

"...water storage in natural flow reservoirs has not been replenished since the end of March 2020 due to the prolonged drought⁽¹⁾.

The total water storage in the Crimean reservoirs as of April 30 is 90 million cubic meters (13 million less than at the beginning of April). It is worth reminding that the total volume of reservoirs is 399.4 million cubic meters⁽¹⁾.



Figure 2. Water Disputed Area

Is it a Partial Water War?

The long-term negotiations between Russia and Ukraine to supply the water need in Crimea from the North Crimean Canal could not yield any results. After these negotiations were inconclusive, it was also discussed that Russia might engage in a military operation for the supply of water after 2020.

In some publications, it is stated that the cultivated area, which was 130,000 hectares in 2013, decreased to only 14,000 hectares in 2017 due to the water cut in the canal. In 2021, the canal was watered for only three to five hours a day. In the same year, the New York Times reported that senior American officials said that securing the water supply of Crimea could be the target of a possible Russian attack on Ukraine.

Some analysts predict that the operation launched by Russia from the east of Ukraine will continue up to the Dnieper River. This situation emerges as Russia's goal to seize control of the entire Dnieper river.



Figure 3. The North Crimean Canal and the structure built to cut off the water

Therefore one of the main military target was control of the Dnieper River and the blows up water cutting structure on the North Crimean Canal. (Figure 3)

Russian Army Blows Up Structure Blocking Water Passage

According to the Reuters news agency; The Russian governor of Crimea, Sergei Aksyonov, said in a statement on February 27, 2022, that Russian soldiers blew up the water structure built-in 2014 to cut off the water to Crimea.

However, this will not be enough to ensure the security of water supply to Crimea. This requires total control of Dnieper River Basin . Therefore this can be called as a partial operation to control the water supply to Crimea.

Although it is not the main goal in Russia's invasion plan of Ukraine, ensuring water supply security to Crimea has also emerged as a military target related to water



Figure 4. The North Crimean Canal

Role of the Water Conflict for Occupation?

Alexander Kovalenko, an Odesa-based military analyst, stated that water shortages in 2020 are hurting Russia's ability to maintain and increase its military presence in Crimea. Sooner or later, they may have to figure this out.” One solution could be to gain military control of the canal and the areas it runs through.” he said.

Kovalenko continued, “Such an operation could open a way for Russian troops to engage northward with the Donbas region, or westward, seizing the economically important ports of Odesa and Mykolaiv, creating an uninterrupted Russian presence between Transnistria and Crimea.” had made the statement.

It is obvious that water supply security of Crimea is not the main reason for Russia’s war on Ukraine but this operation also has the purpose of controlling water flowing to Crimea. It can be said that water conflict over the control of water system has only been a trigger of invasion among others.

When the situation after Russia’s invasion to Crimea is evaluated, Ukraine has the right to divert certain amount of water flowing through the canal, but completely blocking the canal is a debatable situation. Today, it seems that Russia's operation also aims to ensure water resources and water supply security. First, the plan for the water supply security of Crimea has been executed, and according to the political goal of the operation, fully control of the Dnieper River Basin may also be on the agenda.

It is difficult to call this situation a full water war. However, due to the water dispute between the two countries, source of water flowing to Crimea was also among the military target of this operation. From this point of view it can be said that the operation has some characteristics of a partial water war on a regional scale.

We are entering a new period in which the importance of geopolitics will increase even more in the world. The new water and food geopolitics may emerge as more serious national security threats for many countries, including Turkey. These countries need to revise their threat perceptions according to changing world order in last two weeks.

References

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