

Jordan water crisis: A study from Asian and European perspective

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ABSTRACT

Jordan is the country where the issue of water has emerged as the crisis. Can the people of other countries imagine the life of common man in Jordan? The fight for survival has become the fight of water for them. The role of climate crisis in the Jordan water scarcity cannot be ignored as it has become the threat multiplier for them. Through this paper, the authors aim to study the water crisis in Jordan as it is crucial to understand how the issue of water is multiplying the problem of common man in Jordan. The data has been collected from the secondary sources. The European and Asian perspective on the Jordan water crisis is highlighted in the discussion section.



Keywords: Climate, Crisis, Jordan, Scarcity, Water, European and Asian perspectives, Water Crisis

Introduction

Water is the most crucial ingredient for the survival of living beings on the planet Earth. The most amazing fact about water is that the nature has provided us plenty of water for the survival of human beings. It is used everywhere. Since waking up in the morning till sleeping in the night, we keep using water for various activities of ours. But the greed for advancement, climatic changes and many other reasons has led to the difficult situations where some nations are actually deprived of sufficient quantity of water for the survival of their citizens. Jordan is such one country where the issue of water has emerged as the crisis. Basically, the Hashemite Kingdom of Jordan is located in the Middle East on Asia Continent. It is surrounded by the Syria, Iraq, Saudi Arabia, Red Sea, Israel and the Palestinian National Authority. The total area of the Jordan is 89,213 square Kilometres with approximately 75% of the area covered by the desert. (*About Jordan*, 2016). Water shortages make it difficult for the local population to survive, without access to clean drinking water, without access to water to irrigate their fields, and therefore without access to adequate

food. The problem of time shortage also causes the problem of food shortage. At the same time, climate change will increase the severity of water problems.

Jordan is going through water crisis in the contemporary time. In fact, "Jordan is the second most water scarce country in the world. Jordan's annual renewable water resources are less than 100 m³ per person, significantly below the threshold of 500 m³ per person which defines severe water scarcity." (UNICEF, n.d.) There are various possible reasons for this water crisis such as:

- Water Pollution (mainly caused by the improper industrial discharge, overflow of pumping stations, leakage from sewage system, etc.)
- Lack of regional environmental cooperation among Israel, Syria & Jordan is limiting the Jordan's access to the stream of Yarmouk rivers. This has led to shortage of water supply that comes from surface water resources. (Saiesha, 2022)
- The lowest rainfall with 110 mm in a year is also the reason behind water scarcity in Jordan.
- Over exploitation of groundwater basins in Jordan is causing the problems of adequate water supply.
- Growing Population is also making it difficult to complete the demand of everyone for water.
- Climate crisis in Jordan is also the reason behind this scarcity.

The time is changing in terms of water utility for the people of Jordan. "According to a March 2021 research study that Jim Yoon led, more than "90% of Jordan's low-income population" will endure severe water insecurity by 2030. This water scarcity

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in Jordan will equate to impoverished households receiving less than 40 liters of water per capita per day.” (Yoon et al., 2021). Can the people of other countries imagine the life of common man in Jordan? The fight for survival has become the fight of water for them. The role of climate crisis in the Jordan water scarcity cannot be ignored as it has become the threat multiplier for them.

Jordan is one of the world's most water-scarce countries, with limited water resources and a growing population that is putting increasing pressure on those resources. According to the 2016-25 National Water Strategy of the Ministry of Water and Irrigation, each individual in Jordan has access to approximately 61 liters (16 gallons) of water per day, with an additional 65 liters (17 gallons) per person lost due to "physical and administrative gaps". In comparison, the average American consumes over 350 liters (92.5 gallons) of water per day (Pawson, 2021). Jordan is facing a water shortage issue which could result in people receiving less water. The country's water scarcity is exacerbated by climate change, which is leading to more frequent and severe droughts. Jordan's water resources include surface water from rivers and streams and groundwater from aquifers. Groundwater is Jordan's primary source of water for drinking and irrigation, but overuse of these resources has led to declining water levels and deteriorating water quality. The country also relies heavily on imported water, particularly from the Jordan River and Red Sea desalination plants. Jordan's water challenges are further complicated by its geopolitical situation. The country shares borders with Israel, the Palestinian territories, Syria and Iraq, all of which have their own water issues. Water resources are often used as bargaining chips in negotiations between these countries, leading to complex and sometimes contentious water diplomacy. To address these challenges, Jordan has implemented several water management strategies, including the construction of dams and water treatment plants, as well as efforts to improve water efficiency and conservation. However, much remains to be done to ensure that the Jordanian people have access to safe and reliable water in the coming years.

Through this paper, the authors aim to study the water crisis in Jordan as it is crucial to understand how the issue of water is multiplying the problem of common man in Jordan. This article focuses on Jordanian water issues from two perspectives: an Asian perspective and a European perspective. This article explores the different perspectives presented to the public through different media reports.

Discussion:

In this segment, the discussion on the European and Asian perspective regarding the water crisis in Jordan is provided.

European perspective

The European perspectives on the water scarcity in Jordan are sympathy and humanitarian based. Many efforts are being taken by European Union to help Jordan in its deadly water crisis. As “The European Bank for Reconstruction and Development (EBRD) is improving water supply and modernising wastewater treatment facilities in Jordan with a sovereign loan of €30 million, co-financed by a €30 million grant from the European Union (EU).” (*EBRD and EU Upgrade Wastewater Services in Jordan*, n.d.) European Union is committed towards the development of Jordan though its effort to promote access to water and equitable distribution for all. In fact, EU is also supporting Jordan with the construction and

rehabilitation of waste water treatment plants and improving the sewage systems. (*The European Union and Jordan | EEAS Website*, n.d.)

The water crisis in Jordan has attracted great attention and condemnation from European countries and international organizations, with particular attention to its impact on the basic human right to water. Jordan, a country known for its extreme water scarcity, faces complex and multifaceted challenges characterized by factors such as population growth and the adverse effects of climate change. Europe's perspective on the crisis centers on the idea that access to clean and safe drinking water is an inalienable human right, recognized by international agreements and declarations.

The EU and its Member States firmly uphold the right to water as a fundamental element of human dignity and well-being. The European perspective is consistent with the international human rights framework that explicitly recognizes the right to water and sanitation. Access to adequate quantities of safe and affordable water is essential to maintain health and safeguard fundamental principles of human rights (Mirumachi, Duda and et.al, 2021). A key aspect of the European perspective is the responsibility of governments to safeguard water for their citizens right. In the case of Jordan, European countries and organizations recognize the specific challenges posed by the ongoing water crisis and call on the country's government to take proactive measures to ensure access to clean water. Sustainable management and equitable distribution of water resources are seen as fundamental tasks that governments must address.

Asian Perspective

The water problems faced by the Jordanian people have seriously affected the quality of life of the Jordanian people.

First of all, Jordanian farmers have difficulty harvesting their crops and therefore have difficulty obtaining food and earning money from the harvested crops to support their families. This has made their lives very difficult. This is due to the water shortage problem. "The lack of water has affected us and we can't grow summer crops as usual, but it can give us a good financial return," said Jehad Tawalbeh, a farmer who inherited the farm from his father (Hams Rabah and Suleiman Al-Khalidi, 2021). Jordanian farmers affected by the climate change issue making them could not have enough food to seal in order to get money for their life.

Secondly, some water projects should be constructed as soon as possible and have an effective positive effect on water resources. Roya News, a news media that provides independent and objective coverage of Jordan, Palestine and beyond, from a local perspective, claims that one of the factors of the water shortage is that there is no way to increase water resources at a fast pace, for example, many projects were signed as early as 2016 but were not implemented quickly, which resulted in measures that could have increased Jordan's water resources not being implemented (2022). If these strategic projects for water resources can be constructed as soon as possible, it is possible to help local residents to solve some water problems as soon as possible.

Last but not least, Jordan is facing a growing water shortage due to the effects of climate change. Water Minister Hazem Al-Nasser said Jordan and many other Arab countries are below the water poverty line, meaning food production, especially for cereals, is far from adequate - to meet targets (Arab News,

2022). The country's already limited water resources are becoming more stressed due to reduced rainfall, rising temperatures, and increased evaporation rates. In a recently published article, he said that this will have a significant impact on agriculture as climate change and urbanization exacerbate the decline in rainfall. Without proper mitigation and adaptation plans, rain-fed agriculture could become obsolete (Arab News, 2022). Al-Nasser emphasized the need for sustainable water management practices and agricultural policies to address this issue (Arab News, 2022). There are still many challenges for the Jordan water crisis that needs to be addressed.

However, the water sector in Jordan is also trying to improve the situation. One of the solutions is to reduce the water shortage by building dams and other technological techniques to obtain more water. Mahasneh said the Jordan Valley Authority is studying the construction of new dams to collect rainwater from the northern tributaries and stormwater from the southern areas and valleys (Jo24 net, 2023). She noted that the rainwater collected by dams is often used for agricultural and industrial purposes and for other needs (Jo24 net, 2023). However, the dam-saving strategy has failed to address the water crisis. For example, most of the dams in the south are already empty (Roya, 2022). This has created a water crisis situation for farmers.

Conclusion

Jordan has implemented various measures, such as reducing water consumption and increasing the use of renewable energy, to mitigate the effects of climate change on its water resources. However, much more needs to be done to ensure sustainable water management and supply for the country's population.

In the concluding lines, it could be said the water crisis in Jordan is alarming call for the whole humanity as this crisis could in our nations also in nearby future. The urgent need of the hour is to provide adequate support to the people of Jordan in solving this crisis as we all are humans. Humanity always comes first. Many international agencies such as UN, UNICEF, UNFPA, EU and many others are coming forward to help Jordan in its heart wrenching water crisis. Hopefully, the future

generation of Jordan would have plenty of water for their sustainable development.

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