DOI: 10.53555/ks.v12i5.3271

# Preservation And Utilization Of Water In Pakistan In The Light Of Sīrah

# Dr. Khalid Mahmood Arif<sup>1\*</sup>, Asia Perveen<sup>2</sup>, Tahira Gulshan<sup>3</sup>, Muhammad Saleem Sarwar<sup>4</sup>

- <sup>1\*</sup>Associate Professor/HOD, Dept. of Islamic Studies, Riphah International University, Faisalabad, Pakistan <a href="mailto:khalid.mahmood@riphahfsd.edu.pk">khalid.mahmood@riphahfsd.edu.pk</a>
- <sup>2</sup>M. Phil Scholar, Dept. of Islamic Studies, Riphah International University, Faisalabad, Pakistan.
- <sup>3</sup>M. Phil Scholar, Dept. of Education, Riphah International University, Faisalabad, Pakistan.
- <sup>4</sup>Ph.D. Scholar, Dept. of Islamic Studies, Riphah International University, Faisalabad, Pakistan.

#### Abstract

This study addresses the critical issue of water preservation and utilization in Pakistan, in the specific context of Seerah. In a nation grappled with lack of water challenges, this study uniquely centers on sustainable water management practices and policies, particularly within the religious and in the light of Seerah context. The Prophet Muhammad's (\*) Sīrah offers priceless advice on the moral and practical aspects of water management that can be applied to current issues. Considering the Sīrah, this article examines the fundamentals of water preservation and use, placing a focus on infrastructure development, equitable distribution, conservation and community involvement. The teachings of the Prophet Muhammad (\*) regarding the attentive use of water during ablution and his admonition against wasting water, even in abundance, underscore the need of water conservation and prevention of wastage. Pakistan can better handle its problems with water scarcity if these ideas are included into national policies and routine activities. Water resources can be managed more fairly through rules that ensure equal distribution and conservation activities inspired by the Sīrah. Promoting community participation in water management is consistent with the Sīrah's emphasis on collective responsibility, enabling local communities to embrace sustainable practices. Water security can also be increased by funding infrastructure improvements that upgrade water distribution, storage, and filtration systems. A sustainable answer to Pakistan's present and future problems, the teachings of the Prophet Muhammad (\*) offer a comprehensive approach to water management that strikes a balance between conservation, fair distribution, and community involvement.

Keywords: Water preservation, Water utilization, Sīrah, Pakistan, Water scarcity, Islamic teachings

### Introduction

Water is a vital resource for life and a major element in any nation's socioeconomic development. Pakistan has serious problems with water scarcity due to its industry and fast expanding population. If current trends continue, the Pakistan Council of Research in Water Resources (PCRWR) projects that the country would experience absolute water scarcity by 2025. To tackle these obstacles, a multimodal strategy that incorporates the practical, ethical, and religious aspects of water management is needed.

The Sīrah provides significant understandings about the preservation and sustainable usage of water. The prudent use of natural resources, especially water, is highly valued in the Islamic tradition and is frequently emphasized in the teachings of the Prophet (\*). The Quran emphasizes the necessity of water for life's sustenance when it says, "And We made from water every living thing"<sup>2</sup>

In addition, the Prophet Muhammad (\*) emphasized the need of saving water even in situations when it seems abundant when he said:

"Do not waste water, even if performing ablution on the banks of a fast flowing river."<sup>3</sup>

Islamic teachings support the equitable and balanced management of resources, guaranteeing that each person has access to their fair share. To guarantee that the community had access to clean water, the Prophet (\*) arranged for the acquisition of the Rumah well in Madinah. This is one of the well-known incidents that he used to illustrate this (Al-Bukhari, 2236). The fundamental tenet of Islamic environmental ethics—equitable distribution and communal benefit—is best illustrated by this deed.

<sup>&</sup>lt;sup>1</sup> Pakistan Council of Research in Water Resources (PCRWR). (2017). National Water Quality Monitoring Program. Accessed November 10, 2023. <a href="http://www.pcrwr.gov.pk">http://www.pcrwr.gov.pk</a>

<sup>&</sup>lt;sup>2</sup> Quran, 21:30

<sup>&</sup>lt;sup>3</sup> Ibn Mājah, Sunan Ibn Mājah, The Book of Purification and its Sunnah, Chapter: Concerning moderation in ablution and avoiding extravagance, (Riyadh: Dar-us-Salam, 1417 H), Hadith: 425.

These ideas can offer Pakistan's water management policies a foundation for dealing with the current situation. This article examines the Sīrah's teachings on conserving and using water, putting forth the idea that Pakistan's water problems can be resolved by applying the moral and practical lessons learned from the life of the Prophet Muhammad (\*). Pakistan may strive toward a sustainable future that guarantees the availability and fair distribution of water for all its population by harmonizing contemporary water management techniques with these age-old principles.

### Significance

It is important to examine Pakistan's water use and conservation through the perspective of the Sīrah for several reasons. First, it offers a framework that is both culturally and religiously relevant for tackling water scarcity, one of Pakistan's most urgent environmental problems. This strategy, which grounds water management methods in Islamic teachings, may strike a deeper chord with Pakistan's primarily Muslim populace, leading to increased public participation and compliance.<sup>1</sup>

Second, more ethical and sustainable behaviors may result from incorporating the Sīrah's water preservation precepts into current water management strategies. Modern sustainability principles are in line with the teachings of the Prophet Muhammad (\*) regarding water conservation, which include conserving water and safeguarding water sources from pollution. He said:

"The Messenger of Allah (\*) forbade the sale of excess water."2

This alignment has the potential to enhance the acceptability and efficacy of policies by

facilitating the creation of ethically and environmentally sound policies.

Furthermore, socioeconomic gaps in water access can be addressed by implementing Sīrah-based concepts in water management. Water scarcity in Pakistan impacts marginalized groups disproportionately, resulting in health and economic issues.<sup>3</sup> Policies that guarantee fair access to clean water for all societal segments can be informed by the Prophet's (\*) emphasis on equitable resource allocation, hence fostering social justice and mitigating inequities (Al-Bukhari, 2236).

Additionally, this approach can strengthen community involvement in water management. The Prophet Muhammad's (\*\*) practices encourage collective responsibility and stewardship of natural resources. By fostering a sense of communal ownership and responsibility towards water resources, local initiatives for water management can be more effective and sustainable.<sup>4</sup> This community-based approach can lead to better maintenance of water infrastructure, more efficient water use, and enhanced local resilience to water-related challenges.

Moreover, the application of Islamic teachings to water-related issues can strengthen the moral authority and validity of water management practices. Public support and compliance are more likely to accrue for policies and activities that are seen as consistent with religious beliefs.<sup>5</sup> In addition to encouraging behavioral changes at the individual and group levels, this moral foundation can also encourage water conservation techniques in day-to-day living.

In conclusion, the importance of examining water conservation and use in Pakistan via the lens of the Sīrah is found in its capacity to offer a socially just, ethically sound, and culturally appropriate framework for dealing with water scarcity. Pakistan may address its water problems more effectively and sustainably, protecting the population's well-being and promoting sustainable development by integrating Islamic teachings with contemporary water management techniques.

### The Scenario of Water in Pakistan

Pakistan is experiencing a serious water crisis, marked by limited water resources, inadequate management, and rising demand brought on by population expansion and the country's agricultural needs. The economy, agriculture, and public health are all significantly impacted by this catastrophe. Pakistan is now classified as a water-scarce

<sup>&</sup>lt;sup>1</sup> Khalid, F., & Thani, Z. "Islam and the Environment: Ethics and Practice." Islamic Foundation, 2008

<sup>&</sup>lt;sup>2</sup> Muslim, Abul Hussian Muslim ibn al-Ḥajjāj, Sahih Muslim, the book of Musaqah, (Riyadh: Dar-us-Salam, 1417 H), Hadith: 1565a.

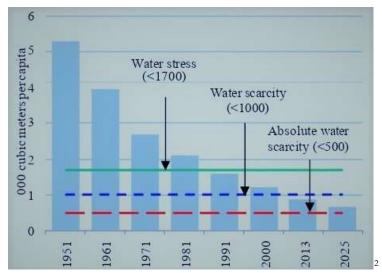
<sup>&</sup>lt;sup>3</sup> Pakistan Council of Research in Water Resources (PCRWR). (2017). National Water Quality Monitoring Program. Accessed November 10, 2023. <a href="http://www.pcrwr.gov.pk">http://www.pcrwr.gov.pk</a>

<sup>&</sup>lt;sup>4</sup> Food and Agriculture Organization (FAO). (2018). Community-based water management programs. Retrieved from <a href="http://www.fao.org">http://www.fao.org</a>

<sup>&</sup>lt;sup>5</sup> Khalid, F. "Islam and the Environment." Encyclopedia of Global Environmental Change, USA: John Wiley & Sons Inc. 2002

country due to the sharp decline in the amount of water available per person, which fell from over 5,000 cubic meters in 1950 to less than 1,000 cubic meters now.<sup>1</sup>

Pakistan has less than 1,000 cubic meters of water available per capita, making it a "water scarce" nation. Pakistan had 5,260 cubic meters of water per capita in 1951, but by 1981, when less than 2,500 cubic meters of water were available per p, the nation was "water vulnerable," and by 1991, when less than 1,700 cubic meters of water were available per capita, it was under "water stress." Figure below shows the water scarce in Pakistan:



Source: Govt. of Pakistan 2017

Table 1 Water Resources in Pakistan vis-à-vis South Asia, 2018

	Pakistan	India	Bangladesh	Afghanistan	Nepal	Sri Lanka	China
Long-term average annual precipitation in depth (mm/year)	494	1,083	2,666	327	1,500	1,712	645
Total internal renewable water resources (IRWR) (10^9 m3/yr)	55	1,446	105	47	198	53	2,813
Total external renewable water resources (10^9 m3/yr)	192	465	1,122	18	12	0	27
Groundwater as a percentage of total renewable water resources	19%	19%	2%	16%	9%	13%	***
Total renewable water resources (10^9 m3/yr)	247	1,911	1,227	65	210	53	2,840
Total renewable water resources per capita (m3/inhab/yr)	1,163	1,413	7,604	1,758	7,482	2,487	1,946

Source: FAO 2022

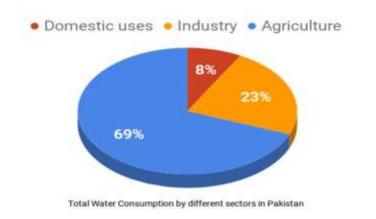
By 2025, Pakistan could face droughts as its per capita water availability is going to become 'absolutely scarce' with less than 500 cubic meters.

Over 90% of Pakistan's water supply comes from the Indus River and its tributaries, making them the country's main water sources. Nevertheless, there are many difficulties in managing and distributing this water. One of the biggest irrigation systems in the world is beset by inefficiency and significant water loss. Because of leaks, seepage, and evaporation, over 60% of the water that is diverted for irrigation does not reach the crops.<sup>3</sup> Figure below show water consumption by different sectors in Pakistan.

<sup>&</sup>lt;sup>1</sup> Qureshi, A. S. "Water Management in the Indus Basin in Pakistan: Challenges and Opportunities." Mountain Research and Development, vol. 31, no. 3 (2011): 252-260.

<sup>&</sup>lt;sup>2</sup> https://pide.org.pk/research/impact-of-climate-change-on-water-in-pakistan/Accessed November 2023

<sup>3</sup> Mustafa, D. (2010). "Hydro politics in Pakistan's Indus Basin." United States Institute of Peace.



Severe water problems also affect urban areas. Clean drinking water is becoming increasingly scarce due to the rapid industrialization and urbanization that have exacerbated water contamination. Groundwater, which is being exhausted at an alarming rate, is vital to many urban dwellers. Moreover, untreated sewage and industrial effluents are frequently dumped into water bodies, contaminating the water supply and highly risking human health.<sup>2</sup>

These problems are made worse by climate change, which alters precipitation patterns and melts glaciers in the Himalayan and Karakoram Mountain ranges, which drastically affect river flow.

The unpredictability of monsoon rains, which account for a significant amount of the yearly water intake, causes either protracted droughts or devastating floods, both of which are bad for agriculture and water resource management.<sup>3</sup>

Furthermore, Pakistan's institutional and political framework for managing water resources is inadequate. Conflicts over the allocation of water arise from the provincial and federal authorities lack cooperation. The problem is made more difficult by the lack of efficient water pricing systems and regulatory frameworks, which provide minimal incentive for water conservation and efficient use.<sup>4</sup>

Comprehensive water management reforms are necessary to overcome these problems. These include lowering water pollution, strengthening groundwater management, increasing irrigation system efficiency, and putting climate change adaptation plans into action. Sustainable water management also depends on community involvement and public understanding of water saving measures.

In conclusion, Pakistan's water crisis is a complicated, multifaceted problem that calls for quick,

coordinated response from a range of sectors. Incorporating Islamic water conservation lessons, as expounded in the Sīrah, may offer culturally appropriate and morally sound remedies for these problems, promoting a more just and sustainable method of managing water resources in Pakistan.

#### Contemporary Relevance to Pakistan

Given Pakistan's growing water scarcity problems and its effects on socioeconomic stability, the importance of conserving water and using it wisely cannot be emphasized. Pakistan's per capita water availability has decreased dramatically over the past few decades, placing it in the top 10 countries with the highest danger of water scarcity.<sup>5</sup> Following are some reasons of water scarcity in Pakistan:

## Agricultural Dependence

Pakistan's economy is based primarily on agriculture, which employs 42.3% of the labor force and accounts for about 19% of the country's GDP.6 Over 90% of the water resources available to the sector are used for irrigation, which makes it highly dependent on it.<sup>7</sup> Water waste is made worse by inefficient irrigation techniques and crops

<sup>&</sup>lt;sup>1</sup> https://www.outlookpakistan.com/water-crisis-in-pakistan-causes-effects/ Accessed November 10, 2023.

<sup>2</sup> WWF Pakistan. (2007). "Pakistan's Waters at Risk." Accessed November 10, 2023. http://www.wwfpak.org

<sup>3</sup> Laghari, A. N., Vanham, D., & Rauch, W. "The Indus Basin in the framework of current and future water resources management." Hydrology and Earth System Sciences, vol. 16, no. 4 (2012): 1063-1083.

<sup>&</sup>lt;sup>4</sup> Briscoe, J., & Qamar, U. "Pakistan's Water Economy: Running Dry." Oxford: Oxford University Press, 2005

<sup>&</sup>lt;sup>5</sup> Qureshi, A. S. "Water Management in the Indus Basin in Pakistan: Challenges and Opportunities." Mountain Research and Development vol. 31, no. 3 (2011): 252-260.

<sup>&</sup>lt;sup>6</sup> Pakistan Bureau of Statistics. "Labour Force Statistics,2020" Accessed November 10, 2023, http://www.pbs.gov.pk

<sup>&</sup>lt;sup>7</sup> Food and Agriculture Organization (FAO). "Aquastat: Pakistan, 2011" Accessed November 10, 2023, http://www.fao.org

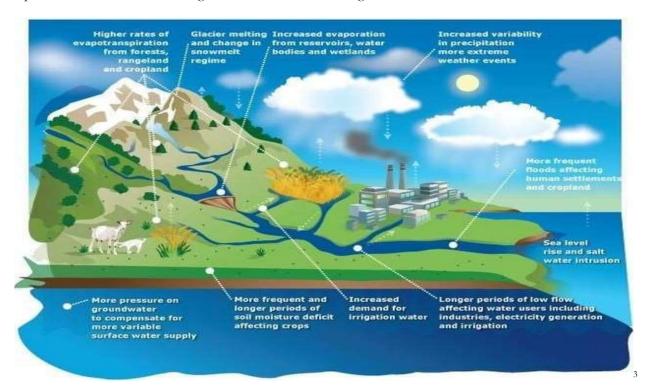
that require a lot of water. For this reason, putting into practice effective water management techniques—which the Prophet Muhammad (\*) advocated—is essential to guaranteeing food security and agricultural sustainability.

#### Urbanization and Population Growth

Pakistan's already scarce water resources are further taxed by the country's fast urbanization and population expansion. By 2030, there will likely be 245 million people on the planet, which will increase demand for water in cities for industrial, sanitation, and drinking purposes. The Sīrah's emphasis on conservation and fair distribution can serve as a template for modern water management strategies that efficiently solve urban water issues.

# **Climate Change Impact**

Pakistan's water resources are seriously threatened by climate change, which is changing precipitation patterns and making extreme weather events like floods and droughts more frequent.<sup>2</sup> Another major worry is the melting of the Himalayan glaciers, which supply water to the Indus River and may cause both temporary flooding and long-term water shortages. The environmental stewardship lessons found in the Sīrah can serve as an inspiration for adaptable tactics aimed at lessening the effects of climate change on water resources.



### Transboundary Water Issues

The Indus Waters Treaty, which regulates the flow of water between India and Pakistan, has caused conflict, especially as India is building dams upstream that impact the flow of water into Pakistan.<sup>4</sup> Islamic teachings on justice and collaboration can provide guidance for diplomatic initiatives and discussions aimed at securing a reasonable and equitable distribution of transboundary water resources.

### **Economic and Social Development**

The lack of water has a significant impact on Pakistan's social and economic advancement. The general quality of life, education, and public health all depend on having access to clean water. Policy formulation that tackles the

<sup>&</sup>lt;sup>1</sup> World Bank. "Pakistan @ 100: Shaping the Future." 2018 Accessed November 10, 2023, http://www.worldbank.org

<sup>&</sup>lt;sup>2</sup> Mustafa, D., & Wrathall, D. "Indus Basin Floods of 2010: Souring of a Faustian Bargain?" Water Alternatives, vol. 4, no. 1 (2011): 72-85.

<sup>&</sup>lt;sup>3</sup> https://pide.org.pk/research/impact-of-climate-change-on-water-in-pakistan/Accessed November 2023

<sup>&</sup>lt;sup>4</sup> Mustafa, D. "Hydro politics in Pakistan's Indus Basin." United States Institute of Peace. 2010

underlying causes of water-related issues and advances sustainable development can be aided by the Sīrah's teachings on the prudent use of resources and community welfare.<sup>1</sup>

In conclusion, Pakistan's reliance on agriculture, the challenges of urbanization, the effects of climate change, transboundary water disputes and the need for socioeconomic growth highlight the importance of water preservation in the modern day. To provide a sustainable future for Pakistan, the Sīrah offers insightful guidance and principles that can direct the creation and execution of efficient water management strategies.

### Steps taken by the government to address the problem

The Pakistani government has adopted several actions to ensure sustainable water usage and enhance management of water resources in response to the worsening water crisis. These programs cover a range of areas, such as public awareness campaigns, policy reforms and infrastructure development.

### **Development of Infrastructure**

To increase water storage capacity, the building of new reservoirs and the renovation of old ones have been given top priority. One of the major initiatives started by the government is the Diamer-Bhasha Dam, which is anticipated to add a large amount of storage capacity. The Mohmand Dam is also being built to supply water for power generating and irrigation. The goal of these initiatives is to lessen reliance on current reservoirs and lessen the effects of seasonal variations in water supply.<sup>2</sup>

### **Policy Reforms**

Approved in 2018, the National Water Policy (NWP) provides a thorough framework for managing the nation's water resources. It highlights the necessity of an integrated strategy to manage water resources, considering concerns like environmental sustainability, equitable distribution and water conservation. To decrease water loss and increase efficiency, the NWP

also emphasizes how critical it is to update the irrigation system.<sup>3</sup>

### **Water Conservation Programs**

Several water conservation initiatives have been introduced to encourage the effective use of water in home, industrial, and agricultural settings. Incentives have been implemented by the government to encourage the adoption of water-saving technology, like sprinkler and drip irrigation systems, which use a lot less water than conventional flood irrigation techniques.<sup>4</sup> In addition, public awareness initiatives about water conservation are periodically carried out.

#### Legal and Institutional Framework

The Pakistan Council of Research in Water Resources (PCRWR) was founded with the intention of advancing water resource management research and development. To provide crucial information for policy decisions, PCRWR carries out research on the availability, quality, and management practices of water.<sup>5</sup> In addition, the government has been attempting to enforce water pricing policies to discourage excessive use and encourage conservation.

# **Climate Change Adaptation**

The government has incorporated water management techniques into its National Climate Change Policy in recognition of the effects of climate change on water resources. This involves actions to save watersheds, increase rainwater gathering, and use water more efficiently. By using these tactics, water supplies will be more resilient to the effects of climate change, including modified precipitation patterns and glacier melting.<sup>6</sup>

<sup>1</sup> Khalid, F. "Islam and the Environment: Ethics and Practice." In Islam and Ecology: A Bestowed Trust, edited by R. Foltz, F. Denny, and A. Baharuddin. Cambridge, MA: Harvard University Press, 2002

<sup>&</sup>lt;sup>2</sup> Khan, S. "Pakistan's Water Crisis and the Way Forward." The Express Tribune. 2018 Accessed November 10, 2023, <a href="https://tribune.com.pk">https://tribune.com.pk</a>

<sup>&</sup>lt;sup>3</sup> Ministry of Water Resources. "National Water Policy." Government of Pakistan.2018. Accessed November 10, 2023, http://water.gov.pk

<sup>&</sup>lt;sup>4</sup> Ahmad, M., & Wasiq, M. "Water Management in Pakistan: Current Situation and Future Strategies." Pakistan Journal of Agricultural Sciences, vol. 55, no. 1 (2018): 1-10.

<sup>&</sup>lt;sup>5</sup> Pakistan Council of Research in Water Resources (PCRWR). (2019). "Annual Report 2018-19." Accessed November 10, 2023, http://pcrwr.gov.pk

<sup>&</sup>lt;sup>6</sup> Ministry of Climate Change. (2012). "National Climate Change Policy." Government of Pakistan. Accessed November 10, 2023, http://mocc.gov.pk

# **International Cooperation**

Regarding transboundary water issues, the government has collaborated both bilaterally and multilaterally, especially with India on the Indus Waters Treaty. There is an attempt to guarantee

that the treaty's requirements are carried out efficiently and to settle disagreements via

discussion and negotiation.1

To summarize, the Pakistani government has adopted a multimodal strategy to tackle the water crisis, emphasizing policy reforms, conservation efforts, infrastructural development and international collaboration. These are important steps, but their effectiveness also depends on how well they are implemented, how closely they are watched and how actively all stakeholders participate.

# Solutions in the Light of Sīrah

When it comes to tackling Pakistan's current water issues, the teachings and examples of the Prophet Muhammad (\*\*) provide timeless counsel on environmental care and water conservation. Many strategies to lessen water shortage and advance sustainable water management can be put forth by referencing the Sīrah.

Even in circumstances where there appears to be plenty of water, the Prophet Muhammad (\*) stressed the significance of conserving water. According to reports, he remarked:

"What is this extravagance?' He said: 'Can there be any extravagance in ablution?' He said: 'Yes, even if you are on the bank of a flowing river."<sup>2</sup>

This idea can be used to promote the use of water-saving methods in the home, workplace, and agricultural sectors. Promoting drip irrigation, for example and other effective irrigation techniques can greatly cut down on water waste in agriculture, which uses up most of Pakistan's water resources.

The equitable and just allocation of resources, especially water, is supported by Islamic teachings. As Holy Prophet (\*) said:

"The Muslims are partners in three things: water, pasture and fire, and their price is unlawful."3

This idea can serve as a guide for laws that guarantee all communities, especially the weaker and underprivileged ones, fair access to water. By putting in place community-based water management systems, local communities can be given more authority to distribute and manage water resources in a more just and efficient manner.

The Prophet Muhammad (\*) emphasized education and knowledge highly. Holy Prophet (\*) declared: "Seeking knowledge is a duty upon every Muslim."

Individual and community-level behavioral changes can be sparked by educating individuals about sustainable practices and increasing public awareness of the value of water conservation. A culture of conservation can be promoted through educational initiatives, workshops and the inclusion of water conservation themes in school, colleges and universities curricula.

The Sīrah emphasizes the significance of preserving the environment to honor and express gratitude to the Creator. Speaking from experience, the Prophet (\*) stated:

"There is none amongst the Muslims who plants a tree or sows seeds, and then a bird, or a person or an animal eats from it, but is regarded as a charitable gift for him."<sup>5</sup>

Promoting tree planting and reforestation can improve soil water retention, lessen runoff, and improve the ecosystem's general health. Together, governmental and non-governmental groups can carry out massive tree-planting campaigns.

Pakistan is rapidly becoming more urbanized, necessitating sustainable urban design that includes water management strategies. The Prophet (\*\*) advocated for balance and moderation in all facets of life. This idea can be used in urban design to guarantee the growth of green areas, rainfall collection systems and effective trash disposal techniques. By taking these steps, you may lessen the negative effects of urbanization on water supplies and encourage sustainable urban life.

Enhancing legal and institutional structures to safeguard water resources is consistent with the Islamic tenet of fairness and responsibility. Clear guidelines and norms were set by the Prophet (\*) to control the utilization of

<sup>&</sup>lt;sup>1</sup> Mustafa, D. "Hydro politics in Pakistan's Indus Basin." United States Institute of Peace. 2010

<sup>&</sup>lt;sup>2</sup> Ibn Mājah, Sunan Ibn Mājah, The Book of Purification and its Sunnah, Chapter: Concerning moderation in ablution and avoiding extravagance, (Riyadh: Dar-us-Salam, 1417 H), Hadith: 425.

<sup>&</sup>lt;sup>3</sup> Ibn Mājah, Sunan Ibn Mājah, The Book of Pawning, Chapter: The Muslims Are Partners in Three Things, Hadith: 2472.

<sup>&</sup>lt;sup>4</sup> Ibn Mājah, Sunan Ibn Mājah, The Book of Sunnah, Chapter: The Virtue of Scholars and Encouragement to Seek Knowledge, Hadith: 224.

<sup>&</sup>lt;sup>5</sup> Muhammad b. Isma'il al-Bukhari, al-Jami' al-Sahih, Book: Agriculture, Chapter: Sowing seeds and planting trees, (Riyadh: Dar-us-Salam, 1417 H), Hadith: 2320.

communal resources. These ideas can be used by contemporary legislators to create strong water laws and rules that guarantee sustainable extraction, stop pollution and punish offenders accountably. Governance and enforcement can both be strengthened by strengthening the capabilities of water management organizations.

In conclusion, the teachings of the Prophet Muhammad (\*\*) offer important perspectives on sustainable management and water conservation. Pakistan can better solve its water issues and move toward a sustainable future by incorporating these ideas into current water laws and practices.

#### Water Preservation in the Sīrah

The Sīrah, offers profound teachings on the preservation of water, reflecting a deep respect for this vital resource. The Prophet (\*\*) emphasized the importance of conservation and the responsible use of water, recognizing its critical role in sustaining life. His teachings provide timeless guidance on managing water resources sustainably. The Islamic ban against wastefulness is one of the main tenets of water conservation. The Quran forbids excess outright: "Verily, those who waste are the companions of the devils, and Satan has always been unthankful to his Lord" (Quran, 17:27). The teachings of the Prophet (\*\*) further bolster this idea. He advised not to waste water, even in situations where it appears to be abundant. He stated:

"What is this extravagance?' He said: 'Can there be any extravagance in ablution?' He said: 'Yes, even if you are on the bank of a flowing river."<sup>1</sup>

This hadith emphasizes the ethical need to conserve water by highlighting the need of using water mindfully in daily activities.

By his deeds, the Prophet (\*) also gave tangible examples of how to preserve water. One noteworthy instance is the way he performs ablution (wudu). He used a small quantity of water for ablution, estimated to be about one mudd, or roughly 0.6 liters. (Al-Bukhari, 198). This practice promoted the economical use of water during religious rites and created normative guidelines for the Muslim community in addition to setting a personal example.

The Prophet (\*\*) also promoted the preservation and safeguarding of water supplies. He orchestrated the acquisition of Rumah's well in Madinah, a well-recorded event that guaranteed the community's access to plentiful and pure water (Al-Bukhari, 2236). This act emphasizes the value of protecting water resources for the good of the community and the part that shared responsibility plays in resource management.

In Islamic law, the notion of public trust (amana) encompasses water resources as well. "Water, pasture and fire are the three things Muslims share in common," said the Prophet (\*) (Abu Dawood, 3478). The idea that water is a communal resource and ought to be managed for the good of the community is established by this hadith. It highlights our shared responsibility to safeguard and conserve water for present and future generations.

Pakistan's problems with water scarcity can be greatly helped by implementing these ideas into contemporary water management techniques. Pakistan should harmonize its water policy with the moral precepts of the Sīrah by promoting a culture of conservation, guaranteeing fair distribution and incorporating the community in resource management. This strategy encourages resilience and long-term sustainability in addition to addressing the current issues.

### Recommendations

Drawing from the Sīrah of the Prophet Muhammad (\*) and contemporary practices, the following recommendations are proposed to address water scarcity and promote sustainable water management in Pakistan:

- Launch nationwide campaigns to educate the public on the importance of water conservation. Use mass media, social media, and educational institutions to spread awareness.
- Increasing Water Supply through Recycling and Desalination
- Promote the adoption of efficient irrigation methods, such as drip irrigation and sprinkler systems, in the agricultural sector to reduce water wastage.
- Expand Both Local Level Surface and Groundwater Storage Capacity
- Reduce Demand for Water by Improving Water Use Efficiency and Efficient Groundwater Management
- Establish community water management committees to oversee the equitable distribution and sustainable use of local water resources.
- Strengthen existing water laws and regulations to ensure sustainable water extraction, prevent pollution and protect water resources.
- Integrate green infrastructure solutions, such as rain gardens, green roofs and permeable pavements, into urban planning to manage stormwater and reduce the impact of urbanization on water resources.

<sup>&</sup>lt;sup>1</sup> Ibn Mājah, Sunan Ibn Mājah, The Book of Purification and its Sunnah, Chapter: Concerning moderation in ablution and avoiding extravagance, Hadith: 425.

- Develop urban planning policies that incorporate sustainable water management practices, such as rainwater harvesting, wastewater recycling and the creation of green spaces.
- Foster collaboration between universities, research institutions, and industry to develop and implement sustainable water solutions.
- Participate in global water management initiatives and forums to learn from successful models and collaborate on transboundary water issues.

By integrating these recommendations, Pakistan can leverage the teachings of the Prophet Muhammad (\*) and contemporary best practices to address its water challenges and promote sustainable water management for future generations.

#### Conclusion

The preservation and utilization of water in Pakistan, viewed through the lens of the Sīrah, underscore the profound importance Islam places on environmental stewardship and resource management. The Prophet Muhammad's (\*\*) teachings place a strong emphasis on the prudent use of natural resources, supporting conservation, moderation and fair distribution. These ideas apply directly to the current water crisis in Pakistan, where problems with scarcity, poor management, and unequal access continue to exist. Pakistan may create more sustainable water management plans by taking up the Prophet's (\*\*) wise water-use practices, which include sparingly allocating water for different purposes and avoiding waste.

Moreover, the Sīrah's emphasis on community involvement and collective responsibility can inspire a cooperative approach to water preservation. Initiating a collaborative endeavor among local communities, religious authorities, and policymakers to preserve water supplies helps promote a mindset of ecological accountability and moral water management. To create a sustainable and balanced approach to water preservation and exploitation, the teachings of the Sīrah thereby offer a holistic framework for resolving Pakistan's water concerns, including spiritual, ethical and practical components.

#### References

- 1. Ahmad, M., and M. Wasiq. "Water Management in Pakistan: Current Situation and Future Strategies." Pakistan Journal of Agricultural Sciences 55, no. 1 (2018): 1-10.
- 2. Briscoe, J., and U. Qamar. Pakistan's Water Economy: Running Dry. Oxford: Oxford University Press, 2005.
- 3. Food and Agriculture Organization (FAO). "Aquastat: Pakistan, 2011." Accessed November 10, 2023. http://www.fao.org.
- 4. Food and Agriculture Organization (FAO). Community-based Water Management Programs. 2018. Accessed November 10, 2023. http://www.fao.org.
- 5. Ibn Mājah. Sunan Ibn Mājah. The Book of Purification and its Sunnah, Chapter: Concerning Moderation in Ablution and Avoiding Extravagance. Riyadh: Dar-us-Salam, 1417 H. Hadith: 425.
- 6. Ibn Mājah. Sunan Ibn Mājah. The Book of Pawning, Chapter: The Muslims Are Partners in Three Things. Hadith: 2472.
- 7. Ibn Mājah. Sunan Ibn Mājah. The Book of Sunnah, Chapter: The Virtue of Scholars and Encouragement to Seek Knowledge. Hadith: 224.
- 8. Khalid, F. "Islam and the Environment." In Encyclopedia of Global Environmental Change, USA: John Wiley & Sons Inc., 2002.
- 9. Khalid, F., and Z. Thani. Islam and the Environment: Ethics and Practice. Islamic Foundation, 2008.
- 10. Khalid, F. "Islam and the Environment: Ethics and Practice." In Islam and Ecology: A Bestowed Trust, edited by R. Foltz, F. Denny, and A. Baharuddin. Cambridge, MA: Harvard University Press, 2002.
- 11. Khan, S. "Pakistan's Water Crisis and the Way Forward." The Express Tribune. 2018. Accessed November 10, 2023. https://tribune.com.pk.
- 12. Laghari, A. N., D. Vanham, and W. Rauch. "The Indus Basin in the Framework of Current and Future Water Resources Management." Hydrology and Earth System Sciences 16, no. 4 (2012): 1063-1083.
- 13. Ministry of Climate Change. "National Climate Change Policy." Government of Pakistan, 2012. Accessed November 10, 2023. http://mocc.gov.pk.
- 14. Ministry of Water Resources. "National Water Policy." Government of Pakistan, 2018. Accessed November 10, 2023. http://water.gov.pk.
- 15. Muhammad b. Isma'il al-Bukhari. al-Jami' al-Sahih. Book: Agriculture, Chapter: Sowing Seeds and Planting Trees. Riyadh: Dar-us-Salam, 1417 H. Hadith: 2320.
- 16. Mustafa, D. "Hydro Politics in Pakistan's Indus Basin." United States Institute of Peace, 2010.
- 17. Mustafa, D. "Hydro Politics in Pakistan's Indus Basin." United States Institute of Peace, 2010.
- 18. Mustafa, D., and D. Wrathall. "Indus Basin Floods of 2010: Souring of a Faustian Bargain?" Water Alternatives 4, no. 1 (2011): 72-85.

- 19. Pakistan Bureau of Statistics. "Labour Force Statistics, 2020." Accessed November 10, 2023. http://www.pbs.gov.pk.
- 20. Pakistan Council of Research in Water Resources (PCRWR). "Annual Report 2018-19." Accessed November 10, 2023. http://pcrwr.gov.pk.
- 21. Pakistan Council of Research in Water Resources (PCRWR). National Water Quality Monitoring Program. 2017. Accessed November 10, 2023. http://www.pcrwr.gov.pk.
- 22. Quran, 21:30.
- 23. Qureshi, A. S. "Water Management in the Indus Basin in Pakistan: Challenges and Opportunities." Mountain Research and Development 31, no. 3 (2011): 252-260.
- 24. Qureshi, A. S. "Water Management in the Indus Basin in Pakistan: Challenges and Opportunities." Mountain Research and Development 31, no. 3 (2011): 252-260.
- 25. World Bank. "Pakistan @ 100: Shaping the Future." 2018. Accessed November 10, 2023. http://www.worldbank.org.
- 26. WWF Pakistan. "Pakistan's Waters at Risk." 2007. Accessed November 10, 2023. http://www.wwfpak.org.
- 27. https://pide.org.pk/research/impact-of-climate-change-on-water-in-pakistan/. Accessed November 2023.
- 28. https://www.outlookpakistan.com/water-crisis-in-pakistan-causes-effects/. Accessed November 10, 2023.