



DECEMBER 2024

# Five-Year Strategy for CAREC WASH Centre



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# Executive Summary

The CAREC Virtual WASH Centre is an initiative among the CAREC Institute, UNICEF, and the Asian Development Bank (ADB) to enhance water, sanitation, and hygiene (WASH) services in the Central Asia Regional Economic Cooperation (CAREC) countries. The Centre aims to address the critical WASH challenges faced by the region, including inadequate access to WASH services, outdated infrastructure, and the impact of climate change etc.

Its vision is to develop a collaborative, innovative, and knowledge-rich environment across CAREC member countries, with open access to quality WASH services. Its mission is to facilitate CAREC member countries to achieve excellence in climate-resilient and inclusive WASH services through knowledge sharing, technological innovation, and best practices.

The Centre's proposed work pillars include:

- An intelligent database for technical resources on WASH and climate change.
- A page to display granular and up-to-date data of climate-resilient WASH performance indicators tailored for the region.
- A platform for showcasing and procuring innovative and replicable WASH technologies as well as WASH emergency supplies.
- A platform for sharing funding, procurement, and project collaboration opportunities in the region.
- A hub for acquiring regionally recognized training and certificates.
- A venue for facilitating policy dialogs and sectoral policymaking.

These pillars leverage public and private stakeholders' expertise, resources, and innovation to address the various challenges in the WASH sector. The Centre will provide training and certification and present visualized data for climate-resilient WASH, essential for building WASH capacity in the CAREC region. It will also demonstrate materials and information on databases, policy dialogs, project collaboration, and funding opportunities, fostering south-south and triangular collaboration and sustainable development.

Establishing this Centre is essential to addressing the WASH challenges and promoting sustainable development in the region. It is aligned with the CAREC 2030 Strategy, the 2030 Agenda for Sustainable Development, and the ADB and UNICEF's WASH and climate strategies. The Centre's work priorities emphasize the importance of policy harmonization, capacity building, regional cooperation, infrastructure development, human development, research and innovation, and environmental sustainability in achieving the shared goals of the CAREC program.

The CAREC Virtual WASH Centre is positioned to fulfill its proposed mission, building upon the foundation established by the CAREC Institute and its partners. This comprehensive collaboration will enable the Centre to advance its mission and make it possible to be a key element for a healthier, more resilient future in the CAREC region.

# Chapter I.

## Overview of the CAREC WASH Centre

### 1.1 Project background

Once again, the COVID-19 pandemic has revealed the importance of water, sanitation, and hygiene (WASH) services to public health security, especially the critical role of accessible hygiene facilities and proper handwashing behavior in preventing the spread of infectious diseases like COVID-19. In the Central Asia Regional Economic Cooperation (CAREC) countries, there are still areas with inadequate access to WASH services, and the pandemic encouraged community engagement and participation in the promotion of WASH practices. Communities came together to implement measures such as building handwashing stations, distributing hygiene kits, and conducting awareness campaigns to educate people about the importance of WASH in preventing the spread of disease.

In 2020, the CAREC Institute and UNICEF initiated a project titled ‘Development of the Sustainable Water and Sanitation Systems in the CAREC Region’ to understand and evaluate the extent and specifics of WASH issues in the region. The project found strong governmental support for enhancing water supply, sanitation, and hygiene services. The countries have implemented several ongoing WASH projects with support from governments and international partners. Nonetheless, complete access to WASH services has yet to be achieved, particularly in rural areas. Outdated infrastructure is a significant challenge, with some water and sanitation systems dating back to the Soviet era, particularly in Tajikistan and Uzbekistan. WASH in healthcare facilities fell short of WHO and national standards in some countries. Accessible WASH services—particularly in primary care settings—are crucial for maintaining quality, equity, and dignity in healthcare.

The COVID-19 response has underscored the need for robust policies, standards, budgets, and monitoring systems for WASH. There are staff shortages and training gaps in WASH and infection prevention and control (IPC), as well as a lack of coordination and leadership within and across countries in the Central Asia region regarding WASH in healthcare facilities, schools, and other social infrastructures.

To address these challenges, the report helped to highlight important aspects of the WASH systems for the CAREC region:

- CAREC countries need a **knowledge-sharing infrastructure** to support the proper level of institutional management, and knowledge support for the development of the WASH systems in member countries.
- The development of **long-term strategic vision** and plans for the development of water supply and sanitation in cities and in rural settlements in CAREC countries both require sustainable financing solutions.
- Compliance with legal provisions and the regulatory environment for WASH systems requires **easily accessible** mechanisms of subsidizing compliance, including tax incentives and the involvement of the private sector in the WASH development projects.
- A **knowledge gap** about the hygienic, technological, economic, and environmental aspects of WASH needs to be addressed via capacity-building programs for governments as well as multilateral and bilateral agencies.

These proposed interventions should be developed to enhance WASH capacity through knowledge exchange, capacity building, and dissemination of best practice for the CAREC region through a virtual WASH center (hereafter, ‘the Centre’) tailored for the region as the first step of the five-year WASH capacity enhancement plan for the region.

The CAREC Institute, supported by the Asian Development Bank (ADB) technical assistance (TA) project 55287-001, has partnered with UNICEF to establish the Virtual CAREC WASH Centre. This initiative is designed to

strengthen WASH systems throughout the CAREC countries. The CAREC Virtual WASH Centre will act as a pivotal platform for knowledge exchange, capacity building, and the dissemination of best practice in WASH initiatives. This collaborative effort involves UNICEF, the ADB, and the CAREC Institute, leveraging their collective expertise and resources to enhance WASH infrastructure and services across the region.

## 1.2 Vision, mission, and guiding principles of the Centre

### 1. Vision

The vision of the CAREC WASH Centre is to cultivate a collaborative, innovative, and knowledge-rich environment across CAREC countries, with access to universal high-quality WASH services. The Centre—under the partnership of the ADB, UNICEF, and the CAREC Institute—aspires to be a leading hub for sharing expertise, advancing best practice, and fostering sustainable solutions that benefit individuals, institutions, and communities in the CAREC region.

### 2. Mission

The mission of the Centre is to empower CAREC countries to achieve excellence in climate-resilient and inclusive WASH services through the promotion of systems strengthening, knowledge sharing, technological innovation, and best practice. By facilitating the sharing of know-how and data, partnerships among stakeholders, providing targeted capacity-building programs, and championing sustainable approaches, the Centre aims to strengthen WASH systems across the region and improve the health and well-being of all citizens, particularly children, women and the vulnerable.

### 3. Guiding principles

- **Collaborative knowledge sharing**

The Centre will facilitate the exchange of solutions and experiences across the CAREC countries and beyond. It aims to bridge and support the knowledge transfer among the People's Republic of China and other CAREC countries, thereby facilitating cross-country collaboration and learning.

- **Innovative mitigation and adaptable solutions in the context of climate change**

The Centre promotes the adoption of cutting-edge technologies and evidence-based approaches to tackle WASH challenges. It encourages adaptability to local contexts and supports creative solutions tailored to the needs of individual countries.

- **Targeted capacity building**

The Centre offers customized training programs and workshops to empower WASH policymakers, practitioners, and civil society organizations. These initiatives aim to enhance their capacity, skills, and knowledge to provide more climate-resilient, cost-effective, and inclusive WASH services.

- **Inclusive multisectoral engagement and partnerships**

The Centre convenes diverse stakeholders in this sector—including governments, academia, civil society, private sectors, development banks, and foundations—as well as end users including children and youths. This collaborative approach fosters holistic and comprehensive solutions for evolving WASH challenges. These partnerships will also ensure knowledge products contribute to long-term investment and benefits for children and vulnerable groups in the CAREC countries.

- **Data-driven and evidence-based decision making**

The Centre supports the collection and analysis of data, and documentation of evidence from pilots to inform decision-making processes, guide interventions, and assess the effectiveness of WASH programs. By using evidence-based approaches, the Centre supports member countries in enhancing the impact and sustainability of WASH initiatives.

By adhering to these guiding principles, the CAREC WASH Centre seeks to pave the way for a healthier, more sustainable future for the CAREC region through robust and climate-resilient WASH systems.

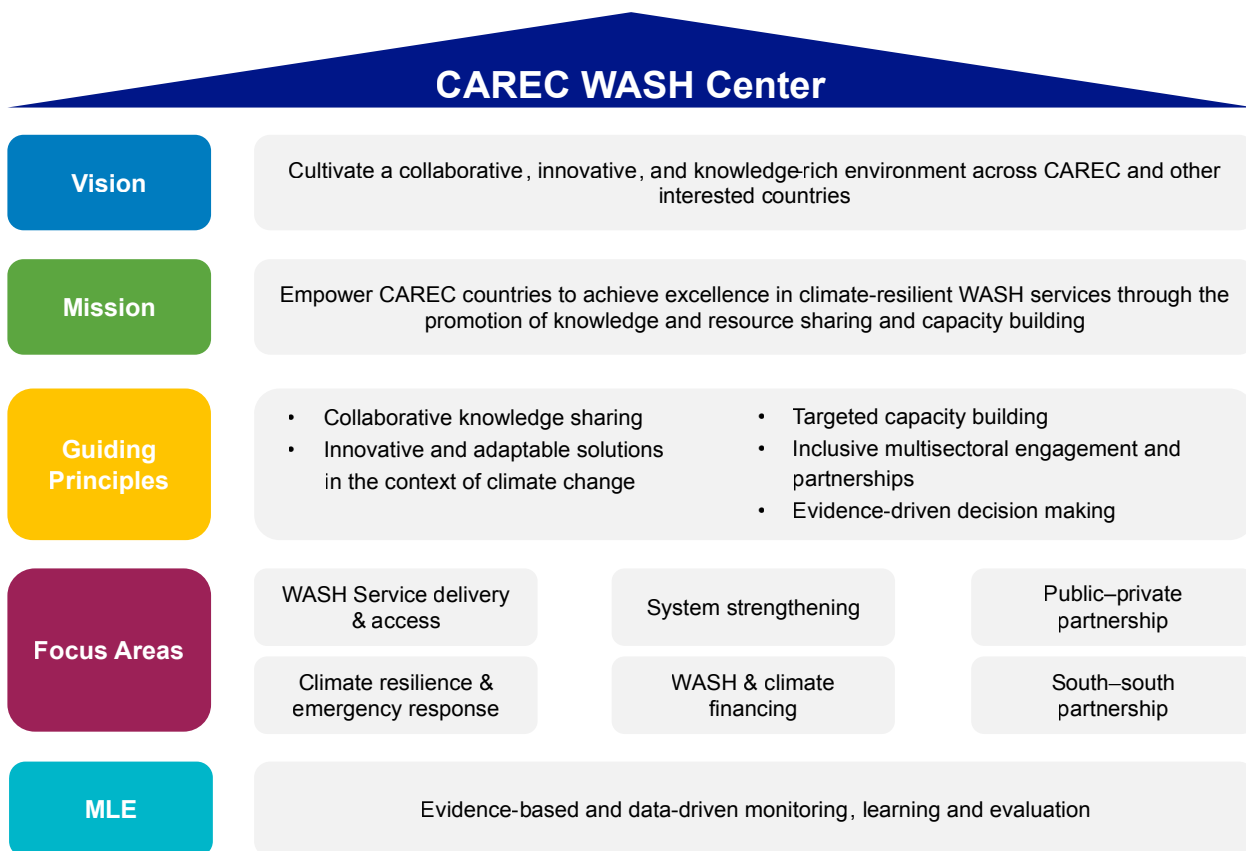


Figure 1.1 Strategic framework of WASH Centre for the CAREC region

### 1.3 Definition of the UNICEF-ADB-CAREC partnership for the Centre

The partnership between UNICEF, the Asian Development Bank (ADB), and the CAREC Institute aims to establish a virtual CAREC WASH center to enhance knowledge sharing, capacity building, and the dissemination of best practices related to water, sanitation, hygiene, and health (WASH) in the CAREC countries. This collaborative effort leverages the expertise, resources, and networks of the three organizations to address the critical WASH challenges faced by the region.

The Centre will serve as a virtual hub for promoting best WASH practices in multiple languages (English, Russian, and Chinese) and facilitating knowledge exchange between the People's Republic of China and Central Asian countries. It will also draw on the extensive experience of UNICEF and the ADB in implementing WASH projects in the region, as well as the CAREC Institute's research-based approaches.

The virtual Centre will be integrated into the CAREC Institute's e-learning platform and virtually hosted by the CAREC Institute, with the secretariat based at the Institute's headquarters in China. The secretariat will play a crucial role in managing the Centre's operations, including content curation, data collection, and organizing training and workshops.

Through this comprehensive partnership, UNICEF, the ADB, and the CAREC Institute aim to create a transformative impact on the WASH sector across the CAREC countries, fostering sustainable development and improving public health and well-being.

# Chapter II.

## Proposed work pillars of the CAREC WASH Centre

The CAREC countries face numerous challenges in their efforts to enhance their WASH systems. Through consultations with WASH stakeholders from CAREC countries, the lack of targeted WASH knowledge was mentioned frequently by stakeholders as one of the main challenges in their countries. In a survey distributed to government, academic, and NGO stakeholders in the CAREC countries in March 2024,<sup>1</sup> 27 percent of respondents found that ‘conflicts between different sources of information,’ outdated information, and ‘information was too brief or general’ were the main challenges they had when seeking WASH information. On the other hand, when asked what challenges they had obtaining training or education on WASH-related technical skills, 31 percent said they’ve never received an invitation for training, 17 percent said they don’t know where to access training, and 19 percent said the training they received was not relevant to their region/situation.

In consultation meetings with stakeholders, many expressed that it would be helpful to have channels to enable them to learn about climate-resilient, innovative, and cost-effective WASH strategies, technologies, and the successes and failures of other countries. A mechanism that would enable resource sharing, collaboration, and capacity development was also frequently mentioned when discussing priorities and potential solutions to the challenges. WASH financing; technology; service delivery strategy; climate-resilient WASH; and monitoring and evaluation (M&E) were identified as high priority technical areas by the survey participants from the target countries.

### 2.1 Work pillars of the Centre

While the Centre was built with preliminary features—including storing and presenting WASH knowledge materials, training materials, and enabling a targeted search for such materials—it is recommended that the Centre should include more features and functions to better serve its mission and achieve its vision. After the survey and consultation with local stakeholders and international experts, the following features were proposed to be included in the five-year development plan of the Centre:

- An intelligent database for technical resources on WASH and climate change.
- A page to display granular and up-to-date data of climate-resilient WASH performance indicators tailored for the region.
- A platform for showcasing and procuring innovative and replicable WASH technologies as well as WASH emergency supplies.
- A platform for sharing funding, procurement, and project collaboration opportunities in the region.
- A hub for acquiring regionally recognized training and certificates.
- A venue for facilitating policy dialogs and sectoral policymaking.

The features of the Centre described earlier are, of course, dependent on sufficient financial and human resources for their execution. To achieve the Centre’s vision and mission, a theory of change exercise was conducted as outlined in Figure 2.6.

<sup>1</sup> Please see the full English survey here: [https://forms.microsoft.com/Pages/DesignPageV2.aspx?subpage=design&token=da2edf0504b642d88ab4c359731ab-425&id=9Ki43LOBt0mbwpzKavDuv\\_a9GS0uhq5CmFvGUJRdSEpUOTJYMIIHQIUGNU1OWIBNUzZSSUEwR1UxQy4u](https://forms.microsoft.com/Pages/DesignPageV2.aspx?subpage=design&token=da2edf0504b642d88ab4c359731ab-425&id=9Ki43LOBt0mbwpzKavDuv_a9GS0uhq5CmFvGUJRdSEpUOTJYMIIHQIUGNU1OWIBNUzZSSUEwR1UxQy4u)

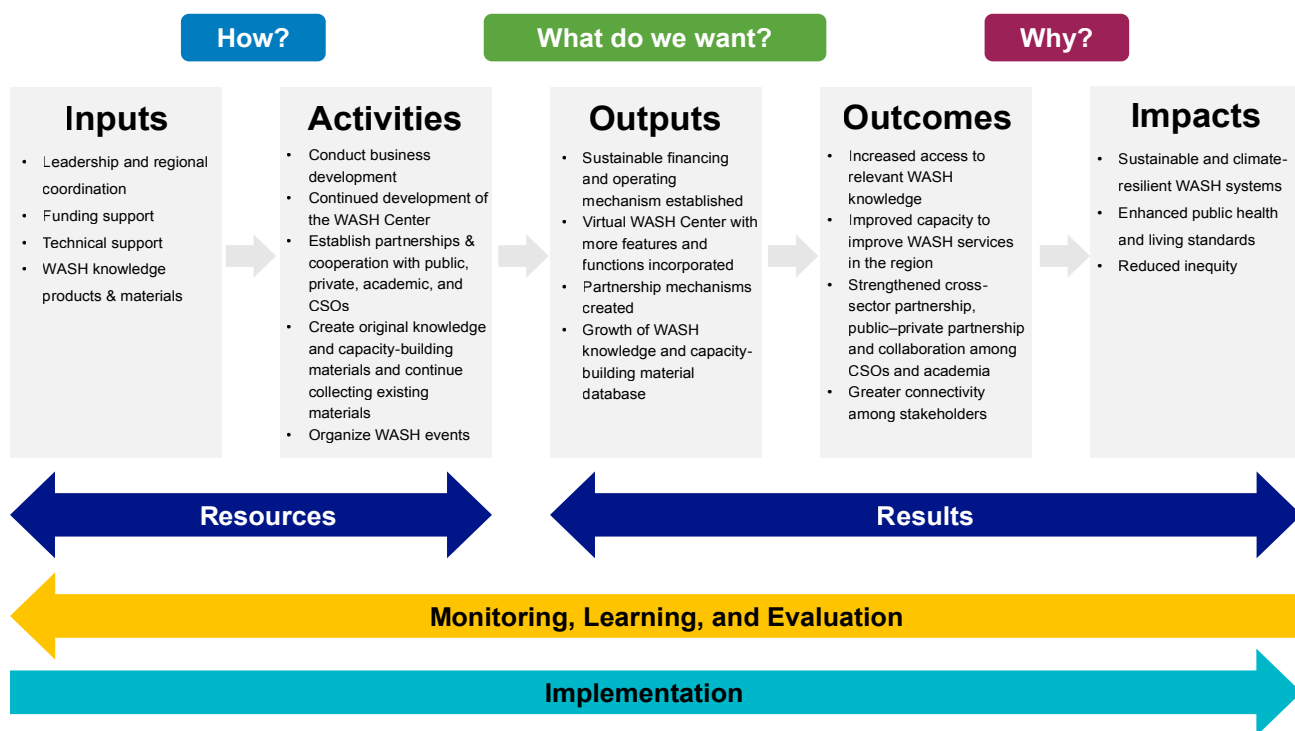


Figure 2.6 Theory of change of the proposed work pillars

**Inputs**

- Leadership and regional coordination from the CAREC Institute through its existing coordination mechanism with CAREC member countries.
- Further building upon the partnerships of UNICEF, the ADB, and the CAREC Institute to establish a sustainable financing mechanism and long-term financing strategy.
- Technical support—including strategic planning; implementation; and monitoring, learning, and evaluation (MLE)—from Vital Strategies.
- Existing and new knowledge products and other materials on WASH from partner networks and Vital Strategies.

**Activities**

- Conduct business development with philanthropic organizations, private sector donors, and other interested parties to sustain the Centre financially.
- Continue to develop the IT structure of the Centre by building in more functions and features.
- Liaise with CAREC member country governments, development partners, CSOs, and private sector partners for resource sharing, knowledge contribution, dissemination, and collaboration through the Centre. This will include standards of practice or guidelines agreed by member countries.
- Develop targeted knowledge materials—such as, best practice; WASH performance indicators tailored for the region; and WASH training toolkits and targeted programs for institutions, businesses, and practitioners.
- Continue to identify, gather, and document existing WASH knowledge materials and WASH data for import into the Centre.
- Organize events such as south–south knowledge-sharing workshops to enhance partnerships and promote technical exchange.



**Outputs**

- Sustainable financing and operating mechanism established.
- Virtual WASH Centre with more features and functions incorporated.
- Partnership mechanisms created.
- Growth of WASH knowledge and capacity-building material database.

**Outcomes**

- Increased access to relevant WASH knowledge.
- Improved capacity to improve WASH services in the region.
- Strengthened cross-sector partnership, public–private partnership and collaboration among CSOs and academia.
- Greater connectivity among stakeholders.

**Impact**

- Sustainable and climate-resilient WASH systems.
- Enhanced public health and living standards.
- Reduced inequity and inclusiveness for children, women, and other vulnerable members of the population.

The proposed work pillars are crucial for leveraging the collective expertise, resources, and innovation of both public and private stakeholders to address the multifaceted challenges in the WASH sector. Providing training, certification, and presenting visualized data for climate-resilient WASH is essential for building WASH capacity in the CAREC region. Presenting materials and information on databases, policy dialogs, project collaboration, and funding opportunities underscores the Centre's commitment to fostering south–south and triangular col-laboration as well as sustainable development. Showcasing innovative and climate-resilient WASH technologies and facilitating the supply and purchase of WASH products and services will highlight its focus on engaging the private sector as a key partner in achieving WASH goals by fostering an environment conducive to private sector participation.

These proposed work pillars are strategically positioned to address critical WASH challenges in the region in the context of climate change, aligning with the CAREC 2030 Strategy, the 2030 Agenda for Sustainable Development, as well as the ADB and UNICEF's WASH and climate strategies, as laid out in Table 2.1 and elaborated upon in Tables 2.2–2.5. Details about each proposed feature's functional description, justification, and use are elaborated in Chapter III.

Table 2.1 How our proposed work pillars align with CAREC, ADB, and UNICEF's strategies

Work pillars	Alignment of the CAREC, ADB, and UNICEF strategies <sup>2345</sup>
An intelligent database for technical resources on WASH and climate change	<ul style="list-style-type: none"> <li>• CAREC 2030 operational priorities (v): Human development.</li> <li>• CAREC 2021-2025 strategic priorities (1.1): Adherence to the mission and guiding principles.</li> <li>• ADB 2030 strategy operational priorities (A): Addressing remaining poverty and reducing inequalities.</li> <li>• UNICEF strategic plan 2022-2025 change strategies (3): Data, research, evaluation, and knowledge management.</li> </ul>

2 Central Asia Regional Economic Cooperation Program, CAREC 2030 Connecting the Region for Shared and Sustainable Development, 2017. <https://www.adb.org/sites/default/files/institutional-document/383241/carec-2030.pdf>

3 Central Asia Regional Economic Cooperation Program, CAREC Institute Strategy 2021-2025, 2022. <https://www.carecinstitute.org/wp-content/uploads/2022/03/CAREC-Institute-Strategy-2021-2025.pdf>

4 Asian Development Bank, ADB Strategy 2030, 2018. <https://www.adb.org/sites/default/files/institutional-document/435391/strategy-2030-main-document.pdf>

5 United Nations International Children's Emergency Fund, UNICEF Strategic Plan 2022–2025, 2022. <https://www.unicef.org/media/115646/file/Strategic%20Plan%202022-2025%20publication%20English.pdf>

Work pillars	Alignment of the CAREC, ADB, and UNICEF strategies <sup>2345</sup>
A page to display granular and up-to-date data of climate-resilient WASH performance indicators tailored for the region	<ul style="list-style-type: none"> <li>• CAREC 2030 operational priorities (iv): Agriculture and water.</li> <li>• CAREC 2021-2025 strategic priorities (3.7): Adoption of digital approaches.</li> <li>• ADB 2030 strategy operational priorities (C): Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability.</li> <li>• ADB 2030 strategy operational priorities (D): Making cities more livable.</li> <li>• UNICEF strategic plan 2022-2025 change strategies (3): Data, research, evaluation, and knowledge management.</li> </ul>
A platform for showcasing and procuring innovative and replicable WASH technologies as well as WASH emergency supplies	<ul style="list-style-type: none"> <li>• CAREC 2030 operational priorities (i): Economic and financial stability.</li> <li>• CAREC 2021-2025 strategic priorities (3.4): Adopting an innovative knowledge management approach.</li> <li>• ADB 2030 strategy operational priorities (C): Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability.</li> <li>• UNICEF strategic plan 2022-2025 Change strategies (6): Innovation (7): Digital transformation.</li> </ul>
A platform for sharing funding, procurement, and project collaboration of opportunities in the region	<ul style="list-style-type: none"> <li>• CAREC 2030 operational priorities (i): Economic and financial stability.</li> <li>• CAREC 2021-2025 strategic priorities (3.5): Improving partnerships and network.</li> <li>• ADB 2030 strategy operational priorities (G): Fostering regional cooperation and integration.</li> <li>• UNICEF strategic plan 2022-2025 change strategies (7): Partnerships and engagement: public and private.</li> </ul>
A hub for acquiring regionally recognized training and certificates	<ul style="list-style-type: none"> <li>• CAREC 2030 operational priorities (v): Human development.</li> <li>• CAREC 2021-2025 strategic priorities (3.3): Revitalizing capacity building approach—developing an e-learning platform.</li> <li>• ADB 2030 strategy operational priorities (A): Addressing remaining poverty and reducing inequalities.</li> <li>• UNICEF strategic plan 2022-2025 change strategies (9): System strengthening to <i>leave no one behind</i>.</li> </ul>
A venue for facilitating policy dialogs and sectoral policymaking	<ul style="list-style-type: none"> <li>• CAREC 2030 operational priorities (i): Economic and financial stability.</li> <li>• CAREC 2021-2025 strategic priorities (3.4): Adopting an innovative knowledge management approach.</li> <li>• ADB 2030 strategy operational priorities (F): Strengthening governance and institutional capacity.</li> <li>• UNICEF strategic plan 2022-2025 change strategies (1): Advocacy and communications.</li> </ul>

## 2.2 Relevance to the 2030 Agenda and Sustainable Development Goals

The proposed work pillars of the WASH Centre are aligned with the 2030 Agenda for Sustainable Development and the associated Sustainable Development Goals (SDGs),<sup>6</sup> which ensures a comprehensive and integrated approach to the WASH system strengthening in the CAREC region, contributing not only to SDG 6 (clean water and sanitation), but also SDG 1 (no poverty), SDG 3 (good health and well-being), SDG 9 (industry, innovation, and infrastructure), SDG 10 (reduced inequalities), SDG 11 (sustainable cities and communities), SDG 12 (responsible consumption and production), SDG 13 (climate action), and SDG 17 (partnerships for the goals). Table 2.2 summarizes the relevance of the Centre’s proposed work pillars towards SDGs.

6 United Nations, The 17 Sustainable Development Goals, 2015, <https://sdgs.un.org/goals>

Table 2.2 WASH Centre priorities and corresponding SDGs

Corresponding SDG targets	Relevance
<b>SDG 1: No poverty</b>	
SDG 1.4: Equal rights to ownership, basic services, technology, and economic resources	By facilitating the exchange of solutions and experiences, the WASH Centre helps bridge the knowledge gap, particularly between the People's Republic of China and other CAREC countries. This enables communities to implement effective WASH practices, ensuring that the poor and vulnerable have access to essential services that improve their quality of life and help lift them out of poverty. Additionally, the emphasis on data collection and evidence-based decision making will ensure that WASH interventions are effective and resources are used efficiently. By improving the effectiveness of WASH programs, the Centre will help reduce the economic burden on poor communities and enhance their resilience to economic and environmental shocks.
SDG 1.5: Build resilience to environmental, economic, and social disasters	By promoting innovative and adaptable solutions tailored to local contexts, the Centre helps communities mitigate the impacts of climate change on WASH services, which will reduce the vulnerability of poor populations to environmental shocks, protecting their health and livelihoods and preventing them from falling deeper into poverty.
SDG 1.6: Mobilize resources to implement policies to end poverty	Capacity-building programs and workshops empower WASH policymakers, practitioners, and civil society organizations with the skills and knowledge to provide cost-effective, climate-resilient, and inclusive WASH services. This will strengthen local capacities and support sustainable development, which is crucial for poverty reduction.
SDG 1.7: Create pro-poor and gender-sensitive policy frameworks	By fostering partnerships among diverse stakeholders, the Centre ensures that WASH initiatives are inclusive and comprehensive, addressing the needs of the poor and vulnerable. These partnerships will encourage investment in WASH infrastructure and services, promoting economic development and poverty reduction.
<b>SDG 3: Good health and well-being</b>	
SDG 3.3: Fight communicable diseases	Promoting innovative and adaptable WASH solutions helps combat water-borne diseases and other health risks. By ensuring that WASH systems are resilient and adaptable, the Centre will help reduce incidences of disease and protect public health, particularly in vulnerable communities.
SDG 3.8: Achieve universal health coverage	By fostering partnerships among governments, academia, civil society, and the private sector, the Centre ensures comprehensive and inclusive WASH initiatives that contribute to universal health coverage. Collaboration among diverse stakeholders will enhance the quality and accessibility of WASH services, which are essential for public health.
SDG 3.9: Reduce illnesses and death from hazardous chemicals and pollution	Emphasizing data collection and evidence-based decision making will help identify health risks and monitor the effectiveness of WASH interventions. Reliable data informs targeted actions to reduce water and sanitation-related health risks, thereby enhancing the overall impact on public health.
SDG 3.C: Increase health financing and support health workforce in developing countries	The Centre's capacity-building and training programs for WASH professionals and stakeholders will strengthen the health workforce's ability to manage WASH services effectively. Enhanced skills and knowledge among healthcare providers will also contribute to better health outcomes and improved WASH service delivery.
<b>SDG 6: Clean water and sanitation</b>	
SDG 6.1: Safe and affordable drinking water	Promoting innovative and adaptable WASH solutions helps ensure continuous access to safe water and sanitation, even under the pressures of climate change. The Centre's priorities will address both water supply and sanitation challenges, ensuring sustainable and resilient WASH systems that can adapt to changing environmental conditions.
SDG 6.2: End open defecation and provide access to sanitation and hygiene	

Corresponding SDG targets	Relevance
SDG 6.3: Improve water quality, wastewater treatment and safe reuse	Emphasizing data collection and evidence-based decision making supports effective water and sanitation management. By monitoring water quality, usage, and sanitation practices, the Centre will ensure that interventions are efficient, sustainable, and tailored to the specific needs of communities, ultimately improving water use efficiency and quality.
SDG 6.4: Increase water-use efficiency and ensure freshwater supplies	
SDG 6.5: Implement integrated water resources management	The Centre engaging diverse stakeholders—including governments, academia, civil society, and the private sector—will ensure comprehensive and integrated approaches to WASH management.
SDG 6.7: Expand water and sanitation support to developing countries	Capacity-building programs will empower WASH policymakers, practitioners, and civil society organizations with the skills and knowledge needed to provide effective and sustainable WASH services.
SDG 6.8: Support local engagement in water and sanitation management	The Centre facilitates the exchange of best practice and solutions among CAREC countries, promoting community involvement in water, hygiene, and sanitation management. By sharing knowledge and experiences, the Centre will help local communities enhance their capacities and management.
<b>SDG 9: Industry, innovation, and infrastructure</b>	
SDG 9.1: Develop sustainable, resilient, and inclusive infrastructures	Engaging diverse stakeholders in WASH initiatives will ensure the development of high-quality, reliable, and sustainable infrastructure.
SDG 9.4: Upgrade all industries and infrastructures for sustainability	The Centre will promote innovative and adaptable WASH solutions that align with the goal of upgrading and retrofitting infrastructure to be sustainable and resilient. Adopting clean technologies and practices will ensure WASH infrastructure can withstand the impact of climate change, enhancing its sustainability.
SDG 9.5: Enhance research and upgrade industrial technologies	The Centre supports the exchange of scientific knowledge and technological innovations related to WASH, which will enhance the technological capabilities within the WASH sector, encouraging innovation and improving infrastructure development.
SDG 9.6: Facilitate sustainable infrastructure development for developing countries	Capacity-building programs empower WASH professionals with the skills and knowledge needed to develop and maintain resilient infrastructure. The Centre will provide technical support and training, ensuring that WASH systems are robust, efficient, and capable of supporting sustainable development.
<b>SDG 10: Reduced inequalities</b>	
SDG 10.2: Promote universal social, economic, and political inclusion	Innovative WASH solutions that adapt to local contexts will help ensure that marginalized and vulnerable populations have access to safe water and sanitation. By addressing the specific needs of these groups, the Centre will promote their social and economic inclusion, helping to reduce inequalities of outcomes in the WASH sector. Additionally, collecting and analyzing disaggregated data will help identify disparities in WASH access and outcomes. Evidence-based decision making ensures that interventions are targeted to reduce these disparities, promoting equal opportunities and reducing inequalities in WASH services.
SDG 10.3: Ensure equal opportunities and end discrimination	
<b>SDG 11: Sustainable cities and communities</b>	
SDG 11.6: Reduce the environmental impact of cities	By addressing the environmental impacts of urbanization and improving the planning and management of urban WASH systems, such as waste management and water quality, the Centre will promote sustainable and resilient cities.

Corresponding SDG targets	Relevance
SDG 11.8: Strong national and regional development planning	The Centre will facilitate the sharing of best practice and solutions among CAREC countries, fostering collaboration between urban, peri-urban, and rural areas.
<b>SDG 12: Responsible consumption and production</b>	
SDG 12.2: Sustainable management and use of natural resources	Promoting innovative and adaptable WASH solutions will contribute to the sustainable management and efficient use of water resources. By adopting sustainable practices in water and sanitation provision, the Centre will support responsible consumption and production patterns.
SDG 12.4: Responsible management of chemicals and waste	Engaging diverse stakeholders will promote the adoption of sustainable practices in WASH operations and waste management. By fostering partnerships and collaboration, the Centre contributes to the environmentally sound management of water and sanitation resources.
<b>SDG 13: Climate action</b>	
SDG 13.2: Integrate climate change measures into policies and planning	Engaging diverse stakeholders promotes the integration of climate change measures into WASH policies and planning processes. By fostering multisectoral partnerships, the Centre ensures that climate change considerations are mainstreamed into decision making about water, hygiene, and sanitation.
<b>SDG 17: Partnerships for the goals</b>	
SDG 17.6: Knowledge sharing and cooperation for access to science, technology, and innovation	The Centre facilitates knowledge sharing among CAREC countries and beyond, fostering regional and international cooperation on WASH issues. By promoting south–south and triangular collaboration and establishing partnership mechanisms to facilitate effective collaboration between governments, the private sector, and civil society in implementing WASH initiatives, the Centre will encourage effective and inclusive partnerships and achieve sustainable WASH goals. Engaging diverse stakeholders in WASH initiatives promotes multistakeholder partnerships that mobilize resources and expertise to support SDG implementation. By fostering inclusive engagement, the Centre will strengthen the global partnership for sustainable development, advancing progress on WASH goals.
SDG 17.16: Enhance the global partnership for sustainable development	
SDG 17.17: Encourage effective partnerships	
SDG 17.9: Enhance SDG capacity in developing countries	The Centre will empower WASH practitioners with the skills and knowledge needed to implement sustainable development initiatives. By providing targeted support to developing countries and promoting cooperation among nations, national capacity will be enhanced to achieve WASH-related SDGs.

## 2.3 Relevance to the CAREC Institute's regional strategy

The proposed establishment of a WASH center is a significant initiative aimed at addressing the pressing challenges in the WASH sector within the CAREC region. This initiative is closely aligned with the strategic framework of the CAREC 2030 Strategy,<sup>2</sup> which seeks to create an open and inclusive platform that connects people, policies, and projects for shared and sustainable development. The CAREC Institute Strategy 2021-2025<sup>3</sup> further emphasizes the need for regional cooperation and knowledge sharing to address common challenges and promote sustainable development in the region. Work priorities related to the CAREC regional strategy are as follows:

- **Policy development and harmonization**

The WASH Centre will prioritize the facilitation of policy development and harmonization across the CAREC region. It will promote policy dialogs among member countries and development partners to ensure that WASH policies are aligned with national strategies, international development goals, and the overarching objectives of the CAREC 2030 Strategy.

- **Capacity building and knowledge sharing**

Building the capacity of member countries in the WASH sector is a central priority for the WASH Centre. It will focus on providing training, workshops, and disseminating best practice. The CAREC Institute will support the WASH Centre in delivering knowledge solutions and capacity-building efforts.

- **Promoting regional cooperation**

Enhancing regional cooperation is a key priority for the WASH Centre. It will facilitate collaboration among member countries, development partners, and the private sector to address WASH challenges collectively. The Centre will also promote business-to-business contacts and public-private partnerships.

- **Infrastructure development and connectivity**

Supporting infrastructure development and connectivity in the WASH sector is crucial for the WASH Centre. It will focus on promoting investments in resilient infrastructure, sustainable urbanization, and enhancing climate resilience. The Centre will also work on improving regulatory frameworks to attract private-sector financing.

- **Human development and social inclusion**

The WASH Centre will prioritize human development and social inclusion, with a focus on education, health, and gender equality. It will promote regional cooperation in education and health, address pandemic risks, and ensure that WASH initiatives are inclusive and benefit all segments of the population.

- **Research and innovation**

The WASH Centre will prioritize research and innovation in the WASH sector. It will support the development and dissemination of innovative technologies and approaches to address the WASH challenges in the region. The Centre will also foster partnerships with academic and research institutions to advance knowledge in the field.

- **Environmental sustainability**

Promoting environmental sustainability is a key priority for the WASH Centre. It will focus on integrating environmental considerations into WASH policies and practices, promoting water conservation, reducing harmful atmospheric and water pollutants, and ensure the sustainable management of water resources.

The establishment of the WASH Centre is a critical step towards addressing the WASH challenges in the region and promoting sustainable development. The Centre's work priorities—as outlined in the CAREC 2030 Strategy and the CAREC Institute Strategy 2021-2025—emphasize the importance of policy harmonization, capacity building, regional cooperation, infrastructure development, human development, research and innovation, and environmental sustainability in achieving the shared goals of the CAREC program.

## 2.4 Relevance to UNICEF's mandate

The vision, mission, guiding principles, and work pillars of the CAREC WASH Centre all align with the goal areas from UNICEF's Strategic Plan 2022-2025<sup>7</sup>; result areas from UNICEF's Strategy for Water, Sanitation, and Hygiene 2016-2030<sup>7</sup>; and programmatic commitments from UNICEF's Core Commitments for Children in Humanitarian Action (CCCs)<sup>8</sup> to achieve universal and sustainable access to WASH services. By aiming to be a leading platform for sharing expertise and fostering sustainable WASH solutions, the Centre will focus on sustainable and climate-resilient WASH services to all, including children and other vulnerable groups in the CAREC region, and support several key goals of UNICEF's broader mission and strategic objectives.

- **UNICEF 2022-2025 goal area 1: Every child—including adolescents—survives and thrives, with access to nutritious diets, quality primary healthcare, nurturing practices, and essential supplies.**
  - The Centre's focus on enhancing WASH services aligns with UNICEF's goal of ensuring quality primary healthcare. Improved sanitation and hygiene in healthcare settings are essential for preventing infections and promoting overall health—crucial for children to survive and thrive.
  - By addressing staff shortages and training gaps in WASH, the Centre helps prevent the spread of infectious disease—in particular, ensuring that healthcare facilities are safe and hygienic for children and other vulnerable groups.
- **UNICEF 2022-2025 goal area 2: Every child—including adolescents—learns and acquires skills for the future.**
  - The Centre's efforts to enhance WASH services in schools directly contribute to creating safe and healthy learning environments. Clean and accessible sanitation facilities are crucial for students in school.
  - The Centre's community engagement and awareness campaigns will also educate students about the importance of WASH practices such as handwashing. This education not only prevents illness but also instills lifelong hygiene habits, contributing to overall well-being and readiness to learn.
- **UNICEF 2022-2025 goal area 4: Every child—including adolescents—has access to safe and equitable WASH services, and lives in a safe and sustainable climate and environment.**
  - The Centre aims to help upgrade and build new WASH facilities in the CAREC region, addressing outdated infrastructure, particularly in rural and underserved areas, which ensures that children have access to safe water and adequate sanitation—crucial for their health and well-being.
  - The Centre will also promote the adoption of climate-resilient technologies and practices for WASH services to ensure that water and sanitation infrastructure can withstand and adapt to climate change impacts, thereby safeguarding the environment and the services that children rely on.
- **UNICEF strategy for WASH 2016-2030 results area 1: water; results area 2: sanitation; and results area 3: hygiene.**
  - The Centre focuses on improving WASH supply systems and developing sustainable WASH management in CAREC countries, including the adoption of technologies and strategies that ensure the long-term availability of WASH resources. This aligns with UNICEF's goal of sustainable access to WASH for all children

7 UNICEF, UNICEF Strategy for Water, Sanitation and Hygiene 2016-2030, 2016. <https://www.unicef.org/media/91266/file/UNICEF-Strategy-for-WASH-2016-2030.pdf>

8 UNICEF, Core Commitments For Children Humanitarian Action, 2020. [https://www.unicef.org/media/130411/file/CCS%20\(English,%20full\).pdf](https://www.unicef.org/media/130411/file/CCS%20(English,%20full).pdf)

and other fragile populations and ensures that children have access to clean and safe WASH services—a key component of the UNICEF WASH strategy.

- **UNICEF strategy for WASH 2016–2030 results area 4: WASH in institutions.**
  - The Centre will support the development and implementation of policy advocacy and education on WASH particularly in schools and will promote cost-effective and evidence-based approaches to ensure high-quality WASH services in different institutions.
  - The Centre also supports the development of improved data showcasing and analyzing mechanisms for WASH in institutions, utilizing tools to collect, analyze and monitor data, which helps the stakeholders track progress and identify areas needing further attention.
- **UNICEF strategy for WASH 2016–2030 results area 5: WASH in emergencies.**
  - By working to quickly restore and maintain WASH infrastructure in affected areas, the Centre helps ensure that communities continue to have access to safe WASH services throughout the emergency, which reduces the risk of outbreaks of waterborne diseases and other health issues.
  - By promoting the development of resilient WASH infrastructure, the Centre ensures that systems are better able to withstand and recover from emergencies, thereby reducing vulnerability and improving overall community resilience.
- **UNICEF core commitment: Children and their communities have equitable access to and use safe water and sanitation services, and adopt good hygiene practices.**
  - By promoting knowledge sharing and partnerships on climate-resilient WASH through the Centre and highlighting those that are child-sensitive, policymakers and practitioners across the CAREC region will have better access to WASH knowledge and resources—thus leading to better WASH policy and program design and implementation, and ultimately contributing to more equitable WASH services across the CAREC countries.

## 2.5 Relevance to ADB’s mission and 2030 operational priorities

The Centre is aligned with ADB’s mission and 2030 strategy<sup>4</sup> as it addresses poverty reduction, infrastructure development, regional cooperation, climate resilience, and governance. By improving WASH services in the CAREC region, the Centre will support ADB’s broader goals of promoting sustainable development, enhancing quality of life, and fostering inclusive and resilient communities.

- **ADB 2030 strategy operational priority 1: Addressing remaining poverty and reducing inequalities**

The Centre’s mission to improve WASH services in rural and underserved areas supports ADB’s goal of reducing inequalities and ensuring inclusive access to essential services. Improved WASH facilities contribute to better health and education outcomes—critical for breaking the cycle of poverty.

- **ADB 2030 strategy operational priority 3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability**

The Centre will promote innovative, climate-resilient WASH technologies and practices, aligning with ADB’s priority to build resilience to climate change and natural disasters. By focusing on sustainable and adaptive WASH solutions, the Centre contributes to environmental sustainability and disaster preparedness.



- **ADB 2030 strategy operational priority 4: Making cities more livable**

Improving WASH infrastructure in urban areas helps make cities more livable. The Centre's focus on developing long-term strategic plans for urban water supply and sanitation aligns with ADB's objective to enhance urban living conditions and provide essential services to all urban residents.

- **ADB 2030 strategy operational priority 6: Strengthening governance and institutional capacity**

Capacity building and governance: The Centre's initiatives to strengthen WASH systems through capacity building, governance improvements, and institutional support directly support ADB's goal of enhancing governance and institutional capacity in member countries.

- **ADB 2030 strategy operational priority 7: Fostering regional cooperation and integration**

Regional knowledge sharing and integration: The Centre's focus on collaborative knowledge sharing and regional cooperation supports ADB's aim to foster regional integration. By providing a platform for cross-border learning and collaboration, the Centre enhances the region's collective capacity to address WASH challenges.

# Chapter III.

## Five-year development priorities of the CAREC WASH Centre

### 3.1 An intelligent database for technical resources on WASH and climate change

In Central Asia, the shortage of WASH technical human resources in Central Asia poses significant challenges to the region's social development and to public health security. Without enough professional support, there is a struggle to build local capacity in WASH-related fields, hindering the ability to implement effective solutions and sustain them in the long term. Additionally, connecting with and assessing relevant expertise for WASH projects and matching professionals for projects is often cumbersome and time-consuming.

There are only a few online platforms<sup>9</sup> focused on WASH and climate change that maintain information about organizations or individuals specialized in WASH and climate change at present. For the CAREC region, there is no centralized platform that comprehensively catalogs organizations and individuals who have expertise and experience in WASH and climate change initiatives in the region. This gap inhibits effective planning and implementation of WASH projects, hindering sustainable development efforts.

The CAREC WASH intelligent database is defined by this project as a database that maintains information about organizations and individuals who are technical experts, scholars, researchers, and implementers specialized in WASH and climate change. The intelligent database will include these features:

#### Comprehensive directory

- Detailed profiles of organizations and individuals, categorized by area of expertise, role, and geographic location.
- Profiles will include contact information, affiliation(s), languages spoken, project experience, publications, and areas of specialization in WASH and climate change.

#### Search and filter functionality

- Advanced search and filter options will allow users to locate experts and organizations quickly based on specific criteria such as expertise, organizational affiliation, location, project experience, and language skills.

#### Networking and collaboration tools

- The intelligent database will facilitate networking and collaboration by providing options for users to connect directly with listed experts and organizations through in-platform messaging, or externally using contact details.
- Future features could include the ability for users to form groups or forums around specific projects or topics, fostering collaborative efforts and knowledge exchange.

This database will allow WASH stakeholders in the CAREC region and beyond to identify quickly and connect with organizations and individuals who have the skills and expertise they need for the effective planning and implementation of WASH and climate-change related projects with effective allocation of human resources.

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9 See Table B.1 in [Appendix B](#).

## 3.2 A page to display granular and up-to-date data of climate-resilient WASH performance indicators tailored for the region

While countries are using SDG 6 indicators to track their basic WASH status in comparison to international targets and standards, WASH performance indicators are increasingly being adopted by countries because they can be tailored to specific contexts and priorities, allowing for more nuanced assessments of water and sanitation services at the community level.

While several online sources offer data on WASH and climate change,<sup>10</sup> none of these platforms effectively integrates WASH performance indicator data for the Central Asian region, making it difficult for stakeholders in the CAREC region to access, analyze, and utilize the information to enable them to make decisions. The absence of a centralized and comprehensive data aggregation platform for Central Asia results in inconsistent data reporting and limited data accessibility and usability, which hinders the ability of policymakers to assess the true state of WASH services and identify critical areas needing improvement.

A page or data portal embedded in the Centre will display granular and up-to-date data on climate-resilient WASH performance indicators in the region. This page will provide links to the existing databases shown and, where appropriate, draw on them for data and data visualizations. The data feature of this page will initially be limited to downloadable, analyzable datasets that are appropriately characterized for their topics, sources, and geographies. Future features may enable interactive data manipulation and visualization. These may include the following:

- **Geospatial visualization:** Incorporate interactive maps to visualize WASH indicators geographically with population, climate, and other data overlays.
- **Trend analysis:** Provide tools for analyzing trends over time, allowing users to identify patterns, correlations, and anomalies in WASH indicators. This could include time series graphs, trend lines, and statistical analysis tools.
- **Comparative analysis:** Enable users to compare WASH performance across different regions, countries, or demographic groups. Comparative visualizations—such as side-by-side bar charts or radar charts—can help identify disparities and best practices.
- **Data download and sharing:** Enable users to download raw data, export visualizations, and share insights with colleagues and partners. This promotes transparency, collaboration, and data-driven decision making within the WASH sector.
- **Climate resilience metrics:** Integrate climate-related data and indicators into the visualization platform to assess the resilience of WASH infrastructure and services to climate change impacts. This might include indicators such as water scarcity, flood risk, and vulnerability to extreme weather events.

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<sup>10</sup> Please see Table B.2 in [Appendix B](#).

Such a platform can empower policymakers, researchers, NGOs, and other stakeholders to make better-informed decisions by tracking performance and identifying areas of improvement—thereby targeting their interventions more effectively. Data promotes accountability among stakeholders involved in WASH initiatives. Access to comprehensive data can also allow the analysis and identification of best practice and innovative approaches in climate-resilient WASH. Transparent reporting of performance indicators will also foster trust and encourage collaboration between government agencies, NGOs, and local communities.

### 3.3 A platform for showcasing and procuring innovative and replicable WASH technologies as well as WASH emergency supplies

The private sector holds immense promise for driving innovation and sustainability in the WASH sector. However, in the CAREC region, private sector engagement in WASH is hindered by a lack of conducive environments for investment and collaboration as well as uncertainty over government procurement timetables and procedures. Furthermore, the CAREC region is susceptible to various natural disasters and public health emergencies—such as, drought, frozen soil, cold waves and heatwaves, and earthquakes—all of which can severely impact WASH infrastructure and services. However, the region has limited capacity for emergency preparedness and response, including limited information on suitable WASH suppliers that can rapidly scale up and adapt their services in crises.

There are several existing platforms<sup>11</sup> offering features such as showcasing innovative technologies and solutions. However, in Central Asia, there is no centralized platform where WASH-related technologies, solutions, and solution providers as well as WASH emergency supplies can be aggregated and showcased. The absence of a platform to showcase replicable technologies hinders the dissemination of best practice and innovative solutions that could significantly improve WASH outcomes in the CAREC region—thereby limiting opportunities for stakeholders in Central Asia to learn about and access innovative WASH technologies that have been successfully implemented in other areas. Additionally, the lack of verified WASH emergency supplies leads to delays and inefficiencies in the delivery of critical supplies as well as reducing the effectiveness of emergency response efforts.

The Centre will document and showcase WASH-related technologies and application cases—especially those that are innovative, climate-resilient, and inclusive—to ensure the principle of ‘leave no one behind.’ This also includes innovative and validated WASH technologies and products to be used in emergency contexts to reach the most remote populations and save lives. A routinely updated inventory of WASH emergency supplies recommended for different situations by WASH specialists in the region will be displayed. The proposed listing will include the following features:

- An extensive, searchable library of documents describing emerging WASH technologies, especially those that are climate-resilient and innovative. Selected products will be presented together with detailed descriptions, technical specifications, and uses, with a highlight on the successful implementation of these technologies—providing real-world examples of their effectiveness and scalability.
- The platform will feature a detailed inventory of WASH emergency supplies, including water purification systems, sanitation kits, hygiene products, and related equipment. Items will be selected and validated by WASH specialists to ensure they meet the specific needs and conditions of the CAREC region. Emergency supplies will be categorized based on different emergency scenarios—such as, floods, droughts, and other climate-related events—to streamline the selection process.
- Where available, the cost of products and solutions will be available, along with producers and contact information. Registered users could search and compare products. With this information, NGOs, local governments, and individuals requiring products and services would use contact information to reach suppliers and solution providers.

11 See Table B.3 in [Appendix B](#).

Such a platform has multiple benefits. It can enhance knowledge sharing and keep parties informed about available technological solutions to their WASH problems and provide a marketplace to discover innovative WASH products and services—thereby connecting suppliers with purchasers. This can lead to improved market access for private sector suppliers and increased efficiency in the procurement of WASH solutions for public and private entities. Showcasing technologies can also contribute to increased business opportunities and market expansion, and can inspire private companies to invest in WASH R&D, leading to the creation of new products and services that address WASH challenges more effectively. Furthermore, by providing access to providers of validated emergency supplies, the platform will help improve preparedness and resilience against climate-induced extreme weather events.

### 3.4 A platform for sharing funding, bidding, and project collaboration opportunities in the region

The CAREC region faces challenges in securing robust funding and financing mechanisms that hamper the efficient implementation of WASH projects and restrict avenues for regional cooperation. This is owing partly to the region's limited capacity to distribute and access information, partly to difficulty in finding matched opportunities, and partly to constraints in funding and financing mechanisms. As a result, many WASH projects and initiatives in the region fail to achieve their full potential, and opportunities for regional cooperation remain underexploited.<sup>12</sup>

Few platforms focus on WASH resources and collaboration as shown in Table B.4<sup>13</sup>; however, there is still scope in the CAREC region for a platform that comprehensively integrates funding, bidding, and project collaboration. This has resulted in fragmented efforts, limited knowledge sharing, and the suboptimal implementation of WASH projects. Moreover, there is a pressing need for regional cooperation to address transboundary water, hygiene, and sanitation issues and to ensure the sustainable management of shared WASH resources in the CAREC region.

The WASH Centre will constitute a platform that pulls together bidding, funding, and project collaboration opportunities in the region to address these challenges. The platform will also serve as a one-stop shop where registered members from governments, international organizations, NGOs, and private sector entities can post and respond to tenders and project opportunities in WASH, environment, and climate. This will include the following specific features:

#### Centralized funding database

- Curate and maintain an up-to-date database of funding opportunities, including grants, loans, and investment programs from governments, international organizations, and private sector entities.
- Enable users to search for funding opportunities based on criteria such as project type, geography, funding amount, and eligibility requirements.

#### Project collaboration triage

- Curate and maintain an up-to-date database of project collaboration opportunities, including project tenders, terms of reference, and consultancy opportunities from governments, international organizations, and private sector entities.
- The platform will help facilitate partnerships and joint ventures for stakeholders to post and respond to collaboration opportunities.
- Regional cooperation will be promoted on issues such as transboundary WASH.

<sup>12</sup> Asian Development Bank, Asian Water Development Outlook 2020 Advancing Water Security Across Asia and the Pacific, 2021. <https://www.adb.org/sites/default/files/publication/663931/awdo-2020.pdf>

<sup>13</sup> Please see Table B.4 in [Appendix B](#).

### Centralized bidding platform

- Governments, international organizations, NGOs, and private sector entities can post tenders for WASH projects, making them accessible to a wide range of stakeholders in the CAREC region.
- A database of registered bidders will be maintained—including their profiles, qualifications, and past project experiences.

### Matchmaking for public–private partnerships (PPPs)

- The platform will also offer matchmaking services to connect public sector needs with private sector solutions, fostering collaborations that leverage the strengths of each partner.

With this platform developed, the Centre will act as a catalyst for regional cooperation in the WASH sector. This paradigm can foster transparency, attract investment, and facilitate the synthesis of funds from diverse sources, thereby engendering more effective and sustainable WASH solutions.<sup>14</sup> It can lead to an increase in both the quantity and quality of WASH projects within the region. By providing a transparent and accessible platform for funding, the Centre can entice more investors—including international donors and private sector financiers—to the WASH sector. All of these will lead to a more coordinated and integrated approach to addressing WASH challenges, which is essential for achieving long-term sustainability.

## 3.5 A hub for acquiring regionally recognized training and certificates

The CAREC region faces challenges delivering effective and sustainable WASH services owing to a shortage of trained professionals. On the other hand, most WASH practitioners in the CAREC region reported either that they've never received any invitation for training or that they didn't know where to get training; those who did receive training said that it was not relevant to their region/situation (see Figure A.2). The shortage of training and standardization results in inefficiencies and disparities in service delivery, undermining the quality and consistency of WASH initiatives across the region. The ADB states that the service delivery efficiency in Central Asia is below the regional average, with only 70 percent of the water distributed meeting safety standards.<sup>15</sup> Furthermore, a significant portion of WASH projects in Central Asia experience delays and budget overruns owing to a lack of skilled professionals and inadequate training programs.<sup>16</sup>

There are some existing global websites and platforms that focus on WASH.<sup>17</sup> However, these training resources have not yet been fully utilized and developed by WASH stakeholders in Central Asia as the training is not tailored towards the needs of the CAREC countries or even available in their languages.

The establishment of a WASH training and education center under CAREC is essential to address these challenges. The Centre can serve as a regional hub for providing specialized training programs and certifications that are tailored for the region and recognized across the CAREC countries. The hub will include the following features:

### Targeted training programs

- Solicit and showcase comprehensive training curricula covering key areas and allow participants to select courses based on their specific needs and professional development goals.

14 Hutton G & Varughese M from the World Bank. The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene, 2016. <https://documents1.worldbank.org/curated/en/847191468000296045/pdf/103172-PUB-Box394556B-PUBLIC-EPI-K8632-ADD-SERIES.pdf>

15 Asian Development Bank, Asian Water Development Outlook 2020 Advancing Water Security Across Asia and the Pacific, 2020. <https://www.adb.org/sites/default/files/publication/663931/awdo-2020.pdf>

16 The World Bank, 2020 Annual Report Global Water Security & Sanitation Partnership, 2020. <https://documents1.worldbank.org/curated/en/969081605133747136/pdf/Global-Water-Security-and-Sanitation-Partnership-Annual-Report-2020.pdf>

17 Please see Table B.5 in [Appendix B](#).

- Engage WASH experts and practitioners to develop targeted training programs—such as, climate resilient WASH, WASH emergency response, WASH financing, and innovative WASH technologies—to ensure high quality instruction and practical insights.
- The Centre will help organize workshops, seminars, and hands-on training sessions in the CAREC countries.
- Combine in-person and online training methods to provide flexible and comprehensive learning experience.

### **Regionally recognized certifications**

- Implement a framework for continuing professional development, encouraging ongoing learning and skill enhancement.
- Develop a certification system recognized by the CAREC countries, ensuring that WASH professionals are qualified to meet regional and international standards.

Offering targeted and regionally recognized training and certification can lead to an improvement in the capacity and skills of WASH professionals in the region, which is crucial for the effective implementation and management of WASH projects. The standardization of training and certifications can lead to greater consistency and quality in WASH services across the region. Trained professionals can apply the best practice and innovative solutions to address the complex challenges in the WASH sector.

## **3.6 A venue for facilitating policy dialog and supporting policymaking**

The CAREC region faces significant challenges in formulating and implementing effective WASH policies owing to fragmented efforts, limited regional cooperation, and a lack of structured platforms for policy dialog. The absence of a unified platform for policy dialog leads to disjointed efforts among countries, resulting in policies that are not harmonized or aligned with regional and international standards. Cross-border issues—such as shared water resources and regional health threats—require coordinated policy responses.

Some of the platforms already in place have made efforts to start facilitating policy dialogs and exchanges in the area of WASH.<sup>18</sup> However, there is a notable gap in the CAREC region to facilitate comprehensive policy dialogs, support the development of integrated WASH policies, and promote regional cooperation. Existing mechanisms do not adequately address the need for structured, ongoing engagement among policymakers, experts, and stakeholders. This leads to inconsistent and suboptimal WASH services across the region, hindering sustainable development and public health outcomes. So, there is a critical need for a centralized venue that facilitates policy dialog, supports evidence-based policymaking, and fosters regional cooperation to address these issues effectively.

This proposed function for the Centre can serve as a venue for policy dialogs, bringing together government officials, experts, and stakeholders from across the region to discuss and develop integrated and evidence-based WASH policies. It will include the following features:

### **Facilitating policy dialogs**

- Embed an interactive online forum in the Centre where policymakers, experts, practitioners, and stakeholders can engage in structured dialogs, discussions, share insights, exchange ideas, and propose solutions related to this sector.
- Organize regular policy dialog forums bringing together government officials, experts, and stakeholders from across the CAREC region.

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<sup>18</sup> Please see Table B.6 in [Appendix B](#).

### Supporting policymaking

- Organize policy accelerator<sup>19</sup> exercise to support multicountry cohorts, creating a peer-exchange environment where participants work alongside each other to tackle related local WASH challenges.
- Upon request, the Centre will compile and disseminate best practices and successful case studies from within the region and globally.
- Upon request, the Centre will conduct research on regional WASH issues—including legal analysis, data collection and analysis, and analysis of comparative benefits—to inform policy decisions. Policy briefs, reports, and guidelines will be produced to support evidence-based policymaking.
- Upon request, the Centre will help to provide technical assistance to CAREC countries in developing and advocating for integrated WASH policies.

By embedding a venue for facilitating policy dialogs, the Centre can enhance coordination among CAREC countries, leading to more cohesive and collaborative approaches to addressing WASH challenges. It can contribute to the development of evidence-based, coherent, and integrated WASH policies, ensuring alignment with regional priorities and international standards.

## 3.7 Suggestions for financing the Centre

A combination of diversified revenue streams, strategic partnerships, and efficient resource allocation are suggested for sustainable financing of the Centre:

### Grants and donations

- Seek grants from international organizations, governmental agencies, and philanthropic foundations. A comprehensive grant search is recommended.
- Establish partnerships with NGOs, corporate entities, and individuals interested in supporting WASH initiatives. Crowdfunding campaigns and targeted donation drives can also be effective.
- Develop and implement a strategy to obtain corporate social responsibility (CSR) funding from private entities in China and the CAREC region.
- Organize fundraising events—such as, virtual conferences, seminars, and WASH-themed campaigns—to generate awareness and attract financial support from diverse stakeholders.

### Resource sharing and collaborations

- Leverage existing resources and functions, such as funds for WASH infrastructure.

### Membership and subscription fees

- Offer membership plans for individuals, NGOs, academic institutions, and businesses interested in accessing premium content, specialized training, and networking opportunities.
- Implement tiered subscription models with varying benefits to cater to different user segments. For example, contact information in the intelligent database, WASH technology and supply platform can be accessed only if the member is a VIP.
- Provide discounts or special offers for early adopters and long-term subscribers to incentivize membership.

### Advertising and sponsorships

- Monetize the website through targeted advertising placements for WASH-related products, services, and events.

19 Vital Strategies, Policy Accelerator, <https://www.vitalstrategies.org/policy-accelerator/>



- Secure sponsorships for specific sections of the website, events, or initiatives, allowing sponsors to showcase their commitment to WASH sustainability (following the creation of ethical guidance for corporate engagement).

#### **Fee-based services**

- Develop fee-based training—such as extended courses, webinars, and workshops—tailored to the needs of different stakeholders.
- Collaborate on co-branded content, sponsorships, and joint events to promote WASH awareness and best practice.
- Corporate social responsibility (CSR) and environmental, social, and governance (ESG) assessment for corporations operating in the WASH sector or those with a vested interest.
- Organize investment forums and networking events to connect project developers with potential investors.
- Offer consultancy services for organizations based on the Centre's features and functions, including—but not limited to—designing the WASH performance evaluation framework.
- Assist in identifying suitable implementers, funding opportunities, or partners.

## Chapter IV.

# Conclusion and outlook

The establishment of the WASH Centre represents a critical response to the increasing challenges in WASH in the CAREC region. The COVID-19 pandemic highlighted the necessity for robust WASH systems to prevent disease transmission and ensure public health security. As the region grapples with outdated infrastructure, limited capacity to make improvements, and the impact of climate change, the Centre will emerge as a beacon of knowledge sharing, innovation, and capacity building. It will serve as a pivotal platform for governments, private sectors, NGOs, and academia to collaboratively address the multifaceted WASH challenges. Through the development of innovative solutions and data-driven approaches, the Centre will drive progress toward achieving Sustainable Development Goals (SDGs) and foster climate-resilient WASH systems.

In the next five years, the WASH Centre is poised to become a leading hub for regional WASH expertise. With proposed features—such as, the intelligent database and training center—the Centre will empower policymakers and practitioners with the resources and knowledge needed to address local and regional WASH issues. Its future as a venue for facilitating policy dialogs and providing a platform for funding and collaboration opportunities will strengthen governance, foster regional cooperation, and enhance institutional capacity. Its proposed role as a central repository for cross-region WASH and climate data best practice, and innovative technologies will foster transparency and efficiency in the implementation of WASH projects. Moreover, the Centre's focus on creating climate-resilient systems will not only safeguard public health but also contribute to the long-term sustainability of the region's nature resources.

The [CAREC Virtual WASH Centre](#) is uniquely positioned to take on its proposed mission, building upon the foundation established by the CAREC Institute and its partners—UNICEF, ADB, and Vital Strategies. These organizations are committed to continuing the development of the Centre to help it reach its full potential. The CAREC Institute will leverage its strong relationships with governments across the region, ensuring that the Centre receives the necessary political support and alignment from key stakeholders. Vital Strategies will deliver technical expertise, providing guidance on the Centre's functionality design and IT development, data analytics and visualization, and monitoring and evaluation to strengthen the Centre's operations and impact assessment. ADB and UNICEF will play pivotal roles in facilitating public–private partnerships, mobilizing resources to advance investments from both public institutions and private entities. This comprehensive collaboration will enable the Centre to advance its mission and pave the way for it to become a cornerstone of a healthier, more resilient future in the CAREC region.

# Appendix A: Survey results

## What challenges did you experience when seeking information to make WASH-related decisions?

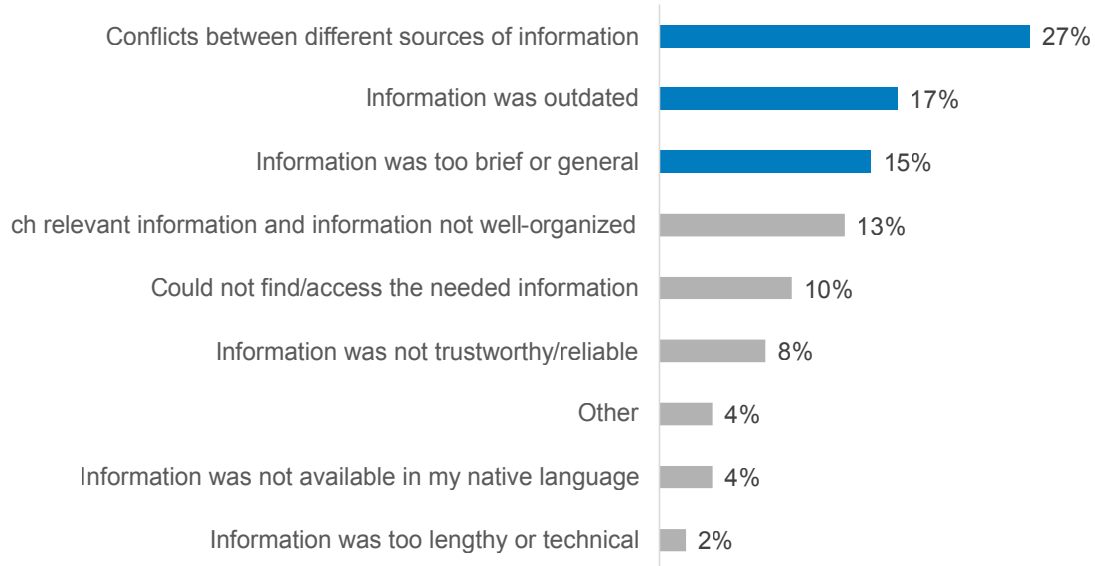


Figure A.1 Challenges encountered by respondents in seeking WASH information

## Based on your mastery of the following WASH topics and your understanding of your country's WASH agenda, how high a priority is increasing your knowledge and competency in the following areas?

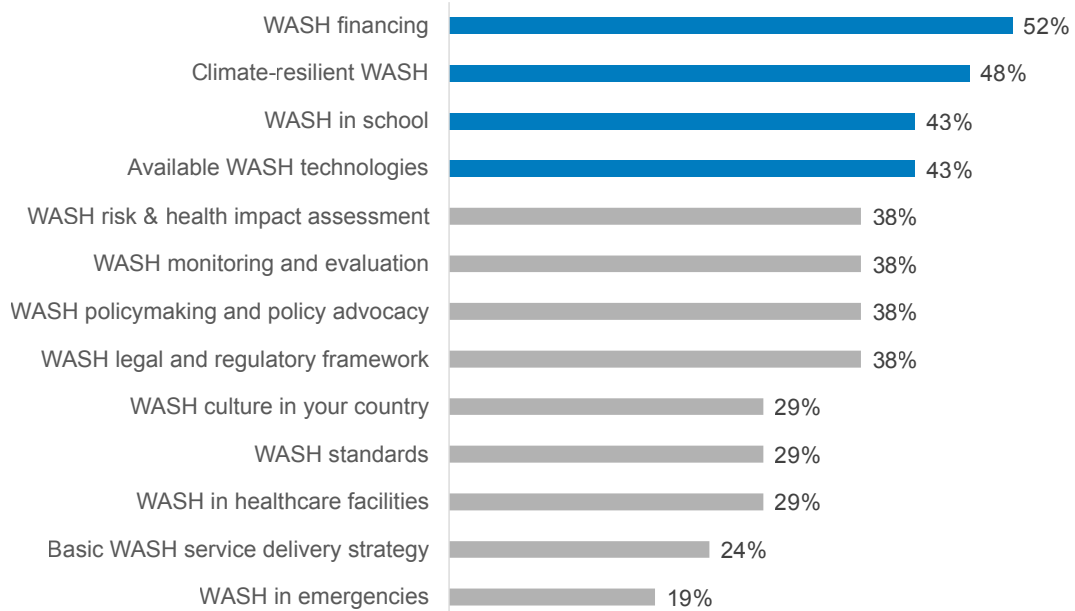


Figure A.2 Challenges encountered by respondents in seeking WASH training

**Based on your mastery of the following WASH topics and your understanding of your country’s WASH agenda, how high a priority is increasing your knowledge and competency in the following areas?**

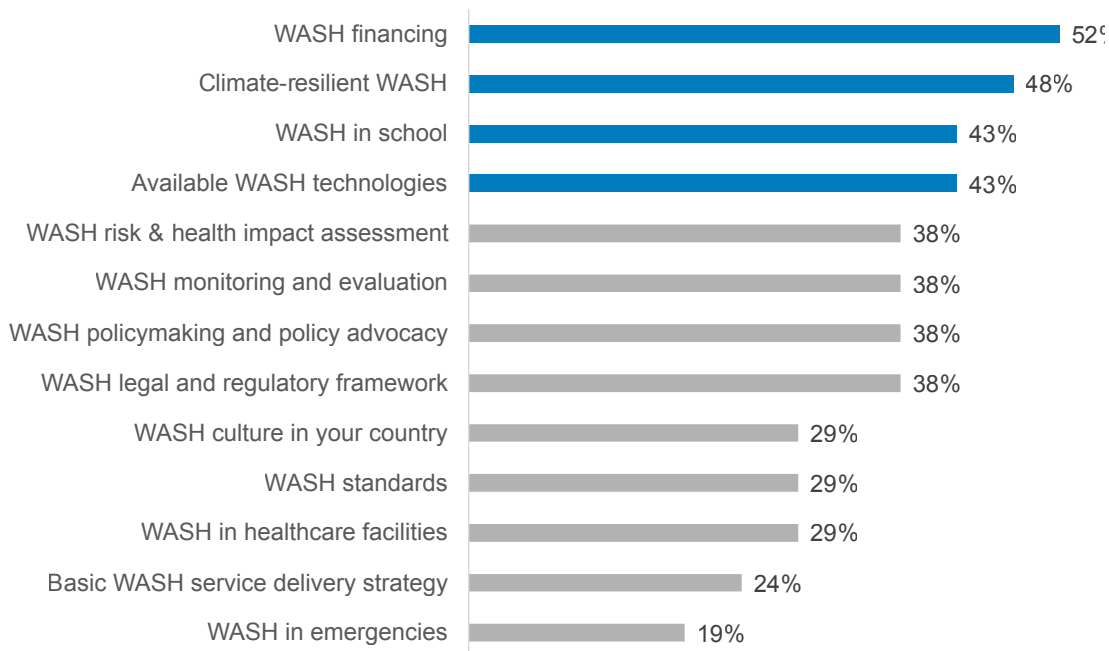


Figure A.3 Percentage of respondents identifying different areas as high priorities

**What three features are features you would most like to see in such a Center?**

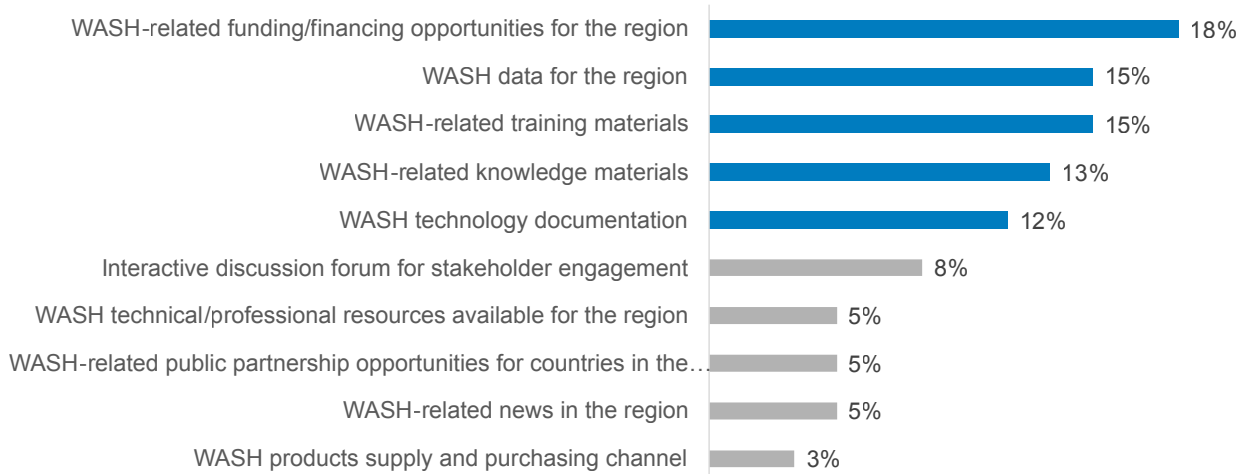


Figure A.4 Features respondents would most like to see in the Centre during an online survey

**Please choose the ones you consider to be of high priority**

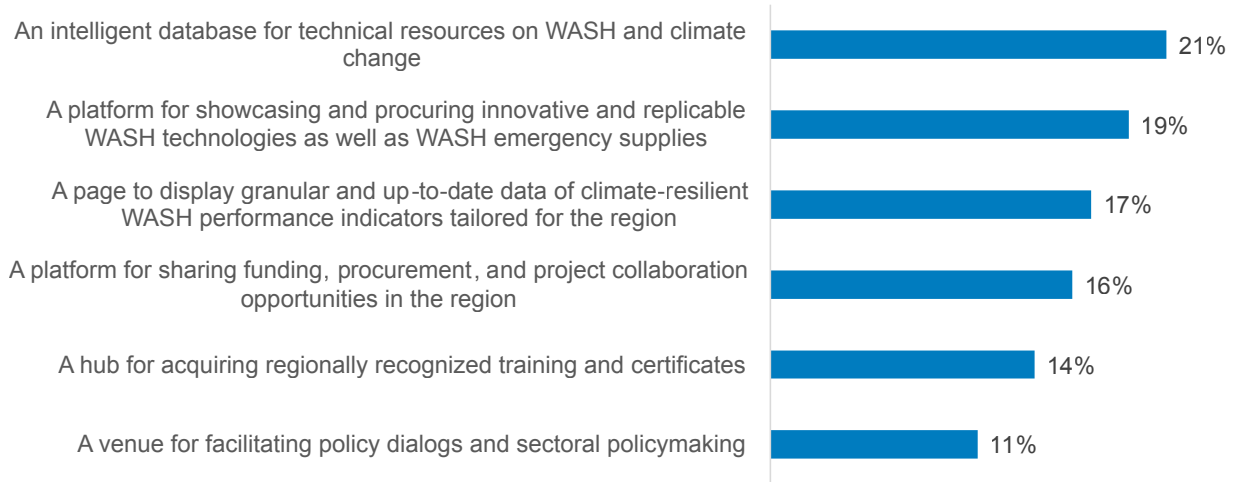


Figure A.5 Features that respondents consider to be of higher priority during in-person consultation

# Appendix B: Desk research results on websites with relevant functions

Table B.1 Databases maintaining WASH expert or organization list

Platform	Introduction
<b>SuSanA Partners</b> <a href="https://www.susana.org/en/community/partners/list">https://www.susana.org/en/community/partners/list</a>	SuSanA is an extensive network of organizations and individuals dedicated to sustainable sanitation. The SuSanA Partners directory allows people to find organizations working on various aspects of sanitation, hygiene, and water management.
<b>ReliefWeb</b> <a href="https://reliefweb.int/organizations">https://reliefweb.int/organizations</a>	ReliefWeb’s directory provides comprehensive contact information for organizations involved in humanitarian relief globally, including those specializing in WASH and climate change.
<b>The Water Network</b> <a href="https://thewaternetwork.com/">https://thewaternetwork.com/</a>	The Water Network is the largest knowledge-sharing platform for global water professionals and a free resource with benefits for individuals, organizations, and projects.

Table B.2 Existing WASH online databases and platforms

Platform	Introduction	Main data-related contents
<b>WHO/UNICEF joint monitoring program (JMP)</b> <a href="https://washdata.org">https://washdata.org</a>	Established in 1990, the WHO/UNICEF JMP global database includes estimates of progress in household drinking WASH since 2000.	<ul style="list-style-type: none"> <li>Extensive datasets on WASH indicators, disaggregated by country and demographic factors, tracking progress from 1990 to the present.</li> <li>Detailed reports offering in-depth analysis of WASH conditions, including national monitoring efforts and methodologies.</li> <li>Regular global and regional assessments of progress towards WASH targets, along with thematic reports on specific WASH aspects.</li> <li>Standardized indicators, definitions, and data collection methodologies for consistent and comparable monitoring.</li> <li>Data portal for visualization, custom analyses, and downloads; training materials for capacity building.</li> </ul>
<b>United States Centre for Disease Control and Prevention (CDC)—WASH</b> <a href="https://www.cdc.gov/global-water-sanitation-hygiene/about/?CDC_AAref_Val=https://www.cdc.gov/healthywater/global/index.html">https://www.cdc.gov/global-water-sanitation-hygiene/about/?CDC_AAref_Val=https://www.cdc.gov/healthywater/global/index.html</a>	The CDC’s Global WASH program aims to reduce illness and death from waterborne disease and improve global access to safe WASH.	<ul style="list-style-type: none"> <li>Comprehensive guidelines on WASH practices.</li> <li>Research findings and data on waterborne disease and WASH interventions.</li> </ul>

Table B.3 Existing platforms could showcase innovative technologies and solutions

Platform	Introduction
<b>AiIB InfraTech Portal</b> <a href="https://www.infratechportal.org/publicIndex">https://www.infratechportal.org/publicIndex</a>	The AiIB InfraTech Portal is an initiative by the Asian Infrastructure Investment Bank (AIIB) designed to promote and support the integration of technology into infrastructure projects across Asia and beyond.
<b>China Water and Sanitation Technology E-Catalog (WASH-CAT)</b> NOT OFFICIALLY LAUNCHED YET	The China WASH-CAT aims to reduce information asymmetries on the Chinese water and sanitation technology market while promoting low carbon, gender, and disability inclusive water and sanitation technology products.

Table B.4 Existing platforms that share WASH collaboration opportunities

Platform	Introduction
<b>WASH Funders Group</b> <a href="https://washfundersgroup.org/home/">https://washfundersgroup.org/home/</a>	The WASH Funders Group is an informal collaboration of 29 like-minded foundations actively engaged in the WASH sector. Group members have come together to learn from each other and to share investment information; they meet periodically to exchange insights on funding and key sector trends, and connect with each other to discuss specific opportunities.
<b>GWP Partners</b> <a href="https://www.gwp.org/en/partner/GWP_Partners/">https://www.gwp.org/en/partner/GWP_Partners/</a>	GWP is a global action network. Its chief focus is to support social change processes that further the sustainable management and development of water resources. GWP partners with more than 3,000 organizations that share its aims and values in tackling the sustainable development, management, and use of water resources.
<b>WASH Cluster Field Support Team (FST)</b> <a href="https://www.washcluster.net/coordination-resources">https://www.washcluster.net/coordination-resources</a>	The Field Support Team (FST) mechanism is the principal means for the Global WASH Cluster (GWC) to provide operational support to National Coordination Platforms (NCPs) on coordination, information management, assessment, and people-centered programming inclusion. The FST has provided surge support via a partner consortium to NCPs since 2008.
<b>PPIAF supported by the World Bank</b> <a href="https://www.ppiaf.org/">https://www.ppiaf.org/</a>	PPIAF promotes knowledge transfer by funding research and tools, strengthening policies and institutions, building capacity to scale infrastructure delivery, and improving capability of subnational entities to access finance without sovereign guarantees.

Table B.5 Examples of WASH training websites and portals

Platform	Introduction
<b>Water Cluster</b> <a href="https://www.washcluster.net/gwc-training-offer">https://www.washcluster.net/gwc-training-offer</a>	The Global WASH Cluster (GWC) has developed a training pathway for WASH Cluster partners and coordination staff.
<b>UNICEF WASH Training Catalogue</b> <a href="https://www.unicef.org/documents/wash-training-catalogue">https://www.unicef.org/documents/wash-training-catalogue</a>	The catalogue covers all the major WASH topics, and courses range from basics and fundamentals to advanced courses with in-depth subject detail.
<b>OCHA ReliefWeb</b> <a href="https://reliefweb.int/training?list=Water%20Sanitation%20Hygiene%20Training%20Opportunities&amp;advanced-search=%28T4604%29">https://reliefweb.int/training?list=Water%20Sanitation%20Hygiene%20Training%20Opportunities&amp;advanced-search=%28T4604%29</a>	Managed by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), ReliefWeb serves as the leading source for reliable and timely humanitarian information on global crises and disasters. The training portal extends this mission by offering targeted educational resources and training opportunities to strengthen the capacity of those working in the humanitarian sector.
<b>IRC WASH</b> <a href="https://www.ircwash.org/wash-academy/courses">https://www.ircwash.org/wash-academy/courses</a>	The learning platform for strengthening WASH systems. The IRC courses are designed to help users create and maintain strong and reliable water and sanitation services for communities.
<b>WASH FIT Training Modules</b> <a href="https://www.washinhcf.org/wash-fit-training-modules/">https://www.washinhcf.org/wash-fit-training-modules/</a>	WASH FIT (the Water and Sanitation for Health Facility Improvement Tool) involves training modules and exercise sheets.
<b>DisasterReady</b> <a href="https://get.disasterready.org/wash/">https://get.disasterready.org/wash/</a>	Choose from more than 1,500 free WASH online courses donated by leading NGOs.

Table B.6 Existing platform for policy dialog related to WASH

Platform	Introduction
<b>SWA (Sanitation and Water for All)</b> <a href="https://www.sanitationandwaterforall.org/">https://www.sanitationandwaterforall.org/</a>	SWA is a global partnership of governments, donors, civil society organizations, and other development partners working together to coordinate high-level action, improve accountability, and use scarce resources more effectively.
<b>WASH Agenda for Change</b> <a href="https://washagendaforchange.org/">https://washagendaforchange.org/</a>	Agenda for Change is a collaboration of like-minded organizations that have adopted a set of common principles and approaches. The members work collectively to advocate for, and support national and local governments in, strengthening the WASH systems required to deliver universal, sustained access as outlined under SDG 6. The main activities include supporting, amplifying, and promoting WASH system strengthening across the membership.
<b>CABRI Policy Dialog</b> <a href="https://www.cabri-sbo.org/en/events/policy-dialog-value-for-money-in-water-sanitation-and-hygiene">https://www.cabri-sbo.org/en/events/policy-dialog-value-for-money-in-water-sanitation-and-hygiene</a>	The CABRI Policy Dialog aims to strengthen the linkages between the ministries of finance and the ministries in charge of WASH. Understanding their complementary roles in policy formulation and budget processes improves the provision of quality services for better WASH outcomes. The dialog also aims to improve the communication and mutual understanding between finance and the relevant WASH ministries.

**20<sup>th</sup> & 21<sup>st</sup> Floor, Commercial Building Block 8, Vanke  
Metropolitan,**

**No. 66 Longteng Road, Shuimogou District, Urumqi,  
Xinjiang, the PRC, 830028**

**[km@carecinstitute.org](mailto:km@carecinstitute.org)**

