



MAY 2025

Five-Year Strategy for the virtual CAREC WASH Centre



Table of Contents

Executive Summary	3
Chapter I. Overview of the CAREC WASH Centre	4
1.1 Project background	4
1.2 Vision, mission, and guiding principles of the Centre	5
1.3 The roles of each of the partner organization	6
Chapter II. Proposed work pillars of the CAREC WASH Centre	7
2.1 Work pillars of the Centre	7
2.2 Relevance to the 2030 Agenda and Sustainable Development Goals	11
2.3 Relevance to the CAREC Institute's regional strategy	14
2.4 Relevance to UNICEF's mandate	14
2.5 Relevance to ADB's mission and 2030 operational priorities	16
Chapter III. Five-year development priorities of the CAREC WASH Centre	17
3.1 An intelligent database for technical resources on WASH and climate change	17
3.2 A page to display granular and up-to-date data of climate-resilient WASH performance indicators tailored for the region	18
3.3 A platform for showcasing and procuring innovative and replicable WASH technologies as well as WASH emergency supplies	19
3.4 A platform for sharing funding, bidding, and project collaboration opportunities in the region	20
3.5 A hub for acquiring regionally recognized training and certificates	21
3.6 A venue for facilitating policy dialogue and supporting policymaking	22
3.7 Suggestions for financing the Centre	23
Chapter IV. Conclusion and outlook	24
Appendix A: Online survey and results	25
Appendix B: Desk research results on websites with relevant functions	32

Acknowledgement

The *Five-Year Strategy for the virtual CAREC WASH Centre* is jointly developed by Vital Strategies, the CAREC Institute, Asian Development Bank (ADB), and UNICEF.

Executive Summary

The CAREC virtual WASH Centre is a joint initiative of the CAREC Institute, Asian Development Bank (ADB), Vital Strategies, and UNICEF, 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Centre aims to address the critical WASH challenges faced by the region, including inadequate access to WASH services, outdated infrastructure, and the impact of climate change. Its vision is to develop a collaborative, innovative, and knowledge-rich environment across CAREC member countries, with open access to quality WASH resources and services. Its ultimate mission is to help CAREC member countries achieve excellence in climate-resilient and inclusive and gender-sensitive WASH services by sharing knowledge, best practices and information on technological innovations.

The Centre's proposed work pillars include:

- An intelligent database of technical resources on climate-resilient WASH practices.
- A page displaying granular and up-to-date data on climate-resilient WASH performance indicators tailored to the regional context.
- A platform to showcase and procure innovative and replicable WASH technologies as well as WASH emergency supplies.
- A platform to share funding, procurement, and project collaboration opportunities in the region.
- A hub to acquire regionally recognized training and certificates.
- A virtual venue to facilitate policy dialogues and sectoral policymaking.

These pillars leverage public and private stakeholders' expertise, resources, and innovation to address 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 dialogues, project collaboration, and funding opportunities, promoting peer-to-peer and triangular collaboration and sustainable development.

The Centre's mission is aligned with the CAREC 2030 Strategy, the 2030 Agenda for Sustainable Development, and the ADB and UNICEF's WASH and climate strategies.^{1,2,3,4} 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 programme. The CAREC Virtual WASH Centre, built upon the foundation laid by the CAREC Institute, is poised to contribute to a healthier, more resilient CAREC region.

1 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>

2 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>

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

4 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>

Chapter I.

Overview of the CAREC WASH Centre

1.1 Project background

The COVID-19 pandemic has emphasized the importance of water, sanitation, and hygiene (WASH) services to public health security, especially the critical role of accessible hygiene facilities and proper handwashing behaviour in preventing the spread of infectious diseases. In the CAREC countries, some areas still face inadequate access to WASH services. The COVID-19 pandemic helped to promote community engagement and participation in good WASH practices. The world over, 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 infectious diseases.

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 nature and the extent of WASH obstacles in the region. The project benefited from strong governmental support for enhancing WASH. Countries in the region have implemented several WASH projects with support from governments and international partners, many of which are still ongoing. Nonetheless, complete access to WASH services has yet to be achieved, particularly in rural areas. The Eurasian Development Bank (EDB) mentions that 13% of the population in Central Asia does not have access to safe drinking water and that water scarcity in Central Asia will reach 30% by 2030. Moreover, while most of the population in the region has access to basic sanitation services, sewer connections and septic tank usage remain limited in rural areas across all Central Asian countries. These inadequate sanitation conditions contribute to environmental pollution and pose significant risks to public health. In some countries, WASH in health care facilities still fall short of standards set by the World Health Organization (WHO) as well as national standards. Accessible WASH services, particularly in primary health care settings, are crucial for maintaining quality, equity, and dignity in health care.

The COVID-19 response has demonstrated 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, as well as a lack of coordination and leadership within and across the CAREC region on WASH practices and services in health care facilities, schools, and other social infrastructures.

To address these challenges, the project revealed the following priority areas to improve WASH systems in the region:

- The need for 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.
- Developing a **long-term strategic vision** and plans for water supply and sanitation in both urban and rural areas of CAREC countries requires sustainable financing solutions.
- Compliance with legal frameworks and the regulatory environment for WASH systems requires **easily accessible** subsidizing mechanisms to facilitate compliance, including tax incentives, and the increased engagement of the private sector in the development of WASH projects.
- A **knowledge gap** about the hygienic, technological, economic, and environmental aspects of WASH needs to be addressed via capacity building programmes for governments as well as multilateral and bilateral agencies.

5 Regional Environmental Centre for Central Asia, Water scarcity in Central Asia to reach 30% by 2030, 2024, <https://centralasiacclimateportal.org/water-scarcity-in-central-asia-to-reach-30-by-2030-aizhan-skakova/>

6 Lilia Burunciuc, Improving water and sanitation in Central Asia requires determination and shared commitment, 2019, <https://blogs.worldbank.org/en/europeandcentralasia/improving-water-and-sanitation-central-asia-requires-determination-and-shared>

To address these needs and promote, cohesive and sustainable WASH practices in the region, the CAREC Institute, partnered with UNICEF, funded by the ADB and technically supported by Vital Strategies to establish a virtual CAREC WASH Centre (hereafter “the Centre”).

The joint initiative will leverage the collective expertise of UNICEF, the ADB, the CAREC Institute and Vital Strategies, and is the first step of a five-year WASH capacity enhancement plan for the region, as detailed further in Chapter III.

1.2 Vision, mission, and guiding principles of the Centre

1. Vision

The vision of the CAREC WASH Centre is to foster a collaborative, innovative, and knowledge-driven environment across CAREC countries, ensuring universal access to high-quality WASH services. Supported by the CAREC Institute, ADB, UNICEF and Vital Strategies, the Centre strives to be a leading hub for sharing expertise, promoting best practices, and advancing sustainable solutions that benefit individuals, institutions, and communities throughout the CAREC region.

2. Mission

The Centre's mission is to empower CAREC countries to achieve excellence in climate-resilient and inclusive WASH services by strengthening systems, sharing knowledge, driving technological innovations, and promoting the best practices. Through data exchange, stakeholder collaboration, targeted capacity building programs, and sustainable approaches, the Centre aims to enhance WASH systems across the region, improving the health and well-being of all citizens, especially children, women, and vulnerable populations.

3. Guiding principles

- **Collaborative knowledge sharing**

The Centre will facilitate the exchange of experience and solutions across CAREC countries and beyond. It aims to enhance the knowledge transfer between the People's Republic of China and other CAREC countries, promoting 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 vis-à-vis the challenges posed by climate change tailored to the needs of individual countries.

- **Targeted capacity building**

The Centre offers customized training programmes and workshops to empower WASH policymakers, practitioners, and civil society organizations 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 the sector, including governments, academia, civil society, private sectors, development banks, and foundations, and end users including children and youths. This collaborative approach encourages holistic and comprehensive solutions for evolving WASH challenges.

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

The Centre supports the collection and analysis of data and gathers evidence from pilot projects to assess the effectiveness of WASH programmes, inform decision-making processes and guide interventions. 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.

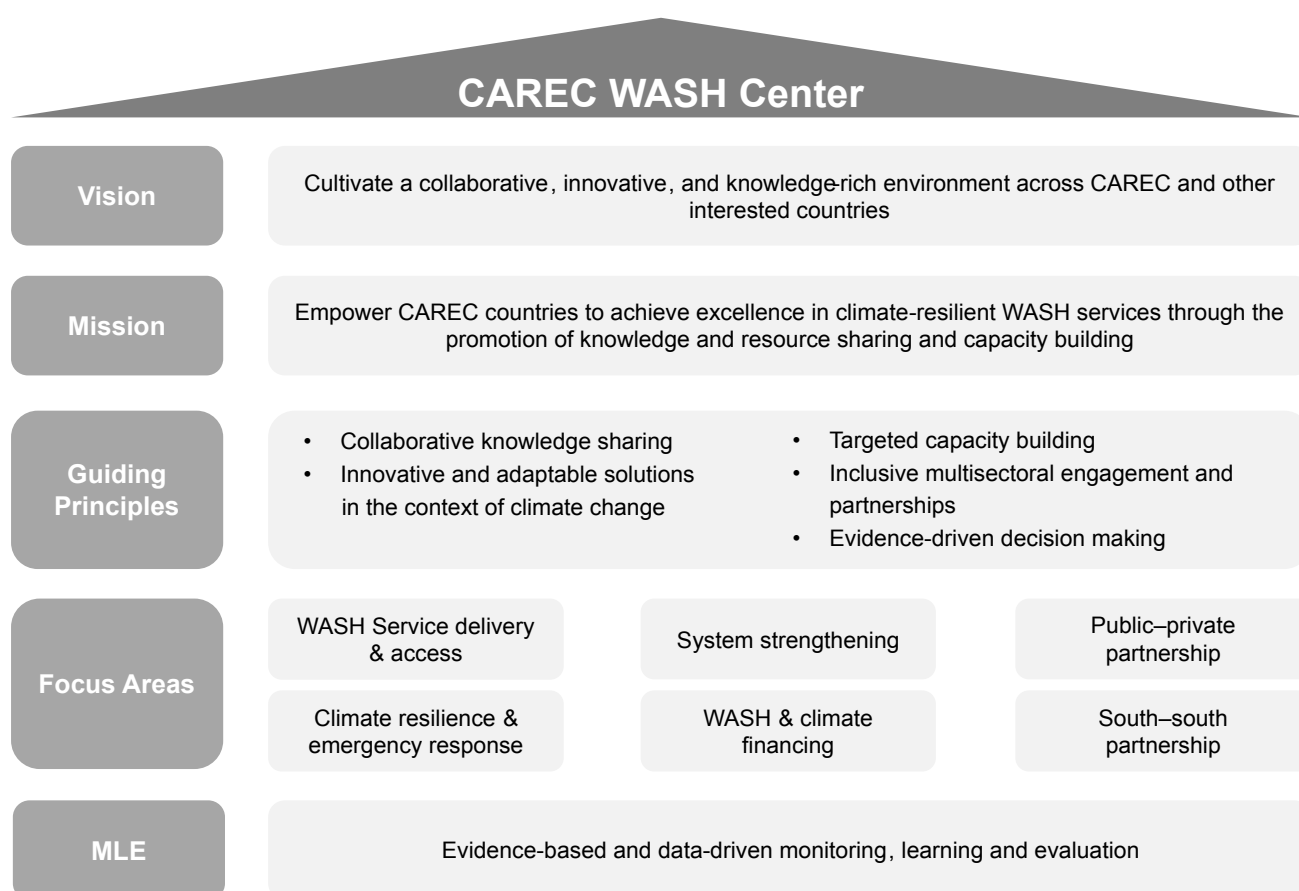


Figure 1.1 Strategic framework of the CAREC WASH Centre

1.3 The roles of each of the partner organization

The partnership aims to establish a virtual CAREC WASH Centre to enhance knowledge sharing, capacity building, and the dissemination of WASH best practices 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 to promote best WASH practices in multiple languages (English, Russian, and Chinese) and to facilitate 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.

Chapter II.

Proposed work pillars of the CAREC WASH Centre

The CAREC countries face numerous challenges in enhancing WASH systems. To ensure the platform effectively addresses stakeholder needs, the team conducted a series of consultations. First, they carried out an online survey to gather opinions on the knowledge gaps and challenges faced by stakeholders in the region. This was followed by an online consultation to gain deeper insights into the specific issues they were encountering. Finally, an in-person consultation was held, which allowed for further refinement of the Virtual WASH Center based on direct feedback. 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 the survey distributed to government, academic, and NGO stakeholders in the CAREC countries in March 2024, 27 percent of respondents reported that 'conflicts between different sources of information,' outdated information, and 'information was too brief or general'. When asked about challenges in accessing WASH-related training, 31 percent of respondents reported never receiving an invitation, 17 percent did not know where to access training, and 19 percent found the training irrelevant to their region or situation. The full English survey content and survey results can be seen in [Appendix A](#).

In consultation meetings with stakeholders, many expressed that having channels to learn about climate-resilient, innovative, and cost-effective WASH strategies, technologies, and the lessons learned from other countries would be helpful. A mechanism for resource sharing, collaboration, and capacity development was frequently highlighted as a priority when discussing potential solutions. Surveyed participants identified WASH financing, technology, service delivery strategies, climate-resilient WASH, and monitoring and evaluation (M&E) as key technical priority areas.

2.1 Work pillars of the Centre

Currently, the Centre offers preliminary features, including the storage and presentation of WASH knowledge and training materials and targeted search functions for these materials. To expand its reach and effectiveness, it is recommended that the Centre should incorporate additional features and functions. Following a survey and consultation with local stakeholders and international experts, the following features have been proposed for inclusion in the five-year development plan:

- An intelligent database of technical resources on WASH and climate change.
- A page displaying granular and up-to-date data on climate-resilient WASH performance indicators tailored to the regional context.
- A platform to showcase and procure innovative and replicable WASH technologies as well as WASH emergency supplies.
- A platform to share funding, procurement, and project collaboration opportunities in the region.
- A hub to acquire regionally recognized training and certificates.
- A virtual venue to facilitate policy dialogues and sectoral policymaking.

The implementation of the Centre's features depends on sufficient financial and human resources. To achieve the Centre's vision and mission, a theory of exercise change was conducted as outlined in Figure 2.6.

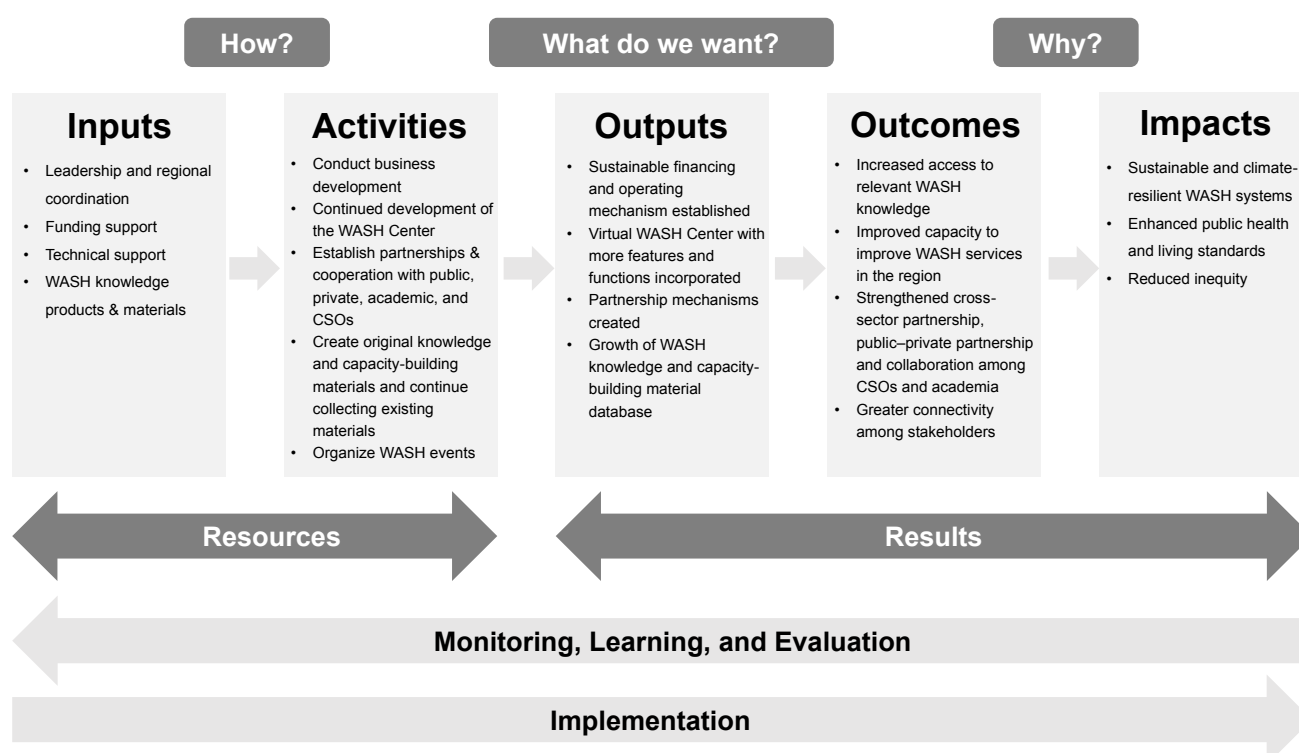


Figure 2.6 Theory of change of the proposed work pillars

Inputs

- Establish leadership and regional coordination by the CAREC Institute through its existing coordination mechanism with CAREC member countries.
- Further build upon the partnerships of UNICEF, the ADB, and the CAREC Institute to develop a sustainable financing mechanism and long-term financing strategy.
- Provide 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 interest-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, civil society organizations (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 practices, WASH performance indicators tailored for the region and WASH training toolkits and targeted programmes 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 peer-to-peer knowledge sharing workshops to facilitate partnerships and promote technical exchanges.

Outputs

- Establish sustainable financing and operating mechanisms.
- Introduce additional features and functions to the virtual WASH Centre.
- Create partnership mechanisms.
- Expand the database of WASH knowledge and capacity building materials.

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.

Impacts

- 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 dialogues, project collaboration, and funding opportunities underscores the Centre's commitment to advancing peer-to-peer and triangular collaboration as well as sustainable development. Showcasing innovative and climate-resilient WASH technologies and facilitating the supply and procurement of WASH products and services will highlight its focus on engaging the private sector as a key partner in achieving WASH goals.

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 detailed in Tables 2.2–2.5. Each proposed feature and its functional description, justification, and use are elaborated in Chapter III.

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

Work pillars	Alignment with the CAREC, ADB, and UNICEF strategies ^{1,2,3,4}
An intelligent database for technical resources on WASH and climate change	<ul style="list-style-type: none"> • CAREC 2030 operational priorities (v): Human development. • CAREC 2021–2025 strategic priorities (1.1): Adherence to the mission and guiding principles. • ADB 2030 strategy operational priorities (A): Addressing remaining poverty and reducing inequalities. • UNICEF strategic plan 2022–2025 change strategies (3): Data, research, evaluation, and knowledge management.
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"> • CAREC 2030 operational priorities (iv): Agriculture and water. • CAREC 2021–2025 strategic priorities (3.7): Adoption of digital approaches. • ADB 2030 strategy operational priorities (C): Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability. • ADB 2030 strategy operational priorities (D): Making cities more livable. • UNICEF strategic plan 2022–2025 change strategies (3): Data, research, evaluation, and knowledge management.

Work pillars	Alignment with the CAREC, ADB, and UNICEF strategies ^{1,2,3,4}
A platform for showcasing and procuring innovative and replicable WASH technologies as well as WASH emergency supplies	<ul style="list-style-type: none"> • CAREC 2030 operational priorities (i): Economic and financial stability. • CAREC 2021–2025 strategic priorities (3.4): Adopting an innovative knowledge management approach. • ADB 2030 strategy operational priorities (C): Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability. • UNICEF strategic plan 2022–2025 Change strategies (6): Innovation (7): Digital transformation.
A platform for sharing funding, procurement, and project collaboration of opportunities in the region	<ul style="list-style-type: none"> • CAREC 2030 operational priorities (i): Economic and financial stability. • CAREC 2021–2025 strategic priorities (3.5): Improving partnerships and network. • ADB 2030 strategy operational priorities (G): Fostering regional cooperation and integration. • UNICEF strategic plan 2022–2025 change strategies (7): Partnerships and engagement: public and private.
A hub for acquiring regionally recognized training and certificates	<ul style="list-style-type: none"> • CAREC 2030 operational priorities (v): Human development. • CAREC 2021–2025 strategic priorities (3.3): Revitalizing capacity building approach—developing an e-learning platform. • ADB 2030 strategy operational priorities (A): Addressing remaining poverty and reducing inequalities. • UNICEF strategic plan 2022–2025 change strategies (9): System strengthening to <i>leave no one behind</i>.
A venue for facilitating policy dialogues and sectoral policymaking	<ul style="list-style-type: none"> • CAREC 2030 operational priorities (i): Economic and financial stability. • CAREC 2021–2025 strategic priorities (3.4): Adopting an innovative knowledge management approach. • ADB 2030 strategy operational priorities (F): Strengthening governance and institutional capacity. • UNICEF strategic plan 2022–2025 change strategies (1): Advocacy and communications.

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).⁷ This alignment 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 to other interconnected goals such as 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 and related targets.

Table 2.2 WASH Centre priorities and corresponding SDGs

Corresponding SDG targets	Relevance
SDG 1: No poverty	
SDG 1.4: Equal rights to ownership, basic services, technology, and economic resources	It aims to enhance the knowledge transfer between the People's Republic of China and other CAREC countries, promoting cross-country collaboration and learning. 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 programmes, the Centre will help reduce the economic burden on poor communities and enhance their resilience to economic and environmental shocks. This will ultimately enable 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.
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 programmes and workshops empower WASH policymakers, practitioners, and CSOs 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. These partnerships will encourage investment in WASH infrastructure and services, promoting economic development and poverty reduction.
SDG 3: Good health and well-being	
SDG 3.3: Fight communicable diseases	Promoting innovative and adaptable WASH solutions helps combat waterborne 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 universal public health coverage.
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 programmes for WASH professionals and stakeholders will strengthen the health workforce's ability to manage WASH services effectively. Enhanced skills and knowledge among health care providers will also contribute to better health outcomes and improved WASH service delivery.
SDG 6: Clean water and sanitation	

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

Corresponding SDG targets	Relevance
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	
SDG 6.3: Improve water quality, wastewater treatment and safe reuse	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 programmes 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 the best practice and solutions among local communities within CAREC countries, promoting community involvement in water, hygiene, and sanitation management. By sharing knowledge and experience, the Centre will help local communities enhance their capacities and management.
SDG 9: Industry, innovation, and infrastructure	
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. This will enhance technological capabilities within the WASH sector, encouraging innovation and improving infrastructure development.
SDG 9.6: Facilitate sustainable infrastructure development for developing countries	Capacity building programmes 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.

Corresponding SDG targets	Relevance
SDG 10: Reduced inequalities	
SDG 10.2: Promote universal social, economic, and political inclusion	Innovative WASH solutions tailored to local contexts can 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, thereby reducing inequalities in WASH outcomes. 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	
SDG 11: Sustainable cities and communities	
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.
SDG 11.8: Strong national and regional development planning	The Centre will facilitate the sharing of best practices and solutions among CAREC countries, facilitating collaboration between urban, peri-urban, and rural areas.
SDG 12: Responsible consumption and production	
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.
SDG 13: Climate action	
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.
SDG 17: Partnerships for the goals	
SDG 17.6: Knowledge sharing and cooperation for access to science, technology, and innovation	The Centre promotes knowledge sharing among CAREC countries and beyond, facilitating regional and international cooperation on WASH issues. By encouraging peer-to-peer and triangular collaboration and establishing partnership mechanisms that facilitate effective collaboration between governments, the private sector, and civil society implementing WASH initiatives, the Centre aims to build effective and inclusive partnerships and achieve sustainable WASH goals. Engaging diverse stakeholders in WASH initiatives fosters multistakeholder partnerships that mobilize resources and expertise to support the implementation of SDGs. By promoting 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 necessary to implement sustainable development initiatives, with a particular focus on capacity building in developing countries. By delivering targeted support and fostering international cooperation, the Centre will strengthen national capabilities to achieve WASH-related SDGs effectively and equitably.

2.3 Relevance to the CAREC Institute's regional strategy

The establishment of the WASH Centre is an initiative closely aligned with the strategic framework of the CAREC 2030 Strategy, which seeks to create an open and inclusive platform that connects people, policies, and projects for shared and sustainable development.¹ The CAREC Institute Strategy 2021–2025 further emphasizes the need for policy harmonization, capacity building, regional cooperation, infrastructure development, human development, research and innovation, and environmental sustainability to address common challenges and promote sustainable development in the region.²

This alignment is detailed below.

- **Policy development and harmonization**

The WASH Centre will facilitate policy development and harmonization across the CAREC region. It will promote policy dialogues among member countries and development partners to ensure that WASH policies align 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 priority for the WASH Centre. The CAREC Institute will support the WASH Centre in delivering knowledge solutions and capacity building efforts to provide training, workshops, and disseminate best practices.

- **Promoting regional cooperation**

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

- **Infrastructure development and connectivity**

Supporting infrastructure development and connectivity in the WASH sector is crucial for the WASH Centre. This work area will focus on promoting investments in resilient infrastructure, advancing sustainable urbanization, and enhancing climate resilience. Additionally, the Centre will work to enhance 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 these areas, address pandemic risks, and ensure that WASH initiatives are inclusive, benefiting all segments of the population.

- **Research and innovation**

The WASH Centre will prioritize research and innovation in the WASH sector, supporting the development and dissemination of innovative technologies and approaches to tackle regional WASH challenges. Furthermore, the Centre will strengthen partnerships with academic and research institutions to advance knowledge in the field and promote evidence-based solutions.

- **Environmental sustainability**

Promoting environmental sustainability is a key priority of 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 ensuring the sustainable management of water resources.

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; result areas from UNICEF's Strategy for Water, Sanitation, and Hygiene 2016–2030;

and programmatic commitments from UNICEF's Core Commitments for Children in Humanitarian Action (CCCs).^{4,8,9} This alignment supports the shared goal of achieving universal and sustainable access to WASH services.

By positioning itself as the leading platform for sharing expertise and by stimulating sustainable WASH solutions, the Centre will prioritize sustainable and climate-resilient WASH services, ensuring access for all, including children and vulnerable groups in the CAREC region. In doing so, the Centre will 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 health care, nurturing practices, and essential supplies**
 - The Centre's focus on enhancing WASH services aligns with UNICEF's goal of ensuring quality primary health care. Improved sanitation and hygiene in health care settings are essential to prevent infections and promote overall health, crucial for children to survive and thrive.
 - By making training available to health care staff, the Centre contributes to addressing training gaps and therefore improving good WASH practices. The Centre helps prevent the spread of infectious diseases, particularly by 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. By ensuring clean and accessible sanitation facilities, the Centre helps improve student health, attendance, and overall well-being, creating an enabling environment for children to learn and acquire essential skills for the future.
 - 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 the spread of infectious diseases and related illnesses, but also instils lifelong good 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 improve WASH infrastructure in the CAREC region by upgrading existing outdated WASH facilities and developing new ones, particularly in rural and underserved areas. These efforts will ensure that children have access to safe water and adequate sanitation.
 - To enhance climate-resilience, the Centre will promote the adoption of sustainable and adaptive WASH technologies and practices. By strengthening water and sanitation systems, the Centre will ensure that WASH infrastructure will be able to 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. This includes adopting technologies and strategies that ensure the long-term availability of WASH resources. By supporting sustainable access to clean and safe WASH services, the Centre aligns with UNICEF's goal of providing access to clean and safe WASH services for children and vulnerable populations, 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 learning institutions.

8 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>

9 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)

- To improve decision-making, the Centre will strengthen data collection, analysis and monitoring mechanisms for WASH institutions. By utilizing advanced tools to track progress and identify gaps, stakeholders can make informed and targeted decisions to improve WASH services.
- **UNICEF strategy for WASH 2016–2030 results area 5: WASH in emergencies**
 - By rapidly restoring and maintaining WASH infrastructure in affected areas, the Centre will help ensure continued access to safe water and sanitation during emergencies, reducing the risk of outbreaks of water-borne diseases and other health risks.
 - By promoting the development of resilient WASH infrastructure, the Centre strengthens systems to withstand and recover from emergencies, thereby reducing vulnerability and improving the overall resilience of communities.
- **UNICEF core commitment: Children and their communities have equitable access to and use safe water and sanitation services, and adopt good hygiene practices**
 - By facilitating knowledge sharing and partnerships on climate-resilient child-sensitive WASH practices, policymakers and practitioners across the CAREC region will have better access to WASH knowledge and resources, thus leading to better child-centered WASH policies and programmes and to more tailored WASH services that address the specific needs of children.

2.5 Relevance to ADB's mission and 2030 operational priorities

The Centre is aligned with ADB's mission and 2030 strategy as it addresses poverty reduction, infrastructure development, regional cooperation, climate resilience, and governance.³ 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 nurturing 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. Upgraded WASH facilities play a vital role in improving 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 of building resilience to climate change and natural disasters. By emphasizing sustainable and adaptive WASH solutions, the Centre contributes to environmental sustainability and supports disaster preparedness.
- **ADB 2030 strategy operational priority 4: Making cities more livable**
Improving WASH infrastructure in urban areas contributes to making cities more livable. The Centre's focus on developing long-term strategic plans for urban water supply and sanitation aligns with ADB's objective of improving urban living conditions and providing essential services for all urban residents.
- **ADB 2030 strategy operational priority 6: Strengthening governance and institutional capacity**
The Centre's initiatives to strengthen WASH systems through capacity building, governance improvements, and institutional support align with ADB's objectives of improving governance and institutional capacity in member countries.
- **ADB 2030 strategy operational priority 7: Fostering regional cooperation and integration**
The Centre's focus on collaborative knowledge sharing and regional cooperation aligns with ADB's goal of promoting regional integration. By serving as a platform for cross-border learning and collaboration, the Centre enhances the region's collective capacity to address WASH challenges effectively.

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 public health security. Without enough professional support, local capacity in WASH-related fields struggles to be built, hindering the ability to implement effective and sustainable long-term solutions. Additionally, connecting with and assessing relevant expertise for WASH projects and matching professionals to projects is often cumbersome and time-consuming.

At present, a limited number of online platforms focus on WASH and climate change and maintain information about organizations or specialized individuals.¹⁰ For the CAREC region, there is no centralized platform that comprehensively catalogues organizations and experts with 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 a database that maintains information about organizations and 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, reinforcing 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.

¹⁰ 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 tracking their basic WASH status using SDG 6 indicators to measure progress against international targets and standards, countries are also increasingly utilizing WASH performance indicators as they can be tailored to specific contexts and priorities. This complementary approach allows for more nuanced assessments of water and sanitation services at the community level.

While several online platforms provide data on WASH and climate change, none effectively integrate 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.¹¹ The absence of a centralized and comprehensive data aggregation platform for Central Asia results in inconsistent reporting and limited accessibility and usability of data, hindering the ability of policymakers to assess the true state of WASH services and identify critical areas for improvement.

A dedicated page or data portal embedded in the Centre will display granular and up-to-date data on climate-resilient WASH performance indicators across the region. This page will include links to the existing databases and, where appropriate, draw on them for data and data visualizations. Initially, the data feature of this page is limited to downloadable, analyzable datasets, clearly characterized by topic, source, and geography. Future features may include interactive tools for data manipulation and visualization. These may include:

- **Geospatial visualization:** interactive maps to visualize WASH indicators geographically with population, climate, and other data overlays.
- **Trend analysis:** tools for analyzing trends over time, allowing users to identify patterns, correlations, and anomalies in WASH indicators. These could include time series graphs, trend lines, and statistical analysis tools.
- **Comparative analysis:** a tool to 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:** a tool to 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:** climate-related data and indicators integrated 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.

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. The availability of accessible and up-to-date data promotes accountability among stakeholders involved in WASH initiatives. Transparent reporting of performance indicators is expected to foster trust and encourage collaboration between government agencies, NGOs, and local communities. Additionally, it enables the analysis and identification of best practice and innovative approaches in climate-resilient WASH.

¹¹ Please see Table B.2 in [Appendix B](#).

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

The private sector holds immense promises 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 hazards and resulting 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 showcasing innovative technologies and solutions.¹² 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 showcasing replicable technologies limits the dissemination of best practices and innovative solutions, restricting stakeholders in Central Asia from accessing proven WASH solutions. Additionally, the lack of verified WASH emergency supplies leads to delayed and inefficient delivery of critical supplies and reduces the effectiveness of emergency response efforts.

The Centre will document and showcase WASH-related technologies and application cases, with a focus on innovation, climate resilience, and inclusivity, to uphold the principle of 'leave no one behind.' This will include innovative and validated WASH technologies and products designed for emergency contexts, ensuring lifesaving solutions that reach remote populations. 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, with a focus on climate-resilient and innovative ones. Selected products will be presented together with detailed descriptions and technical specifications. Any technology already successfully implemented will be highlighted, to provide 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 prices of products and solutions will be available, along with producers and contact information. Registered users will be able to search and compare products. NGOs, local governments, and individuals requiring products and services will be able to easily reach suppliers and solution providers.

By providing access to providers of validated emergency supplies, the platform will help improve preparedness and resilience against climate-induced extreme weather events, while also enhancing market access for private sector suppliers and increasing procurement efficiency for WASH solutions among public and private entities through better connections between suppliers and purchasers. Showcasing technologies can also contribute to increased business opportunities and market expansion, and can inspire private companies to invest in WASH research and development, leading to the creation of new products and services that address WASH challenges more effectively.

¹² See Table B.3 in [Appendix B](#).

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, hindering the efficient implementation of WASH projects and restricting avenues for regional cooperation. This is partly due 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.¹³

Few platforms focus on WASH resources and collaboration, as shown in Table B.4; however, there is still scope in the CAREC region for a platform that comprehensively integrates funding, bidding, and project collaboration.¹⁴ 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 combines bidding, funding, and project collaboration opportunities in the region. 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**
 - An up-to-date database of funding opportunities, including grants, loans, and investment programmes from governments, international organizations, and private sector entities.
 - The ability for users to search for funding opportunities based on criteria such as project type, geography, funding amount, and eligibility requirements.
- **Project collaboration triage**
 - 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.
- **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 and will include their profiles, qualifications, and past project experience.
- **Matchmaking for public–private partnerships**
 - 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 aid transparency, attract investment, and facilitate the synthesis of funds from diverse sources, thereby engendering more effective and sustainable WASH solutions.¹⁵ It can increase 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, essential for long-term sustainability.

¹³ 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>

¹⁴ Please see Table B.4 in Appendix B.

¹⁵ 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>

3.5 A hub for acquiring regionally recognized training and certificates

The CAREC region faces challenges in 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 never having received any invitation to training or not knowing where to obtain 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, ultimately undermining the quality and consistency of WASH initiatives across the region. According to research by the ADB, service delivery efficiency in Central Asia is below the regional average, with only 70 percent of the water distributed meeting safety standards.¹⁶ Furthermore, a significant portion of WASH projects in Central Asia experience delays and budget overruns due to a lack of skilled professionals and inadequate training programmes.¹⁷

There are some existing global websites and platforms that focus on WASH trainings.¹⁸ However, these training resources have not yet been fully utilized and developed by WASH stakeholders in Central Asia, because they are not tailored to the needs of the CAREC countries or sometimes not even available in national languages.

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

- **Targeted training programmes**
 - Comprehensive training curricula covering key areas where participants can select courses based on their specific needs and professional development goals.
 - The Centre aims to engage WASH experts and practitioners to develop targeted training programmes, 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.
 - The Centre will combine in-person and online training methods for a flexible and comprehensive learning experience.
- **Regionally recognized certifications**
 - A framework for continuing professional development, encouraging ongoing learning and skill enhancement.
 - 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 across the region can lead to greater consistency and quality in WASH services. Trained professionals can apply the best practice and innovative solutions to address the complex challenges in the WASH sector.

16 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>

17 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>

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

3.6 A venue for facilitating policy dialogue and supporting policymaking

The CAREC region faces significant challenges in formulating and implementing effective WASH policies owing to fragmented efforts, limited regional cooperation thus far, and a lack of structured platforms for policy dialogue. The absence of a unified platform for policy dialogue 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 existing platforms have sought to facilitate policy dialogues and exchanges in the area of WASH.¹⁹ However, gaps remain in the development of integrated WASH policies and 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.

The Centre can serve as a centralized venue that facilitates policy dialogue, supports evidence-based policymaking, and encourages regional cooperation between government officials, experts, and stakeholders from across the region to discuss and develop integrated and evidence-based WASH policies. It will include the following functions:

- **Facilitating policy dialogues**
 - Embed an interactive online hub in the Centre where policymakers, experts, practitioners, and other stakeholders can engage in dialogues, discussions, share insights, exchange ideas, and propose solutions.
 - Organize regular policy dialogue forums bringing together government officials, experts, and stakeholders from across the CAREC region.
- **Supporting policymaking**
 - Organize policy accelerator exercise to support multi-country cohorts, creating a peer-exchange environment where participants work alongside each other to tackle related local WASH challenges.²⁰
 - Upon request, the Centre will compile and disseminate the best practices and successful case studies from within the region and globally.
 - Upon request, the Centre will conduct research on regional WASH issues, including 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 serving as a hub for policy dialogues, the Centre can improve 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, aligned with regional priorities and international standards.

¹⁹ Please see Table B.6 in [Appendix B](#).

²⁰ Vital Strategies, Policy Accelerator, <https://www.vitalstrategies.org/policy-accelerator/>

3.7 Suggestions for financing the Centre

To ensure sustainable financing of the Centre: a combination of diversified revenue streams, strategic partnerships, and efficient resource allocation is necessary. The following strategies and actions can be implemented.

- **Grants and donations**

- Conduct a comprehensive grant search to map out and seek grant opportunities from international organizations, governmental agencies, and philanthropic foundations. Establish partnerships with NGOs and corporate entities interested in supporting WASH initiatives. Crowd funding 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, 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 with paid membership.
- Provide discounts or special offers for early adopters and long-term subscribers to incentivize membership.

- **Advertising and sponsorships**

- Generate revenue from the platform by allowing targeted advertisements for WASH-related products, services, and events.
- 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 practices.
- Promote CSR, and facilitate environmental, social, and governance assessments 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 growing challenges in the CAREC region's WASH sector. The COVID-19 pandemic highlighted the need for robust WASH systems to prevent disease transmission and safeguard public health. As the region grapples with outdated infrastructure, limited capacity for upgrades, and the escalating impacts of climate change, the Centre will emerge as a beacon of knowledge sharing, innovation, and capacity building. It will act as a pivotal platform for governments, the private sectors, NGOs, and academia to collaborate on addressing the multifaceted WASH challenges. By fostering innovative solutions and data-driven approaches, the Centre will accelerate progress toward achieving SDGs while promoting 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 dialogues and providing a platform for funding and collaboration opportunities will strengthen governance, facilitate regional cooperation, and enhance institutional capacity. Its proposed role as a central repository for cross-regional evidence-based WASH best practices and innovative technologies will increase the 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 natural 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 to secure 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 & 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.

By continuously developing new features, the virtual WASH Centre aims to become the go-to website for WASH-related policymakers, practitioners, and researchers, fostering a more informed and connected community dedicated to improving water, sanitation, and hygiene systems. The successful implementation of the Centre may face challenges such as securing financial support and ensuring active engagement from CAREC member countries. Addressing these challenges will require strategic resource mobilization through public-private partnerships, as well as strong political alignment facilitated by the CAREC Institute.

Appendix A: Online survey and results

Basic Information (*required)

1. Name*: _____
2. Address*: _____
3. What is your title and affiliation? *
4. What are your working areas (choose all that apply)? *
 - ☐ Water
 - ☐ Sanitation
 - ☐ Hygiene
 - ☐ WASH in general
 - ☐ Health
 - ☐ Environment
 - ☐ Climate/meteorology
 - ☐ Energy
 - ☐ Agriculture
 - ☐ Emergency response/Disaster risk reduction
 - ☐ Territorial Administration, Infrastructure (including Construction)
 - ☐ Urban development
 - ☐ Policy advocacy
 - ☐ Finance
 - ☐ Engineering
 - ☐ Communication
 - ☐ Other_____
5. What function best describes your current professional responsibility? *
 - ☐ Team lead
 - ☐ Project management
 - ☐ Grant management
 - ☐ Technical advisory
 - ☐ Research
 - ☐ Project implementation
 - ☐ Service delivery
 - ☐ Political leadership
 - ☐ Other_____

6. How many years have you been working in the area of WASH? *

- ☐ Less than 1 year
- ☐ 1-5 years
- ☐ 6-10 years
- ☐ More than 10 years

WASH Decision Making Behaviour (*required)

7. Where (both virtually and in-person) do you typically go to seek information addressing your WASH-related questions? (choose all that apply, select maximum 3 options) *

- ☐ Government agencies
- ☐ Global monitoring programs/data portals (e.g. JMP, GLAAS)
- ☐ International civil society (non-governmental) organizations
- ☐ Local civil society or community organizations
- ☐ Multilateral organizations (e.g., ADB, World Bank, WHO, UNICEF)
- ☐ News outlets
- ☐ Academic journals
- ☐ Partnership networks (e.g., SWA)
- ☐ Private companies
- ☐ Universities (foreign)
- ☐ Universities (local)
- ☐ Other_____

8. From what sources (both virtually and in-person) do you deem most trustworthy and authoritative when you look for WASH-related materials to support your decision making? (choose all that apply, select maximum 3 options) *

- ☐ Government agencies
- ☐ Global monitoring programs/data portals (e.g. JMP, GLAAS)
- ☐ International civil society (non-governmental) organizations
- ☐ Local civil society or community organizations
- ☐ Multilateral organizations (e.g., ADB, World Bank, WHO, UNICEF)
- ☐ News outlets
- ☐ Academic journals
- ☐ Partnership networks (e.g., SWA)
- ☐ Private companies
- ☐ Universities (foreign)
- ☐ Universities (local)
- ☐ Other_____

9. Please type in the BEST source of WASH information in your opinion*: _____

10. In what language do you access WASH related information? *
- ☐ Russian
 - ☐ English
 - ☐ Chinese
 - ☐ Other_____
11. Which language do you wish the information to be in? *
- ☐ Russian
 - ☐ English
 - ☐ Chinese
 - ☐ Other_____
12. Experience and knowledge from which geographic regions would you like to learn more about when it comes to WASH-related information? (choose all that apply, select maximum 3 options) *
- ☐ Central Asia
 - ☐ Africa
 - ☐ East and Southeast Asia
 - ☐ Western Europe
 - ☐ Eastern Europe
 - ☐ North America
 - ☐ South America
 - ☐ Eastern Mediterranean/Middle East
 - ☐ Global
 - ☐ Other_____
13. Which of these informational formats do you typically prefer when addressing your WASH-related questions? (choose all that apply, select maximum 3 options) *
- ☐ Book
 - ☐ Scientific or professional journal article
 - ☐ Research report
 - ☐ Bulletin, poster, or flyer
 - ☐ Videos
 - ☐ News (e.g., television, radio, newspaper, online newsletters)
 - ☐ Social media post (e.g., LinkedIn, Twitter)
 - ☐ Online course/training module
 - ☐ Online discussion forum
 - ☐ Seminar/lecture
 - ☐ Webinar (virtual seminar/lecture)

14. What challenges did you experience when seeking information to make WASH-related decisions? * (choose all that apply, select maximum 3 options)

- ☐ Could not find/access the needed information
- ☐ Conflicts between different sources of information
- ☐ Too much relevant information and information not well-organized
- ☐ Information was not trustworthy/reliable
- ☐ Information was outdated
- ☐ Information was too brief or general
- ☐ Information was too lengthy or technical
- ☐ Information was not available in my native language
- ☐ Other_____

15. What challenges did you experience when seeking WASH-related training or educational opportunities? * (choose all that apply, select maximum 3 options)

- ☐ Do not know where to get training
- ☐ Never receive notice/invitation
- ☐ Training not relevant to my region/situation
- ☐ Too busy to participate
- ☐ Too expensive
- ☐ None
- ☐ Other_____

16. Based on your mastery of the following WASH Topic and your understanding of your country's WASH agenda, how high a priority is in increasing your knowledge and competency in the following areas? * (select one category for each row).

	Not a priority	Low priority	Moderate priority	High priority
Basic WASH service delivery strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available WASH technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH legal and regulatory framework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH policy making and policy advocacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH financing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH monitoring and Evaluation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH risk & health impact assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH in school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH in healthcare facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate resilient WASH	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH in emergencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WASH culture in your country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Are there any other WASH areas you think are high priority for your country? Please type in text if there are any: _____

WASH Long-term Strategy

18. The Virtual WASH Centre will be a web-based, public facing knowledge and resource portal on WASH for Central Asia countries. What three features are features you would most like to see in such a Centre? *
- ☐ WASH related knowledge materials
 - ☐ WASH related training materials
 - ☐ WASH data for the region
 - ☐ WASH related news in the region
 - ☐ WASH related funding/financing opportunities for the region
 - ☐ WASH related public partnership opportunities for countries in the region
 - ☐ WASH technology documentation
 - ☐ WASH products supply and purchasing channel
 - ☐ WASH technical/professional resources available for the region
 - ☐ Interactive discussion forum for stakeholder engagement
 - ☐ Other _____
19. Other advice you'd like to give regarding building a Virtual WASH Centre for the region? _____
20. Would you be willing to be interviewed by us to get more clarity on your answers?
- ☐ Yes
 - ☐ No

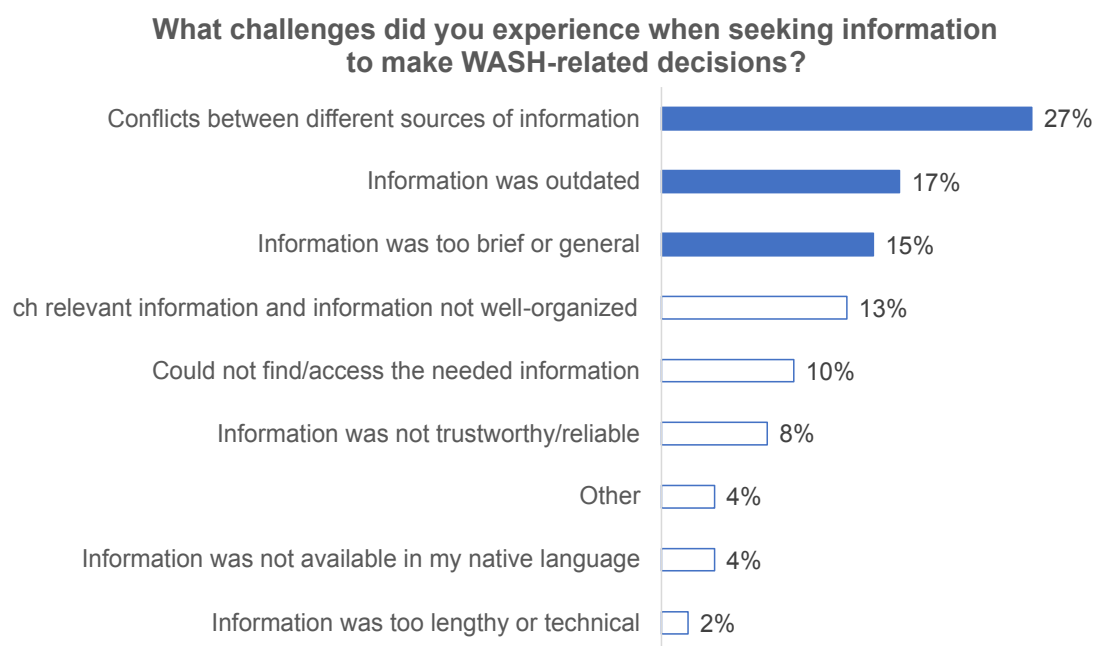


Figure A.1 Challenges encountered by respondents in seeking WASH information

What challenges did you experience when seeking WASH-related training or educational opportunities?



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?

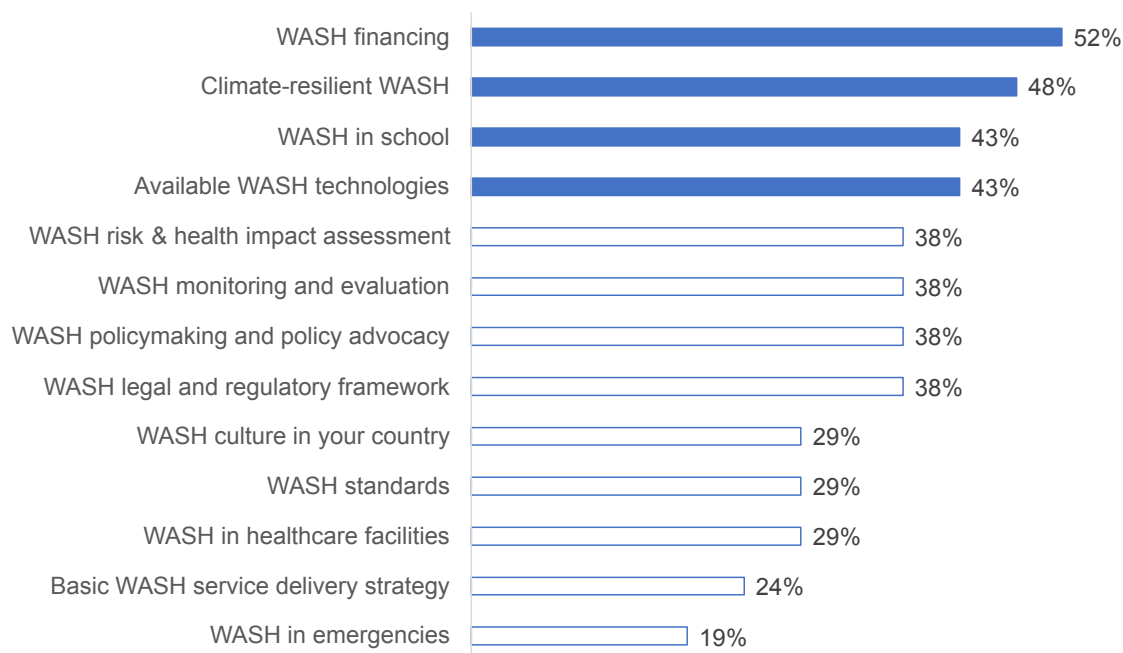


Figure A.3 Percentage of respondents identifying different areas as high priorities

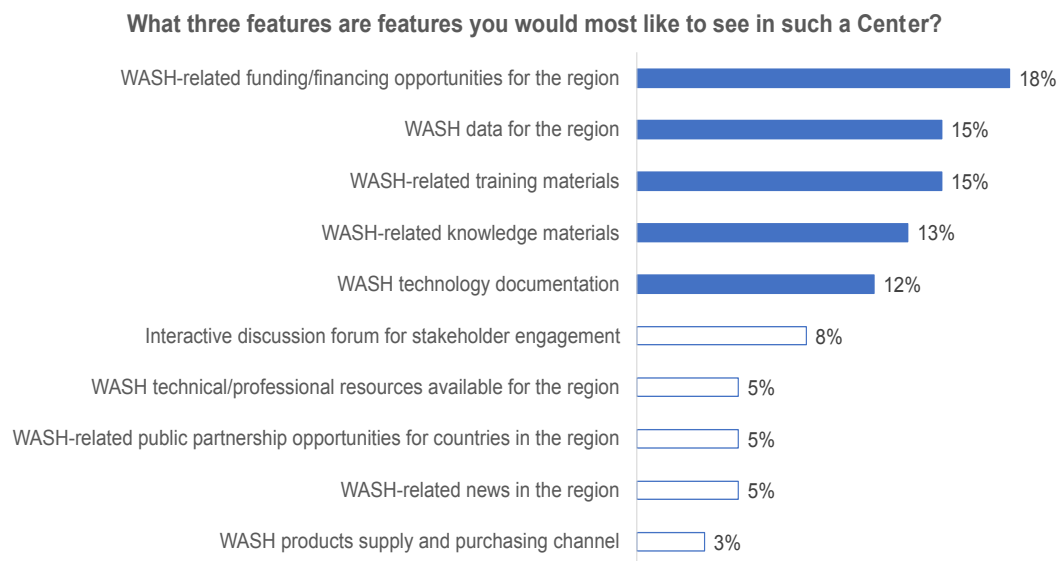


Figure A.4 Features respondents would most like to see in the Centre during an online survey

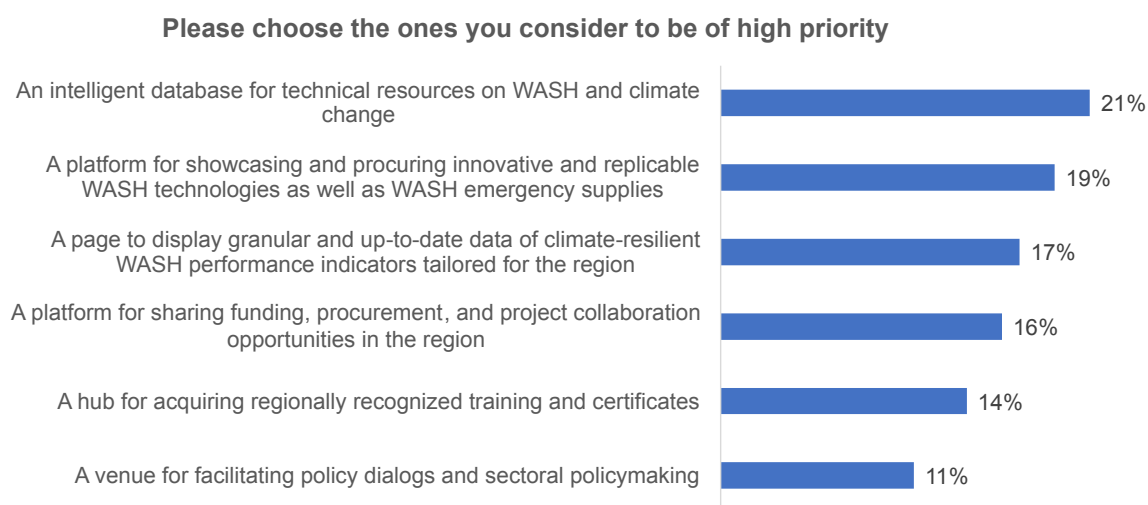


Figure A.5 Features that respondents consider to be of higher priority during in-person consultation

Appendix B: Desk research results on websites with relevant functions

Table B.1 Online knowledge sharing platforms and databases facilitating exchanges between WASH organizations and experts

Platform	Introduction
SuSanA Partners	SuSanA is an extensive network of organizations and individuals dedicated to sustainable sanitation. The SuSanA Partners directory allows users to find organizations working on various aspects of sanitation, hygiene, and water management.
ReliefWeb	ReliefWeb's directory provides comprehensive contact information for organizations involved in humanitarian relief globally, including those specializing in WASH and climate change.
The Water Network	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
WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP)	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"> Extensive datasets on WASH indicators, disaggregated by country and demographic factors, tracking progress from 1990 to the present. Detailed reports offer in-depth analysis of WASH conditions, including national monitoring efforts and methodologies. Regular global and regional assessments of progress towards WASH targets, along with thematic reports on specific WASH aspects. Standardized indicators, definitions, and data collection methodologies for consistent and comparable monitoring. Data portal for visualization, custom analyses, and downloads; training materials for capacity building.
United States Centers for Disease Control and Prevention (CDC)–WASH	The CDC's Global WASH programme aims to reduce illness and death from waterborne disease and improve global access to safe WASH.	<ul style="list-style-type: none"> Comprehensive guidelines on WASH practices. Research findings and data on waterborne disease and WASH interventions.

Table B.3 Existing platforms showcasing innovative technologies and solutions

Platform	Introduction
Asian Infrastructure Investment Bank (AIIB) InfraTech Portal	The AIIB InfraTech Portal is an initiative designed to promote and support the integration of technology into infrastructure projects across Asia and beyond.
China Water and Sanitation Technology E-Catalog (WASH-CAT)	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
<u>WASH Funders Group</u>	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.
<u>Global Water Partnership (GWP)</u>	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.
<u>WASH Cluster Field Support Team (FST)</u>	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.
<u>PPIAF supported by the World Bank</u>	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 Selected examples of WASH training websites and portals

Platform	Introduction
<u>Global WASH Cluster (GWC)</u>	GWC has developed a training pathway for WASH Cluster partners and coordination staff.
<u>UNICEF WASH Training Catalogue</u>	The catalogue covers all the major WASH topics, and courses range from basics and fundamentals to advanced courses with in-depth subject detail.
<u>OCHA ReliefWeb</u>	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.
<u>IRC WASH</u>	The learning platform for strengthening WASH systems. The courses are designed to help users create and maintain strong and reliable water and sanitation services for communities.
<u>Water and Sanitation for Health Facility Improvement Tool (WASH FIT) Training Modules</u>	WASH FIT involves training modules and exercise sheets.
<u>DisasterReady</u>	Choose from more than 1500 free WASH online courses donated by leading NGOs.

Table B.6 Existing platforms for WASH policy dialogue

Platform	Introduction
<u>Sanitation and Water for All (SWA)</u>	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.
<u>WASH Agenda for Change</u>	WASH 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.
<u>The Collaborative Africa Budget Reform Initiative (CABRI) Policy Dialogue</u>	The CABRI Policy Dialogue 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 communication and understanding, leading to quality services and better WASH outcomes.

**Knowledge Management Division, CAREC Institute
20th & 21st Floor, Commercial Building Block 8,
Vanke Metropolitan,
No. 66 Longteng Road,
Shuimogou District,
Urumqi,
Xinjiang,
PRC, 830028
km@carecinstitute.org**

