

Requesting Division	Knowledge Management Division
Area of Expertise	Public affairs with focus on water and environment, or a related field
Category	4 National Consultants: 1 from China, 1 from Uzbekistan, 1 from Tajikistan, and 1 from Mongolia.
Submission	Applicants shall submit their application documents to warrenz@carecinstitute.org before 24:00(Beijing Time), 11 June 2020.
Application Documents	<ol style="list-style-type: none"> 1. Curriculum Vitae 2. Cover letter and brief for experience on water management or UNICEF related projects (within 1000 words) 3. Optional - Preliminary design on report structure and case study(within 500 words) (Annex 3 if applicable)

**TERMS OF REFERENCE FOR
UNICEF and CAREC Institute (CI) Joint Research Cooperation on Water Resources
Management**

Fresh water is one of the most crucial factors for economic, social and human development around the globe. The UN forecasts that a half of population of the planet or more than 5.5bn people will suffer from water shortage by 2050. The water shortage at surface and aquifer level has become an acute issue for the Central Asian region whose population is expected to hit 90mn people by the mid-21st century. Amid these conditions, the issue of international cooperation on sustainable water resources management and conservation of this vital resource for future generations gains a critical importance. Agriculture plays prominent role in the development strategies of Afghanistan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan, requiring an emphasis on efficient water use.

Globally, more than 800 million and 2.5 billion of the world's population, respectively, do not have access to safe drinking water and water sanitation, while for the relevant CAREC countries in this research, the populations with access to safe water is all below the world's average. At the same time, pressure on the region's water resources is expected to continue rising due to climate change impact and positive demographics. According to the World Bank, due to climate and wasteful consumption of water in agriculture, coupled with central Asian population growth at its current rate of 1.5 % per year, the amount for water supply is estimated to be just one-quarter of current average consumption. Moreover, due to climate impact, water availability will be reduced by 7-8% by 2030 (CAREC Institute.2020).

The Central Asia region has a highly varied geography, which includes high mountains; vast deserts; and treeless, grassy steppes. The two major rivers are the Amu Darya and the Syr Darya. The Aral Sea is another major water reservoir for the region. However, the distribution of water resources is very difficult in Central Asia. This makes cross border water cooperation to be another important issue.

Effective, fair and mutually beneficial water cooperation is highly needed to catalyze the development of countries connected by common water basins. Therefore, efficient water management and effective transboundary cooperation in these countries will become even more crucial in the years to come.

I. National Consultants on Water Management in Mongolia, Tajikistan and Uzbekistan (1 from each country, 30 working days each, USD150 per day, teleworking/potential field visits, starting from June 2020)

Main Responsibilities and Tasks

1. Under the supervision of the UNICEF-CI Joint Task Force and guidance of the Research Team Leader, work closely with research team members to ensure successful delivery of research results;
2. Collect country-specific materials and conduct desk research on the critical water challenges of rural and urban communities most in need, on aspects such as water for people (including water supply, sanitation and hygiene); water for food; water for nature; water for industries (incl. energy) and/or other use;
3. Conduct mapping of policies and practices of the selected country on supply of safely managed water and related sanitation and hygiene (such as WASH in schools and health facilities), efficient water application and treatment (including nexus approach for water, food and energy to ensure sustainable water resources if appropriate) and climate-resilient water solutions, particularly for most vulnerable women, children and their communities;
4. Draft recommendations on the matrix of feasible modalities to strengthen community-based water schemes and balance the distribution of water for drinking, agriculture and other use in rural areas of the targeted countries (including modeling work to balance demand/supply of water resources if appropriate);
5. Provide options how to enhance South-South knowledge sharing and application of environmentally friendly, energy efficient and climate resilient technologies for local water management to help ensure access to safe water, sanitation and hygiene;
6. Identify national demands of investment for improving access to safe water supply, related sanitation and hygiene (incl. looking at potential linkages with water infrastructure projects to benefit end-users); and conduct case studies of best practices on WASH supply chain and investment cases for sustainable water management solutions to benefit local communities;
7. Participate in design and implementation of relevant surveys, questionnaires, interviews, data collection and analysis, development of infographics, and drafting of the research report;
8. Participate in regular team meetings, planned seminar/CAREC Think Tank Forum session and give presentations, if and as requested.

Key Deliverables

1. One country-specific case study report prepared with a policy brief on cooperation modalities and policy options in the selected country (minimum 8,000 words).
2. Contribute to completion of a publishable research report (and translations of the executive summary into Russian and/or Mongolian, as tasked by the Team Leader).
3. Contribute to the development of a South-South cooperation project proposal for submission to ADB and other multilateral development partners.

4. Contribution in seminar and conferences organized by CI and UNICEF, if and as requested.

Minimum Qualifications and Competencies

1. Advanced university degree in water sciences, environment engineering, hydrogeology, or a related field;
2. A minimum of 10-15 years of work and related research experience in the field of water, environment, sanitation and hygiene, and relevant field experience in working for the UN, international financial institutions and/or INGOs;
3. Good Knowledge of international and national policies, best practices and technology for water supply and related sanitation and hygiene aspects, water application efficiency and climate-resilient water management, preferably in the context of CAREC countries;
4. Strong interpersonal skills, team work spirit and ability to work independently under tight deadlines;
5. Fluency in English (verbal and written) is required, and a good written and spoken proficiency in another CAREC language (such as Russian and/or Mongolian) is an asset.

II. Chinese National Consultant on Water Management (30 working days, USD150 per day, teleworking/potential field visits, starting from June)

Main Responsibilities and Tasks

1. Under the supervision of the UNICEF-CI Joint Task Force and guidance of the Research Team Leader, work in close collaboration with the research team members to ensure successful delivery of research results;
2. Conduct desk research and identify sharable policies of the People's Republic of China (PRC), technology and experience to help address water challenges of rural and urban communities in the selected CAREC countries;
3. Provide mapping of policies, good practices and technology of the PRC on supply of safely managed water and related sanitation and hygiene (such as WASH in schools and health facilities), efficient water application and treatment (including nexus approach for water, food and energy) and climate-resilient water solutions, particularly for most vulnerable women, children and their communities;
4. Draft recommendations on feasible modalities to engage the PRC more efficiently in South-South Cooperation to help strengthen community-based water schemes and balance the distribution of water for drinking, agriculture and other uses in rural areas of the targeted countries (including modeling work to balance demand/supply of water resources if appropriate);
5. Provide recommendations to enhance South-South knowledge sharing and application of environmentally friendly, energy efficient and climate resilient technologies for local water management to help ensure access to safe water, sanitation and hygiene;
6. Identify matching points of the PRC investment, technology and products with market demands in the selected countries to promote application of sustainable water solutions to benefit local communities;
7. Participate in design and implementation of relevant surveys, questionnaires and interviews, drafting of the final research report;
8. Participate in regular team meetings, the planned seminar/CAREC Think Tank Forum session and give presentations, if and as requested;

9. Contribute to dissemination of the research findings.

Key Deliverables

1. One analytical report (minimum 8,000 words) documenting China's policies, practices and technology in the related areas and providing recommendations on potential scope and feasible modalities for South-South knowledge sharing with related CAREC countries.
2. Contribute to completion of a publishable main research report (English and Chinese versions).
3. Contribute to development of a South-South cooperation project proposal for submission to ADB and other multilateral development partners.
4. Contribution in seminar and conferences organized by CI-UNICEF, if and as requested.

Minimum Qualifications and Competencies

1. Advanced university degree in water sciences, environment engineering, hydrogeology, or a related field;
2. A minimum of 15 years of work and related research experience in the field of water, environment, related sanitation and hygiene thematic areas, and preferably with experience working for government or international organizations;
3. Good Knowledge of international and national policies, best practices related to water supply, sanitation and hygiene, water application efficiency and climate-resilient water management, preferably in the context of CAREC countries;
4. Strong interpersonal skills, teamwork spirit and ability to work independently under tight deadlines;
5. Fluency in English and Chinese (verbal and written) is an asset.