



## Terms of Reference for Provision of Hydrology Services

<b><u>Position:</u></b>	Provision of Hydrology Services
<b><u>Base station:</u></b>	Sughd (Khujand and Isfana watershed)
<b><u>Reporting to:</u></b>	Project Manager
<b><u>Announcement Date:</u></b>	24/12/2018
<b><u>Closing Date:</u></b>	10/01/2019

### **I. Background on ACTED**

Since 1993, as an international non-governmental organization, ACTED has been committed to immediate humanitarian relief to support those in urgent need and protect people's dignity, while co-creating longer term opportunities for sustainable growth and fulfilling people's potential. ACTED endeavors to respond to humanitarian crises and build resilience; promote inclusive and sustainable growth; co-construct effective governance and support the building of civil society worldwide by investing in people and their potential.

We go the last mile: ACTED's mission is to save lives and support people in meeting their needs in hard to reach areas. ACTED develops and implements programmes that target the most vulnerable amongst populations that have suffered from conflict, natural disaster, or socio-economic hardship. ACTED's approach looks beyond the immediate emergency towards opportunities for longer term livelihoods reconstruction and sustainable development. With a budget of 236.7 million EUR in 2017, ACTED is active in 37 countries and implements more than 500 projects a year reaching over 14.5 million beneficiaries with 300 international staff and 4,500 national staff.

### **II. Country Profile**

Capital Office: Dushanbe  
On-going Projects: 7 (2018)  
National staff: 52 (2018)  
International staff: 3 (2018)  
Total number of direct beneficiaries: 126 100 (2017)

ACTED entered in Tajikistan in 1996 at the final stages of the country's civil-war that erupted immediately after the fall of the former Soviet Union. Since then, ACTED has been standing by the country's most vulnerable communities, helping them shape their future in the face of the many challenges. ACTED long standing commitment to the Tajik population is focused on preserving the country's outstanding but fragile natural resources and ecosystem, supporting its vibrant civil society, and creating new economic opportunities. ACTED operates out of a central office in Dushanbe and 2 sub-regional offices in Sughd and GBAO, but manage projects in each of the country's four provinces.

Present in the country for nearly 20 years, ACTED Tajikistan's interventions have evolved from early stages of recovery- anti-malaria campaigns, school feedings- to today's development-oriented approach. Within this context, ACTED has worked to satisfactorily implement over 200 donor-funded interventions



designed to build community capacities in climate change adaptation and disaster risk management, improve local governance, and support sustainable rural development. Main donors of ACTED's mission in Tajikistan are Asian Development Bank, UN agencies (especially in collaboration with UNHCR, UNICEF and UNDP), the European Commission, the EBRD, USAID, DFID, the Swiss Development Cooperation and the World Bank.

ACTED has taken a multi-sector and multidisciplinary approach to social and economic development, and tailoring its responses to the needs of local populations. Its programmes in Tajikistan reflect the nexus between emergency relief and development which has seen the organization adopting a long term approach towards the development of the country. ACTED Tajikistan's programming rests on three strategic pillars:

- (i) Building Disaster Resilience,
- (ii) Co-constructing Effective Governance,
- (iii) Promoting Inclusive and Sustainable Growth.

### **III. Project Background**

Improved water resources and irrigation management is of great strategic importance for Tajikistan, since the agricultural sector depends heavily on irrigation and provides 24% of GDP and 64% of employment. The Swiss Agency of Development Cooperation (SDC) in Tajikistan supports the Government of Tajikistan through the National Water Resource Management Project (NWRM). The Project (Phase I) is implemented in the part of Syr Darya River basin located in northern Tajikistan (Sughd Oblast) by a consortium of three International NGOs: HELVETAS, GIZ and ACTED.

The SDC funded NWRM Project Phase 2 is about fighting the poverty, especially for vulnerable women and men living in rural communities in Tajikistan Syr Darya Basin. It aims at improving their livelihoods from irrigated agriculture as a result of improved irrigation under the reform of water sector in Tajikistan in lien with the basin and integrated water resources management. The project's Impact Hypothesis is based on the assumption that, improving coordination of the Water Sector Reform resulting with enabling legal and regulatory environment, will allow the basin and integrated water resources management, that will improve irrigation management resulting in increased water efficiency, that finally will improve livelihoods of farmers, with special focus on vulnerable women and men.

The project will work along three outcomes, which are closely interlinked:

Outcome 1: Relevant institutions apply basin management and IWRM legal and regulatory framework and implement the water reforms decided at national level;

Outcome 2: The Tajik Syr Darya Basin and sub-basin institutions manage water resources in line with IWRM principles;

Outcome 3: Irrigation agencies, Water User Associations, and farmers use water resources efficiently and sustainably.

ACTED implements:

- Output 8 of Outcome 2: **The consolidated Aksu DRR Watershed Management Plan is replicated effectively in Isfana Watershed including DRR transboundary dialogue at local level.**



- Output 11 of Outcome 3: **Implemented integrated DRR measures.**

Though the overall project area is the Tajikistan Syr Darya Basin, DRR watershed management interventions will be implemented by ACTED only in Aksu and Isfana watersheds.

#### **IV. Position Objective**

ACTED is looking for the company and/or individuals to provide hydrology services within the 2<sup>nd</sup> Phase of NWRM project. The hydrologist will have an important facilitating role in conducting the activities related to the hydrology aspects and provide technical expertise to related activities. He/She will use the existing information materials (reports, statistical data, etc.) obtained from the Watershed assessment conducted in 2019 for the Isfana watershed.

The incumbent will work under the supervision of the project manager to support ACTED team in delivering the following professional services under the scope of the project.

*Please see V. Responsibilities and Duties*

*Please see VII. Expected Deliverables.*

#### **V. Responsibilities and Duties**

1. Conduction of Isfana watershed assessment:
  - a. Develop ToR to define currently presented hydrological situation in the target area;
  - b. Develop tools for data collection;
  - c. Conduct and facilitate assessment;
  - d. Draft report on the results of the assessment containing the following information:
    - 1) Determination of the Isfana watershed area and the list of villages belonging to this watershed with mapping of the watershed area and risk level
    - 2) Distribution of the total territory between Tajikistan and Kyrgyzstan
    - 3) Amplitude of the altitude above the sea level of the Isfana watershed area (minimum and maximum), the zones of the watershed (territory of vertical zones), max. North-south length, max. East-West length, min. East West length
    - 4) Recommendations of priority actions and areas to reduce impact on frequency of water related disasters
    - 5) Next models with maps are to be included into the report:
      - Watershed configuration of the Isfana Watershed;
      - Maximal daily discharge in m<sup>3</sup>/sec from the scenario of extreme precipitation;
      - Maximal daily water yield in the Isfana watershed in mm/day from the extreme precipitation scenario;
      - Change in water yield in mm/year for climate change scenario (2053-2057) compared with baseline period;

- Change in water yield in mm/year for agriculture and climate change scenario (2053-2057) compared with baseline period;
  - Change in water yield in mm/year for forest and climate change scenario (2053-2057) compared with baseline period;
  - Change in soil erosion for climate change scenario (2053-2057) compared with baseline period;
  - Change in soil erosion for agriculture and climate change scenario (2053-2057) compared with baseline period;
  - Change in soil erosion for forestry and climate change scenario (2053-2057) compared with baseline period;
  - Change in sedimentation during extreme precipitation as compared with baseline period;
- 6) Analysis of average month and annual precipitation and air temperature for period of 30 years on data obtained from meteo stations;

2. Other tasks:

- a. Report on the results of the activities carried out;
- b. Provide any support for the good functioning of the project whenever requested by the project manager and/or needed by the project, by agreement with ACTED Coordination.

**VI. Required qualifications and experience:**

- University degree in Hydrometeorology (Geography, Hydrology) and/or any other related field;
- Experience in relating activities connected with hydrology aspects;
- Experience in implementing activities with GIS data;
- Excellent Tajik or Russian, English is preferred; able to work with most computer programs (especially MS Word, MS Excel, SPSS, Access);
- Able to work correctly with the representatives of government agencies and community organizations in the field;
- Strong communication skills, orally and in writing; ability to write clear, structured, articulate, and persuasive concepts notes, proposals, reports;
- Good analysis and backstopping skills with the focus on report writing;
- Ability to meet deadlines;
- Good team player with the ability to establish trustful relations and motivate others;
- Problem solving skills, by assess problem situations to identify causes, gather and process relevant information, generate possible solutions, make recommendations and solve the problem

**VII. Expected Deliverables**

*Deliverable A:* ToR, tools for data collection to define currently presented hydrological situation in the target area

*Deliverable B:* Report on Hydrological modelling of Isfana watershed with maps



*Deliverable C*: Regular report to ACTED with recommendations for further steps towards hydrology aspects in the Isfana watershed.

**VIII. Expected**

The activity is  
indicatively

Deliverables	2019				
	Jan	Feb	Mar	Apr	Aug
<i>Deliverable A</i>					
<i>Deliverable B</i>					
<i>Deliverable C</i>					

**timeline**

expected to take place within 30 days,  
starting from January, 1<sup>st</sup>, 2019:

**IX. Application**

In order to apply to the presented position, participant will need to submit a **preliminary methodology** for the conduction of his duties and related financial proposal.

**X. Specific conditions**

- Accommodation, food and transportation in Tajikistan will be provided by ACTED (shall not be included in the financial offer).
- ACTED security guidelines will have to be strictly followed during the whole consultancy.
- The consultant will subscribe to a professional civil liability insurance valid in Tajikistan, as well as a repatriation insurance.