AMAZON COOPERATION TREATY ORGANZATION- ACTO

AND THE

NATIONAL WATER AND SANITATION AGENCY -ANA - Brazil

SELECTION PROCESS

Amazon Project: Regional Action in the Area of Water Resources- Phase II

1. OBJECTIVE

Hiring a technical analyst in Geoprocessing for the operational implementation of the Water Resources Situation Room of the Amazon Basin in the Amazonian Regional Observatory - ARO, within the Amazon Project.

2. WORKPLACE

The activities of the technical analyst will be developed at the PS/ACTO headquarters in Brasília (DF).

Adresse: SEPN 510, bloco A, 3º andar – Asa norte, Brasília-DF, Brasil.

3. APPLICATION INSTRUCTIONS

Interested professionals should send a Cover letter and Curriculum Vitae, as specified in the terms of reference, through the email projeto.amazonas@otca.org indicating in the subject **[Proyecto Amazonas – Sala de Situación RH].**

Supporting documents should be sent as soon as requested. Failure to deliver or incomplete delivery of documents will result in disqualification of the applicant.

4. DEADLINE

Cover letters and Curricula vitae must be sent by 23:59, Brasilia local time, on July 11, 2022.

TIME REFERENCE: All time references during the selection process will necessarily respect the Brasília-DF time.

5. INQUIRIES

Inquiries related to the selection process may be sent to the email projeto.amazonas@otca.org.

6. TERMS OF REFERENCE

The Terms of Reference are attached to this Notice.

The deadline for sending the application is: July 11, 2022, at 11:59 pm Brasilia, Brazil local time.

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SECOND PHASE OF AMAZON PROJECT:

REGIONAL ACTION IN THE AREA OF WATER RESOURCES-

TERMS OF REFERENCE

1. PURPOSE OF NOTE

Hiring of a technical analyst in geoprocessing for the operational implementation and support of the products from the water resources situation room of the Amazon basin, under the Amazon Project and provide support to the other modules of the Amazon Regional Observatory - ARO.

2. BACKGROUND

Within the framework of the Amazon Cooperation Treaty, the Amazon Cooperation Treaty Organization (ACTO) and its Permanent Secretariat were installed in Brasília, with international legal status, to improve and strengthen the process of institutional cooperation, coordination, and joint actions among the Member Countries to promote sustainable development of the Amazon.

The PS/ACTO has the main role and function of facilitating the exchange, knowledge, cooperation, and joint projection among the Member Countries, observing the mandates of the Amazon Cooperation Treaty, generating consensus to carry out activities, programs, and projects, establishing spaces for political and technical dialogue, among other activities.

In this context, and within the scope of the regional action on water resources, ACTO has been executing the "Amazon Project: Regional Action in the Area of Water Resources", which is financed by the Government of Brazil. The project is an initiative of the National Water and Basic Sanitation Agency, the Amazon Cooperation Treaty Organization, the Brazilian Cooperation Agency (ABC)/MRE) and the Department of South America of the Ministry of Foreign Affairs (DAS/MRE).

This Project was signed in December 2006, to continue the activities developed in the first (2012 to 2017), which contributed to the strengthening of articulation and technical cooperation among ACTO Member Countries.

The Amazon Project - Second Phase will contribute to promote the shared and sustainable management of water resources in the Amazon Basin, which is reflected in the implementation of a shared hydrological and water quality monitoring network; the structuring of a database on water resources; in the dissemination of knowledge about the Amazonian reality; and in technical training actions with officials from institutions involved with water resources in ACTO Member Countries.

The main result of the Amazon Project is to prepare the projects of the Hydrological and Water Quality networks, in addition to the training of 413 technicians from 8 countries. The main ongoing activities include the implementation of the Water Resources Situation Room, the creation of the water resources module of the Amazonian Regional Observatory, the development of monitoring protocols agreed among the countries, and the preparation of the report on the water quality situation in the Amazon Basin.

The water resources situation room will monitor the hydrological and meteorological situation of the Amazon basin, to identify weather events and support decision-making for the early adoption of mitigating measures for droughts and floods effects. The room will be the center for managing critical situations, in the case of extreme events, to facilitate coordination among the responsible institutions in the countries (water agencies, civil defense, etc.).

It will also be part of ACTO's Amazon Regional Observatory, which will receive data from the countries on hydrological, climatic and water quality monitoring; and it will be integrated to the situation rooms that already exist in Ecuador and Brazil (ANA and Amazonian states), and also to others that will be implemented in the future in the other countries of the Amazon Basin.

In this sense, the Amazon Project will hire a technical analyst in geoprocessing to advance the implementation and operational execution of the Amazon Basin Water Resources Situation Room.

3. ACTIVITIES CHARACTER

The technical analyst in geoprocessing will be responsible for supporting, mainly, the operational implementation of the Water Resources Situation Room of the Amazon Basin of the Amazonian Regional Observatory - ARO and the products generated therein, to meet the needs of the other modules.

4. ACTIVITIES DESCRIPTION

- Conduct a survey and define a methodology for the standardization of the Structuring of Vector Geospatial Data on Hydrometeorological Resources and hotspots;
- create Spatial Database in Spatial Database Manager System (PostgreSQL/postgis);

- systematize by means of a report the results of the activities, and make suggestions for the standardization of the Structuring of Vector Geospatial Data on Water Resources;
- create parameterized thematic cartography;
- perform environmental monitoring activities;
- conduct the delimitation of river basins;
- select material, extract geographic information from charts and maps and transfer them by using reference systems, map projections and coordinate systems;
- capture, store, process and plan the presentation of georeferenced data in mapping, using computational techniques, applications, and equipment;
- apply geoprocessing in hydrological and environmental analysis;
- understand image classification techniques and implement them, identifying types of elements and their meanings;
- build cartographic documents from digital images at scales compatible with their spatial resolution, as well as to build cartographic documents from aerial photographs;
- conduct cartographic construction with knowledge of its characteristics and working environments (ARO Modules);
- prepare proposals which in terms of scale and time will deepen on the cartographic, meteorological, and hydrological information of the prioritized basins;
- analysis and processing of meteorological and hydrological data: monitoring of reservoir levels;
- perform climate event interpolation (example methodologies: Kriging, global polygonal interpolation, hypsometric method, or others) at strategic monitoring locations and/or other locations where no information is available/no measurements have been made or the weather station has not reported any data.
- draft the minutes containing technical specifications for Structuring Vector Geospatial Data on Water Resources from the proposed and approved standardizations;
- processing of Hydrometeorological data and hotspots;
- assist in the production of hydro-meteorological monitoring and warning bulletins;
- produce hydrometeorological thematic maps and hotspots; and

- assist in the preparation and presentation of reports on water resources in the prioritized monitoring areas;

5. ACADEMIC BACKGROUND, QUALIFICATIONS AND PROFESSIONAL EXPERIENCE

5.1 Academic background (Mandatory - Eliminatory)

- Studies in Meteorology, Geography, Engineering (Environmental, Forest, Civil or Sanitary) or related areas, as long as they are focused on the Water Resources Module of ARO.

5.2 Academic background (Desirable - Classificatory)

- Postgraduate degree in geoprocessing or in areas related to training in disciplines with emphasis on geoprocessing and/ or georeferencing.

5.3 Qualifications and professional experience (Compulsory - Eliminatory)

- The Applicant must have at least 6 years of proven experience focused on environmental analysis in the Amazon, in works directed to the Amazon region.

Experience must be proven by a declaration duly signed by a competent professional of the institution where he/she worked or for whom he/she provided services or by presentation of an employment contract containing a description of the activities performed.

5.4 Qualifications and professional experience (Compulsory - Eliminatory)

- Experience in preparing hydro-meteorological bulletins and reports on water resources and hotspots;
- experience in database management;
- experience with Geographic Information System (Hydro geospatial analysis, geoprocesses, map algebra, others related to hydrological analysis;
- communication skills to deal with different audiences (government institutions, international and cooperation organizations, NGOs, etc.;
- ability to communicate orally and in writing in at least two of the four official languages of the ACTO (Portuguese, Spanish, Dutch and English);
- knowledge in remote sensing, interpretation of satellite images and their outcomes;
- knowledge of the concepts, methods and techniques of structuring, modelling, deploying, and applying spatial databases;

- mastery of the theoretical and practical foundations of Geodesy;
- knowledge of geographic information system (GIS) software enabling the visualization, editing and analysis of georeferenced data, preferably free software;
- Knowledge of programming languages: PHYTON, Fortran, Grads; and
- experience of having participated in conservation projects in the Amazon region.

"It is desirable that the technical analyst be familiar with meteorological, hydrological data, to be able to assist in monitoring."

6. QUALIFICATION CRITERIA

Qualifications and professional experience	Profile
Experience of at least 6 years working with hydrometeorological data analysis to produce georeferenced maps.	25
Experience in Hydrometeorological Monitoring and familiarity with data management (Meteorological, Hydrological, Climatic and heat sources)	25
Experience in the preparation of bulletins, maps, and georeferenced maps in the thematic areas previously mentioned.	15
Experience with Geographic Information System.	15
Communication skills to deal with different audiences (government institutions, international and cooperation organizations, NGOs, etc.).	10
Ability to communicate orally and in writing in at least two of the four official languages of the ACTO (Portuguese, Spanish, Dutch and English).	10
TOTAL	**100**

7. CONTRACTUAL TERMS

- **Type of contract and modality:** Contract for Autonomous Service Provision
- Remuneration: according to the pay scale group
- **Date of commencement:** July 2022
- Workplace: SP/OTCA headquarters in Brasília (DF).