



**AMAZON COOPERATION TREATY ORGANIZATION – ACTO
AND THE
NATIONAL WATER AGENCY – ANA Brazil**

**AMAZON PROJECT: REGIONAL ACTION IN THE AREA OF WATER
RESOURCES- PHASE II**

PUBLIC BIDDING

MODALITY: GLOBAL PRICE TAKING

BIDDING TYPE: LOWEST PRICE

PROCESS: Nr. LP 02/2021

1. PURPOSE OF BIDDING

To hire a consulting firm to prepare protocols for monitoring the quantity and quality of surface water of the Regional Network for the Monitoring of the Amazon Basin.

2. BIDDING PROCESS STAGES

- a) Reception of proposals (extended deadline): **from September 8th to October 31st, 2021, until 23:59, Brasilia local time**
- b) Analyses and qualification of firms: **from November 1st to 15th, 2021**
- c) Date foreseen to define the winning company: **November 16th, 2021**
- d) Date foreseen for results disclosure and contracting process: **November 17th, 2021**

TIME REFERENCE: All references to deadlines in this bidding, and during the public session shall respect the Brasilia-DF local time and, accordingly, receptions will be registered by following email: projeto.amazonas@otca.org

The PS/ACTO reserves the right to change/adjust the deadlines to analyze the proposals and announce the final result at any time.

3. SELECTION COMMITTEE

In order to fulfill the stages of the selection process, the PS/ACTO will create a Selection Committee composed of at least one executive employee and two officials of the institutional staff, according to the required profile.



4. COMPANY QUALIFICATION CRITERIA

All the habilitation and qualification criteria of the consulting firm are established in item 7 of the Terms of Reference of present Notice.

5. TERMS OF REFERENCE

The Terms of Reference are attached to this Notice

6. IMPLEMENTATION PERIOD AND CONTRACTUAL TERM

The duration of the consultancy works is 270 (two hundred and seventy) days, counting from the signing of the contract, and the products foreseen must be delivered consonantly with the Execution Schedule included in the Terms of Reference.

7. DEADLINES FOR DOCUMENTS SUBMISSION

Applicant companies must send all documents listed in item 7 of the Terms of Reference, in digital format, in Spanish, English or Portuguese, through the institutional email: projeto.amazonas@otca.org indicating in the subject [**Projeto Amazonas – Protocolos de Monitoreo**].

The winning company must send all supporting documents in physical format, signed, and recognized at a notary public (or similar institution proving the authenticity of the documents in their country of origin) when requested in due course. Failure to deliver or incomplete delivery of documents will result in disqualification of the company.

The extended deadline for submission of documentation is: October 31st, 2021, at 11:59 p.m. Brasilia local time, Brazil.



AMAZON COOPERATION TREATY ORGANIZATION – ACTO AND THE NATIONAL WATER AND SANITATION AGENCY IN BRAZIL

SECOND PHASE OF AMAZON PROJECT: REGIONAL ACTION IN THE AREA OF WATER RESOURCES-

TERMS OF REFERENCE

1. CONSULTANCY SCOPE

To hire a consultancy to prepare protocols for monitoring the quantity and quality of surface water for the Regional Network for the Monitoring of Water Quality of the Amazon Basin.

2. RATIONALE

The Amazon River basin is the world's largest hydrographic network that covers a total area of approximately 6,110,000 km², from its sources in the Peruvian Andes to its mouth in the Atlantic Ocean. This basin extends through several countries in South America: Brazil, Peru, Bolivia, Colombia, Ecuador, Venezuela, Guyana, and Suriname, covering 44% of the land area of South America. The Amazon Basin is responsible for 20% of all freshwaters discharged daily into the oceans (SAP, ACTO. 2008).

Sharing the river basin may be seen as an opportunity to seek international articulation with institutions directly involved with the sector, as well as with other international institutions or bodies that may provide information and practical experiences, and therefore, contribute to the actions developed in the region. In this sense, technical cooperation among countries is relevant and a fundamental instrument to maintain permanent dialogue and provide proposals for joint actions to strengthen shared management, preservation, and use of water resources in a balanced and sustainable manner.

The Amazon Cooperation Treaty (TCA) was signed on July 3, 1978, by the governments of Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela, to undertake joint actions and efforts to promote the harmonious development of their respective Amazonian territories in such a way that these joint actions produce equitable and mutually beneficial results and also achieve the preservation of the environment and the conservation and rational utilization of the natural resources.

On December 13, 2002, the Amazon Cooperation Treaty Organization (ACTO) and its Permanent Secretariat were installed in Brasília, with international legal status, to institutionally improve and strengthen the cooperation and coordination process, and encourage joint actions among the Member Countries for the sustainable development of the



Amazon within the framework of the TCA. ACTO approved its Amazonian Strategic Cooperation Agenda (ASCA, 2010-2018), -which is being currently updated-, that gives priority, among other topics, to those related to water management and climate change.

The Amazon Project: regional action in the area of water resources is a joint initiative of ANA/Brazil, the Brazilian Cooperation Agency (ABC), the Department of North and Western South America (DSO) of the Ministry of Foreign Affairs of Brazil, and the Amazon Cooperation Treaty Organization (ACTO), for the implementation of technical cooperation actions sought to strengthen the institutions responsible for water management in ACTO Member Countries.

In 2016, the Amazon Project's Second Phase started with the objective of contributing to the shared and sustainable management of water resources in the Amazon Basin. It is reflected in the implementation of a shared Regional Network for the Monitoring of Water Quality; the structuring of a database on water resources and climate change; in the dissemination of knowledge about the Amazonian reality; and in technical training actions with officials from institutions devoted to water resources in ACTO Member Countries.

This second phase of the Amazon Project continues the activities developed in the first phase (2012 to 2017), which contributed to the strengthening of articulation and technical cooperation among ACTO Member Countries.

The Amazon Countries have implemented their national networks for monitoring the quantity and quality of water according to their own objectives and available resources; however, this new phase, intends to establish future actions to build a strategy to ensure continued support for the monitoring, collection, and availability of quality data, along with its analysis, and evaluation.

Among the foreseen products in this second phase, one of them refers to the implementation of a regional network for monitoring water quantity and quality. The preliminary projects of these networks were developed throughout 2019 and 2020 with ACTO Member Countries, where the network's objectives, monitoring points and parameters to be monitored were defined.

However, in order to harmonize the functioning of the network, the protocols for monitoring the quantity and quality of water must be standardized, to ensure data produced by the countries are comparable.

These protocols are also essential to produce systematic data in the Amazonian networks and to properly be provisioned and published for the knowledge of society through the Amazonian Regional Observatory - ARO - which is being developed by ACTO. In this sense, the stages, the officials responsible, and the temporal aspects will be indicated, in addition to the necessary institutional arrangements to guide flows and responsibilities for the publication of AHN and WQN data.

In this context, it is proposed to hire this consultancy to prepare protocols for the monitoring of quantity and quality of surface waters in the Amazon Basin to harmonize methodologies among the countries in the region.

3. MAIN GOAL

Develop protocols to guide the installation, adaptation, and operation of hydrological stations for monitoring the quantity and quality of surface water in the Amazon basin defined in the AHN and WQN projects; as well as for the processing of the data generated in these networks, along with its publication, aiming at the methodological harmonization among the countries of the region for monitoring integration in the Amazon basin.

4. SPECIFIC OBJECTIVES

- i. Considering the monitoring points referred to in AHN and WQN, to present an overview identifying and listing the features of the existing stations, operative methods, and data processing and publication practices related to the monitoring of quantity and quality of surface water utilized by the ACTO Member Countries, relating them to the existing international monitoring protocols;
- ii. Based on the overview of item i, and observing the hydrological good practices, to provide a regional protocol with feasible guidelines for the installation, adequacy, and operation of hydrological monitoring stations defined within the AHN and WQN projects, and including the projects' proposed objectives and the respective monitoring parameters;
- iii. Based on the overview of item i, and observing the hydrological practices, to provide a regional protocol for the processing and publication of data produced by AHN and WQN to be applied in the existing stations, and in those stations that will be implemented and have been defined in the aforementioned networks;
- iv. To provide a regional protocol for field and laboratory analysis, collection of samples for the Regional Network for the Monitoring of Water Quality of the Amazon Basin;
- v. To identify and propose schemes (of flows and responsibilities) considering the bodies and/or institutions potentially responsible for the implementation, operation, and publication of AHN and WQN data;
- vi. To identify and list the training needs of the institutional teams that will be involved in the networks, including costs and local specificities to level technical and operational capacities.
- vii. To estimate the overall implementation costs (installation and/or adaptation), operationalization, and publication of AHN and WQN data for phases 1 (existing stations) and 2 (planned stations).

5. DELIVERABLES AND ACTIVITIES

5.1 Expected outcomes

The consultancy's outcomes must be consistent with the specific objectives of this TOR as detailed below:



OUTCOME 1 - Working Plan that includes the schedule and detailed description of the working methodology along with resources to be used to achieve the contracted objective.

The Consultancy shall present the Working Plan in a report format, detailing the necessary methodology to achieve the general and specific objectives of this TOR. The working plan must include, at least the following issues:

- 1.1 Presentation and summary analysis of the AHN and WQN reports, demonstrating full knowledge of the main characteristics and challenges related to the proposed projects.
- 1.2 Details of the activities to be performed to reach each specific objective proposed in this TOR. Meetings with the Contractor must be foreseen at least every 15 days.
- 1.3 Preliminary survey of documents and other resources necessary to carry out the work and, as far as possible, identifying the sources of information to be consulted.
- 1.4 Names of the team, and respective responsibilities as required by the Contracting Party.
- 1.5 Execution schedule that must be compatible with the complexity of the activities to be carried out and its operational planning.

The proposed methodology and resources must be adequate to the objectives defined in this TOR and must be presented and discussed with the Contracting Party's technical team, prior to the presentation of the final version of the Working Plan.

OUTCOME 2 – A Report with an overview of existing stations, operating methods and data processing practices and publication for the monitoring the quantity and quality of Amazon surface water in ACTO Member Countries.

Outcome 2 will serve as the basis for the next outcomes; therefore, in order to carry out the work, it should be carefully developed and well detailed, preferably based on primary information, i.e., direct consultation with those responsible for Amazon monitoring networks in ACTO Member Countries is strongly recommended.

The report relevant to this outcome must necessarily contain the following information:

- 2.1 Identification and list of features of existing stations (in operation) in the Amazon basin referred to in the AHN and WQN, such as their typology (limnometric, pluviometry, telemetric, Discharge Measurement, Sediments measurement, water quality measurement, etc.), existing installations, implementation dates, series, among other relevant information;
- 2.2 Identification and list of operational features of the existing referenced stations with data on the frequency of level records and precipitation; frequency of discharge measurements, water quality, sediments, and others; general leveling and maintenance frequencies; identification of equipment used in the operation; among other pertinent information for full knowledge of the existing situation;



2.3 Identification of the characteristics of the routes and operation teams of the existing referenced stations in the AHN and WQN;

2.4 Description of methodologies for processing (data consistency and generation of rating curves) and publication of data related to monitoring the quantity and quality of surface water in existing stations referenced in the AHN and WQN;

2.5 Critical analysis of the data collected to identify the challenges and positive aspects of the existing monitoring situation in the Amazon;

2.6 Identification and a list with instructions, manuals and other guidelines related to the operation of local networks used by Member Countries;

2.7 Identify the common grounds among the Member Countries in terms of the station operation characteristics and data processing and publication methodologies.

The Consultant shall obtain from the ACTO Member Countries, the necessary data and information from the appointed focal points, and, when necessary, will be responsible for articulating with the necessary contacts. The possible formats to be used to collect the information are related below: (i) documentary survey; (ii) questionnaires and worksheets to be filled in by ACTO Member Countries; (iii) other information provided by official sources in the countries and, mainly, (iv) interviews and meetings with those responsible for local monitoring networks, subject to authorization by the respective Member Country.

PRODUCT 3 - Report with the guidelines for the regional protocol for installation, adequacy and operation of hydrological monitoring stations defined in the AHN and WQN projects

Based on the information collected in Outcome 2, the methodological references researched, and those indicated by the Contracting Party, the Consulting company shall propose a regional protocol that includes the guidelines for the operation of the Amazon Hydrological and Quality Networks considering the installation, adequacy, and operation of hydrological monitoring stations defined in the AHN and WQN projects in phases 1 (existing stations) and 2 (planned stations). The expected scope for this outcome includes:

3.1 Propose minimum guidelines for monitoring stations to apply in the physical and operational facilities of the AHN and WQN. These guidelines should cover frequency of level and precipitation records, frequency of discharge measurements, water quality; general leveling and maintenance frequencies; identification of desirable standard equipment to be used in the operation, itineraries, and operation teams; among other pertinent information, for harmonizing the monitoring provided for in the AHN and WQN.

3.2 For the planned stations (Phases 1 and 2), a specific list in spreadsheet format of the measures to be taken at each station to meet the issues proposed in the general guidelines for the installation, adaptation, and operation of hydrological stations, in line with the proposed protocol (item 2.1).

3.3 Propose minimum methodological guidelines for the on-site operation of the monitoring stations towards the implementation of best practices for leveling, discharge measurements and water quality and telemetry (level and rain) of the AHN and WQN stations. These guidelines should summarize the orientations and, when necessary, refer to guidelines, manuals, and other reference documents.

PRODUCT 4 – A Report containing guidelines for the regional protocol of data processing, provisioning, and publication in the AHN and WQN

Based on the information collected in Outcome 2, the methodological references researched and those indicated by the Contracting Party, the Consultant shall propose a regional protocol with the guidelines for data processing, availability, and publication. The expected scope for this outcome includes:

4.1 Propose minimum guidelines for the processing (data consistency and generation of rating curves), provision and publication of data related to monitoring the quantity and quality of surface water in existing stations referenced in the AHN and WQN.

4.2 Indicate, through flowcharts, the stages, people responsible, and the time aspect involved, considering the local and general institutional characteristics in these stages.

PRODUCT 5 - Monitoring Protocol for the Amazon Basin Network for the Monitoring of Water Quality

Based on the information from Outcome 2, the Consultant shall propose a regional protocol for field analysis, sample collection and transport, and laboratory analysis for water quality assessment.

Analytical methodologies for laboratory analysis should be proposed, as well as detection limits. Also, a data analysis and consistency protocol along with laboratory analytical quality control procedures should be proposed.

The equipment used and the acquisition needs must be identified to be able to implement the proposed protocol.

This proposal will be submitted to the evaluation of the countries, and subsequently, meetings will be held with the countries to adjust the protocol.

PRODUCT 6 - Final report with AHN and WQN protocols

This outcome systematizes and consolidates the information obtained from previous products. It also presents the institutional arrangements, the demands for training, and the survey of the costs involved, including the following topics:

6.1 Overview of the existing situation of monitoring in the Amazon stations referenced in the AHN and WQN, and the respective relevant analyses.

6.2 Proposed protocols for installation, adequacy and operation of hydrological monitoring stations defined in the AHN and WQN projects.

6.3 Proposed regional protocol of data processing, provisioning, and publication in the AHN and WQN

6.4 Proposed regional protocol for field analysis and sample collection.

6.5 Proposed institutional arrangements to guide flows and responsibilities for the implementation, operation, and publication of AHN and WQN data.

6.6 A Report with the survey of training demands with a view to leveling the necessary technical and operational capacities for the harmonious execution of AHN and WQN projects, observing the guidelines proposed in the protocols.

6.7 A Report with an estimate of general costs (installation and/or adaptation), operationalization, and publication of AHN and WQN data for Phases 1 (existing stations) and 2 (planned stations).

5.2 Product presentation format

The products must be delivered observing the following details:

- Two copies printed in Portuguese, English, and Spanish versions (each copy) of each product.
- Digital copies of each product in Portuguese, English, and Spanish versions, in editable formats (Word) and a pdf copy, and additionally, on secondary storage devices (CD, DVD, pen drive or other). Data will be presented in formats suitable for database processing (to be agreed with PS/ACTO and ANA-Brazil) and map information must be presented in shape format.
- Summary presentation of each product in Power Point (version in Portuguese, Spanish and English).

In order to achieve the outcomes to be contracted, the Consultant must have full knowledge and follow the guidelines contained in the Projects of the Amazonian Hydrological Network (AHN) and Regional Networks for the Monitoring of Water Quality (WQN) prepared under Phase II of the Amazon Project, which will be provided by the Contracting Party.

In order to obtain data and information, contacts with the countries may be carried out through face-to-face or virtual meetings with the institutions involved, and through interviews with personnel related to AHN and WQN projects. Occasionally, the Consultant may be required to participate in monitoring campaigns for on-site observation of hydrometric operations and water quality measurements. The costs related to in-person events (tickets and per diem), if they occur, will be borne by the Contracting Party.

The Consultant must also evaluate international monitoring protocols (e.g.: the WMO, GEMS/Water; other transboundary basins) in addition to the sources indicated by the Contractor that serve as a subsidy for the protocols to be proposed.

The outcomes must contain graphical elements, such as tables, figures, graphs, and flowcharts, among others, to help understand the content, clear language and pertinent citations listed in the bibliography.

The contracted company must be aware that the consolidated general report will be evaluated by the Member Countries, consequently, meetings will be held with the countries to make the necessary adjustments; accordingly, the participation of the consultancy is expected in accordance with the Contracting Party's guidance.

The Contracted party must be aware that he/she may be required in the meetings where the topic related to this TOR encounters interaction with others that are being developed within the Contracting Party. In this sense, the Consultant must be available for international travel and must also participate in periodic monitoring meetings, in Brasília (DF).

6. DELIVERY SCHEDULE OF CONTRACTED OUTCOMES

The total execution period of the services will be 270 (two hundred and seventy) days, counting from the signing of the contract, and the products foreseen must be delivered consonantly with the Execution Schedule, as follows.

Figure 1- Service execution schedule

Outcomes	Months								
	1	2	3	4	5	6	7	8	9
Outcome 1:	x								
Outcome 2:			x						
Outcome 3:					x				
Outcome 4:							x		
Outcome 5:								x	
Outcome 6:									x

7. PROFESSIONAL QUALIFICATION

Qualification Criteria

Qualification will use the following parameters:

Qualification	Percentage (%)
General profile of the company and technical team	10
Specific profile of the technical team	50
Technical proposal	20
Economic proposal	20

7.1 Qualification requirements (*eliminary factors*):

No.	Criteria (Yes/No)
1	The company must prove to be qualified presenting a business register issued in its country to carry out the specific consultancy work.
2	At least three (3) works carried out by the company in the last ten (10) years, related to water resources.
3	The company's technical staff must prove at least 10 years of professional experience for the Coordinator, and at least 7 years for experts in areas related to water resources. All professionals involved must have higher education. The coordinator must have at least a specialization in a related area.
4	Technical team composed of at least four (4) permanent professionals and one (1) support professional.
5	Of the team professionals, the coordinator and two experts must have proven knowledge of at least two official ACTO languages.
6	Present company's résumé, individual résumé, team résumé, technical offer, and economic offer.
7	Qualification of companies from Member Countries: NIT; RIF; RUC - issued by official bodies; Social contract, reforms and appointments of directors and legal representatives in the chamber of commerce that has jurisdiction of domicile over the respective company.

7.2 Qualification of required experience (*classification*)

The percentage weights for each punctuation criterion will be distributed as follows:

Company's experience (up to 10 points)

- Experience in preparing hydrology-related reports, newsletters, and studies. Maximum score of 3 points (0.5 points for each item confirmed).
- Experience in preparing reports, newsletters, and studies related to the planning of networks for surface water monitoring. Maximum score of 3 points (0.5 points for each item confirmed).
- Work experience in the Amazon region. Maximum score of 3 points (0.5 points for each item confirmed).
- It is desirable the Consultant has experience in international technical cooperation projects. Maximum score of 1 point if positive.

Professional experience of the working team (up to 50 points)

Profile	Punctuation
1. Coordinator and team leader	Total: 15 points
Postgraduate degree in water resources or related areas with a master's degree (2 points) or PHD degree (3 points).	Maximum score of 3 points.
Specific works on projects related to water resources planning and/or management (0.5 points per work and 1 point per work conducted in the Amazon region).	Maximum score of 6 points.
Coordination of multidisciplinary teams (0.5 points for proven experience).	Maximum score of 4 points
10 years or more of proven experience (0.5 points per extra year)	Maximum score of 2 points.
2. Hydrometry Expert	Total: 10 points
Postgraduate degree in hydrology or related areas with specialization (1 point) master's degree (2 points) or PHD degree (3 points)	Maximum score of 3 points.
Specific works related to hydrometry and monitoring networks planning (0.5 points per work and 1 point per work conducted in the Amazon region).	Maximum score of 5 points.
7 years or more of proven experience (0.5 points per extra year)	Maximum score of 2 points.
3. Water Quality Expert	Total: 10 points
Postgraduate degree in biology, engineering, or related areas with specialization (1 point) master's degree (2 points) or PHD degree (3 points)	Maximum score of 3 points.
Specific works related to monitoring of surface water quality and monitoring networks planning (0.5 points per work and 1 point per work conducted in the Amazon region).	Maximum score of 5 points.
7 years or more of proven experience (0.5 points per extra year)	Maximum score of 2 points.
4. Specialist in hydrological data processing (precipitation, level, flow, and water quality)	Total: 10 points
Postgraduate degree in hydrology or related areas with specialization (1 point) master's degree (2 points) or PHD degree (3 points)	Maximum score of 3 points.
Specific works related to the preliminary processing of hydrological data, consistency of precipitation data, level and discharge measurements, water quality, rating curves generation and gap filling in historical data (0.5 points per work).	Maximum score of 5 points.
7 years or more of proven experience (0.5 points per extra year)	Maximum score of 2 points.
5. Supporting professional	Total: 5 points
Higher-education professional in areas related to water resources and study objectives.	Maximum score of 5 points.

The PS/ACTO applies a zero-tolerance policy to all forms of harassment, and it is committed to promoting gender equality, when considering, with positive differential and special interest, the possible female applications for this Consultancy; this same difference applies to people with disabilities, who are encouraged to apply.

Technical proposal (up to 20 points)

Consulting companies must submit a proposal indicating the consultancy’s scope and the methodological development consistent with the objectives, products and activities presented, including specific procedures and strategies for the execution of the most relevant activities; as well as propose other complementary activities, when applicable. The technical proposal must have up to ten pages in A4 format and may be complemented with annexes that include graphic elements, tables, and others, in five additional pages.

The technical capacity of the consulting company will be evaluated in relation to its knowledge on the subject, with an obligation to maintain a link between the technical proposal and what will be developed in the consulting work.

Economic proposal (up to 20 points)

The lowest price offer (Fm) receives the maximum financial score (Sf) of 100 (i.e., 10%).

The formula for determining the financial score (Fp) of all other proposals is the following: $Sf = 100 \times Fm / F$, where “Sf” is the financial score, “Fm” is the lowest price, and “F” is the price of the evaluated bid.

8. PAYMENT METHOD AND APPROVAL OF DELIVERABLES

Payments will be made upon delivery of the outcomes and will correspond to a percentage of the total value of **R\$ 309.319,36 (three hundred nine thousand three hundred and nineteen reais and thirty-six cents)**, as shown in the table below, which presents the percentage values corresponding to each product.

Outcomes	Payment %	Deadline
Outcome 1:	10%	Until 30 days
Outcome 2:	15%	Until 90 days
Outcome 3:	15%	Until 150 days
Outcome 4:	15%	Until 210 days
Outcome 5:	15%	Until 240 days
Outcome 6:	30%	Until 270 days



The Contracting Party reserves the right to authorize payment for the delivered outcomes, conditioned to quality, in accordance with the established schedule.

9. SUPERVISION AND MONITORING

The supervision of the consultancy will be carried out jointly by the PS/ACTO and the National Water Agency – ANA do Brazil, which will designate the contract supervisors.

The products must be delivered to PS/ACTO and ANA-Brazil. The outcomes delivered by the consulting firm on the aforementioned dates will be subject to a review by the supervisors of the aforementioned entities, within a period not exceeding fifteen days after receipt. Subsequently, the general and specific observations will be communicated to the consulting company to make relevant adjustments. These revisions must be returned to ACTO and ANA-Brazil for approval.

The Contracting Party, through specially designated technicians, will monitor, supervise, and inspect the work carried out by the contracted professional, and shall receive at least twenty days in advance, any proposals for changes in the planning for its analysis and decision-making.