

Project

Towards a better understanding of Amazonian Aquifer Systems for their protection and sustainable management

GEF ID 11108

Component 2

Terms of Reference (ToR)

Output 2.1.1: *Assessment and gap analysis of legal, regulatory frameworks and institutional capacities for groundwater management in the region and countries including model policies and regulations toolkits for necessary reforms.*

Project No.: GEF ID 11108

Funding Agency: IDB-UNEP

Executing Agency: Amazon Cooperation Treaty Organization (ACTO)

TERMS OF REFERENCE

Output 2.1.1: Assessment and gap analysis of legal, regulatory frameworks and institutional capacities for groundwater management in the region and countries including model policies and regulations toolkits for necessary reforms.

1. Background

The project “*Towards a better understanding of Amazonian Aquifer Systems for their protection and sustainable management*”, funded by the Global Environment Facility (GEF ID 11108), executed by the Amazon Cooperation Treaty Organization (ACTO), and having the Inter-American Development Bank (IDB) and the United Nations Environment Programme (UNEP) as implementing agencies.

Beneath much of the Amazon basin lies the Amazon Aquifer Systems (AAS). While presumably it underlies parts of Bolivia, Brazil, Colombia, Ecuador, Peru and Venezuela, its actual extent and dynamics are not well understood, and it is anticipated that it could extend much further than is currently known. The demand for safe water has increased in the Amazon Basin and, despite the large volume of surface water in the region, all countries use groundwater extensively as an alternative source of safe water. Groundwater in the Amazon basin plays a major role in the hydrological and ecological cycles and largely influences rainforest ecosystems and climate variability, especially during the dry season, where the understanding of surface-groundwater interactions is important. Groundwater is locally threatened by global changes such as climate change and extreme events affecting aquifer levels, recharge, and changes in groundwater regimes, as well as anthropogenic activities affecting water quality of aquifers. Global changes combined to population and economic activities growth and occurrence of diseases (Covid-19), dependency on groundwater supply increases, demanding sustainable and transboundary management strategy.

The project seeks to tackle four barriers: 1) *the insufficient transboundary aquifer knowledge*: the limits, the hydraulic behavior and interconnections between the regional geological formations, between surface and groundwater flows and potential hazards to groundwater are poorly understood, 2) *the lack of agreements for shared groundwater governance*: there is a gap in the different political, legal, regulatory, and institutional frameworks between countries for the management of groundwater systems, as well as the lack of understanding of the importance of cooperation to address the challenges that affect the AAS, 3) *the lack of a common protection strategy*: countries have advanced in the protection of groundwater through national strategies, plans, projects, and technical studies, but so far, no common strategy exists that is coordinated among those countries at the AAS scale, and 4) *the lack of public awareness related to AAS's protection and sustainable use*: there is a limited appreciation for the multiple services that the AAS provide at all levels (ecosystems, society, scientific community, etc.).

To tackle these four barriers, the project includes five (5) components:

Component 1: Consolidation and expansion of the current understanding in the functioning of and threats to the Amazon Aquifer Systems (AAS). This component includes 5 Outputs.

Component 2: Towards a multilevel management system for the AAS. This component includes 4 Outputs.

Component 3: Pilots for improved transboundary groundwater management. This component includes 8 pilots.

Component 4: Development of a Strategic Action Program for the AAS, including the country's action plan. This component includes 3 Outputs.

Component 5: Reinforced institutional capacity, gender mainstreaming, communication and awareness raised on the AAS. This component includes 4 Outputs.

2. Justification and Theory of change

Due to both naturally occurring and human-induced contamination of surface waters, groundwater has become the only source of water of acceptable quality for many Indigenous Peoples and local communities living in riverine areas. Groundwater is also essential to food security, as it is used for agricultural irrigation and industrial water supply.

The countries of the Amazon Basin bear a major responsibility for safeguarding the groundwater systems that contribute to flows throughout the Basin, play a critical role in hydrological and ecological cycles, and constitute a strategic resource for humanity. However, the expansion of the agricultural frontier, large-scale infrastructure development, deforestation, illegal mining, and other pressures threaten the forests, water resources, and communities of the region.

The Amazon Aquifer Systems Project (AAS) was developed to support the strengthening of national and regional frameworks for the protection and sustainable use of the Amazon Aquifer Systems. This will be pursued by supporting dialogue and agreements to coordinate actions, harmonize approaches, and exchange information; establish and maintain groundwater monitoring networks; regularly update hazard, vulnerability, and risk maps; improve groundwater management; and develop recommendations for groundwater allocation and protection in accordance with each country's priorities.

Without an adequate and up-to-date assessment of the characteristics of the AAS to inform sustainable strategies for their use and management—and without appropriate legal, regulatory, and institutional frameworks for groundwater—global social and economic development objectives, including Sustainable Development Goal targets 6.4 and 6.6, will remain out of reach. Moreover, the degradation of water resources and aquifers risks becoming irreversible. This issue is particularly urgent because, in recent years, the contribution of groundwater to aquatic ecosystems has become increasingly important during recurring drought periods in the Amazon Basin.

The long-term sustainability of water resources and ecosystem health in the Amazon Basin can therefore be achieved only through an adequate and shared understanding of regional groundwater, its characteristics, and the threats it faces across multiple scales and among key stakeholders. It will also require the establishment of a multilevel cooperation framework for these transboundary Amazonian aquifer systems—among the largest in the world—to ensure the water security of the populations that depend on them and to protect Amazonian ecohydrological systems and associated livelihoods. The Theory of Change of the AAS Project is found in Annex 1.

Accordingly, this study must move beyond a general recognition of governance gaps towards a verified and implementation-oriented assessment. It will examine both the formal framework—de

jure rules, mandates, and procedures—and its application in practice, including de facto capacities, coordination, financing, use of information, compliance, and enforcement. The study will also assess how groundwater-related benefits, costs, and risks are distributed and whether gender equality, Indigenous Peoples, local communities, and other vulnerable groups are meaningfully reflected in governance arrangements.

This consultancy is both timely and essential, as its evidence and recommendations are required to inform the White Paper and the Strategic Action Programme (SAP). Without a common analytical framework, validated national findings, and practical reform instruments, these subsequent products may remain too general to effectively guide legal reform, institutional strengthening, investment, monitoring, and transboundary cooperation.

The study will add value by providing:

- A comparable national and regional baseline identifying legal, policy, institutional, and implementation gaps;
- A clear distinction between gaps in the applicable rules, institutional capacity deficits, and implementation or enforcement gaps;
- Country-owned priorities that recognize differences in legal systems, administrative structures, and levels of readiness;
- A substantive equity, gender equality, and intercultural perspective appropriate for groundwater governance;
- Adaptable model policy and regulatory options, together with sequenced road maps for reform and capacity strengthening; and
- Direct and traceable inputs to the White Paper (Output 2.1.2), the Strategic Action Programme (Component 4), and related project components.

3. Consultancy Objectives

3.1. General Objective

To provide a validated regional- and national-level assessment of the legal and regulatory frameworks, public policies, institutional capacities, information governance arrangements, and socioeconomic dimensions of groundwater management, and to translate the identified gaps into adaptable model policy and regulatory tools and prioritized reform road maps that support the coordinated, equitable, and sustainable management of the Amazon Aquifer Systems.

3.2. Specific Objectives

- Inventory and assess relevant legal, regulatory, and public policy instruments at the subnational, national, regional, and supranational levels, including their hierarchy, coherence, enforceability, and implementation;
- Map institutions, mandates, decision-making processes, coordination arrangements, technical and financial capacities, accountability and oversight arrangements, and groundwater information flows;

- Assess groundwater use and socioeconomic dependence, distributional impacts, gender inequalities, vulnerability, and the rights, knowledge, and governance perspectives of Indigenous Peoples and local communities;
- Identify and prioritize gaps, overlaps, contradictions, implementation constraints, capacity needs, risks, and opportunities at the national and regional levels, using transparent criteria;
- Benchmark relevant good practices and prepare adaptable model policy and regulatory options, institutional strengthening measures, and sequenced reform road maps; and
- Validate the assessment and recommendations with relevant stakeholders and provide traceable inputs to the White Paper, the Strategic Action Programme, and related project outputs.

4. Reports and expected products

4.1. Component 2, Output 2.1.1 Towards a multilevel management system for the AAS.

Outcome 1: Agreed elements for promoting transboundary cooperation and coordinated groundwater management at regional and national level.

Component 2 focuses on developing a diagnostic analysis of existing legal, regulatory framework and institutional capacities for groundwater management to elaborate a White Paper, considered a key input (together with the TDA) to the SAP (Component 4). This White paper will also reflect the dynamics of groundwater information management in each country, as well as the sociocultural and gender aspects related to groundwater management, proposing opportunities for improvement. Output 2.3 will be developed at the initial stages of the project to inform the scientific studies, priority zones (if available, Component 1) and pilots (Component 3) on agreed regional protocols for groundwater monitoring, which also includes the guidelines for the inter-operability of the monitoring system into ARO (Amazon Regional Observatory). Output 2.4 seeks to develop an institutional, public policy and a legal roadmap focused on Suriname and Guyana, thus, to complement the strengthening work on groundwater management in both countries initiated by the SAP referred to in GEF 9770. Based on Output 2.1 and 2.2, this project will develop the roadmap that will feed into SAP (Component 4). This effort seeks to advance barriers 1 and 2.

Output 2.1.1: Assessment and gap analysis of legal, regulatory frameworks and institutional capacities for groundwater management in the region and countries including model policies and regulations toolkits for necessary reforms.

- **Activity 2.1.1.1:** Assessment of institutional, legal, regulatory, and public policies framework, regarding groundwater management, at national and regional level.
- **Activity 2.1.1.2:** Institutional analysis to identify strengths, weaknesses and gaps regarding groundwater management, at national and regional level, with focus in decision making level, governance and information management of public institutions.
- **Activity 2.1.1.3:** Socioeconomics analysis related with groundwater use, with focus in economic and gender inequalities, and specially analysis related with ethnic minorities.

4.2. Products, and expected results (in PDF and editable documents)

PRODUCT 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 all products) of this ToR. The working plan must include, at least the following sections:

- 1.1. Assessment/Interpretation methodology for inventorying/reviewing national and regional information regarding the products.
- 1.2. Detailed methodology for the requested products at the regional and national levels, and how they are interlinked, thus a road map to the White Paper could be built.
- 1.3. Detailed timeline of activities (reports) including a plan of meetings with countries (if possible, specify potential requests of information). All of the products require a validation workshop with country members. Reports (English and Spanish) need to be sent to countries at least two weeks in advance, therefore planning of meetings with countries regarding each product should be carefully designed.

Notes:

- Products from ongoing efforts (RADA's White Paper, PAE's documents related to the service) will be shared to the consultants.
- Data/information from countries: the working plan and the following products must include interaction with all eight ACTO Member Countries through the PCU. National data, maps, and interpretations must be coordinated with and/or reviewed by the officially designated country experts or focal points. Any missing information or unresolved technical differences should also be documented.

PRODUCT 2: Assessment of legal, regulatory, and public policies framework, regarding groundwater management, at national and regional level. *Detailed identification of public policies, legal and regulatory framework (including gender perspective) that refer to the protection, conservation and management of groundwater at the subnational, national and supranational (e.g., Andean Community of Nations) levels. Identify if, in the absence of higher-level standards, there are regulatory and legal standards that should be considered. Develop a list of findings, conclusions and recommendations.* (Activity 2.1.1.1).

The report relevant to this product might contain the following sections (some description, but not limited to, is provided below):

- 2.1. **Policy assessment methodology, and detailed summary of countries input:** Establish the analytical framework and scope research questions; jurisdictions and institutions covered; legal hierarchy; criteria for assessing relevance, gaps, conflicts and enforceability; groundwater-specific indicators; gender and social inclusion approach; methodology for reviewing national, regional and supranational instruments, and describe the assessment matrix.
- 2.2. **Comprehensive inventory and mapping of the legal, regulatory and public policy framework:** create the authoritative inventory of instruments governing groundwater,

constitution, laws, regulations, decrees, technical standards, policies, plans, strategies, institutional instruments, judicial/administrative instruments where relevant; national, subnational and supranational levels; responsible institutions; scope; status; links between instruments legal/policy. *Provide database and legal hierarchy map.*

- 2.3. Groundwater governance gap and consistency analysis:** determine what the existing framework actually regulates—and what it fails to regulate protection, conservation, abstraction, allocation, licensing, monitoring, recharge, contamination, quality, ecosystems, drought, climate change, data/information, enforcement, sanctions, transboundary aquifers, participation, indigenous/local communities, gender; overlaps, contradictions, gaps and implementation weaknesses. *Provide gap-analysis matrix.*
- 2.4. Gender-responsive legal and policy assessment:** make gender a substantive component rather than an annex gender equality provisions; differentiated impacts on women and men; participation and decision-making; access to water and land; unpaid/domestic water work; rural and indigenous women; access to information and justice; gender-disaggregated data; institutional mechanisms. *Provide gender assessment matrix.*
- 2.5. Benchmarking and identification of applicable/relevant higher- and lower-level standards:** establish what should apply where groundwater-specific rules are absent or incomplete supranational/regional instruments; national standards; subnational regulations; environmental, water, land-use, health, climate, biodiversity and pollution rules that may indirectly govern groundwater; principles that can fill regulatory gaps; good-practice benchmarks. *Provide applicability/benchmark matrix.*
- 2.6. Findings, conclusions, recommendations and roadmap:** convert the legal assessment into actionable reforms priority findings; legal and institutional gaps; conclusions; recommendations prioritized by urgency and feasibility; proposed legal/policy reforms; institutional responsibilities; short-, medium- and long-term actions. *Provide reform roadmap at regional and national scales.*

Note: Provide an executive report as a presentation (Power Point or similar) to the countries.

PRODUCT 3: Institutional analysis to identify strengths, weaknesses, opportunities and gaps regarding groundwater management, at national and regional level, with focus in decision making level, governance and information management of public institutions. *Detailed identification of national and regional institutional functions, capacities, responsibilities, strengths, weaknesses and gaps regarding groundwater management, with emphasis on decision-making and inter-institutional and multi-actor governance. Identify the management of information related to the knowledge, conservation and monitoring of groundwater, by national and regional public institutions. Develop a list of conclusions and recommendations.* (Activity 2.1.1.2).

The report relevant to this product might contain the following sections (some description, but not limited to, is provided below):

- 3.1. Institutional analysis methodology:** Identification and classification of national and regional public institutions with functions, responsibilities or competencies related to groundwater; definition of the institutional, geographic and thematic scope of the assessment; methodology for: 1) assessing institutional functions, mandates, capacities, strengths, weaknesses and gaps; methodology for assessing decision-making processes and institutional coordination; 2) for assessing inter-institutional and multi-actor

governance; 3) for assessing groundwater knowledge, monitoring and information management, 4) stakeholder consultation and interview. Describe the criteria for prioritizing institutional gaps and recommendations. *Provide assessment matrix.*

3.2. Institutional mapping, functions, responsibilities and capacity assessment:

Institutional mandates and functions; legal and administrative responsibilities related to groundwater; decision-making authority and competencies; territorial scope of responsibilities; institutional relationships and reporting arrangements; human resources and technical expertise; financial and budgetary capacities; infrastructure and equipment; technical and operational capacities; existing institutional procedures and mechanisms; current groundwater-related activities; and strengths, weaknesses and institutional capacity gaps. *Provide institutional map/architecture, national and regional institutional database, institutional functions and responsibilities matrix, institutional capacity assessment matrix, and institutional strengths, weaknesses and gaps matrix.*

3.3. Decision-making, governance and coordination assessment:

groundwater-related decision-making processes; institutions and authorities responsible for key decisions; decision-making levels and delegation of authority; coordination between national and regional institutions; inter-sectoral coordination, inter-institutional committees and working groups; basin/watershed or territorial governance mechanisms, where applicable; participation of relevant non-governmental and non-state actors; mechanisms for public participation and stakeholder engagement; accountability and transparency mechanisms; conflict-resolution and coordination mechanisms; institutional overlaps, fragmentation and unassigned responsibilities, barriers affecting effective groundwater governance. *Provide decision-making and governance assessment, institutional coordination/governance map, inter-institutional and multi-actor governance matrix, identification of governance strengths, weaknesses and gaps.*

3.4. Groundwater knowledge, monitoring and information management assessment:

institutions responsible for groundwater information, types and sources of groundwater information available, hydrogeological and aquifer information, groundwater monitoring data (quantity and quality parameters), groundwater-dependent ecosystem information, where available, monitoring networks and institutional responsibilities, data ownership and institutional responsibilities, data storage and updating arrangements, data standards and metadata, interoperability between institutional information systems, data-sharing mechanisms, public accessibility of groundwater information, information gaps and duplication, institutional capacity for information management, use of groundwater information in planning, regulation and decision-making. *Provide groundwater information and knowledge management assessment, inventory of groundwater information systems and databases, groundwater monitoring institutional matrix, information-flow map, information and data gaps matrix, and assessment of the use of groundwater information in decision-making.*

3.5. Integrated institutional diagnostic and toolkits, conclusions, recommendations and institutional strengthening roadmap:

institutional strengths; institutional weaknesses; opportunities for institutional strengthening; institutional and governance gaps; capacity gaps; decision-making weaknesses; inter-institutional coordination gaps; multi-actor governance gaps; groundwater information and monitoring gaps; priority institutional risks and bottlenecks. *Provide problem/gap addressed, recommended action, responsible and supporting institutions, required institutional or organizational changes, capacity-building*

requirements, information-management requirements, priority level, proposed timeline and expected results.

Note: Provide an executive report as a presentation (Power Point or similar) to the countries.

PRODUCT 4: Socioeconomics analysis related to groundwater use, focusing on economic and gender inequalities, as well as the conditions of social and environmentally vulnerable communities. *Identify socioeconomic aspects related to the conservation and use of groundwater in Amazonian areas, highlighting the economic inequities that this entails. Identify the role and gender inequalities related to the conservation and use of groundwater in Amazonian areas. Identify the cultural perspective in relation to the conservation and use of groundwater by indigenous peoples and other local communities across the Amazon. Develop a list of conclusions and recommendations.* (Activity 2.1.1.3).

The report relevant to this product might contain the following sections (some description, but not limited to, is provided below):

- 4.1. Socioeconomic assessment methodology:** Definition of the geographic and socioeconomic scope of the assessment, identification of priority Amazonian territories, communities and population groups, socioeconomic analysis of groundwater-dependent populations and activities, assessing economic inequalities and differentiated impacts, gender-responsive analytical framework, assessing the situation of socially and environmentally vulnerable communities, incorporating Indigenous peoples' and local communities' cultural perspectives and knowledge, identification of socioeconomic indicators and data sources, stakeholder identification and consultation methodology, ethical considerations for working with Indigenous peoples and vulnerable communities.
- 4.2. Socioeconomic profile of groundwater uses and dependence in Amazonian areas:** main socioeconomic activities dependent on groundwater, domestic/community, agricultural, livestock, small-scale productive activities, industrial and commercial uses, public services dependent on groundwater, differences between urban, peri-urban and rural populations, groundwater access and availability, economic importance of groundwater to households and livelihoods, costs associated with groundwater access and use, communities or groups particularly dependent on groundwater, socioeconomic factors affecting groundwater conservation, potential socioeconomic consequences of groundwater depletion or contamination, relationship between groundwater and household water security, relationship between groundwater and food/livelihood security. The analysis should identify **who benefits from groundwater, who bears the costs of groundwater degradation or scarcity, and who is most vulnerable to changes in groundwater availability or quality.** *Provide socioeconomic baseline report, groundwater-use and socioeconomic-activity matrix, socioeconomic profile of groundwater-dependent populations, relevant socioeconomic indicators/database, maps or spatial characterization of groundwater-dependent communities and activities, where data permit.*
- 4.3. Economic inequality, vulnerability and gender Analysis:** differences in access to groundwater among income groups, costs of groundwater access and use, differences between formal and informal users, differences between large-scale and small-scale users,

economic benefits derived from groundwater, distribution of costs associated with groundwater scarcity or contamination, economic vulnerability to groundwater-related risks, potential conflicts among different groundwater users, implications for poverty and livelihoods, groups disproportionately affected by groundwater degradation.

Roles in groundwater collection, management and use, responsibilities for household water provision, participation in groundwater-related decision-making, access to groundwater-related resources and services, access to information, economic benefits from groundwater-dependent activities, exposure to groundwater scarcity or contamination, time burdens associated with water access, opportunities to participate in conservation and governance, barriers to women's participation in decision-making.

Where data permit, the analysis should be **disaggregated by sex, age, location, income, ethnicity and other relevant socioeconomic characteristics**. The assessment should move beyond simply identifying women as a vulnerable group and analyze **how gender relations influence access, decision-making, responsibilities, benefits and risks associated with groundwater**. Provide economic inequality and vulnerability assessment, gender-responsive groundwater analysis, inequality and vulnerability matrix, gender-differentiated impact matrix, identification of priority groups and communities requiring targeted measures.

4.4. Cultural, indigenous peoples and local communities' assessment: indigenous and local communities' relationships with groundwater and water systems, traditional and local knowledge related to groundwater, cultural values associated with water and groundwater, traditional practices for water conservation and management, community-based groundwater monitoring or management practices, community perceptions of groundwater risks and changes, cultural and spiritual dimensions of groundwater, gender roles within community groundwater governance, traditional decision-making mechanisms, community governance arrangements, intergenerational knowledge transmission, perceptions of external interventions and infrastructure, potential conflicts between formal groundwater management approaches and local/Indigenous practices, opportunities to incorporate Indigenous and local knowledge into groundwater management. The assessment should apply a **rights-based and culturally appropriate approach**, including appropriate consultation and engagement processes when working with Indigenous peoples and local communities. Provide cultural and indigenous/local communities assessment, community knowledge and practices matrix, cultural perspectives and groundwater governance analysis, identification of opportunities and risks associated with integrating traditional/local knowledge into groundwater management.

4.5. Integrated socioeconomic, gender and vulnerability diagnostic, conclusions and recommendations: major socioeconomic drivers of groundwater use, economic benefits and dependencies, economic inequalities associated with groundwater access and use, communities and populations most vulnerable to groundwater risks, gender inequalities, gender-differentiated impacts and responsibilities, cultural dimensions of groundwater conservation and use, contributions of Indigenous and local knowledge, risks to livelihoods and household water security, social and environmental risks associated with groundwater degradation, priority areas and population groups requiring intervention, opportunities for more equitable groundwater management.

4.6. Consolidated synthesis between products: integrate legal and regulatory, institutional and capacity, information management, socioeconomic, gender and cultural findings into a single prioritized action matrix. Identify causal links, dependencies, trade-offs, responsible institutions, capacity and data prerequisites, sequencing, risks, and direct inputs to the White Paper and the Strategic Action Programme (SAP).

- 4.6.1. **Integrity and traceability:** Claims, inventories, and recommendations are supported by cited sources, stakeholder input, and clearly documented evidence limitations.
- 4.6.2. **Comparability and specificity by country:** a common framework is used while preserving differences in the legal, institutional, linguistic and socio-cultural system.
- 4.6.3. **Analytical rigor:** the outputs distinguish legal design, institutional capacity, and implementation/execution issues, and apply transparent criteria for prioritization.
- 4.6.4. **Participation and validation:** relevant national institutions and non-state actors are consulted; Divergent opinions and unresolved issues are documented rather than suppressed.
- 4.6.5. **Applicability:** The recommendations identify responsible actors, legal or administrative pathways, prerequisites, risks, sequencing, and realistic time horizons.
- 4.6.6. **Usability:** All databases, matrices, maps, and supporting files are complete, editable, consistently structured, and accompanied by metadata or data dictionaries as appropriate.

Note: Provide an executive report as a presentation (Power Point or similar) to the countries.

5. Product presentation format

The products must be delivered observing the following details:

- Reports in English and Spanish versions of each product, in editable formats (Word, Shapefiles) and a pdf copy.
- As described in each of the above products, the consultant must provide data organized in Excel/CSV, GIS-based maps, and other documents to support the analysis. All figures in the reports should be shared in editable formats.
- Summary presentation of each product in Power Point or similar (in Spanish and English).

6. Supervision and reporting

The consultancy will be coordinated by the Amazon Cooperation Treaty Organization (ACTO) through the Project Coordination and the designated team. The project counterpart will guarantee availability for coordination meetings, delivery of required information and documents, as well as timely validation of the products.

7. Location and working arrangements

The Consultant (institution/company) will provide services in his own offices and will maintain virtual contact with the Project Coordination Unit (PCU). Travel, in-person consultations or validation workshops may be required only when agreed in advance and reflected in the approved work plan and financial proposal.

8. Working methodology

The consultant will apply a participatory and iterative methodology, which will include:

- Initial meeting for scope and schedule validation.
- Progressive deliveries per product.
- Review and feedback rounds, including presentation for countries.
- Final validation by the designated technical supervisor.
- Formal delivery of final editable products in PDF format.

9. Deliverable and payment schedule (after contract), remuneration per product

Product	Deadline (after contract)	Payment (% of total)
Product 1	Week 2	10%
Product 2	Month 3	30%
Product 3	Month 6	30%
Product 4	Month 9	30%

10. Confidentiality and intellectual property

The handling of information shall be subject to the confidentiality policies of UNEP and the PS/ACTO; prior to disclosing internal documents—or documents that, by virtue of their content or the circumstances of their creation or communication, must be considered confidential—express written consent must be obtained from UNEP through the PS/ACTO, acting as the executing entity.

Copyright and other intellectual property rights in materials produced under this consultancy shall be determined in accordance with the Project Cooperation Agreement between UNEP and PS/ACTO and reflected in the consultancy contract. The consultant shall not publish, distribute or reuse the products without prior written authorization from PS/ACTO and UNEP, as applicable. Pre-existing information, data, maps, methodologies and other materials shall remain the property of their original owners. Data provided by participating countries or partner institutions shall be used and shared only in accordance with the conditions established by the respective data owners. All sources, licenses, restrictions and required acknowledgements shall be clearly documented in the products and associated metadata.

11. Submission of Proposals

Proposals must include at least:

- Resume (CV) or institutional profile (if it is a company).
- Portfolio of relevant works.
- Technical proposal: methodology, schedule and work approach.

- Economic proposal: total amount and breakdown by product.
- Estimated implementation schedule.

Proposals should be sent to the following email address: proyectosaa@otca.org

12. Evaluation criteria

Criterion	Weighting
General experience of the consultant/company in the activities proposed in each product	20%
Technical profile of the team	30%
Technical proposal	30%
Economical proposal	20%

13. Requirements

Number	Criteria (yes/no)
1	The consultant/company must be registered in its country to carry out the specific consulting work.
2	Demonstrate at least 5 years of general experience in the consulting market since its incorporation
3	At least three (3) projects carried out by the company/institution/consultants in the last ten (10) years related to the subject matter of the consultancy.
4	The Company/Consultant must ensure at least the following key technical team to develop the proposal; a Coordinator with at least 10 years of general experience and a list of Specialists who have at least 5 years of general experience and specified according to the list of key personnel described in the Suggested Key Personnel.
5	Among the team's professionals, the coordinator and the specialists must possess demonstrated experience in the Amazon region. The team should include the gender specialist and other suggested key personnel (Annex 2).
6	Among the team's professionals, proficiency in Spanish and English should be demonstrated (important for meetings with CM).
7	Submission of the company profile, individual team CVs, technical proposal, and financial proposal.

Annex 1: Theory of change

Figure 1: Theory of change – AAS Project

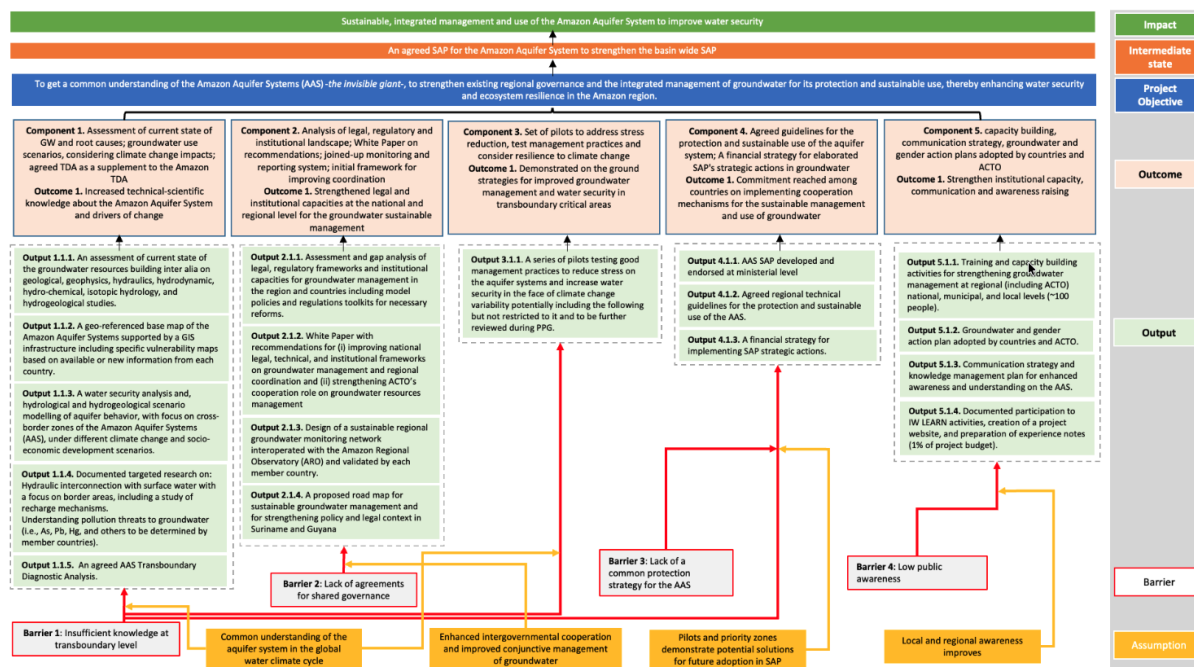


Figure 1 shows the sequence from barriers, to Outputs, to Outcomes and Components, thus, to achieve the project objective. On this regard, and to advance the implementation of Component 2, an assessment and gap analysis of legal, regulatory frameworks and institutional capacities for groundwater management in the region and countries including model policies and regulations toolkits for necessary reforms will be carried out (herein Output 2.1.1). Output 2.1.1 will serve as the main input to develop the White Paper (Output 2.1.2), thus to inform Component 4 (SAP).

Annex 2: Suggested Key Staff for the Consultancy

Profile	Minimal training and experience	Main responsibilities
Regional Coordinator and Senior Water Law Specialist	Water Resources Engineer, Law, public policy, water resources management, or related discipline; Master's degree in relevant related fields. Minimum 10 years of general experience, 8 years in water or environmental legislation and 3 regional or multinational jobs.	Methodological direction; coordination of the regional and national team; definition of the comparative framework; supervision of diagnoses; dialogue with authorities; integration and technical approval of the products.
Specialist in groundwater legal and regulatory frameworks	Water Resources Engineer, Environmental, administrative or natural resources law; public policies, postgraduate desirable. Minimum 5 years of experience and at least 3 years in water regulation, groundwater, licensing, rights of use, aquifer protection or environmental control.	Inventory and comparative analysis of laws, regulations and standards; identification of gaps, contradictions and overlaps; evaluation of competencies; formulation of reforms and model provisions. Design the model set of tools: permits, well logs, fees, incentives, oversight, standards, protection of recharge zones, emergency protocols, and compliance mechanisms.
Specialist in hydrogeology and groundwater management	Geology, hydrogeology, hydraulic, environmental or related engineering; Postgraduate Degree in Groundwater Desirable. Minimum 5 years of experience.	Ensure the technical consistency of legal recommendations; analyze monitoring, extraction, recharge, pollution, protection zones, wells and transboundary aquifer systems; Define information and control needs. Production of georeferenced maps.
Specialist in regional governance, institutional analysis and cross-border cooperation	Economist, Public administration, political science, international relations, international law, transboundary basin management or related. Minimum 5 years of regional experience and knowledge of water cooperation mechanisms.	Analyze regional agreements and mechanisms; identify opportunities for harmonization; Propose common principles, protocols and instruments for shared aquifers and cooperation between countries. Mapping institutions, mandates, processes and coordination mechanisms; identify duplications and gaps in personnel, budget, technology and procedures; Develop the capacity assessment methodology and the strengthening plan.
Specialist in participation, gender and interculturality	Social sciences, development, anthropology, communication or related. Minimum 5 years in participatory processes related to water or the environment.	Design consultations and workshops; incorporate the perspectives of women, indigenous peoples, local communities and users; Analyze access to information, participation, and grievance mechanisms.

Note: it is recommended to include a junior GIS-specialist to produce georeferenced maps.