

REQUEST FOR EXPRESSIONS OF INTEREST CONSULTING SERVICES

Selection # as assigned by e-Tool: RG-T3874-P001

Selection Method: Simplified Competitive Selection (SCS)

Country: *Regional*

Sector: *Infrastructure and Energy, through the Water and Sanitation Division.*

Funding – TC #: ATN/OC-18798-RG

Project #: RG-T3874

TC name: *Strengthening of the Latin America and the Caribbean Observatory for Water and Sanitation (OLAS) and launch of the Research and Development Network.*

Description of Services: *Improve upon the existing Water and Sanitation Observatory for Latin America and the Caribbean (OLAS) as a centralized system for collecting, storing, systematizing, visualizing and disseminating large datasets originated from diverse sources with different formats increasing the flexibility of the platform to incorporate new data and information and improving the experience of the different users.*

Link to TC document: <https://www.iadb.org/en/project/RG-T3874>

The Inter-American Development Bank (IDB) is executing the above mentioned operation. For this operation, the IDB intends to contract consulting services described in this Request for Expressions of Interest. Expressions of interest must be delivered using the IDB Portal for Bank Executed Operations (<http://beo-procurement.iadb.org/home>) by: *November 24th* , 5:00 P.M. (Washington D.C. Time).

The consulting services (“the Services”) include: *(i) Audit of Existing Platform and Project Planning; (ii) Data and Infrastructure Design; (iii) User Experience and Platform Improvement Design; (iv) Data Management Implementation; (v) Implementation of Cross-Platform Improvements; and (vi) Training, Code handover, and Maintenance.*

The estimated period for the development of these activities will be 6 months.

Expressions of Interest may be submitted in English or Spanish. *Las Expresiones de Interés podrán presentarse en inglés o español.*

Eligible consulting firms will be selected in accordance with the procedures set out in the Inter-American Development Bank: [Policy for the Selection and Contracting of Consulting firms for Bank-executed Operational Work](#) - GN-2765-4. All eligible consulting firms, as defined in the Policy may express an interest. If the Consulting Firm is presented in a Consortium, it will designate one of them as a representative, and the latter will be responsible for the communications, the registration in the portal and for submitting the corresponding documents.

The IDB now invites eligible consulting firms to indicate their interest in providing the services described above in the draft summary of the intended Terms of Reference for the assignment. Interested consulting firms must provide information establishing that they are qualified to perform the Services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.). Eligible consulting firms may associate in a form of a Joint Venture or a sub-consultancy agreement to enhance their qualifications. Such association or Joint Venture shall appoint one of the firms as the representative.

Interested eligible consulting firms may obtain further information during office hours, 09:00 AM to 05:00 PM, (Washington D.C. Time) by sending an email to: [*María Eugenia de la Peña \(MDELAPENA@iadb.org\)*](mailto:María Eugenia de la Peña (MDELAPENA@iadb.org)).

Inter-American Development Bank

Division: [*División de Agua y Saneamiento \(INE/WSA\)*](#)

Attn: [*María Eugenia de la Peña \(INE/WSA\), Jefa del Equipo del Proyecto*](#)

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DRAFT TERMS OF REFERENCE

Stage 2: Development of the Water and Sanitation Observatory for Latin America and the (OLAS)

1. Background and Justification

- 1.1. The countries of Latin America and the Caribbean (LAC) gathered within the framework of the Latin American Conference on Sanitation (LatinoSan) have established the commitment to create the "Latin American and Caribbean Observatory of Water and Sanitation" (OLAS), as a response to the necessity to have a tool to make data available to the public for monitoring the Objective 6 of the Sustainable Development Goals (SDGs), which must be operational in two years.
- 1.2. The challenges for monitoring the SDGs include: (i) a significant gap in the information available, which varies from country to country; (ii) lack of a regional agency in charge of the integration, validation and harmonization of the information for its subsequent analysis, and lack of incentives for its measurement and collection; (iii) the available sectoral information is therefore outdated, on different platforms and generated under different methodologies; and (iv) at the country level, there is a lack of coordination between the statistical and information agencies and the sectoral entities, and these in turn with local and municipal government actors, making it difficult to generate new data and indicators for existing ones.
- 1.3. The OLAS platform aims to generate and publish online reliable, comparable, and timely information for the monitoring of SDGs related to water and sanitation for LAC, so that different sector actors can use it for policy formulation and research, and thereby contribute to the development of the sector. This will be done through the creation of a digital platform that will integrate official databases, databases generated by the Bank and data generated by countries for online consultation.
- 1.4. The scope of work of the OLAS is:
 - 1.4.1. Present the sector data and information available for viewing, consultation, or download, for its analysis. This is: (i) information from national surveys; (ii) information from water and sanitation surveys carried out under the Latin American Public Opinion Project (LAPOP) at Vanderbilt University with IDB financing; and (iii) information from other relevant databases imported from other platforms.
 - 1.4.2. Show information gaps to encourage countries to generate information. Likewise, reference will be made to methodological guides that support the generation of information, good national monitoring practices, and recommendations will be generated for the incorporation of appropriate questions to the censuses and household surveys.
 - 1.4.3. Promote the generation of new sectoral information. For this, it will work country by country by carrying out national diagnoses that allow: (i) identifying the key actors in the generation and management of sector information; (ii) identify the challenges and opportunities for the coordination of the different actors; and (iii) generate specific recommendations to improve the generation, collection, validation of sector data and information. It is expected that the main generator of the information will be the operating companies and national governments, so the platform will have an interface that will allow direct loading, which will be validated prior to publication. For each country, the best mechanism to validate and integrate the new information in the platform will be defined within each diagnosis. In the

future, the platform will also consider the incorporation of information generated through citizens, which will be piloted for some of the sector's issues.

1.4.4. Have an information repository that integrates information and relevant sectoral documents.

1.4.5. Encourage research using OLAS data, which will have the methodological basis and will make references to academic publications and articles that have been generated for dissemination.

1.5. A minimum viable product of the site exists. The existing platform includes a front-end website (<http://olasdata.org>), a content management site, and an entity management site wherein users manage data sets, documentation uploads, and users. The user management system includes a flow for handling, approving, or rejecting the submission of documents via members invited to OLAS.

1.6. As a result of the above, the IDB is looking for a consulting firm to further develop a Data Management Platform for the OLAS to compile, integrate, visualize and communicate a broad landscape of data, information, knowledge and research of the water and sanitation sector in LAC.

1.7. The expected audience of the Platform includes the general public, university professors and students, private sector and policy makers, among others. The expected result is to harmonize and promote the dissemination of information and knowledge about the quality and availability of the Water and Sanitation services in LAC. The data included in the Platform will provide reliable and up-to-date information regarding the progress towards achieving the Sustainable Development Goals related to Water and Sanitation in the LAC Region.

2. Objective

2.1. The objective of this consultancy is to improve upon the existing Water and Sanitation Observatory for Latin America and the Caribbean (OLAS) as a centralized system for collecting, storing, systematizing, visualizing and disseminating large datasets originated from diverse sources with different formats increasing the flexibility of the platform to incorporate new data and information and improving the experience of the different users.

3. Scope

The scope of this contract includes the following requirements.

3.1. Audit of Existing Platform and Project Planning

A minimum viable product of the OLAS platform exists. The vendor will be responsible for conducting a thorough audit of the platform with an eye towards the scope of this contract, to determine the best way forward and develop a work plan for accomplishing the goals described in this document.

3.1.1. Audit of current platform, considering the scope, key activities, and products detailed in this document

3.1.2. Proposal of the most appropriate way forward given the implemented architecture and technological solutions for the OLAS platform. This proposal should consider the desired improvements to the platform detailed in this document with respect to data management, UI/UX, and process flows.

3.2. Data and Infrastructure Design

The data management platform will allow for the integration and visualization the following items: (i) data and information produced by the IDB and other institutions with which the IDB has an association, agreement or partnership; (ii) data and reports from public sources. Based on the results of the audit in section 3.1, the vendor will propose a design for Data management in the platform that allows for the accomplishment of section 3.4., including but not limited to the upload, validation, and publishing of new datasets to the OLAS database, as well as incorporation of this information into dynamic graphics on the site.

3.2.1. Define adjustments for data infrastructure for storage, management and security according to audit results to achieve system data requirements (section 3.4)

3.2.2. Propose the platform's information security and cybersecurity measures or uphold the measures currently implemented.

3.2.3. Presentation of adjustments to the OLAS team for signoff by the OLAS team.

3.3. User Experience and Platform Improvement Design

The vendor will be responsible for presenting visual representations (mockups or demos) representing all new processes and user experience improvements to the site for approval by the OLAS team.

- 3.3.1. Refine the existing interface/web portal of the OLAS. The solution should be compatible with the major browsers and mobile devices.
- 3.3.2. Establish the procedures for the consolidation and updating of the databases and constituent datasets and the relevant aspects to facilitate data validation and its use with the stakeholders.
- 3.3.3. Establish data upload flows allowing for the mapping of fields, the validation of data uploads by system users.
- 3.3.4. Use the User Experience (UX) design approach to create intuitive user interfaces for the use cases described in this document in English, Portuguese, and Spanish.
- 3.3.5. Provide demos, mockups or wireframes of the proposed changes for signoff by the OLAS team.

3.4. Data Management Implementation

The contractor will be expected to implement the changes to the platforms data management and visualization capabilities according to the timeline established during the audit and planning process. This implementation will be subject to User Acceptance Testing. The implementation should at minimum provide the following:

- 3.4.1. The platform must facilitate incorporation of new datasets into the OLAS database including datasets with distinct units of aggregation (country, city, catchment/basin) and temporal spans, and geospatial data types (vector, raster). The database should have scalable storage, with an initial capacity of at least 500 MB, with the capacity for growth of more than 2 TB.
- 3.4.2. Improvements to data privacy management, including access restriction for sensitive datapoints and internal repositories for legal and other relevant platform documents.
- 3.4.3. The development of a data validation mechanism, through which OLAS managers can validate data uploaded by users before publishing it to the site.
- 3.4.4. Improvements to the Data Repository, which consists of datasets not necessarily incorporated into the OLAS dataset. The platform should allow users to upload or link outside databases to the data repository. The platform should accept or link to Excel, SQL, MySQL, CSV, and another major DBMS.
- 3.4.5. Integration of geospatial datasets (vector or raster) into the OLAS database, allowing for front-end visualization of this data as maps and attribute tables if applicable, according to the user's needs. Base maps including major cities and landmarks should be added when viewing map data, along with the options to overlay socio-political or economic dimensions (as available in the database).
- 3.4.6. Improve the flexibility of data visualization on the site via allowing content management users to create interactive graphics, specifying the desired dataset, fields, graph type, etc. The exact mechanism is to be determined and could be via a graphical interface or code blocks (Python, R) with a previewing mechanism. Content management users should be able to specify interactive elements of graphics (popups on hover, toggles etc).

3.5. Implementation of Cross-Platform Improvements

The vendor will be responsible for implementing the improvements detailed in their mockups. These items will be subject to User Acceptance Testing. The improvements should include, but not be limited to:

- 3.5.1. Adaptation of the OLAS platform to improve engagement, including but not limited to changes to favor the exchange between members participating in the OLAS Research and Development Network and a section for updates (new documents, datasets, analysis, functions, among others) on the homepage.
- 3.5.2. Interface improvements to the document and data repository in terms of visualization, search filters, images to identify documents, organization of documentation, document citation, and document preview.
- 3.5.3. Administrative users must be able to manage content within the site using Content Management System functionalities, including the creation of forms, pages, the use of advanced text options,

advanced blog functions, addition of images, interactive graphics, and video embedding. All pages should be developed to support English, Spanish, and Portuguese.

3.5.4. Intuitive improvements to user interface for external users (country teams, members of the research network, and water companies), including but not limited to the integration of user login, the process of accepting terms and conditions, allowing them to upload information to the site for validation, authorization by OLAS, and publication. For data uploads, the consulting firm must design standards and provide a process for uploading and updating files to facilitate data ingestion (schemas, metadata, protocols, formats), data access, data types, and data processing (cleansing, curation, integration, semantic layer, access protocols). The interface should permit Designated Institutions to validate the information that has been uploaded and Data Admins to review the information and publish it to the OLAS site.

3.5.5. Incorporate graphic elements as advised by the IDB, including among others: logo of the initiative, established color schemes, platform “look & feel”, which will have to adhere to KIC branding requirements.

3.6. Training, Code handover, and Maintenance

3.6.1. After delivering the improvements to the platform, the consultancy shall train the Designated Institutions team for the future management and validating of the data uploaded.

3.6.2. At the end of the deliverables the consultancy shall train the IDB team for the future management and updating of the databases in order to internalize all the technical capacities at the IDB.

3.6.3. Develop and deliver a handbook (or update the existing handbook, whichever is applicable) for the platform's governance (data stewards, change management, data stakeholders, roles and responsibilities among other things).

3.6.4. Deliver all related code in an organized and understandable format.

3.6.5. Ensure that the OLAS team has visibility of site analytics.

3.6.6. The consultancy must provide suitable maintenance for the correct operation of the Platform for at least two (2) months after final delivery of the scope detailed in points 3.1-3.21. Finishing this time and depending on the project success, IDB will consider the possibility to extend this support with the consultancy under a new contract.

3.6.7. Manage and coordinate all the activities and the delivery of the products with the supervisory team designated by the IDB.

4. Key Activities

This section outlines the key activities to be carried out by the vendor during the term of the contract.

4.1. Conduct an in-depth audit of the existing platform to identify strategies for improving data management flexibility, data management processes and visualization improvements as well as delivery of the outcomes detailed in section 5.

4.2. Elaborate a work plan with the proposed methodology for the achievement of the expected products, diagrams detailing data management (high-level), including time, deliverables, and responsibilities, among others.

4.3. Define adjustments for data infrastructure for storage, management and security according to audit results.

4.4. Create wireframes / demo detailing the proposed data upload process for datasets, data integration process in the OLAS database, and data visualization. Wireframes will be subject to an approval process.

4.5. Implement architecture improvements as necessary and the technological solution to allow for more flexibility in data management.

4.6. Develop data visualization improvements that allows users to personalize the visualization of data at the country, state, and municipal level, as well as geospatial data visualization.

4.7. Improve upon the platform's portal and interface based on UX study report.

4.8. Provide platform documentation

- 4.9.** Provide proposal for a platform post-production support: to ensure fast incident and problem resolution during the first two months after launch.
- 4.10.** Provide training in the proper use of administrative functionalities to the OLAS team and User Groups.