**TERMS OF REFERENCE: HYDROLOGICAL ADVISOR, 2021-2024**

**DEADLINE FOR APPLICATIONS: SEPTEMBER 15, 2021**


**Summary**

Forest Trends seeks an expert in hydrological analysis of natural infrastructure to serve as an advisor to our Water Initiative. Advisory services will support our Natural Infrastructure for Water Security project (NIWS) as well as potentially other activities.

Work assignments will be contracted annually, or at other increments agreed by Forest Trends and consultant, with specific budgets, tasks, and deliverables. Any such work assignments contracted under this agreement are dependent upon Forest Trends securing work plan and budget approval from respective donors.

The maximum time period covered by the scope of this framework agreement is up to three years, expected to begin October 2021.

The primary geographic focus for this scope is Peru, although work may also extend to the Andes and other mountainous regions.


**About Forest Trends and the Natural Infrastructure for Water Security Project**

Forest Trends is a non-governmental organization based in the United States that works to conserve forests and other ecosystems worldwide through the creation and wide adoption of a range of environmental finance, market, and other payment and incentive mechanisms. Forest Trends does so by:

- Providing transparent information on ecosystem values, finance, and markets through knowledge acquisition, analysis, and dissemination;
- Convening diverse coalitions, partners, and communities of practice, to promote environmental values and advance development of new markets and payment mechanisms; and
- Demonstrating successful tools, standards, and models of innovative finance for conservation that include indigenous and local communities.

The Natural Infrastructure for Water Security Project is implemented by Forest Trends with its partners Consortium for the Development of the Andean Ecoregion (CONDESAN), the Peruvian Society of Environmental Law (SPDA), international experts from EcoDecision and researchers from Imperial College London. The Project is funded by USAID and the Government of Canada.

The Project works to improve the enabling environment for the adoption of strategies and actions for natural infrastructure within the Peruvian water sector; improve the generation and management of information to support evidence-based decision making on natural infrastructure; and to develop and mobilize investments in natural infrastructure for water security. The project works at the national level with a special focus on 6 priority watersheds: Chira-Piura (Piura Region), Quilca-Chili (Arequipa Region), Tambo-Ilo-Moquegua (Arequipa, Moquegua and Puno Regions), Chillón-Rímac-Lurín- Alto Mantaro (Lima and Junín Regions), Vilcanota-Urubamba (Cusco and Ucayali Regions), and Mayo (San Martin Region). The

Project began in December 2017 and runs through June 2023. For more information, visit https://infraestructuranatural.pe.

**Tasks**

While work assignments contracted under this framework agreement will define the specific tasks and deliverables for the required period, this section indicates illustrative tasks that the consultant would be expected to perform.

*Conceptual frameworks and knowledge management*

- Lead or contribute to the development of conceptual frameworks and guidance documents on designing natural infrastructure interventions to achieve defined hydrological benefits, especially in data-scarce environments such as the Andes
- Lead or contribute to knowledge products highlighting opportunities and/or providing guidance to practitioners on using ancestral technologies to achieve hydrological benefits
- Lead or contribute to developing opportunities to exchange and advance knowledge on natural infrastructure for water security with leading experts in the field (including in areas of hydrological monitoring, modelling, and research)
- Lead or contribute to developing information management systems for hydrological data and other information on the impacts of natural infrastructure interventions

*Hydrological monitoring*

- Lead or contribute to the conceptualization and design of hydrological monitoring and evaluation systems, as well as guidance for their implementation and operation
- Contribute expert analysis and review to the interpretation and analysis of hydrological monitoring data
- Lead or contribute to the development of hydrological monitoring protocols
- Lead or contribute to capacity-building activities on hydrological monitoring (e.g., contribute technical expertise to guidance documents or training modules, lead training sessions during workshops or courses in areas of expertise)

*Hydrological modelling*

- Lead or contribute to the conceptualization, design, application, and interpretation of hydrological modelling studies to evaluate natural infrastructure interventions
- Lead or contribute to the development of new hydrological models to assess natural infrastructure interventions or ancestral technologies
- Lead or contribute to capacity-building activities on hydrological modelling of natural infrastructure (e.g., contribute technical expertise to guidance documents or training modules, lead training sessions during workshops or courses in areas of expertise)

**Qualifications**

- Advanced degree (PhD) in hydrology or related field
- Demonstrated expertise leading analyses of natural infrastructure and watershed services, including in developing country contexts, ideally with experience in Peru

- Demonstrated expertise, including published work, modelling the hydrological impacts of natural infrastructure interventions and/or ancestral practices. Ideally demonstrated experience innovating tools for hydrological assessments
- Demonstrated expertise applying hydrological knowledge and tools to deliver technical and communications products that serve decision-maker needs
- Experience working successfully in interdisciplinary and multi-cultural settings; demonstrated ability to lead engagements with high-level counterparts in developing country contexts
- Experience designing and delivering capacity-building programs in developing country contexts
- Excellent communication skills, including writing and verbal presentation skills
- Fluent in English and Spanish
- Availability: at least >50% time dedication, preferrable beginning in October 2021

**Instructions for Interested Candidates**

Submit the following to infraestructuraverdeinfo@forest-trends.org no later than September 15, 2021:

- Cover letter including the following:
    - Expression of interest and motivation for the posting
    - Description of education, experience, and skills that respond to indicated qualifications
    - Description of what candidate would bring to scope
    - Proposed daily rate for engagement[1]
- CV
- Biodata form (link)

[1] Work assignments contracted under this framework agreement will be agreed between Forest Trends and consultant based on estimated daily rate required to carry out tasks/deliverables agreed for the assignment.