

REQUEST FOR PROPOSAL (RFP) (For Low-Valued Services)

UNDP IRH RBEC	DATE: July 25, 2018
	REFERENCE: UNDP-IRH-RFP-2018-05

Dear Sir / Madam:

We kindly request you to submit your Proposal for 18-month monitoring program in the Aragvi River basin in Georgia.

Please be guided by the form attached hereto as Annex 2, in preparing your Proposal.

Proposals may be submitted on or before Wednesday, August 08, 2018 and via email to the address below:

United Nations Development Programme

procurement.irh@undp.org

Your Proposal must be expressed in the English, and valid for a minimum period of 90 days.

Proposals submitted by email must be limited to a maximum of [10] MB, virus-free and no more than [3] email transmissions. They must be free from any form of virus or corrupted contents, or the proposals shall be rejected.

In the course of preparing your Proposal, it shall remain your responsibility to ensure that it reaches the address above on or before the deadline. Proposals that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation. If you are submitting your Proposal by email, kindly ensure that they are signed and in the .pdf format, and free from any virus or corrupted files.

Services proposed shall be reviewed and evaluated based on completeness and compliance of the Proposal and responsiveness with the requirements of the RFP and all other annexes providing details of UNDP requirements.

The Proposal that complies with all of the requirements, meets all the evaluation criteria and offers the best value for money shall be selected and awarded the contract. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price shall be re-computed by UNDP, and the unit price shall prevail, and the total price shall be corrected. If the Service Provider does not accept the final price based on UNDP's re-computation and correction of errors, its Proposal will be rejected.

No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the Proposal. At the time of Award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Contract or Purchase Order that will be issued as a result of this RFP shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a Proposal implies that the Service Provider accepts without question the General Terms and Conditions of UNDP, herein attached as Annex 3.

Please be advised that UNDP is not bound to accept any Proposal, nor award a contract or Purchase Order, nor be responsible for any costs associated with a Service Providers preparation and submission of a Proposal, regardless of the outcome or the manner of conducting the selection process.

UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a Purchase Order or Contract in a competitive procurement process. In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link:

http://www.undp.org/content/undp/en/home/operations/procurement/protestandsanctions/

UNDP encourages every prospective Service Provider to prevent and avoid conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, cost estimates, and other information used in this RFP.

UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to preventing, identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its Service Providers to adhere to the UN Supplier Code of Conduct found in this link : <u>http://www.un.org/depts/ptd/pdf/conduct_english.pdf</u>

Thank you and we look forward to receiving your Proposal.

Sincerely yours,

Description of requirements

Description of requirements	
Currency of Proposal	⊠ United States Dollars
Value Added Tax on Price Proposal ¹	Image: Im
Validity Period of Proposals (Counting for the last day of submission of quotes)	 90 days In exceptional circumstances, UNDP may request the Proposer to extend the validity of the Proposal beyond what has been initially indicated in this RFP. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Proposal.
Partial Quotes	⊠ Not permitted
Person(s) to review/inspect/ approve outputs/completed services and authorize the disbursement of payment	Project Manager, UNDP-GEF Kura II project CTA/RC
Type of Contract to be Signed	Contract for Professional Services
Criteria for Contract Award	 Highest Combined Score (based on the 70% technical offer and 30% price weight distribution) Full acceptance of the UNDP Contract General Terms and Conditions (GTC). This is a mandatory criteria and cannot be deleted regardless of the nature of services required. Non acceptance of the GTC may be grounds for the rejection of the Proposal.
Criteria for the Assessment of Proposal	 <u>Technical Proposal (70%)</u> ⊠ Expertise of the Firm (10%) ⊠ Methodology, Its Appropriateness to the Condition and Timeliness of the Implementation Plan (20%) ⊠ Management Structure and Qualification of Key Personnel (40%) <u>Financial Proposal (30%)</u> To be computed as a ratio of the Proposal's offer to the lowest price among the proposals received by UNDP.
UNDP will award the contract to:	☑ One and only one Service Provider

Deadline for Submission of	Wednesday, August 08, 2018
Proposals	
Method for Submitting Proposals	Proposers are requested to submit their Technical and Financial offers in pdf format to the email address (<i>procurement.irh@undp.org</i>) given at page 1 - Letter part of this document. Proposals submitted by email must be limited to a maximum of ten (10) MB, virus-free and no more than three (3) email transmissions. They must be free from any form of virus or corrupted contents, or the proposals shall be rejected.
	Description:
	Please ensure that Financial Proposal part of RfP will be secured/encrypted by a password and will be provided upon the request from Proposer. Please do not share your password protected pdf format Financial Proposal before you are asked to so. Proposers, who are invited to send the Financial Proposal document password, are found Technically Compliant. Financial Proposal documents which are not secured/encrypted by a password will not be accepted. Password is only applicable for Financial Proposal. Technical proposals will not be password protected.
Annexes to this RFP ²	
Annexes to this KI'r	 Form for Submission of Proposal (Annex 2) General Terms and Conditions / Special Conditions (Annex 3)³
	☑ Orderar Terms and Conditions / Special Conditions (Annex 5) ☑ Proposed Monitoring Locations in the Aragvi Basin (Annex 4)
	\boxtimes Eighteen-month monitoring plan for the ecological assessment in the Kura River basin (Annex 5)
	☑ Updated version of the River Basin classification structure in line with the EU WFD (Annex 6)
	\boxtimes The NEA protocols presently in use within the national monitoring programme for the surface waters of Georgia (Annex 7)
	☑ Evaluation Matrix (Annex 8)
Contact Person for Inquiries (Written inquiries only) ⁴	Procurement IRH
	procurement.irh@undp.org
	All clarification requests must be sent 5 days prior to deadline of tender.
	Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.

² Where the information is available in the web, a URL for the information may simply be provided.

 ³ Service Providers are alerted that non-acceptance of the terms of the General Terms and Conditions (GTC) may be grounds for disqualification from this procurement process.
 ⁴ This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or

⁴ This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was received.

Technical Specifications

SERVICES: TERMS OF REFERENCES

I. Background

The Global Environment Facility (GEF) (<u>www.thegef.org</u>) unites 183 member governments—in partnership with international institutions, non-governmental organizations and the private sector—to address global environment issues. An independently operating financial organization, the GEF provides grants for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer and persistent organic pollutants. Since 1991, the GEF has provided US\$12.5 billion in grants and leveraged US\$58 billion in co-financing for 3,690 projects in 165 developing countries. Through its Small Grants Programme (SGP) the GEF has made more than 20,000 grants totaling about US\$1 billion to civil society and community-based organizations.

The GEF International Waters (IW) focal area targets transboundary water systems, such as shared river basins, lakes, groundwater and large marine ecosystems. The IW portfolio comprises 242 projects to date and some US\$1.4 billion of GEF grants invested in 149 different countries. This investment has leveraged about US\$8.4 billion in co-financing.

UNDP GEF Kura Project "Advancing Integrated Water Resource Management (IWRM) across the Kura river basin through implementation of the transboundary agreed actions and national plans" will be implementing the **Strategic Action Program** (SAP) for the Kura River Basin in partnership with the Governments of Georgia and Azerbaijan. The SAP is framed around four agreed Ecosystem Quality Objectives (EQO) which are:

- To achieve sustainable utilization of water resources to ensure access to water and preserve ecosystem services;
- To achieve water quality such that it would ensure access to clean water for present and future generations and sustain ecosystem functions in the Kura river basin;
- To achieve and maintain ecosystem status whereby they provide essential environmental and socioeconomic services in a sustainable manner in the Kura River Basin; and,
- To achieve mitigation of adverse impacts of flooding and climate change on infrastructures, riparian ecosystems and communities.

The GEF will support priority activities towards these objectives. The GEF funded SAP implementation Project has the objective "to integrate water resources management in the Kura river basin to address waterenergy-food-ecosystem security nexus through the implementation of agreed actions in the SAP". There will be five components to support the countries to achieve this objective. These are:

- Project Component 1: Establishment of effective cross sectoral IWRM governance protocols at the local, national and transboundary levels in the Kura Basin;
- Project Component 2: Strengthening national capacities to implement multi-sectoral IWRM in the Kura basin;

- Project Component 3: Stress reduction in critical areas and pre-feasibility studies to identify investment opportunities for improving river system health;
- Project Component 4: Targeted education and involvement projects to empower stakeholders in implementing local / national / regional actions in support of SAP implementation;
- Project Component 5: Enhancing science for governance by strengthening monitoring, information management and data analysis systems for IWRM.

A key output of the **Project** is to develop guidelines for establishing environmental flows in the Kura basin, and conduct a series of rapid ecological assessments, including bio-monitoring, of the river ecology throughout the basin, based on best international practices. Key activities include:

- Undertake environmental flow, rapid ecological assessments and bio-monitoring at key sites in the Kura River basin at different seasons to characterize seasonal & flow-related impacts;
- Develop and provide stakeholder education training activities;
- Develop an ecological baseline data collection program to inform the Environmental Flow and Ecosystem Function Reviews;
- Design a long-term Monitoring Program to assess the ecological impacts of changes in flows and/or other management interventions (i.e. non-flow related) that are to be implemented

Also component 5 of the project includes an output to develop ecological classification system for rivers that is in line with the EU WFD. The data and information that will be collected during the 18-month monitoring program will serve as good bases to test that system in the Aragvi river basin. This basin is one of the main sub-basins to the Kura river basin in Georgia

As such, the required deliverables of this assignment are:

Inception report and progress reports completed after each sampling mission,

Preliminary Assessment report, and final reports.

All monitoring and assessment data and materials, both in raw form and analyzed.

These are detailed below in line with section XI.

II. Justification of consultancy

Component 1 of the UNDP-GEF Kura II Project aims to increase Institutional strengthening and updating for improved, sustainable IWRM in both Azerbaijan and Georgia. Output 1.1 of this component is updated regulations for environmental flow calculation methodology, while output 1.2 is to improve water flow management regulatory strategies. The Project Team developed a staged strategy to update the environmental flow methodologies in the Kura river basin in both countries. There is a need to test this staged methodology in at least one sub-basin in each country which require data collection on the ecosystem data, including flora, fauna, hydrological, hydro morphological, physio-chemical, and socio-economic conditions of these sub-basins the mean-time, Component 5 of the project, enhancing science for governance, includes output 5.3, staged river system ecological assessment programs which will also require same sets of data on the ecological and hydrological status of the river basin.

Due to the project budget and time limitation, the project will test these new methodologies for Environmental flow calculations and river ecology classification system on one sub-basin of the Kura river basin in each country. The selected sub-basin in Georgia is the Aragvi basin as it is one of the main sub basins of the Kura river basin in Georgia This TOR is to find a company in Georgia who has the required technical experience and expertise to carry out an 18-month monitoring program in the Aragvi river basin in Georgia. The company will also test the proposed staged methodology for Environmental Flow calculation in this basin.

This TOR is based on two other documents to which reference should be made for all methodological issues:

- 1. Eighteen months monitoring plan for the ecological assessment in the Kura River basin (referred as "18-month monitoring plan" in the following and it is attached in Annex 5 of this document);
- 2. Updated version of the River Basin classification structure in line with the EU WFD (referred as "classification guidelines" in the following and it is attached in Annex 6 of this document).

The first defines the monitoring plan that is expected to be implemented by the Contractor. The latter defines, *inter alia*, a short term river water bodies classification proposal, that the Contractor should apply making use of the collected data.

III. Development objective

The development objective of the 18-month monitoring plan is to demonstrate to the project countries a common approach in the sampling and analysis of the ecological and hydrological data needed for building an ecological database. This common approach will be applied in the assigned sub-basin (the Aragvi basin) of the Kura River in Azerbaijan and Georgia to test the proposed methodology for environmental flow calculation in these sub-basins.

Long term objectives of the 18-month monitoring plan include:

- The integration of aquatic and terrestrial wetland ecology to include flora, fauna, and chemical parameters, river flow data, other selected hydro-morphological parameters and socio-economic conditions and development indicators.
- A common approach to data collection and interpretation in all fields to promote data comparability between the basin countries.
- Apply the project proposed staged methodology for calculating the Environmental Flow in each sub basin

IV. Immediate objectives

The immediate (short-term) objectives of the monitoring and assessment activity are the following:

- 1. provide sufficient data on river ecosystems, in order to set baselines of the ecological status of different segments of Aragvi river basin in Georgia, following the project's short-term methodological proposal in the classification guidelines;
- 2. provide additional data on the ecosystem functions, food webs, species count and variation, indicator species, keystone species, and anthropogenic impacts in order to support the step-wise implementation of environmental flows calculation methodology in both rivers;
- 3. make available raw and elaborated data in a standardized format, to support further analyses and updates in the future;
- 4. apply the step-wise implementation of environmental flows calculation methodologies in the Aragvi river basin in Georgia

5. identify strengths and weaknesses of each in each basin and report on the main knowledge gaps in order to inform future monitoring programmes.

V. Targeted area

The consultancy will be implemented in the pilot catchment within the Kura basin in Georgia in the Aragvi river basin.

A brief description of the two catchments and a summary of the main assessments previously carried out is presented in the 18-month monitoring plan, together with a preliminary identification of the reaches/water bodies to be monitored. The proposed monitoring sites for each catchment is shown in Annex 4.

VI. Outputs to be produced by the Contractor

Under the present contract the following outputs are envisioned to be provided by the Contractor:

- completed field data collection campaigns in accordance with the specifications and time line provided below;
- completed remote (GIS) analyses and data elaboration in accordance with the specifications and time line provided below;
- collected field data, and elaborated data made available in the formats and in accordance with the timeline specified below;
- reports prepared in accordance with the specifications and time line described in this TORs.

VII. Activities to be implemented by the Contractor

(1) Detailed operational monitoring programme

The 18-month monitoring plan provides the indicative location, frequency and timing for the monitoring/sampling activities, but these need to be further specified based on the Contractor's knowledge of the specific context targeted (e.g. ecological conditions, socio-economic conditions, hydrological regime leading to temporary flows in some stretches, location of pressure factors, variability of natural conditions, accessibility, etc.). The Contractor is expected to provide a detailed programme identifying proposed monitoring/sampling locations and the related schedule, for the 18 month period. Deviations from the 18-month monitoring plan are possible, only if thoroughly justified and allowing to fulfil the same objectives as to water body classification and support to environmental flow implementation.

The Detailed operational monitoring programme should also include the description of the proposed team foreseen for the implementation of the different activities of the consultancy.

The Contractor may present a first operational monitoring programme to be further specified based on the result of the first surveys (e.g. hydromorphological ones).

(2) Monitoring and assessment

The Contractor is expected to exhaustively implement the 18-month monitoring plan, thus carrying out the necessary field samplings, measurements and remote data analyses, in order to cover the following conditions, coherently with the methodologies described in the 18 month monitoring plan and eco-systemic data to fill the ecological database, including, *inter alia*:

- River system seasonal flora and fauna;
- Ecosystem component interactions and food web descriptions;
- Initial identification of indicator and keystone species;
- Hydrological variations and alterations impacts;
- Morphological quality;
- Phyisico-chemical elements; and,
- Socio-economic conditions and future development trends.

Further specifications are included in section VIII – Methods.

(3) Water body classification

Based upon the field samplings, measurements and remote data analyses carried out, the Contractor is expected to provide an assessment of the ecological conditions of water bodies, in the Aragvi basin.

Further specifications are included in section VIII – Methods.

(4) Reporting

The Contractor is expected to produce monthly and quarterly progress and final reports, providing details on the field activities carried out, on the results of sampling/field measurements and of remote data analyses, on the interpretation of these data, on the assessments carried out, and on all the main information gaps determining deviations from the agreed methodologies. The Contractor is also expected to provide as annexes of these reports the data collected and elaboration produced.

Further specifications on content and format of the reporting outputs are included in section XI – Reporting.

VIII. Methods that must by applied by the Contractor

The monitoring, assessment and classification activities have to be developed in accordance to the 18-month monitoring plan and in particular to the ecosystem database, which specify the operational methods to be applied. However, as in some cases different field or evaluation methods are possible, the Contractor needs to identify the most suitable ones for the targeted context and the specific local conditions.

The Contracting Authority commits to support the Contractor in the acquisition of existing data with the responsible national authorities.

Further indications on specific issues and activities are provided in the following.

Eco-systemic Data including, inter alia:

Ecological conditions, including flora and fauna

The contractor is expected to use international best practices for seasonal raid ecological assessments of the sub basin. In addition, initial identification of indicator species and key stone species should be make and documented.

Hydrological monitoring and assessment of hydrological alteration

The Contractor is expected to make use of existing gauging stations and of available instream flow data series. No additional stations are expected to be installed by the Contractor; however, punctual flow measurements may be needed in order to integrate the existing data. Other data sources, such as hydropower production, water abstraction and reservoir level data shall be used when available.

Morphological quality

The foreseen assessment approach requires field surveys for a correct interpretation of geomorphological processes and features and for the identification of anthropic elements affecting river ecological functions, but it is strongly based on the understanding of changes in time of the concerned river reaches; the acquisition of available aerial photographs/satellite images and georeferenced topographic data is an important preliminary requisite for the assessment.

Physio-chemical

The current scheme to classify ecological status of the river water bodies in Georgia is based on: (i) macroinvertebrate status as a biological element, (ii) physico-chemical status, and (iii) hydromorphological elements.

Other than the information provided in the National Environment Agency (NEA) protocol on survey methods and protocols for assessment, information on water quality, particularly focused on relationships between water physico-chemistry and flow regime, was limited.

Data on the seasonal oxygen conditions, temperature regime, and other relevant water quality parameters of each EFA site should be collated, where available. If such data are not available, field survey(s) should be conducted using standard protocols (e.g. as per the NEA protocol; Table 1). Field sampling should preferably be undertaken in both the dry and wet seasons of the year, to reflect water quality dynamics with both low and high flow events.

Quality elements	Indicative parameters
thermal conditions	water temperature
oxygenation conditions	dissolved oxygen, oxygen saturation
	BOD5
	COD
	total suspended solids
nutrient conditions	NO3
	NH4
	PO4 (orthophosphates)
Salinity	Conductivity
	Cl
	SO4
	total dissolved solids (total mineralization)
acidification status	pH

Table 1. Physico-chemical quality elements for JFS conducted by NEA.Source: Kordzaia(2016).

The sampling protocol for physico-chemical assessment should be completed by the contractor sampling team for each sampling location, during all sampling rounds. Furthermore, in situ parameters (pH, T, O2, conductivity, colour and odour) are recorded along with hydrological and biophysical site conditions and included in the field protocol (see Annex 7). Standardised, accredited methods are used for the subsequent laboratory analysis of physico-chemical quality parameters.

Critically, water quality needs to be linked to flow conditions at the site, due to the recognized, sometimes complex relationships that exist between discharge magnitude and physio-chemical variables, from temperature and oxygen, through to nutrients. The timing, duration and discharge magnitude during low flow periods of the year are often critical to consider from a water quality perspective, when several parameters may become limiting for the biota (e.g. temperature, dissolved oxygen, conductivity). High flows can also have important roles to play, for example, in the transport of nutrients and sediments within the river system.

Socio-Economic

No specific information was made available on the flow-related social uses of rivers and streams in Georgia or on the desktop and field survey methods available for use (other than for fisheries). It is evident, however, that there are a variety of cultural services and other features of importance, including in economic terms (e.g. inland and coastal fisheries), that have the potential for inclusion in the methodology. These include, among others: river recreation (instream and on river and coastal beaches, e.g. fishing, swimming), fisheries, waterfalls and other features of aesthetic and amenity value, and ecotourism opportunities (e.g. rafting).

Social links to the flow regime may be particularly important to assess in those parts of a river basin where communities directly depend on river natural resources for their livelihoods. For example, the flow regime may support vital food production services for local consumption or as a source of income, such as fisheries or flood-linked crop production along stream margins. River flows also supply reliable sources and stores of good quality water for use by people, including for bathing, washing or recreation. For example, very low flows during critical dry season months (a socially important bio period) may result in poor ambient water quality, affecting human uses of the resource. There can be cultural or spiritual practices associated with specific kinds of flow events in certain communities, e.g. baptism. Some of the more intangible relationships between river flow regimes and people may be important, but require a different form of expression that empirically derived flow-social response curves. It may be possible to economically value some of the human dependencies on the flow regime, such as fisheries, but not all relationships are necessarily quantifiable in monetary terms. There can also be certain disservices of the flow regime to people that need to be considered during an EFA, such as flooding risk or links to waterborne diseases. Very high flows during the wet season may support local river transport but prevent safe river crossing in certain reaches due to elevated water depths and velocities.

It is the role of the social scientist on the contractor's team to identify and document, either in qualitative or, where feasible, more quantitative terms, the various ecosystem services and other dependencies people have for both low and high flows. Many social sciences methods are well suited for environmental flows studies with little further adaptation needed, such as Participatory Rural Appraisal, key informant interviews and transect walks, and should be well known to the social scientist.

IX. Team composition requirements

The Contractor will arrange for a monitoring and assessment team with appropriate knowledge and previous expertise, in order to properly execute all the required activities according to the methods indicated above and in the reference documents.

During the selection of appropriate project staff, the Contractor will provide for inclusion of at least one senior-level expert in each of the main fields of activity foreseen. The senior-level experts are responsible for:

- providing supervision and guidance to other project team members, during field work preparation, execution, sample processing, and data interpretation;
- coordinating the preparation of relevant sections of the reports.

An indicative list of the main fields of activity and related education and expertise of senior level experts required is provided in the following table:

Main field of the expertise	Indicative expertise required
required for the team of experts	1 1

needed to carry on the monitoring	
Wetland floodplain (aquatic &	One expert trained in the following:
terrestrial) vegetation	Describe and map identified vegetation/landscape ecology classes
	• Prepare a list of all species found, including protected status according to country and IUCN Red Lists
	• Describe any land use impacts (actual and past) on vegetation at the pilot site
	• Identify indicator species and key stone species for the specific ecosystems
	Selection requirements:
	• Education level: Master's or above required, Ph.D. preferred in relevant field
	• Minimum years of experience: 5 years required, preference for experience in similar assignments, and field experience in monitoring river ecosystems
Hydrological monitoring and assessment	 At least one technician trained in field measurement of instream flow, including the use of instruments necessary for the different monitoring sites in the pilot catchments. Expert hydrologist able to analyse and interpret available data series and to carry out statistical analyses when necessary.
	 Selection requirements: Education level: Master's or above required, Ph.D. preferred in relevant field Minimum years of experience: 5 years required, preference for experience in similar assignments, and field experience in monitoring river ecosystems
Morphological assessment	 At least one expert specifically trained in fluvial geomorphology, able to interpret fluvial processes in the field and based on the output of GIS analyses. Technician with previous expertise in basic GIS data representation and analysis.
	 Selection requirements: Education level: Master's or above required, Ph.D. preferred in relevant field Minimum years of experience: 5 years required,

	preference for experience in similar assignments, and field experience in monitoring river systems morphology
Monitoring and assessment of physio-chemical elements	 At least one technician trained in taking water samples and usual physical and chemical parameters (e.g. dissolved oxygen, conductivity, pH, etc.) in river environments according to recognized standards. Either internal accredited lab for the analyses of required parameters, or expertise in the interpretation of the results of analyses provided by external labs.
	Selection requirements:
	• Education level: Master's or above required, Ph.D. preferred in relevant field
	• Minimum years of experience: 5 years required, preference for experience in similar assignments, and field experience in monitoring river water quality via physical and chemical parameters
Socio-Economic Assessment	At least one technician trained in socio-economic analysis, survey development and interpretation, and gender assessments.
	Selection requirements:
	• Education level: Master's or above required, Ph.D. preferred in relevant field
	• Minimum years of experience: 5 years required, preference for experience in similar assignments, and field experience in monitoring human interactions with river ecosystems in rural areas
	• Fluency in Georgian language
Reporting and interpretation of	At least one expert in river ecology and river management,
data – Ecologist	able to establish connections and provide an overall interpretation of the different monitoring and assessment areas/criteria.
	Selection requirements:Education level: Master's or above required, Ph.D. preferred in relevant field
	 Minimum years of experience: 10 years experience required in analysis of and reporting on ecological and hydro-morphological conditions, preference for experience in similar assignments, and field experience in monitoring river ecosystems, minimum 5 years as team leader on similar sized projects, Fluency in Georgian and English languages

Additional team members may be considered, to support the work of the senior experts, submitted CVs and anticipated inputs should be included in the technical proposal

General responsibilities of field survey team members:

- Upon finalization of contract, enter into the obligation to provide for opportunities to participate and execute 8 seasonal field surveys at selected pilot site in the Aragvi Basin during 2018-2020.
- Preparatory activities to be included with the delivery of the Inception Report: final pilot site selection, the project work plan, describe in detail thematic methodology and survey approach designed and implemented, including literature references where appropriate, and including assessment of the methodology's suitability to link biological data collected to features of river hydrology.
- For each field campaign to the Progress reports must include Field survey data: habitat designation & description, conducting sampling as feasible and appropriate for each thematic discipline (see table below), mapping if feasible, survey results, and anticipated challenges to timely implementation of work conducted. Additionally these resport must include laboratory/office activities such processing of samples, data analysis & interpretation, regular reporting.

On aquatic macro-invertebrate monitoring: The EU Kura Phase II project completed in December 2011 has provided all necessary equipment for macro-invertebrate monitoring to the National Environment Agency (NEA) in Georgia. Because the country of Georgia is a formal beneficiary of the UNDP-GEF Kura-Aras project, and the international donor community stresses coordination between parallel and subsequent international projects, the Contractor is strongly encouraged to conclude an agreement with the National Environmental Monitoring Department for the cooperation on relevant activities envisioned under the present contract. This agreement on cooperation may include the use of equipment, the involvement of appropriate staff members, the analysis of water samples from pilot site locations, and the providing of relevant monitoring data from ongoing state monitoring activities in Georgia.

No financial means are made available to the Contractor under the present contract for the purchase of field sampling equipment, and the contractor is responsible to provide all equipment needed to execute the tasks in this TOR.

On hydrological monitoring: The Contractor is strongly encouraged to conclude an agreement on cooperation with the relevant state authorities for the execution of relevant activities envisioned under the present contract. This agreement on cooperation may include the use of relevant equipment for hydrological flow measurements, the involvement of appropriate staff members, and the providing of state monitoring data for the hydrological stations on the Aragvi river basin in Georgia.

No financial means are made available to the Contractor under the present contract for the purchase of field sampling equipment, and the contractor is responsible to provide all equipment needed to execute the tasks in this TOR.

On Scientific Training: The UNDP-GEF Kura-Aras Project has completed a Scientific Training on Rapid Ecological Assessment, Environmental Flows and Bio-monitoring (27-30 March 2012, Tbilisi,

Georgia). Presentation materials as well as the list of participants can be found on the project web site (http://kura-aras.iwlearn.org/Welcome.html)

No financial means are made available to the Contractor under the present contract for the training of members of the Field Survey Campaign Team, unless a clear statement is included on the specific necessity of such training for the execution of activities under the present contract.

The Contractor is to provide for all administrative, travel cost, and logistical support and oversight towards successful, timely, and complete execution of field monitoring and remote analyses and assessments.

In addition to the field survey staff, the UNDP-GEF project's National Coordinator and/or other project staff may join the field survey for monitoring, evaluation and guidance.

The Contractor, in coordination with the UNDP-GEF Kura II Project must allow for the instructors and students of the UNDP-GEF IWRM Academy, and project experts to join any field missions or working groups within the work done by the Contractor, at the independent expense of the UNDP-GEF Kura II Project, for instructional or monitoring and evaluation purposes.

X. Timing

The consultancy should be executed in the period July 2018 – April 2020.

The field survey campaigns consist of 8 repeated campaigns during the period July 2018 – March 2020, following the main climatic seasons, in accordance with the following schedule.

Number	Period	Features				
2018						
1	1 October Autumn					
2	December	Early Winter				
	2019					
3 February Late Winter						
4 May Spring flooding season						
5	5 July Summer – peak vegetation					
6	September	Autumn				
7	November	Late Autumn				
	20	020				
8	8 March Early Spring					

Field survey is envisioned to be executed within three full days of field work at the selected pilot sites in the Aragvi basin (map attached in Annex 4), after which each expert participating in the field survey campaign, will process samples, analyze data, and contribute to reporting.

The tentative field survey schedule shall be finalized based discussions with the Contractor, taking into account the appropriate tasks necessary to execute in relation to actual weather and related ecological conditions in the different seasons. The tentative schedule will also be optimized as to fall as much as possible in line with already established state monitoring schedules, especially with respect to actual sampling dates for water quality and measurements of flow volumes at long-term monitoring stations in the vicinity of the field survey sites.

One month prior to the start of each field survey, the contractor shall submit a detailed plan of execution to the client for approval. The plan shall include the specified dates, field survey team composition, and summary of key tasks envisioned to be executed. In additional to the field survey staff, the UNDP-GEF project's National Coordinator and/or the International Demonstration Project Coordinator may join the field survey for monitoring, evaluation and guidance

XI. Reporting Deliverables

(1) Activity reports

In addition to the detailed operational monitoring programme (the project inception report), during the implementation of the contract, the following reports shall be submitted by the Contractor, indicative outlines of which are presented below:

- 8 Progress reports (one for every field campaign due after one month from the completion of each campaign).
- Preliminary Assessment report (draft to be provided in June 2019)
- Final Report (draft to be provided by the end of the monitoring period, final version to be completed within one months after the end of the monitoring period).

The project inception report must be submitted to the Kura II project PCU no later than one month from the signing of the contract. This inception will include the detailed operational monitoring program with revised time frame of the 8 field monitoring campaigns.

All reports are to be submitted in the national language and in English, in digital format.

<u>Progress Reports – indicative outline</u>

The Progress Reports should include at least the following information:

- description of the monitoring and assessment activities carried out for each quality element, including the applied methodologies and justifications for the choices made and supported by appropriate maps and photographs;
- presentation of the preliminary results of field samplings (e.g. lists of flora and fauna taxa and related abundance, results of water quality analyses, flow regime statistics, etc.);
- discussion on issues related to knowledge gaps, etc.

- update of the operational monitoring programme based on the result of the first surveys (if pertinent).

Preliminary Table of Content

The Progress reports should at least contain, but not be limited to, the following sections:

- Executive summary English / local language
- Executive summary Russian
- Introduction
- Methodology
- Execution of the ecological monitoring
- Bio-monitoring survey results
 - Field data collection Sample analyses Results
- Rapid Ecological Assessment Field data collection Sample analyses
 - Results
- Annex: Photo section description of digital photos delivered.
- Annex: Data section description of delivered database structure and content.

By End of June 2019 the contractor will submit the Preliminary National Summary Report The Preliminary Summary Report should include at least the following information:

- description of the monitoring and assessment activities carried out for each element, including the applied methodologies and justifications for the choices made and supported by appropriate maps and photographs;
- presentation of the preliminary results of field samplings (e.g. lists of flora and fauna taxa and related abundance, results of water quality analyses, flow regime statistics, etc.);
- results of the classification of ecological status of water bodies in the pilot catchments;
- discussion on relevant methodological issues/ information gaps/ choices made affecting the classification result;
- discussion on relevant pressure factors affecting the ecological quality of the monitored water bodies;
- recommendations for the continuation of monitoring and assessment of water bodies till the end of the contract in the selected sub-basins
- Assessment of the biophysical, ecological, and socio-economic impacts of the variation of the flow regime (seasonal & annual) on the selected sites, based on the data collected in 2018-2019.

Final Report - indicative outline

The Final Report should include at least the following information:

- description of the monitoring and assessment activities carried out for each quality element, including the applied methodologies and justifications for the choices made and supported by appropriate maps and photographs;
- presentation of the final, validated results of field samplings (e.g. lists of taxa and related abundance, results of water quality analyses, flow regime statistics, etc.);
- completed ecological database;
- discussion on relevant methodological issues/ information gaps;
- discussion on relevant pressure factors affecting the ecological conditions of the monitored water bodies;
- recommendations for the continuation of monitoring and assessment of water bodies in the Kura basin.
- Description of the biophysical, ecological, and socio-economic impacts of the variation of the flow regime (seasonal & annual) on the selected sites, based on all data collected.

Preliminary Table of Content for both the preliminary and final reports

The National Summary Reports should at least contain, but not be limited to, the following sections:

- Executive summary English / local language
- Introduction
 - General approaches of the ecological monitoring
- Thematic sections:
 - Rapid Ecological Assessment and ecological database
 - Vegetation
 - Macroinvertebrates
 - Fish
 - Birds
 - Mammals
 - Initial identification of indicator species and keystone species within the basins
 - Hydrology

Hydrochemistry

- Data linkages and interpretation
- Conclusion and Recommendations

All deliverables/reports and tables are to be submitted (in both digital and hard copy) in the national and English languages, and an executive summary in Russian, by the contractor at the contractor's expense.

(2) Provision of monitoring and assessment data/material

In connection with the progress and final reports, all sampling data collected and the results of the assessment carried out need to be provided to the Contracting Authority in digital format. At least the following data should be provided:

- georeferenced sampling points/sections/stretches in shapefile format and presented in maps in .jpg and .pdf format;
- results of field sampling/measurements (e.g. lists of taxa, results of water quality analyses, instream flow data, etc.) in Excel (or equivalent) format, clearly identifying the sampling/monitoring site, the sampling data, the operators, and any other relevant information;
- completed ecological database to include seasonal variation, abundance, geo referenced locations, relational information with other species, including habitat, feeding patterns, specific behaviors impacted by or impacting flow regimes, indicator species, and keystone species, etc.;
- where the monitoring/assessment methodology requires to fill in field/assessment forms, these should be provided in the pertinent (digital) format;
- selected set of photos illustrating the monitored water bodies; to be provided in digital format, together with a shapefile identifying the location where each photo has been taken; the author of each photo should be included in the file name or properties, so that his/her rights will be acknowledged for reporting or publication purposes; a declaration should be provided by the Contractor allowing the Contracting Authority the right to use these pictures for non-commercial uses;
 - results of the GIS analyses required for the morphological quality assessment (e.g.: delineation of river channel, islands, floodplain, riparian vegetation in different years; location and extension of longitudinal and lateral protection works; segmentation of water bodies into homogeneous reaches, etc.) should be provided in shapefile format, including all the attributes and spatial extension files and any other file necessary for a correct visualization of the information in common GIS software.

XII. Budget and payment schedule

Contractors are requested to submit a financial quotation in accordance with the format provided in Annex 2, in a single currency. The payment schedule will be as follows:

•	Approval of the Inception Report	10% of the total contract budget
•	Approval of the Second Progress Report	15% of the total contract budget
•	Approval of the Preliminary Assessment Report	25% of the total contract budget
•	Approval of the Sixth Progress Report	20% of the total contract budget
•	Approval of the Final Report	30% of the total contract budget

No additional financial means will be made available by the UNDP-GEF Kura II project to any 3rd party organization for the execution of sample analysis or of any other elaboration on monitoring

outputs – any envisioned costs for this should be included in the tender quotation submitted by the Contractor.

XIII. Qualifications

Assessment of tender bids will be based on the following obligatory key criteria:

- Team composition (coherence with the expertise specifications in section IX)
- Previous experience in river/freshwater ecology monitoring and assessment.
- Evidence of agreement with relevant appropriate government organizations on implementation of activities under this contract.
- Formal company registration with appropriate authorities.

Additional qualification assets include:

- Experience in interdisciplinary team management and coordination, proven organizational and analytical skills.
- Previous experience in the targeted pilot catchments.
- Experience with Ramsar, CITES, CBD, and bio-monitoring in the Framework of the EU WFD.
- Familiarity with the goals and procedures of international organizations, in particular those of the GEF, UNDP, and regional organizations related to project activities.
- Good writing skills in English.

Annex 2

FORM FOR SUBMITTING SERVICE PROVIDER'S PROPOSAL

(This Form must be submitted only using the Service Provider's Official Letterhead)

[insert: Location]. [insert: Date]

To: Procurement IRH

Dear Sir/Madam,

We, the undersigned, hereby offer to render the following services to UNDP in conformity with the requirements defined in the RFP dated [specify date], and all of its attachments, as well as the provisions of the UNDP General Contract Terms and Conditions:

A. Qualifications of the Service Provider

The Service Provider must describe and explain how and why they are the best entity that can deliver the requirements of UNDP by indicating the following:

a) Profile – describing the nature of the company, previous experience in river ecology

monitoring, licenses, certifications necessary to conduct works in Georgia;

b) Formal company registration with appropriate authorities

c) Business Licenses – Registration Papers, Tax Payment Certification, etc.

d) General Organisational Capability which is likely to affect implementation

- e) Quality Assurance Procedures;
- f) Track Record total years of experience in river ecological monitoring with minimum 3 years operation, list of clients for similar services as those required by UNDP, indicating description of contract scope, contract duration, contract value, contact references; and
- g) Written Self-Declaration that the company is not in the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List.

B. Proposed Methodology for the Completion of Services

The Service Provider must describe how it will conduct the monitoring program, list all field equipment that will be used, the methodologies for sampling and laboratory analysis, and the compilation of the required reports. The service provider must include in his technical offer a detailed work plan for the full implementation of the 18-month monitoring program; providing a detailed description of the essential performance characteristics, reporting conditions and quality assurance mechanisms that will be put in place.

C. Qualifications of Key Personnel

The Service Provider must provide Team Composition in line with expertise specification in section IX:

- a) Names and qualifications of the key personnel that will perform the monitoring activities and reporting indicating who is Team Leader, who are senior experts and who are supporting staff, etc.;
- b) CVs demonstrating qualifications must be submitted for all the senior experts; and
- *c)* Written confirmation from each personnel that they are available for the entire duration of the contract.
- d) Additional qualification assets include: Experience in interdisciplinary team management and coordination, proven organizational and analytical skills; Previous experience in the targeted pilot catchments; experience with Ramsar, CITES, CBD, and bio-monitoring in the Framework of the EU WFD; familiarity with the goals and procedures of international organizations, in particular those of the GEF, UNDP, and regional organizations related to project activities; and, good English writing skills, and report drafting experience

D. Cost Breakdown per Deliverable*

	Deliverables [list them as referred to in the RFP]	Percentage of Total Price (Weight for payment)	Price (Lump Sum, All Inclusive)
1	The inception report	10%	
2	The second field mission Progress report	15%	
3	The Preliminary Assessment report	25%	
	The sixth mission Progress report	20%	
	The Final Report	30%	
	Total	100%	

*This shall be the basis of the payment tranches

[Name and Signature of the Service Provider's Authorized Person] [Designation] [Date]

Annex 3

GENERAL TERMS AND CONDITIONS FOR CONTRACTS

Proposed Monitoring Locations in the Aragvi Basin





Annex 8 Evaluation Criteria

Summ	nary of Technical Proposal	Score Weight	Points		Compa	ny / Othe	r Entity	
Evalu	ation Forms		Obtainable	Α	В	С	D	Е
1.	Expertise of Firm							
		20%	200					
2.	Methodology, Its Appropriateness to the Condition and Timeliness of the Implementation Plan	18%	180					
3.	Management Structure and Qualification of Key Personnel	32%	320					
	Total		700					

Evaluation forms for technical proposals follow on the next two pages. The obtainable number of points specified for each evaluation criterion indicates the relative significance or weight of the item in the overall evaluation process. The Technical Proposal Evaluation Forms are:

Form 1: Expertise of Firm

Form 2: Methodology, Its Appropriateness to the Condition and Timeliness of the Implementation Plan

Form 3: Management Structure and Qualification of Key Personnel

Tech	nical Proposal Evaluation	Points Company / Other Entity					
Form	11	obtainable	Α	В	С	D	Е
Expe	Expertise of firm						
1.1	Relevance of the nature of the company, licenses, certifications to conduct works in Georgia	20					

Tech	nical Proposal Evaluation		Points Company / Other Entit			r Entity	у		
Form	-		obtainable	Α	B	C	D	Е	
1.2	General Organisational Ca affect implementation (i.e. company or one firm, size strength of project manage financing capacity and pro	25							
1.3	Extent to which any work (subcontracting carries add affect project implementation offers a chance to access specific to access	20							
1.4	Quality assurance procedu	20							
1.5	Track Record of Company		100						
	years of experience in relate or relevant projects previous experience in river ecology monitoring, (3-5 years= 20 pts, 5-7 years = 25 Pts, 7-10 years=27 pts, >10 years = 30 Pts) Number of similar engagements executed by the company with organizations similar to UNDP (1-3 = 5 pts, 3-5 =10 pts, above 5 20 pts) indicating description of contract scope and average duration (direct relevance of scope <1 year total 1-5 points, 1- 5 years 5-10 points, > 5 years = 20 points, depending on relevance of scope of work to current proposal.) Average contract value <\$25,000 USD = 1-5 points, \$25,001 - \$75,000 = 5-10 points, \$75,001 - \$150,000 = 10-14 points, >\$150,001 = 15 points	30 20 20 15 15 100							
1.6	Relevance of:		15						
	- Experience on and elig	NDP/ major multilateral/							
			200						
	nical Proposal Evaluation		Points			ny / Othe			
Form			Obtainable	A	B	C	D	E	
Meth	odology, Its Appropriateness	to the Condition and Timel	iness of the Imp	lementa	ation Pla	in			

Tech	Technical Proposal Evaluation			Points		Compa	ny / Oth	er Entity					
Form	-			obtainable	Α	B	C	D	Е				
2.1	Is this proposal in alignment with p methodology? Does it meet the stag approach for: hydrological monitor experts assessment (11-20), wholist (21-30 points)	ged me ring (1	ethodology -10 points),	30									
2.2	Is it appropriate to the field condition consider that challenges and potent monitoring across seasons in the de (1-15 points) Does it offer adaptive of these challenges and potential of points)	30											
2.3	Is there adequate timeliness of the i plan? Does the methodology provid for data collection, analysis and ass translation, and revision? (1-10 poi	40											
2.4	Is there appropriate laboratory and that to be used in sampling and mor proposal specify characteristics and laboratory and field equipment to b conduct the necessary analysis. (1- piece of equipment and description analysis approach to be used)	50											
2.5	Is the presentation clear and is the s activities and the planning logical, promise efficient implementation to Cumulative for: presentation clarity sequence of activities planned logic realistic and efficient 1-10 points.	30											
				180									
Tech	nical Proposal Evaluation			Points		Compa	nv / Othe	er Entity					
Form				Obtainable	А	B	C	E					
							I						
3.1	Task Manager – River Ecologist			70									
	General Qualification		Sub-Score 60										
	Suitability for the Project - Educational Experience . MA In secondary field (hydrology, geology, hydromorphology etc.) 1-2 points, PhD in secondary field 3-5 points, MA/MS directly relevant field (ecology, biology, river ecology) 6-8 points, PhD in relevant field (ecology, biology, river ecology) 9-10 points - Relevant Professional Experience as Team Lead/Task Manager for Environmental Flow Studies, 1 point per year as Team Leader for Environmental Flow	10											

Tech	Technical Proposal Evaluation			Points		Company / Other Entity					
Form	-			obtainable	А	B	C	D	Е		
	- Professional Experience in the area of specialization 1 point per year applied experience in Environmental Elow Monitoring	15									
	Flow Monitoring-Reporting and data analysisexperience 2 points per yearreporting and data analysisexperience	20									
	- Language Qualifications (Georgian only = 5 Pts, Georgian and English = Pts)	10	10 70								
			/0								
3.2	Senior Expert - Wetland floodplain (aquatic & terrestrial) vegetation		C. L. C	50							
	General Qualification		Sub-Score 40								
	Suitability for the Project- Education ExperienceMA/MS in secondary field(biology, agriculture) 1-3 points,PhD, in secondary field (biology,agriculture) 4-5 points, MA/MSin primary field (botany,horticulture, river ecology) 6-8points, PhD in primary field(botany, horticulture, riverecology) 9-10 points,- Environmental Flow Experience(1 point per year experience)- Professional Experience in theWetland floodplain (aquatic &terrestrial) vegetation - (1 pointper year experience)- Field experience (1 point peryear experience)- Language Qualifications (Georgianonly = 5 Pts, Georgian and English =Pts)	10 5 15 10 10	10								
3.3	Senior Expert - Hydrological monitor and assessment	ing		50							
	General Qualification		Sub-Score 40								
	Suitability for the Project - Education Experience MA/MS Hydrology 1-5 points, Ph.D. in Hydrology 6-10 points, with higher points for hydrological monitoring emphasis in academic experience	10									

Tech	Technical Proposal Evaluation			Points		Compa	er Entity	Entity		
Form	-			obtainable	А	B	C	D	Е	
	- Environmental Flow Monitoring and Assessment Experience	5								
	(1 point per year experience)									
	- Professional applied experience	15								
	as hydrological monitoring and	15								
	assessment - (1 point per year									
	experience)									
	- Field experience (1 point per	10								
	year experience)									
	- Language Qualifications (Georgian		10							
	only = 5 Pts, Georgian and English	= 10								
	Pts)									
			50							
3.4	Senior Expert - Morphological assessment			50						
	assessment		Sub-Score					1		
	General Qualification		40							
			-							
	Suitability for the Project									
	- Education Experience –	10								
	MA/MS in secondary field									
	physical geography,									
	hydrogeology or hydrology 1-3									
	points, PhD in secondary field									
	physical geography,									
	hydrogeology or hydrology 4-6 points,									
	MA/MS/Masters of Engineering									
	in primary field Hydro-									
	morhpology 6-8 points, Ph.D. in									
	in primary field Hydro-									
	morhpology 9-10 points									
	- Environmental Flow Experience	5								
	(1 point per year experience)									
	- Professional Experience in	15								
	Morphological assessment - (1									
	point per year experience)	10								
	- Field experience (1 point per year experience)	10								
	- Language Qualifications (Georgian	n	10			$\left \right $				
	only = 5 Pts, Georgian and English		10							
	Pts)	- 10								
	- ~ /		50							
					T			1		
3.5	Sonior Export Monitoring and			50						
5.5	Senior Expert - Monitoring and assessment of physio-chemical elem	ente		50						
	assessment of physio-chemical eleft	ients	Sub-Score							
	General Qualification		40							
			UT							
	Suitability for the Project									

Technical Proposal Evaluation			Points		r Entity	ity		
Form 1			obtainable	Α	B	C	D	Е
- Education Experience MA/MS in secondary field physical chemistry, aquatic monitoring, ecology 1-3 points, PhD in secondary field physical chemistry, aquatic monitoring, ecology 4-6 points, MA/MS/Masters of Engineering in primary field aquatic chemistry, biomonitoring, 6-8 points, Ph.D. in in primary field aquatic chemistry, biomonitoring	10							
9-10 points - Environmental Flow Experience	5							
(1 point per year experience) - Professional Experience in physio-chemical elements assessment - (1 point per year experience)	15							
- Field experience (1 point per year experience)	10							
- Language Qualifications (Georgian only = 5 Pts, Georgian and English = Pts)		10						
1 (3)		50						
3.6 Senior Expert - Socio-Economic Assessment			50					
General Qualification		Sub-Score 40						
Suitability for the Project- Education ExperienceMA/MS in secondary field socialgeography, or sociology 1-3points, PhD in secondary fieldsocial geography, or sociology 4-6 points,MA/MS/Masters of Engineeringin primary field culturalanthropology or socio-economicdevelopment 6-8 points, Ph.D. inin primary field culturalanthropology or socio-economicdevelopment 9-10 points- Environmental Flow Experience(1 point per year experience)- Professional Experience inSocio-Economic Assessment - (1point per year experience)- Field experience (1 point peryear experience)- Field experience (1 point peryear experience)- Language Qualifications (Georgianonly = 5 PtsGeorgian and English		10						
only = 5 Pts, Georgian and English = Pts)	= 10							
		50						

Tech	Technical Proposal Evaluation		Points	Points Company / Other Entity						
Form	n 1		obtainable	Α	В	С	D	Е		
			320							
	Total Part 3									

* Only Technical Proposals meeting a minimum 70% of the Technical Criteria will be evaluated for Financial Proposals