UNOPS

Request for quotation (RFQ) for services:

Predictive assessment of long-term changes of water balance in the basin of transboundary Selenga river in terms of climatic fluctuations and changes of the characteristics of water use.

RFQ No: RFQ_GPSO_2015_085_(IWC-78317)

UNOPS

Request for quotation (RFQ) for "Predictive assessment of long-term changes of water balance in the basin of transboundary Selenga river in terms of climatic fluctuations and changes of the characteristics of water use". RFQ NO. RFQ_GPSO_2015_085 (IWC-78317).

Date: 09 Feb 2015

UNOPS is accepting quotations from suppliers for

"Predictive assessment of long-term changes of water balance in the basin of transboundary Selenga river in terms of climatic fluctuations and changes of the characteristics of water use"

All interested parties must complete and return the attached price sheet to the following email address: DmitriP@unops.org

1 Requirements and price list (Annex A)

Quotations need to be submitted by using the Requirements and Price List contained in Annex A.

2 Eligibility

Bidders must not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by UNOPS to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods under this request for quotation.

Bidders must not be under a declaration of ineligibility for corrupt and fraudulent practices published by UNOPS on its website. Bidders must meet the eligibility criteria as published on the UNOPS website.

3 Currency

All prices shall be quoted in RUB (for Russian companies) or USD (for foreign companies)
UNOPS reserves the right not to reject any bids submitted in another currency than the mandatory bidding currency stated above. UNOPS may accept bids submitted in another currency than stated above if the bidder confirms during clarification of bids (1.18) in writing that it will accept a contract issued in the mandatory bid currency and that for conversion the official United Nations operational rate of exchange of the day of RFQ deadline as stated in the RFQ letter shall apply.

Regardless of the currency of bids received, the contract will always be issued and subsequent payments will be made in the mandatory bidding currency above.

4 Evaluation

UNOPS evaluates quotations based on lowest priced most technically acceptable quotation received.

5 Delivery (for goods)

Not applicable

6 Mobilization and duration (for services)

Service provision shall commence 1 calendar days after contract signature. The successful supplier is expected to complete the services by 15 July 2015.

7 Quotations due

All quotations must be received at the e-mail address stated below no later than:

Date:	19 February 2015
Time:	**10:00 A.M. UTC+09:00, Irkutsk time**
E-mail:	DmitriP@unops.org
Contact person:	Mr. Dmitry Popov

Quotations submitted shall be binding and valid for a period of thirty (30) days from the due date stated herein. Any prices accepted during this period will be considered firm/fixed for the resulting purchase order.

UNOPS will award this requirement in total and will not accept any partial quotations. The supplier agrees to acknowledge the purchase order in the form provided upon award, under the terms and conditions stated therein, and for the agreed amount.

8 UNOPS General Conditions of Contract

Any order resulting from this RFQ exercise will be subject to the UNOPS General Conditions of Contract available for goods, small services and services at the following addresses:
http://www.unops.org/SiteCollectionDocuments/Procurement%20docs/UNOPS%20General%20Conditions%20for%20Goods.pdf
http://www.unops.org/SiteCollectionDocuments/Procurement%20docs/Conditions-of-services-below50K.pdf
http://www.unops.org/SiteCollectionDocuments/Procurement%20docs/GCCs%20For%20Professional%20Services.pdf

9 Clarifications

Suppliers with questions or requests for more information are encouraged to send them to the email address above promptly in order to allow time for the provision of a written response. Explanations or interpretations provided by personnel other than the above will not be considered binding or official.

10 Quotation form (Annex B)

The attached Quotation Form needs to be completed and signed. Suppliers shall return the completed and signed Quotation Form with their quotation.

Approved by:
Date: 09 February 2015

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ANNEX A
Requirements and price list

It is recommended to use application form here (pages 3-6):
http://baikal.iwlearn.org/en/tenders/how-to/application-form/at_download/file

"Predictive assessment of long-term changes of water balance in the basin of the transboundary Selenga river under conditions of climatic fluctuations and changes of the characteristics of water use"

Location :	The Russian Federation
Application Deadline :	19-February-2015
Type of Contract :	Service Contract
Languages Required :	English, Russian
Starting Date :	01-March-2015
Duration of Initial Contract :	01-March-2015 – 15-July-2015
Expected Duration of Assignment:	4.5 months

Background

The project's objective is to spearhead integrated natural resource management of Baikal Lake Basin and Khuvsgul Lake ensuring ecosystem resilience, reduced water quality threats in the context of sustainable economic development. The project has three primary components: elaborating a strategic policy and planning framework; strengthening institutional capacity for IWRM; and demonstrating water quality and biodiversity mainstreaming practice, including groundwater monitoring and protection.

This project builds upon a solid, decades-old baseline of bilateral cooperation between Russia and Mongolia on the transboundary waters of the Selenga River and by extension the Baikal Basin itself. To date, international support for environmental conservation and management in the Baikal Basin has not been transboundary in orientation; little support has been provided the two countries in strengthening their transboundary cooperation to manage sustainably the globally significant environmental benefits represented by the incomparable Lake Baikal and its transboundary Basin, at the top of which lies Mongolia's aquatic jewel, Lake Hovsgol. In addition to this solid baseline of transboundary cooperation are two rapidly growing economic baselines in mining and tourism, with mining being the biggest and fastest growing economic activity in the Baikal Basin and tourism a smaller but also rapidly growing sector in both the Russian and Mongolian portions of the Baikal Basin. Both of these sectors hold much promise in becoming better stewards of the Baikal Basin's aquatic ecosystems. In the absence of a GEF investment, these barriers are likely to continue hampering an effective transboundary response to the critical threats that are already impacting the ecosystem health and resilience of the Baikal Basin.

Successful implementation of a regional project like "Integrated Natural Resource Management in the Baikal Basin Transboundary Ecosystem", to a large degree depends on effective implementation and ownership of project-inspired work at the national and local levels.

Justification of consultancy:

The Output 3.1 of the Project document envisages the launch of the climate change-oriented monitoring, which takes into consideration changes in both end part of the Baikal basin – lake Baikal itself (low bound) and Mongolian lake Khuvsgul (upper bound). The monitoring is to be aimed to the comparison with the earlier data of water level, which cannot be calculated without the in the lake Baikal basin water balance data, where the Selenga river flow is the most important.

An additional point is that the predictive assessment will facilitate (in accordance with Output 3.1) preparation of warning/prevention/response modelling programs for notification of downstream water users about emerging threats.

In 2014 as part of the Lake Baikal project, works on setting up of the pollutants transportation model and calculation of water balance in the lake Baikal basin were carried out. So it would be rational in 2015 to implement the service of predictive assessment of long-term changes of water balance in the basin of the transboundary Selenga river under conditions of climatic fluctuations and changes of the characteristics of water use.

Development objective:

- to estimate the dynamics of the water balance component changes in the Selenga river basin over a period of instrumental observations, including long-term fluctuations of atmospheric precipitation, river runoff, basin surface evaporation in a historic period.
- to prepare multivariate assessment of long-term changes of water balance in 20-, 30- and 50-years perspective using long-term predictive information about global climatic models, taking into account industrial agricultural development.

Immediate objective(s):
The purpose of this work, which is carried out under Output 3.1, is to develop predictive assessment of long-term changes of water balance in the basin of the transboundary Selenga River under conditions of climatic fluctuations and changes of the characteristics of water use.

Specific Deliverables:

The service is expected to deliver the following results:

- to analyze current changes on the surface of catchment area (including the data of field measurement) for revelation of inhomogeneity in the observation data.
- to determine the deviations (or absence) in integral estimation of the water balance components in comparison with earlier periods;
- to estimate the scales of the water balance component change in dependence to one or another scenario of CO_2 emission in the atmosphere in XXI century.
- to investigate mechanisms of impacts on long-term fluctuations of the water balance elements in the Selenga river basin;
- to conduct mesoclimatic simulation experiments on modeling of climatic conditions for the Selenga river basin for years characterized by high river flow and, separately, low river flow of Selenga river, under conditions of current and predictive levels of mining industry development.
- to identify possible non-recoverable losses of river runoff in the catchment area in the nearest future based on the analysis of industrial and agricultural development in the Selenga river basin with the purpose of indication of possible losses of river runoff due to evaporation (change of land-use type) irretrievable water-intake (for industrial or irrigation purposes), installation of water storage reservoirs etc.
- to set-up the water balance model of Selenga river, prepare a detailed instruction how to use the developed model for achieving results required within this activity and provide configured model to the Baikal Information Center (BIC) in Mongolia and Russia.
- to estimate long-term changes of water balance in 20-, 30- and 50-year perspective using long-term predictive information on global climatic models, taking into account industrial and agricultural development.

Expected Outputs, reports and related logistics:

The service is expected to deliver the following results:

- Estimation of trends in long-term cycle of water balance of Selenga.
- Scientific rationale of critical levels of hydrological changes of hydrological regime in the Selenga river basin in the sequence of events: “norm – crisis – stress – emergency – disaster” and revelation of predictive changes under different types of ecological loading with the purpose of possible prevention or mitigation of emergency or disasters;

- Estimation of current and predictive (forecast for 20-, 30- and 50-year perspective) assessment of the Selenga river water balance under different hydroclimatic scenarios of man-made impact (minimal to maximal);
- Configured water balance model of Selenga River and its user guide.
- Analytical report with map material for publishing on BIC-website and other informational resources in Mongolia and Russia.

Payment will be made in 3 installments based on the acceptance of the required deliverables by the Project Manager as specified below:

- 20% payment as a first installment upon the submission of a) detailed calendar plan for activities to be carried out within the framework of the consultancy within the first 15 days
- 40% payment upon the submission of a) Scientific rationale of critical levels of hydrological changes of hydrological regime in the Selenga river basin in the sequence of events: “norm – crisis – stress – emergency – disaster” and revelation of predictive changes under different types of ecological loading with the purpose of possible prevention or mitigation of emergency or disasters - no later 15 May 2015
- 40% payment upon submission of a) final report with estimation of current and predictive (forecast for 20-, 30- and 50-years perspective) Selenga river water balance b) configured water balance model of Selenga River and its user guide – no later than 15 July 2015.

Приблизительный перевод на русский язык:

Техническое задание на тему:
«Прогнозная оценка долгопериодных изменений водного баланса в бассейне трансграничной реки Селенга в условиях климатических флуктуаций и изменения характеристик водопользования»

Одним из итогов 3.1 Проектного документа предусмотрено создание мониторинга, ориентированного на климатические изменения, как в «конце» байкальского бассейна – самом озере Байкал (нижняя граница), так и в монгольском озере Хубсугул (верхняя граница). Такой мониторинг должен быть направлен на поиск сравнимости с более ранними полученными данными уровня воды, которые не могут быть рассчитаны без данных водного баланса, в котором главную роль в бассейне озера Байкал играет сток реки Селенга. Кроме того, прогнозные оценки водного баланса окажут содействие, в соответствии с итогом 3.1, в подготовке программ моделирование оповещения/предупреждения/реагирования для уведомления пользователей ниже по течению о случаях возникающих угроз.
В 2014 году в рамках Байкальского проекта была выполнена работа по настройке модели переноса загрязняющих веществ и расчета водного баланса в бассейне озера Байкал. В этой связи представляется целесообразным в 2015 году провести прогнозную оценку долгопериодных изменений водного баланса в бассейне трансграничной реки Селенга в условиях климатических флуктуаций и изменения характеристик водопользования.

Цель работы:
- дать оценку динамики компонентов водного баланса бассейна реки Селенга за период инструментальных наблюдений, включая долгосрочные колебания за исторический период по данным об атмосферных осадках, речном стоке и испарении с поверхности бассейна;
- выполнить многовариантный прогноз долгосрочных изменений водного баланса в 20-, 30- и 50-летней перспективе с использованием долгосрочной прогностической информации по глобальным климатическим моделям и с учетом развития промышленности и сельского хозяйства.

В рамках выполнения данной работы необходимо:
- проанализировать текущие изменения на поверхности водосбора (в том числе с использованием данных натурных измерений) для выявления наличия неоднородности в данных наблюдений;
- в сравнении с предшествующими периодами наблюдений определить отклонения (или их отсутствие) в интегральных оценках компонентов водного баланса;
- оценить масштабы изменений компонентов водного баланса в зависимости от того или иного сценария эмиссии диоксида углерода в атмосферу в течение XXI века
- исследовать механизмы воздействия на долгопериодные колебания элементов водного баланса в бассейне реки Селенга;
- провести мезоклиматические вычислительные эксперименты по моделированию климатических условий для бассейна р.Селенги отдельно для лет, характеризующихся высокими и низкими объемами стока р.Селенги (условно «влажный» и «сухой» годы) в бассейне р. Селенги при современном и возможных (прогнозных) уровнях развития горнорудной промышленности;
- идентифицировать возможные безвозвратные потери речного стока на водосборе в ближайшей перспективе на основе анализа развития промышленности и сельского хозяйства в бассейне р. Селенги с целью обнаружения возможных потерь стока за счет испарения (изменения типа землепользования), безвозвратного водозабора (промышленностью или орошением), строительства водохранилищ и т.д.;
- настроить расчетную модель водного баланса реки Селенга, подготовить описание её работы для получения соответствующих результатов в рамках данной работы, и передать её для последующего использования в Байкальский информационный центр в России и Монголии.

- оценить долгосрочные изменения водного баланса в 20-, 30- и 50-летней перспективе с использованием долгосрочной прогностической информации по глобальным климатическим моделям и с учетом развития промышленности и сельского хозяйства.

В результате выполнения работы предполагается получить:
- оценки трендов в многолетнем цикле водного баланса бассейна реки Селенга;
- научное обоснование критических уровней изменения гидрологического рек бассейна реки Селенга в ряду событий «норма – кризис – бедствие - чрезвычайная ситуация - катастрофа» и выявление прогнозных изменений разным типам экологического напряженности с целью возможного принятия мер по смягчению возможных бедственных, чрезвычайных и катастрофических ситуаций;
- оценку современного и перспективного (прогноз в 20-, 30- и 50-летней перспективе) водного баланса реки.Селенга при разных гидроклиматических сценариях и сценариях техногенного воздействия (от минимального до максимального);
- сконфигурированная модель водного баланса реки Селенга и инструкция по её использованию;
- аналитический отчет с картографическим материалом для размещения на веб-сайте Байкальского информационного центра, других информационных ресурсов Монголии и России.

Отчетность:
- детальный календарный план выполнения работ в течение первых 15 дней;
- промежуточный отчет, содержащий научное обоснование критических уровней изменения гидрологического рек бассейна реки Селенга и прогнозные изменения, соответствующие разным типам экологического напряженности 15 мая 2015 г.;
- a) окончательный аналитический отчет с оценкой современного и перспективного (в 20-, 30- и 50-летней перспективе) водного баланса реки Селенга b) сконфигурированная модель водного баланса реки Селенга и инструкция по её использованию - 15 июля 2015 г.

Схема платежей:
- 20% аванс после одобрения календарного плана;
- 40% после апробации промежуточного отчета;
- 40% по завершении работы, предоставлении окончательного отчета и сконфигурированной модели водного баланса реки Селенга.

Продолжительность работы:
- начало: 1 марта 2015 г.;
- окончание: 15 июля 2015 г.

The following documents form part of this RFQ and must be completed and returned with your offer:

Name(s) of consultant(s) (a)	Number of working days (b)	Daily fee (c)	Daily subsistence allowance (d)	Total (e)=(b)x((c)+(d))
Subtotal:				

International/National travels (a)	Quantity (b)	Cost (c)	Currency (d)	Total (e)=(b)x(c)
Subtotal:				

Other Costs (description)	Cost
Subtotal:	

GRAND TOTAL: (Sum of 3 tables)

RFQ - Quotation form

Quotation form must be completed, signed and returned to UNOPS. The quotations must be made in accordance with the instructions contained in this request.

UNOPS General Conditions of Contract will apply to any resulting purchase order/contract. A link to the UNOPS General Conditions of Contract is included in the RFQ document.

The undersigned, having read the Terms and Conditions of Quotation No. RFQ_GPSO_2015_085 (IWC-78317) set out in the attached document, hereby offers to supply the services specified in the RFQ at the price or prices quoted, in accordance with any specifications stated and subject to the Terms and Conditions set out or specified in the document.

Signature: _____

Date: _____

Name and title: _____

Company: _____

Postal address: _____

Tel. no: _____

Fax no: _____

Email address: _____

Validity of offer: _____

Currency of offer: _____

Payment terms 30 days accepted:

Quotation to be addressed to:

UNOPS office
Mr. Dmitry Popov,
Address: 13, 8, Sakhyanovoi Str., Ulan-Ude, 670047, Buryatia, Russia
Tel.: +7 3012 415759
E-mail: DmitriP@unops.org

UNOPS

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