

UNOPS helps its partners in the United Nations system meet the world's needs for building peace, recovering from disaster, and creating sustainable development. UNOPS is known for its ability to implement complex projects in all types of environments around the globe. In an effort to promote organizational excellence, UNOPS seeks highly qualified individuals for the following position:

**THIS IS AN EXTENSION OF DEADLINE. THOSE CANDIDATES WHO HAVE ALREADY APPLIED NEED NOT RE-SUBMIT THEIR APPLICATIONS.**

### Vacancy Details

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Vacancy Code	<b>VA/2009/00069845/03/IICA/4</b>
Post Title	<b>Fish Ecology Expert</b>
Post Level	<b>IICA-3</b>
Position status	<b>International Individual Contractor Agreement</b>
Project Title	<b>The Caspian Sea: Restoring Depleted Fisheries and Consolidation of a Permanent Regional Environmental Governance Framework "CaspEco"</b>
Org Unit	<b>EMO</b>
Duty Station	<b>Home based with frequent travel to Project Management Coordination Unit, located in Astana, Kazakhstan.</b>
Duration	<b>13 working weeks over 18 months</b>
Closing Date	<b>4 February 2010</b>

### Background

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This project builds upon a solid foundation of regional cooperation for Caspian environmental conservation put in place by the five Caspian states and the Caspian Environment Program over a period of more than 10 years with substantial support from the Global Environment Facility (GEF). Building on these achievements this project's objective is to strengthen regional environmental governance and apply new thinking to the sustainable management and conservation of the Caspian's bioresources.

The Caspian's migratory fish require different environments for the main phases of their life cycle: reproduction, production of juveniles, growth and sexual maturation. The life cycle of diadromous species takes place partly in fresh water and partly in sea water: the reproduction of anadromous species takes place in freshwater, whereas catadromous species migrate to the sea for breeding purposes and back to freshwater for trophic purposes.

The construction of a dam on a river can block or delay upstream fish migration and thus contribute to the decline and even the extinction of species that depend on longitudinal movements along the stream continuum during certain phases of their life cycle. Mortality resulting from fish passage through hydraulic turbines or over spillways during their downstream migration can be significant. Experience gained shows that problems associated with downstream migration can also be a major factor affecting anadromous or catadromous fish stocks. Habitat loss or alteration, discharge modifications, changes in water quality and temperature, increased predation pressure as well as delays in migration caused by dams are significant issues.

The upstream passage for anadromous and potadromous species past obstacles can be provided for through several types of fish ways: pool-type fish passes, Denil fish passes, nature-like bypass channels, fish lifts or locks, collection and transportation facilities. Only few special designs have been developed in Europe, Japan, New Zealand and Australia for catadromous species, namely for eels.

The critical point in upstream fish passage design is the location of the fish pass entrance and the attraction flow, which must take into account river discharge during the migration period and the behavior of the target species in relation to the flow pattern at the base of the dam. Some sites may require several entrances and fish passes.

The project supports the littoral states' efforts to halt the decline in bioresources and to restore depleted fisheries in the Caspian Sea, through the implementation of agreed actions defined in the Caspian Strategic Action Plan (SAP), and to fully operationalize and make the Caspian Sea's regional environmental governance mechanism sustainable. There are two main components of the project: 1) Ecosystem based management of aquatic bioresources; and 2) Strengthened regional environmental governance.

Additional detail and information on the project can be found at the Global Environment Facility website, web address: <http://gefonline.org/projectDetailsSQL.cfm?projID=3620>.

The project document of the CaspEco project provides the basis for this work under two of Output 7's four main activities that are listed below:

Activity 3. Assess fish passages/fish ladders on five dams on the Caspian's main tributary rivers and best practice experience worldwide with the introduction of fish ladders and the improvement in recruitment.

This activity will consider how fish passage facilities can be improved or constructed, to facilitate passage of sturgeon and other species of diadromous fish to important habitat above and below dams needed for the recovery of these highly migratory species. This assessment will generate recommendations for how to modify such passages to enable fish to more easily pass upstream spawning grounds, and back to the Caspian Sea to feed. This activity will catalyze national and regional dialogue on this issue and share international best practice.

Activity 4. Develop and implement pilot project to modify a fish passage facility to increase the efficiency and effectiveness and return on investment.

Activity 4 supports the identification and, if co-funding is forthcoming, the implementation of one pilot initiative to improve fish passage around one dam in the Caspian region according to Activity 3 recommendations. The pilot activity will demonstrate how a fish passage may be modified and modernized to increase fish access to natural spawning grounds and thereby improve recruitment; allow a greater number of fish and a broader range of species to pass and benefit the genetic health of the fish population.

Contractor should consider from the beginning how this work can reach decision makers in each country and not simply be trapped in the technical realm with no practical result. How can work under this activity be designed to catalyze decisions? Much thought should be given in the recommendations with respect to how to progress from data poor to data rich fish passage improvement. All activities should be tailored to the range of different capacities available in the Caspian region and should allow for sequential improvements. How can the region transition to more connectivity between the Sea and its rivers?

Contractor should collaborate closely with the project's work to create a unified environmental monitoring program for the Caspian in order to ensure that the Output supports the long-term monitoring program. The work will be conducted in close collaboration with the Project Management and Coordination Unit (PMCU) and particularly with the CTA and the Fisheries and Bioresources Expert (FBE). The consultant will report to the CTA. Equally critical to this consultancy will be the effective organization and work of the working group comprised of up to 5 experts (one from each Caspian country). This group will be formed and organized by the PMCU in time to begin work with the consultant. This group will be the main actors in conducting fish passage/fish ladder related work in each country.

## **Duties and Responsibilities**

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- Leadership and guidance of overall related surveys and assessment processes.
- Develop detailed Terms of Reference for the members of the working group described above; for engineering expert on fish passage construction and for the other international experts (international expert in ecosystem genetics/population modeling and international expert in full range of fish passage design and attributes).
- Provision of technical expertise in conducting fish passage ways /ladders survey & assessments.
- Design and conduct training seminars for regional experts and government officials in the application of the survey& assessment methodology.
- Guide working group members in proposing specific, tangible measures in their own countries to carry out the tasks assigned including design of pilot projects to improve fish passage.
- Compile the regional survey and assessment report including practical cost effective and environmentally sound measures to improve fish passage ways/ladders

### **Main Tasks;**

- Work closely with PMCU but take the lead on coordinating the work done so that work proceeds effectively and efficiently.
- Plan work outputs so that where relevant one activity's work supports the next in terms of data, recommendations, information, and the like.
- Provide input to the job description notice for the working group (WG) experts and support the PMCU's recruitment of appropriate WG experts.
- Work closely with PMCU to organize the first meeting of WG experts and prepare any presentations needed for this meeting as determined jointly with the PMCU.
- Lead the WG discussion to finalize the following:
  - a) List of diadromous species in the Caspian possibly affected by impassable barriers.
  - b) Country inventories done by each WG expert of all of the impassable man-made barriers in rivers that drain into the Caspian; list of species that are impacted by these barriers and ranking the importance of passing this barrier for each species.
  - c) Identify and describe current fish-passage structures at each of these barriers.
  - d) Rank impassable barriers as to potential gain of installing or improving fish passage (by species).
- Determine most likely rivers where fish passage facilities on existing dams can likely be restored/improved/constructed.
- Discuss the benefits of modeling the effects of installing various types of fish passage devices in certain rivers. Present examples of such models and discuss their potential use in the Caspian.
- Provide quality assurance editing on data to the extent possible and prepare data sets using available data.
- Work with GIS expert to map this data for presentation and discussion at regional meeting.
- Prepare synopsis of best practice and experience from around the world on how dammed rivers can be managed to mimic natural flows and thereby restore or maintain the health of spawning grounds downstream.
- Organize the content of the second meeting of the WG in collaboration with the PMCU.
- Support the PMCU/FBE in organizing a group mission to visit 3-5 priority dams to assess fish passage facilities or lack thereof and potential for improvement.
- Prepare initial draft of report detailing assessments of as well as recommendations for top 7-10 ranked barriers on how to improve fish passages on each, with particular focus on the dams visited.
- Propose specific fish passage designs appropriate for each context and cost estimates for each design and recommend specific measures of success of improving fish passage (counting at fish ladder; telemetry; mark recapture below and above the site (before and after).
- Summarize 2-3 case studies from around the world where the introduction or improvement in fish passage on a dam led to increased recruitment and/or increased catch levels and present this report to responsible institutions in each country and to the TCIS.
- Assist to create a TC Network and present draft connectivity report and draft report on fish passage facilities through the network, discuss final data set and resulting maps.
- Finalize and present the "Enhancing Connectivity" report, agree upon prioritization of fish passage sites within Caspian basin, and produce final draft of report for circulation, review and formal consideration

by the Tehran Convention member states.

- Provide capacity building (crosscutting activity). In each of the steps, capacity building must be built in. Each meeting should include a practical “training while doing” element that is designed to measure basic” before and after” improvement in awareness and knowledge of key issues.

## **Required Selection Criteria**

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### **Competencies/Education/Experience/Language**

- Advanced University degree (Masters or higher) in relevant discipline;
- Minimum 10 years of experience in relevant field and minimum 5 years of proven experience and expertise in diadromous fish study and applied management issues, including issues related to enhancing connectivity on dammed rivers;
- At least basic experience in teaching or training in relevant concepts; experience working in multi-cultural, multi-lingual situations, linked to or supported by a well-known “center of excellence” in fish management or research entity; and
- Working knowledge of written and spoken English critical; knowledge of Russian / Farsi language is an asset.

## **Submission of Applications**

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Qualified candidates may submit their application, including a letter of interest, complete Curriculum Vitae and an updated United Nations Personal History Form (P.11) (available on our website), to [iwvacancies@unops.org](mailto:iwvacancies@unops.org). Kindly indicate the vacancy number and the post title in the subject line.

## **Additional Considerations**

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- Applications received after the closing date will not be considered.
- Only those candidates that are short-listed for interviews will be notified.
- Qualified female candidates are strongly encouraged to apply.
- UNOPS reserves the right to appoint a candidate at a level below the advertised level of the post.

For more information on UNOPS, please visit the UNOPS website at [www.unops.org](http://www.unops.org).