

Title of Proposed Project/Programme:

Sustainable Saltwater Fisheries and Aquaculture Development in Iraq

Description of the Programme:

The project aims to increase national fish production and enhance food security and livelihoods of fishermen, farmers and associated rural communities by utilizing unutilized inland saline water bodies in a sustainable manner with community participation.

Programme Costs:

Total Cost: US\$ 11million

Govt. Contribution: US\$ 2 million

Programme Location:

The project activities will focus on Razzaza Lake in the central region in Karbala Governorate and two marshes in southern region, namely, Hamar in Al-Qadisiya Governorate, Midiel marshes in Thi-Qar Governorate and Basra Governorate.

Programme/Project Duration: 24 months

National priority or goals:**NDS**

The Iraq National Development Strategy recognizes the need to revive marshes and brackish and saline water bodies through the development of fisheries. It is also recognized to develop agriculture sector, in which fisheries is an essential sub-sector to create employment opportunities and enhance livelihoods.

ICI Benchmarks (as per the Joint Monitoring Matrix 2008):

The International Compact for Iraq (ICI) in its Agriculture Strategy, in which fisheries is a sub-sector, has specified goals and objectives as follows:

Goal: To develop a stable, competitive and sustainable agriculture to enhance food security and rural incomes, generate rural employment, diversify economic growth and protect natural environment.

Sector Team Outcome(s):

The project will contribute to Agriculture and Food Security Sector

Outcome 1: Sustainable agricultural development

Outcome 2: Improve food security and natural resources management.

This will be achieved through rehabilitation and improvement of fisheries and aquaculture production systems by decentralizing quality fish seed supply and diversifying aquaculture practices together with adoption of participatory conservation.

1. Executive Summary

Iraq faces several challenges with respect to food security, malnutrition and enhancing the livelihoods to address poverty. Both the 2004 WFP Baseline Survey and the 2006 Food Security and Vulnerability Analysis in Iraq have suggested that low protein and micronutrient intake caused by inadequate dietary diversity is a cause of the current levels of stunting among Iraqi children and a manifestation of serious food insecurity.



The development initiative of this project is an urgent and timely need and inline with NDS and ICI relevant to fisheries. Iraq's diverse inland water resources of 650,000 to 700,000 ha consist 60% freshwater and 40% saline water, which are suitable for enhancing fishery resources. Despite diverse water resources, both aquaculture and capture fishery productions from inland water resources drastically declined from 1994 to 2003. Per capita fish consumption in Iraq is currently as low as 1.4 kg/yr. this is due to not only the lack of purchasing power but also to the lack of development initiatives to boost the inland fish production.

The project foresees the development of infrastructure to produce fish seeds coupled with the strengthening of institutional and technical local capacity. It also proposes to strengthen extension service and delivery.

2. Situation Analysis

Food fish represents the most important source of animal protein providing essential micronutrients for many developing countries and Low Income Food Deficit Countries (LIFDC) (FAO 2003). Nevertheless, fisheries and aquaculture, presently contribute a negligible amount of animal protein in the diet of the Iraqi population. Even if fish has traditionally, formed an important part of the Iraqi diet, per capita consumption of fish has dropped down due to the long periods of unrest and sanctions and also to the decrease in the purchasing power and lack of initiatives to increase national fish production.

3. Proposed Integrated Programme:

The project strategy is to focus its activities in areas where it can accrue benefits to the communities. The central and southern governorates include an area of 40,000 km² with a population of 14.0 million. The majority of inland fish production in these governorates originates from brackish/saline water resources. Razzaza Lake in the central region with an extent of around 1 500 km² and southern marshes, which are the predominant environmental features in the southern region, account for about 2 500 km², indicates substantial scope for fish production.

Project sites for aquaculture will be located in/close to the southern marshlands of mesopotamia, which is on the Tentative list of the World Heritage. Fishery and aquaculture development is indispensable for local populations' livelihood while environmental concerns must be addressed. UNESCO will support this project from its WH marine environment programme perspective in order to ensure the project's environmental sustainability.



The project is designed with the combination of three key areas, namely, development of most critical infrastructure, build institutional and local capacity, implement project activities in a participatory mode, to utilize selected unutilized saline water lakes and selected saline marsh areas to diversify and develop inland fisheries and aquaculture. The incorporated strategy into project design includes:

- Establish quality fish seed supply
- Fish feed supply
- Diversification of species and aquaculture technologies
- Stock enhancement, capacity building
- Network of extension system
- Development plan

4. Anticipated Programme Outcomes, Outputs and Results:

The major project outcomes are:

- Develop infrastructure to produce fish seed
- Institutional capacity strengthened in aquaculture technologies and innovative finishing techniques
- Local technical capacity enhanced to diversify livelihoods/income generation and enhance food security and nutrition
- Revitalize and strengthen extension delivery and access to information.
- Protection of biological and cultural diversity.

The major project outputs are:

- A Limnological Study for the project areas conducted
- Local source of fish fingerlings established and enriched with local fish stock in reservoirs
- A reliable local source of fish feed supply developed
- Techniques enhanced to be used by the extension service for aquaculture and natural resource management
- Capacity of fisheries technicians and farmers/fishermen built in improved fishery technology
- Fishermen User Groups formed and functioning for reservoirs/canal/ ponds
- Fish assembling and wholesale marketing facilities established

5. Implementation and Management

Implementation and management of project activities will take place in cooperation between FAO, UNESCO, IRD (NGO) and the General Board of Fish Research and Development (GBFRD) of Ministry of Agriculture.

The project activities will be implemented under the supervision of a Project Management Unit (PMU) that will oversee the overall implementation of the proposed project interventions. This will be headed by an International Coordinator/Consultant. Under the PMU, a Project Steering Committee (PSC) which will be composed of all stakeholders will be established and meet quarterly to ensure the overall quality control of project management and activities.

The GBFRD branch offices in project governorates/districts will act as co-implementing agencies of the project for their own governorate/district. Each of these districts will depute a coordinator who will be responsible for coordination and implementation of project activities at the governorate/district level and below. To ensure an efficient and smooth operation of the project and timely implementation of the planned activities at the district and lower levels, adequate authority will be delegated to the NPC so that s/he will be able to coordinate and supervise the implementation of activities in the field on behalf of the NPC.

6. Feasibility, risk management and sustainability of results

Aside from the general security situation prevailing in Iraq, there are no specific security-related issues in relation to the project area. However, the security situation in Iraq has been taken into consideration in the implementation and management strategy of the project.

The nature of the designed project activities will ensure sustainability after the lifespan of the project and will not generate any financial liability on the MoA. The time frame will put in place all the proper measures required for a comprehensive implementation of the activities. Furthermore, involvement of the MOA/GBFRD in the implementation of the project activities as the counterpart will ensure the continuation of managing the Aquaculture fish ponds as well as fish fingerlings and feed supply.

The project is likely to achieve its goal, purposes, outputs and activities subject to certain risks, assumptions and conditions:

Goal-Level Conditions

Market demand exists for brackish water fish but prices will have to continue to be competitive with imported frozen marine fish. The areas selected, presently in sufficiently secure location, will continue to benefit from good security conditions.

Purpose-Level Conditions

- Farmers/fishermen will adopt technical packages for production and conservation.
- Timely availability of fish seed, feed, fertilizer and drugs to farmers.
- Natural fish resource and lake ecology not altered by exotic species.
- Fish yield and demand of high quality will increase among the consumers.

Output-Level Conditions

- Individuals trained by project will take up fish fry multiplication.
- Staff and equipment for the studies available on time.
- Trial results are applicable to local bio-physical and socio-economic situation.
- Training sessions and demonstrations are appropriate to technicians and farmers needs and effectively conducted.
- Lake/Marshes fishermen perceive benefits of user group formation and will cooperate in needed actions.

Activity-Level Conditions

- Careful phasing and coordination of technology testing/verification, planning and establishment of demonstration facilities and other ETR activities are necessary.
- Legal provisions/enforcement and community agreement on management of water bodies for multi-functional and sustainable use are also necessary

Sustainability of fishery relies on fisher's in-depth knowledge of natural milieu for their livelihood. UNESCO, through its LINK (Local and Indigenous Knowledge) programme, has been focusing on how and where fishers' knowledge is being put to work in collaboration with scientists, government managers and NGOs in terms of protection of bio- and cultural diversity. Case study shows it is time to utilize of fishers' knowledge to focus on establishing frameworks that best allow fishers and their knowledge to become effective and appropriate counterparts in fisheries science and management.

7. Monitoring, Evaluation and Reporting:

In line with FAO and UNESCO policies and procedures, monitoring will be done at all crucial stages of implementation of the project based on the measurable indicators and means of verification identified in the attached logical framework. Quarterly project progress reports will be sent to FAO, UNESCO and the government by project management. These will be transmitted to the donor/s as required.

Moreover, an indicator based internal monitoring and evaluation system will be placed half-yearly to track progress made half-yearly in achieving set outputs in terms of quantity and quality and facilitate a final overall impact evaluation and lessons learned during final stage of the project. This monitoring and evaluation is proposed to carry out on project's output to evaluate the specific successes and failures could be learnt. By conducting this process a greater understanding of what project has achieved on output basis towards the four objectives within the overall development objective is expected. Moreover such monitoring and evaluation will enable to understand what is still pending and what should be the priority actions needed to achieve the project objectives. It is also expected the counterparts to understand constraints in the effective implementation of the project and to make necessary changes in designs of the ongoing process and take appropriate

measures to make the project activities effective during the remaining project period towards achieving the set targets and goals.

As a part of monitoring process the project will also be subject to a mid-term review by the Government, FAO and UNESCO to fine tune implementation. The FAO/UNESCO CTA and the NPC shall prepare and present to the review meeting a project performance evaluation Report (PPER). It will assess in a concise manner, the extent to which the Project's scheduled activities have been carried out, its outputs produced, the progress towards achievement of the Immediate Objectives and related Development Objective, and will also present recommendations for future follow-up action arising out of the project in the form of a follow-up phase of the project.

Reporting will be done as per the guidelines of the EC.