

Fish Farming in the Jordan Valley

Helping Small Farmers Diversify to Increase Income

Jordan is a desert country with limited agricultural capacity. Farmers are under constant pressure to use arable land and water more effectively to generate sufficient income and contribute to domestic food production. Fish farming represents an opportunity to add value and diversity to existing agricultural activities with minimal additional inputs. By practicing an integrated approach, reservoirs for irrigating fruits and vegetables double as fishponds. In this way the same water not only supports two crops, but also, carries organic fish fertilizer to the fields. When farmers harvest fish, they have both a ready cash crop and a new local source of protein for their families.

Over the past several years, Near East Foundation (NEF) has played an essential role in promoting fish farming in Jordan. NEF has sought to ensure its future as a valuable supplement to traditional agriculture, filling an income gap between growing seasons. Inputs have included technical support, promotion of local fish feed and fingerling production, and marketing assistance.

These efforts have contributed to an annual production of Tilapia in Jordan of 400 tons. Given a growing appetite for Tilapia as an alternative source of protein, demand is increasing as well as the incentive for small farmers to enter the market.

NEF aims to assist small farmers in a markedly poor area of the Jordan Valley to integrate fish farming into existing agriculture operations. An initial survey has revealed that farmers are receptive both to the introduction of fish farming as well as to NEF participation in both design and implementation of the project.

Prior to NEF's intervention, several previous attempts at independent fish farming in Jordan failed to achieve optimal results. This was found to be because of lack of experience and unrealistic expectations. Considering the interest and committed involvement of local farmers, NEF's approach increases the likelihood of success and avoids these previously experienced problems:

- Fish farming seen as "get rich quick" scheme
- Improper or inappropriate designs
- Poor and/or inexperienced management
- Miscalculation of costs and benefits
- Requests for training and technical support only after project encounters problems

What We Hope To Achieve

NEF plans to work with farmers in the Jordan Valley to integrate fish farming into existing agricultural activities. This approach to diversification will make better use of water and land resources as well as provide a valuable source of fertilizer for cultivating fruits and vegetables. The sale of fish on local markets will generate additional income for farmers as well as potential employment for local laborers. As a new source of available protein, fish will benefit both farming families and other community residents. NEF will work with the Ministry of Agriculture and local farmers in design, implementation and monitoring of the project. This essential linkage will enhance local extension efforts, ensure governmental support, and increase the potential for later expansion into new areas.

Who Will Benefit

Ten farmers and their families (usually 5-7 members plus day laborers associated with the family) will be the primary beneficiaries of this project. Community residents will gain as well through increased access to a new source of protein in the local market. Three local Ministry of Agriculture extension workers will gain new skills in promotion and support of small-scale fish farming activities.

What We Plan To Do

NEF will select small farmers to participate in this project from a pool of candidates who when surveyed, expressed interest in establishing their own fish farms. The next step will be to conduct a workshop presenting an overview of fish farming, including minimal requirements for start up and optimal operations. Farmers will provide feedback on their concerns, expectations and the present suitability of their own sites. This process will conclude with the selection of 10 farmers to participate in the project.

After minor modifications to irrigation ponds, fingerlings will be introduced. Training activities will take place on site and include feeding schedules, record keeping, and maintenance. NEF will make weekly visits to each local farm with the Ministry of Agriculture technicians to provide technical assistance for 9 months or until fish reach market size. Farmers will purchase fingerlings and feed for the next cycle with profits from the first. According to availability, some farmers will use less expensive animal manure as feed.

When Will It Be Completed

The project will run for 12 months. Optimum is for fingerlings to be introduced to ponds in the spring to avoid the higher mortality rates of winter. NEF will provide ongoing technical assistance to the farmers as part of its overall commitment to supporting fish farming in Jordan.

How Much Will It Cost

- The total funds required for this project are \$30,000. This establishes of 10 fish farms including equipment, feed and fingerlings for one cycle, and for training, technical assistance and monitoring.
- Local farmers will provide their time, labor, land, and irrigation ponds.

What Will My Contribution Achieve

- Introduce fish farming to a poor area of the Jordan Valley
- Provide equipment, fingerlings and feed for one cycle
- Increased sustainable income for small farmers and fill an income gap between agricultural seasons
- New source of protein for farm families and local residents
- More efficient use of land and water resources
- Build the capacity of the Ministry of Agriculture to further support local fish farming

Near East Foundation - Jordan

- Said El-Karmi Street • Jabal Al Lweibdeh • P.O. Box 821
• Amman 11118 • Jordan
 - Tel: 962-6-461 7441/2/3 • Fax: 962-6-462 4792
• E-mail: jordan@neareast.org
-
-