

TCP/ALG/3103

Support to the development of desert aquaculture and management of brackish water basins in Algeria

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This short narrative enriched with photos presents the activities undertaken by the project TCP/ALG/3103 “Support to the development of desert aquaculture and management of brackish water basins in Algeria”. This ongoing project started in November 2008 and will last until October 2009.

The overall objective of the project is to assist the Algerian government, represented by the Ministry of Fishery and Fisheries Resources, in promoting the development of rural aquaculture in two selected sites located in the Wilaya (District) of Ouargla, 800 km south of the Algiers.

The main outputs of the project include: (1) a coherent plan for the development of desert aquaculture in the Wilaya of Ouargla which could be further extended to other Wilayas; (2) elaboration of a robust plan for fish feed production which will reduce dependence on costly imported fish feed; (3) use of local population of *Artemia* present in the brackish water basins for marine aquaculture.

The project provided the services of three international consultants with expertise on: (i) Nile tilapia production in desert areas; (ii) fish feed formulation; and (iii) biology and utilization of *Artemia* for aquaculture. A National Task Force composed of a national coordinator, two national consultants and two technicians was established to strictly follow all ongoing activities.

A total of 25 small-scale farmers (Figure 1) have been identified in two sites: “Périmètre des Jeunes N° 01” and Périmètre des Palmerai”, 20 km east of the town of Ouargla. Each farmer has a plot of 1-2 ha (Figures 2-3) and one or two earthen ponds (Figures 4, 5 and 6), with an average of about 150 m² and depth of 1 m, supplied by well water (Figure 7) mainly used for irrigation (Figure 8). About 35 ponds have been rehabilitated for fish production ensuring the construction of correct water inlet and outlet for efficient circulation. In many cases, ponds are located close to agricultural crops and the water fertilized by the fish will be used for irrigation.

The project is carrying out several fish stocking promotions (Figures 9 and 10). A total of 27 000 juveniles (3 to 5 g) will be freely distributed in the two selected sites of the project for the first production cycle. Ten fish ponds are already in operation using a stocking density of 0.09 to 0.68 kg/m³. The main cultured species are Nile tilapia (*Oreochromis niloticus*) (Figure 11) and the hybrid red tilapia (Figure 12) mainly coming from the National Studies and Documentation Research Centre for Fisheries and Aquaculture (CNRDPA) based in Bou Ismail, Tipaza.

The work carried out by the feed formulation expert resulted to a list of local ingredients (from agricultural products) to be used for the production of fish feed (Figures 13 and 14). This will reduce

the current practice of purchasing imported feeds which are also costly.

A second component of the project is focused on the analysis on the potential use of *Artemia* present in the Algerian brackish water bodies (Figures 15). An *Artemia* specialist, has recently undertaken a mission to Algeria to collect biochemical data and *Artemia* cysts in two salt lakes (chott): Chotts Melriir in the Wilaya of Ouargla and El Oued and the Grand Sebkhia d’Oran in the North.

So far the project implementation generated great enthusiasm amongst the beneficiaries who applied the proposed aquaculture techniques; positive results were demonstrated through fish pond construction and water and land management.

The FAO Representative in Algeria, Mr Guy De Lannoy, and Project Assistant, Ms Ratiba Sengui, provided valuable assistance and support during this phase of project implementation. Mr Abdelkader Bounouni (Chief of the Aquaculture Department), Mr Toufik Boutouchent (Project National Coordinator), National Task Force members and the international consultants are also commended for their valuable contribution.



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All photos V. Crespi, FAO