

Third Party Evaluator's Opinion on

Morocco

The Abda-Doukkala Upper Scheme Irrigation Project (MR-P9)

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Criteria-1 Impact: The agricultural system which first prevailed in the region was primarily based on the cultivation of cereals: wheat, barley and corn. The breeding of cattle and sheep of local race was the main activity related to this farming system. The agricultural production was auto-consumed and the surplus sold in the rural souks (markets).

Water provision in the region was carried out by the development of a modern irrigation network in parallel with the improvement of roads network. Both were at the origin of the agricultural system development and the promotion of new income generating activities.

Indeed, there was the introduction of industrial crops in particular sugar beet, the development of fodder crops market gardening and the improvement of cattle genetics profile by introducing dairy race. These changes in the new farming system as well as the cattle breeding control had positive impacts on the recipients of the project.

Direct impact: The establishment of an underground irrigation network had a positive impact on the regional environment in comparison with the traditional irrigation network which relied on carried canals that used to occupy much room, make access difficult and disturb the mobility of agricultural machines during the agricultural seasons of plough and harvest. This new irrigation system therefore encouraged the creation of agricultural water users' associations which became responsible for managing irrigation water and benefit from a more appropriate and intensive support of ORMVA DOUKKALA whereas before, farmers used to manage their inheritances individually and the supervision was not effective.

The introduction of industrial crops within a contractual framework between the ORMVAD, farmers and sugar refineries of the region led to the marketing of these products and developed market access for recipients who in the past sold their products in the rural souks (markets) and did not have any marketing strategy. Thanks to the industrial crops practice, namely sugar beet, farmers could control the management of irrigation water, contribute to reduction of fertilizers, fight against harmful grasses, with the aim of obtaining a good productivity and a good sugar rate.

The development of the market gardening, secretly practiced by farmers improved the agricultural intensification rate in the region. Moreover the development of fodder crops pushed the farmers to change the cattle genetic profile from the local race to a more improved race which is more efficient and increases the value of food resources.

Indirect impact: The new farming system based on sugar beet, market gardening, fodder crops generated important employment through harvesting, loading, transporting, cleaning of vegetable products etc....

What remains of the sugar beet production like leaves and beet tops are used for animal feeding, more particularly at the end of summer and the beginning of autumn. The introduction of efficient dairy cows led to an increase in the dairy productivity which is at present collected by more than 20 collect centers. These centers not only afforded employment for dairy cooperatives but allowed the improvement of milk hygiene and quality.

Criteria-2 Durability: The irrigation network durability depends on its regular maintenance. However, agricultural water users' associations should take the responsibility for maintaining and controlling their network in agreement with ORMVAD services in order to organize trainings for beneficiaries, essential for at least one person per association, and acquire tools necessary for the kind of material used in the irrigation network.

The acquisition, on a medium term basis, of a workshop truck to be used for the maintenance of the network will be a main factor for its durability.

The financing of the mentioned operations can be considered by increasing the cost of the irrigation water cubic meter or through deduction from the beet production to be reached by consensus between beneficiaries.