

**Tunisia: Resource protection and pasture improvement Kairouan**

**Ex post-evaluation report**

OECD sector	31220 / Forest development	
BMZ project ID	1991 65 978 Investment 1993 70 040 Complementary measure	
<b>Project executing agency</b>	Commissariat Régional de Développement Agricole Kairouan (CRDA)	
<b>Consultant</b>	GOPA-Conseils GmbH	
Year of ex post evaluation	2006	
	Project appraisal (planned)	Ex post evaluation (ac- tual)
Start of implementation	1992	1994
Period of implementation	8-9 years	9 years
<b>Investment costs</b>	EUR 14.9 million	EUR 10.3 million
Counterpart contribution	EUR 5.9 million	EUR 4.2 million
<b>Financing, of which FC amount (EUR)</b>	EUR 9 million	EUR 6.1 million
<b>Performance rating</b>	2	
• <b>Significance/relevance</b>	2	
• <b>Effectiveness</b>	2	
• <b>Efficiency</b>	3	

**Brief description, overall objective and project objectives with indicators**

The project served to protect sylvo-pastoral resources in the governorate of Kairouan, which had been severely degraded due to overgrazing. The main measures covered reafforestation, pasture improvement and erosion control in state forest domains in 6 rural districts of the governorate. In addition, the project measures comprised infrastructure improvement through road construction and a fund to support the newly set up user groups. The small measures implemented in this context comprised the improvement of livestock production, the construction of a health centre and administrative buildings for the user group, advancement of women and income generating measures. In the context of the accompanying measure the project executing agency was supported in the development and implementation of participatory approaches in the area of sustainable forest management.

The overall objective of the project was the protection of sylvo-pastoral resources in the governorate of Kairouan to improve the basic living conditions of the rural population. The project objective was the sustainable management of the newly created forest and pasture surfaces, which was to be measured by (a) the scope and quality of the forest and pasture management measures, (b) usage regulations and user participation, (c) assessment of the halfagras component with a view to implementation on a large scale. In addition, a positive impact in the area of environmental and resource protec-

tion through the slowing down of the desertification process was also formulated as an objective.

From today's perspective the target system seems to be justified. The indicators for the achievement of the project objective focused too much on the results and not enough on the sustainable use of the investments. For this reason an additional indicator was included, which takes into account the increasing contribution from income generated by agricultural enterprises through the sustainable management of resources.

#### **Project design / major deviations from the original project planning and their main causes**

The development approach of focusing on sustainable resource protection and pasture improvement in the governorate of Kairouan can be considered appropriate. However, the core problem – the overexploitation of forest and grassland vegetation - has somewhat eased and the pressure on protected state lands has decreased. This is due to the general structural change in Tunisia and in particular in the project region, which reduced the importance of forest areas as a basis of life. Nevertheless, from today's perspective the project can still be rated as developmentally justified.

The project design with its integrated and participatory approach was in line with requirements. As the heterogeneity of the target group and gender-specific aspects had not been sufficiently taken into account in the original project design it was adequately modified in the framework of the intensive target-group work to ensure that potentials were exploited. Due to the establishment of an advisory system for women and training and income generating measures it was possible to actively involve women.

As other pasture improvement projects were implemented in the same project region there was not sufficient suitable land and for this reason difficult sites also had to be used which offered only limited possibilities in terms of initial irrigation to ensure that plants were taking roots. Moreover, planting progress was impaired by periods of drought as annual output had to be adjusted to irrigation capacities. This had a negative impact on afforestation campaigns (achievement of land area targets, planting success) and unit costs. In the period 1994 to 2002 forestry measures were implemented in an area of 5,830 ha. Thus, the land area target was only achieved 71% as compared with the original planning. If less suitable shallow lands, which had been deliberately excluded from the planting areas to ensure that the natural cover could regenerate under the newly created protection, are also included the rehabilitated project area still reaches 80% of the tolerance threshold. This is a realistic threshold given the circumstances as they were at the time.

The regeneration of the halfagras steppe planned at the time of the project appraisal (planned: 4,000 ha) was considered as unsuited following a pilot project on 200 ha and corresponding plans were not pursued any further.

Another modification as compared with the original planning concerned the scope of the accompanying measure. The aim of the accompanying measure was to support the project-executing agency in the implementation of participatory approaches and in particular in the development of a user concept. It was planned to assign Tunisian experts. However, as the implementation capacity of the executing agency was overestimated the duration of the accompanying measure was prolonged twice. In addition, a further German planning expert was assigned and the work on the target group was intensified.

## **Key results of the impact analysis and performance rating**

According to criteria that meet today's requirements we assess the achievement of objectives as follows:

The overall objective of the project was sufficiently achieved. At the time of the ex post evaluation 58% the state areas had been rehabilitated and the soil coverage ratio was 60-80% (depending on the specific site) compared to 20-40% on natural areas, on which no improvements measures had been implemented. In some places dense secondary vegetation developed spontaneously, thus providing effective additional soil protection. Even if it is difficult to quantify the ecological impacts in the regional context, it can be assumed that a sustainable contribution was made to resource protection. The effects of the protection and pasture improvement measures in the area are clearly noticeable. The biomass share of valuable fodder crops is 3.5 times higher in the planting areas than in the reference areas (62% compared to 17%).

To ensure the sustainable management new management plans were worked out with the participation of newly created user groups. These plans now serve as a framework for the "co-management" by users and foresters. The models for target group participation developed and tested during the project implementation have provided the regional and national forestry authorities with important experience that can be used in the further participation-oriented implementation of forest projects and the implementation of other forest-policy measures. Through the development and implementation of this participatory planning and implementation concept and the establishment of user groups, the project made a major contribution to building up a trustful cooperation between the target group and the forest authorities and, thus, to the participatory development in still strongly authoritarian state context. Some of the newly set-up user groups are showing high dynamics and are more open-minded to topics of broad-scale rural development.

The project has a positive impact on the living conditions and income situation of the population. From a microeconomic perspective, in particular fodder production (direct grazing and tree-cutting), intensification of sheep and goat husbandry, fruit and olive tree plantations and improved road connections have to be mentioned here. At three sites, road construction and rehabilitation helped to improve access to previously remote villages and to connect these villages to social services and marketing structures. Further impacts are achieved through timber and rosemary production and secondary products generated in forest areas.

The beneficiaries of the project measures are approx. 1,500-2,000 (estimation at project appraisal: 2,500) comparatively disadvantaged families, which at the time had to be classified as living in absolute poverty (per capital income at project appraisal: approx. EUR 260, at ex post evaluation: approx. EUR 520). In a direct comparison with/without the project the income of the target group improved by about 12%. However, in a regional comparison the target group still has to be classified as being disadvantaged. According to the project appraisal report, no gender-specific effects were aimed at. Nevertheless, during the final inspection and the ex post evaluation positive impacts were detected, which are due to the fact that the small-scale measures take account of gender-specific interests and potentials. From the perspective of the women concerned, their role in the community was strengthened, in addition to the income and employment effects achieved.

Overall, we assess the impacts of the project as follows:

- Due to the conception of the project it was possible to make a substantial contribution to the protection of the sylvo-pastoral resources in accordance with the defined overall project objective and to improving the living conditions of the population in the project region. In addition, a structure-building impact was achieved due to the development and application of a participatory approach, which helped to improve the cooperation between the forest authorities and the target group and serves as a model for other development projects. As regards the aspects of relevance/significance we rate the achievements of the project as satisfactory ("sub-rating 2").
- Overall, also taking into account the difficult framework and environmental conditions and on the basis of realistic expectations and indicators, the project objectives were largely achieved or are at least within acceptable limits. For this reason, we assess the project's effectiveness as satisfactory ("sub-rating 2").
- Given the high unit costs of the reforestation and pasture improvement measures ("production efficiency") the internal rate of return was lower than expected. Also taking into account the clearly improved condition of the rehabilitated perimeters (compared with the reference areas/adjacent areas) and the sustainable management by the user groups, whose living conditions have generally improved as a result of the project measures ("allocation efficiency"), the project can be said to show a sufficient degree of efficiency ("sub-rating 3").

Taking the above mentioned key development criteria into account, we judge the developmental efficacy of the programme to be satisfactory (overall rating: 2).

#### **General conclusions and recommendations**

- If in the event of resource conservation projects the incentives derived from improved forest and pasture utilisation provide only insufficient development impulses and only insufficiently mobilise the user groups, additional incentives might possibly be created by trying to raise people's awareness of subjects concerning general rural development, provided that these are in line with the vital interests of the target group of farmers. When designing future projects, such synergies should be analysed and used already at the very outset.
- The present project, which was implemented in the context of a typical arid vegetation dynamics, which strongly depends on the climate over the year, showed very impressively how the natural vegetation in plantations with a low plant density and in unplanted areas can regenerate. In this way plant losses can be largely compensated for. This observation leads to the conclusion that it should be checked systematically when designing new concepts for forest and pasture regeneration to be implemented at comparable sites whether costs can be reduced by relying on natural plant growth.

#### **Legend**

Developmental success: Ratings 1 to 3
---------------------------------------

Rating 1	Very high or high degree of developmental efficacy
Rating 2	Satisfactory developmental efficacy
Rating 3	Overall sufficient degree of developmental effectiveness
Developmental failure: Ratings 4 to 6	
Rating 4	Slightly insufficient degree of developmental effectiveness overall
Rating 5	Clearly insufficient degree of developmental effectiveness
Rating 6	The project is a total failure.

### Criteria for the evaluation of project success

The evaluation of the “developmental efficacy” of a project and its classification during the ex post evaluation under one of the various levels of success described in more detail above concentrate on the following fundamental questions:

- Have the **project objectives** been achieved to a sufficient degree (project **effectiveness**)?
- Does the project generate sufficient significant developmental effects (project relevance and significance measured by the achievement of the overall development-policy objective defined beforehand and its effects in political, institutional, socio-economic and socio-cultural as well as ecological terms)?
- Are the **funds/expenses that were and are being employed/incurred** to reach the objectives appropriate and how can the project’s microeconomic and macroeconomic impact be measured (aspect of **efficiency** of the project conception)?
- To the extent that undesired (**side**) **effects** occur, can these be tolerated?

We do not treat **sustainability**, a key aspect to consider when a project is evaluated, as a separate evaluation category, but rather as an element common to all four fundamental questions on project success. A project is sustainable if the project executing agency and/or the target group are able to continue to use the project facilities that have been built for a period of time that is, overall, adequate in economic terms, or to carry on with the project activities independently and generate positive results after the financial, organisational and/or technical support has come to an end.