

Tunisia: Water Supply for Dispersed Rural Settlements III

Ex post evaluation report

OECD sector	1403000 / Basic facilities for drinking water and sanitation	
BMZ project ID	1996 65 845 (Investment) 1993 107 (personnel support)	
Programme executing agency	Direction du Génie Rural et de l'Economie des Eaux (DGGREE) in the Ministry of Agriculture	
Consultant	IGIP GmbH Darmstadt	
Year of ex post evaluation report	2011 (2010 sample)	
	Programme appraisal (planned)	Ex post evaluation (actual)
Start of implementation	a) 3rd quarter 1997 (investment) b) 2nd quarter 1999 (personnel support)	a) 2nd quarter 1998 (investment) b) 2nd quarter 1999 (personnel support)
Period of implementation	a) 30 months b) 42 months	a) 90 months b) 102 months
Investment costs	a) EUR 18.4 million b) EUR 5.7 million	a) EUR 18.1 million b) EUR 5.7 million
Counterpart contribution	a) EUR 5.6 million b) --	a) EUR 4.9 million b) --
Financing, of which Financial Cooperation (FC) funds	a) EUR 12.8 million b) EUR 5.7 million	a) EUR 13.2 million b) EUR 5.7 million
Other involved institutions / donors	--	--
Performance rating	2	
• Relevance	2	
• Effectiveness	2	
• Efficiency	3	
• Overarching developmental impact	2	
• Sustainability	3	

Brief description, overall objective and programme objectives with indicators

The programme objective was to ensure a year-round, adequate supply of safe drinking water for the population (up to 67,000 people in the year 2012) in dispersed urban settlements in eight selected governorates of Tunisia. This was intended to contribute to improving the living conditions and reducing water-induced diseases (overall objective). The investment measures were primarily intended to benefit the predominantly poor segments of the population that were undersupplied before the

implementation of the programme. Overall, four investment phases were implemented, of which Phase III was subjected to an ex post evaluation.

The programme executing agency was the Direction Générale du Génie Rural et de l'Exploitation des Eaux (DGGREE) of the Tunisian Ministry of Agriculture. Financing was provided for 51 central water supply systems (pipe networks, reservoirs, standpipes). For investment phases II to IV, a basic and advanced training programme (personnel support 1993 107) was conducted from 1993 to 2007 to build up and support the operation of the village supply facilities. The B+AT measure for Phase III was designed to provide the staff of the Cellule des Groupements du Développement Agricole (CGDA) and the Service des Groupements Hydrauliques (formerly Service AIC) of the DGGREE with the technical and didactic skills necessary to conduct awareness campaigns and render advisory services for water user communities (Groupements du Développement Agricole - GDAs). In addition, the GDAs were to be equipped with the technical and financial means to operate the drinking water systems independently.

Programme design / major deviations from the original programme planning and their main causes

The programme measures comprised the following components co-financed under German Financial Cooperation (FC):

- Development of the resource (deep wells and connecting structure to the long-distance pipeline of SONEDE with water meter)
- Elevated reservoir, feed pipes and distribution mains as well as pumping stations
- Standpipes, filling stations for tanker lorries, connections for public facilities

The raw water extraction was enabled to a substantial extent by wells built and financed separately from the FC-financed projects with funds from the Ministry of Agriculture. These wells were not implemented with support from German Financial Cooperation (FC). In a foresighted move, already at the start of the programme the facilities were technically designed in such a manner that the initially supplied standpipes and could later supply home or yard connections, which has also been occurring for some years as a result of the increased standard of living. The feed lines to the standpipes are still being used and supplying water to an average of 10 individual connections each.

For the home connections, which are often installed by the residents themselves, meaning they are not approved and not always meet the technical standards, invoicing is nevertheless consumption-based. In these cases, however, it is unknown to what extent the users of home connections are meeting their obligation to install individual sanitation systems (usually in the form of cesspits). This is being monitored only for the systems built or rehabilitated since 2007 while monitoring is now being slowly introduced for the systems built during Phase III.

Key results of the impact analysis and performance rating

Relevance: The underlying programme impact chain between the core problem, the programme measures, the programme objective and the overall objective was logically and comprehensibly deduced. The dimensions of the programme largely enabled it to achieve the intended health impacts under the given circumstances. Conserving water resources is at the centre of the Tunisian sector policy, which is demonstrated by a number of strategies and programmes (including «Eau XXI, Stratégie du Secteur de l'Eau en Tunisie à Long Terme 2030 (1998)», Programme Présidentiel (2010-2014)). Given that the target group of the programme was the mostly disadvantaged and, in

part, poor population in rural regions, the developmental objectives are also in line with the current strategy paper of the BMZ (Poverty Reduction, Water Sector Concept). Furthermore, it contributes towards achieving Millennium Development Goal 7c of halving the number of people who have no sustainable access to safe drinking water and basic sanitation by the year 2015. In summary, we rate the relevance of the programme as good (sub-rating 2).

Effectiveness: The following target indicators were defined for the programme:

	Indicator	Parameter	Project planning 1996	Target 2012	Final inspection 2007	Ex post evaluation 2010
1	Target population		63,000	67,000		More than 77,000
2	Supply rate	%	0	90	Almost 100	Almost 100
3	Global consumption	l/cd	N.N.	50	38 (2005)	49.1
4	Technical water losses	%		max. 20	20-40	Achieved

The performance indicators were fulfilled. For example, the number of 77,000 inhabitants who were connected to the water supply exceeds the target of 67,000 by 10,000 users. In addition, the connection rate in the project region is close to 100% (target: 90%). The planned total water consumption of 50 l/cd was achieved on average and the technical water losses are very probably within the target corridor of 20%. The average water loss rate is reported at 29%, but it must be assumed that a considerable portion of the losses is caused by subsequently installed home connections. The meters are invoiced although they are often not approved, but in many cases they do not meet the technical standards, which leads to inaccurate consumption readings. We therefore assume that administrative losses play a significant role and therefore consider the indicator for technical losses to be fulfilled as well. The objective of the B+AT measure of professionalising the administrative personnel as well as the work of the user groups has been achieved with certain restrictions. We therefore rate the effectiveness of the project as good (sub-rating 2).

Efficiency: The average specific investment cost (production efficiency) can be considered to be relatively favourable against Tunisian standards. The administrative water losses caused by unapproved connections probably play a more significant role than the technical losses and represent a loss of revenue for the user organisations. Eliminating the losses could improve the financial situation of the affected GDAs. The collection efficiency of the standpipes is not captured separately by the GDAs. Estimates show, however, that this is a major problem for only a minor portion of the GDAs. In 2009, 85% of the GDAs recorded a collection efficiency of at least 80%. This illustrates that the users are generally willing and able to pay their invoices. In isolated cases, poor families cannot or do not want to pay their invoices, but this is normally accepted by the GDAs. In some cases, unpaid invoices are paid by wealthier families. Furthermore, part of the cost incurred by unpaid invoices is offset by tariff adjustments introduced in the following year. At the same time, however, the user organisations have difficulty in enforcing sanctions, whether because defaulting customers are family members or because local members of the administration back the defaulting customers. The operating cost recovery (without maintenance costs) of the standpipes can be rated good although the budgets of most GDAs only cover the expenses incurred directly and do not provide scope for preventive maintenance. The costs of major repairs are offset for the most part by corresponding tariff adjustments in the course of the following year. As the running costs for continuous water supply are usually covered, we still rate the efficiency of the programme as satisfactory (sub-rating 3).

Overarching developmental impact: Since the start of the programme, the living conditions of the target group - particularly of the poor segments of the population - have improved considerably. Water-induced diseases are hardly being reported anymore in the programme area. It can be assumed that the programme measures for the provision of drinking water have made a positive contribution to reducing the incidence of disease. These impacts can, of course, be attributed to the programme only to a limited extent given Tunisia's positive economic development. Thus, since the beginning of the programme the Tunisian water supply standard has improved for large portions of the population, shifting from public standpipes to home connections. Nevertheless, large portions of the poor population are still being supplied through standpipes. Where home connections have been installed in the programme area, the infrastructure financed from German Financial Cooperation is being used. It can be inferred from the current trend to conserve water that the sewage disposal will have no adverse environmental impact because of the sparse population of the rural areas. Moreover, the programme has had enormous impacts on sector policy. For example, other donors such as AFD have adopted the programme approach and thus contributed to broadening the approach, which can also be regarded as recognition of the work performed under the programme. We therefore rate the overall developmental impact as good (sub-rating 2).

Sustainability: With the rising number of home connections and GDAs, which are now operating drinking water and gravity irrigation systems at the same water collection point, the demands on the management of the user organisations are growing continuously. Because of these higher requirements, the administration must in part recalculate the hydraulic capacities of the systems and may have to expand or rehabilitate them. This may cause considerable investment expenditure in the near future. The situation described under Efficiency harbours certain risks for the sustainability of target achievement as the lack of preventive maintenance leads to avoidable premature damage even if the systems are currently in good technical condition. In its current budget planning up to 2014, the Ministry of Agriculture has provided for more staff and will also ensure the necessary subsidisation of the rural water supply systems in the future. With its "Stratégie de pérennisation", the Tunisian government is currently also in the process of creating the necessary prerequisites for improving the situation of the GDAs. This primarily comprises the allocation of defined responsibilities both to GDAs and to the agricultural and general administration, including the conclusion of corresponding agreements defining actionable and enforceable rights. Likewise, customer agreements should also be concluded between users and GDAs. This would strengthen the position of the GDAs vis-à-vis defaulting consumers or illegal home connections. The Ministry of the Interior, which is in charge of general administration in the regions, is now also a party to the process. Given that the many different efforts (creation of staff capacities, sector reforms) undertaken by the responsible Tunisian authorities generally appear to be very largely appropriate for ensuring the proper and sustainable operation of the systems, we rate the sustainability of the programme as very satisfactory (sub-rating 3).

Because of the positive programme impacts and the subsidisation, which can be considered secured, and despite its inadequacies in operation, we still rate the overall efficacy of the programme as good (sub-rating 2)

Notes on the methods used to evaluate project success (project rating)

Projects (and programmes) are evaluated on a six-point scale, the criteria being relevance, effectiveness, efficiency and overarching developmental impact. The ratings are also used to arrive at a final assessment of a project's overall developmental efficacy. The scale is as follows:

1	Very good result that clearly exceeds expectations
2	Good result, fully in line with expectations and without any significant shortcomings
3	Satisfactory result – project falls short of expectations but the positive results dominate
4	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
5	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
6	The project has no impact or the situation has actually deteriorated

Ratings 1-3 denote a positive or successful assessment while ratings 4-6 denote a not positive or unsuccessful assessment

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability) The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The overall rating on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Ratings 1-3 of the overall rating denote a "successful" project while ratings 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (rating 3).