

Palestinian Territories: Water Supply (Jenin) and Sewage Treatment (Tulkarem)

Ex post evaluation report

OECD sector	14020 / Water Supply, Sanitation Services and Waste Water Management	
BMZ project ID	1997 65 314	
Project executing agency	Municipal Administrations of Jenin and Tulkarem	
Consultant	SRP Schneider & Consult Kronach MVV DECON GmbH Mannheim	
Year of ex post evaluation	2011 (2010 random sample)	
	Project appraisal (planned)	Ex post evaluation (actual)
Start of implementation	Jenin Q3 1998 Tulkarem Q3 1998	Jenin Q2 1999 Tulkarem Q4 1999
Period of implementation	Jenin 27 months Tulkarem 24 months	Jenin 54 months Tulkarem 78 months
Investment costs	EUR 5.35 million	EUR 6.24 million
Counterpart contribution	EUR 0.75 million	EUR 0.64 million
Financing, of which FC funds	EUR 4.6 million	EUR 5.60 million
Other institutions/donors involved	--	--
Performance rating	3	
• Relevance	2	
• Effectiveness	3	
• Efficiency	4	
• Overarching developmental impact	3	
• Sustainability	3	

Brief description, overall objective and project objectives with indicators

This project comprised expanding the water supply network in Jenin and rehabilitating a pond sewage treatment plant in the city of Tulkarem, two separate interventions which were independent both geographically and in terms of their scope. These were conceived as urgent confidence-building measures (with limited budgets) during the implementation of the resolutions of the 1995 Oslo II Interim Agreement. The project, which was reviewed in 1997, aimed to reduce losses in the Jenin water distribution network, whilst at the same time ensuring an adequate quality of drinking water, and to make significant improvements in sewage treatment in Tulkarem (the project objectives). This would help to conserve and protect scarce water resources and reduce health risks for the population of the project regions (the overall objectives). The target group principally comprised the people of the cities of Jenin and Tulkarem and – by improving sewage treatment in Tulkarem – the population of the bordering Israeli district of Emek Hefer, which is also served by this facility.

Objective indicators for the Jenin element of the project were (i) improved drinking water, based on acceptable levels of residual chlorine in 80% of all water samples (achieved) and (ii) a reduction in system water losses (both technical and administrative) from 118 m³ (around 45%) per hour of supply to 80 m³ (around 30%) by the end of the project. At Tulkarem, the programme aimed (iii) to reduce the BOD5 level to 75 % of its initial value and (iv) to avoid the discharge of untreated water into local watercourses during the dry season. No indicators were set at the overall objective level.

Project design/major deviations from original planning and their main causes

The project measures that were implemented at Jenin and Tulkarem proceeded largely according to plan. At Jenin this comprised the following activities: (i) setting up and equipping a depot (ii) implementing a water loss reduction programme (iii) refurbishing outdated plant (iv) restructuring the main distribution system and (v) providing consultancy services. The following measures were planned and enacted in Tulkarem: (i) clearing the existing sewage ponds (ii) renovating and expanding the ponds and the sewage pumping station (iii) providing suitable connections to the sewer network, watercourses and irrigation reservoirs (iv) carrying out operating plant infrastructure works and (v) the provision of consultancy services.

Within the Jenin city area, the city administration is in charge of water supply and sewage disposal. The Water Department is responsible for the relevant facilities. The municipal administration of Tulkarem is in charge of that city's water supply and sewage disposal through its Water and Sanitation Department.

Key results of the impact analysis and performance rating

Relevance: The shortage of water in the Palestinian Territories constitutes a critical constraint on development, that impacts every area of social and economic life. The programme's methodology is easily understood and has a logical foundation. The approach adopted conforms to the priorities and principles agreed between the Palestinian National Authority and the Federal Government of Germany. The issues of environmental protection, efficient use of water resources, effective sewage treatment (to protect the soil and groundwater) and reuse of treated sewage in agriculture have all grown in significance substantially since the project started, due to high levels of population growth and the deteriorating water balance. Project relevance has therefore been assessed as good (**rating: 2**).

Effectiveness: The objectives defined at project appraisal were based on an over-optimistic assessment of the prospects for political development, and they appear, in hindsight, to have been over-ambitious. Water losses in Jenin were indeed substantially reduced for a period of about three years after project completion; however, due to socio-economic and political circumstances outside the influence of the project, since 2007 this trend has undergone a partial reversal. Water losses have climbed back to the original level of over 40 %, principally due to administrative losses. By way of contrast, the drinking water safety objective (related to residual chlorine levels) was achieved. No routine water analysis results are available to provide evidence for the sewage purification performance claimed by the rehabilitated Tulkarem pond treatment plant. However, the most recent water quality measurements confirm that the purification level is still being achieved. There has been no documented uncontrolled discharge of untreated sewage into local watercourses during the dry season since 2006. In summary, project effectiveness has been assessed as satisfactory (**rating: 3**).

Efficiency: Given the local context, there was no appropriate alternative to these financial measures for resolving the urgent developmental problems in both project cities. Considered overall, they certainly represented the most cost-effective option for rapid emergency aid. However, both of the community bodies which own these projects still have inadequate financial and administrative autonomy to guarantee that operations will run properly and cover their costs. As a consequence, and due to the low tariff and the unsatisfactory level of allocative efficiency (around 60 %), operational cost recovery in both cities remains inadequate. Due to the Israeli army's periodic invasion and occupation of the Palestinian territories it was not possible to carry out construction work in a timely and proper manner. In some cases facilities that had been completed or were under construction were destroyed yet again, resulting in significant cost overruns on individual project components. Restrictions on the transport of goods and on the freedom of movement of construction company staff led to substantial delays in building progress. Consequently efficiency has also been assessed as unsatisfactory (**rating: 4**).

Overarching developmental impact: This project contributed to the protection of scarce water resources and to the reduction of health risks for the local population – both through temporarily reducing water losses in the Jenin water supply network and by protecting at-risk groundwater and surface water in Tulkarem. Hence the overall objective can be considered achieved, and a contribution made towards attaining the Millenniums Goals relating to health and ecological sustainability. The cooperation that took place between the Palestinian and Israeli authorities (over sewage treatment in Tulkarem) represents a political outcome which transcends the effects of this project. The participation of local politicians from both the Palestinian and Israeli communities at the inauguration of the new pond treatment plant in Tulkarem can be seen as a sign of success. In the future, this newly created capability to reuse some treated sewage in agriculture could make an important contribution to the substitution of scarce regional water resources, and thereby counteract overuse of renewable reserves of drinking water. The opportunities which this presents are well known; this will play a role in future projects, within an integrated water management context. In principle, this project makes it possible to counteract the overuse of existing renewable water reserves and thereby also serves to reduce the potential for conflict arising from other user interests. Accordingly, overarching developmental impact has been assessed as satisfactory (**rating: 3**).

Sustainability: Economic weaknesses and shortcomings in operational organisation still exist in the water and sanitation departments affiliated to the city administrations of Jenin and Tulkarem. These failings are well known, and should be addressed through further development measures funded by German agencies and other international actors. This will entail financial support for additional investment projects, the outsourcing of water and sanitation departments into independent service operations, the provision of further training and the establishment of regional sanitation associations. Given the appropriate political will, sustainability can be achieved by gradually adjusting tariffs in line with the market and by significantly improving allocative efficiency. Hence the operations in both cities are heading in a positive direction and the project agency is currently making strenuous efforts to improve the economic situation in the area of water and sanitation services. In any event, given that their public utilities have inadequate room for manoeuvre, the authorities in the Palestinian territories have counterbalanced this through financial subsidies, which stand as testament to the high value placed on these investment projects. On this basis project sustainability has been assessed as satisfactory (**rating 3**).

The projects in Jenin and Tulkarem must always be judged in the light of their political origins. At the end of the second Intifada and the second Oslo Accord in the mid-1990s, politically initiated projects, which had been conceived as confidence-building measures, aimed to deliver visible results fast. The objectives of “normal” development

cooperation projects were not entirely appropriate for such interventions, which were essentially designed to send out a signal. The fact that two small-scale initiatives - which were entirely independent of each other, both geographically and materially - were implemented together in a single project on a limited budget, even though implementing the individual project elements was the responsibility of the relevant city agency, can also be attributed to political necessity. Over the course of the project it was seen that both components developed individually and independently. The synergies that had been hoped for did not materialise.

Due to the project's positive impact and the assumed security of continuing subsidies, we have **assessed the project overall**, despite the shortcomings identified, as **satisfactory (rating: 3)**.

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

Projects are evaluated on a six-point scale, the criteria being relevance, effectiveness (outcome), overarching developmental impact and efficiency. 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 rating that clearly exceeds expectations
- 2 Good rating fully in line with expectations and without any significant shortcomings
- 3 Satisfactory rating – project falls short of expectations but the positive results dominate
- 4 Unsatisfactory rating – significantly below expectations, with negative results dominating despite discernible positive results
- 5 Clearly inadequate rating – despite some positive partial results the negative results clearly dominate
- 6 The project has no positive results or the situation has actually deteriorated

A rating of 1 to 3 denotes a positive assessment and indicates a successful project while a rating of 4 to 6 denotes a negative assessment and indicates a project which has no sufficiently positive results.

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. A rating of 1 to 3 indicates a “successful” project while a rating of 4 to 6 indicates an “unsuccessful” project. It should be noted that a project can generally only be considered developmentally “successful” if the achievement of the project objective (“effectiveness”), the impact on the overall objective level (“overarching developmental impact”) and the sustainability are considered at least “satisfactory” (rating 3).