

Ex Post-Evaluation Brief

Uzbekistan: Drinking Water Supply Chorezm



Programme/Client	Drinking Water Supply Chorezm - Phase I + II BMZ ID 1997 65 637 and 2002 65 835	
Programme executing agency	AIK Obi Hayet	
Year of sample/ex post evaluation report: 2011*/2011		
	Appraisal (planned)	Ex post evaluation (actual)
Investment costs (total)	1) EUR 10.5 million 2) EUR 2.0 million	1) EUR 10.544 million 2) EUR 2.0 million
Counterpart contribution (company)	EUR 0.3 million	EUR 0.344 million
Funding, of which budget funds (BMZ)	1) EUR 10.2 million 2) EUR 2.0 million	1) EUR 10.2 million 2) EUR 2.0 million

* Phase II is part of the sample for 2011

Project description: The project comprised the construction of water supply systems (predominantly piped systems) in 7 rural settlements in Chorezm. Due to the high salination of the locally available groundwater, the distribution grid was connected to an existing long-distance pipeline system. Those measures were complemented by institutional support to the executing agency in socio-economic and business management. The operator's personnel were trained in operation and maintenance. The facility operator, the Chorezm Obi Hayet firm, is an affiliate to the business holding of that acts as the project executing agency and consists of various construction firms engaged in the water sector.

Because of their similar conceptual approach, Phase I and II are evaluated jointly.

Set of objectives: The project objective was the un-interrupted provision of sufficient drinking water to selected parts of the project region – as a contribution to reducing health hazards from water-transmitted diseases in the project area (overall objective).

Target group: The target group comprises approx. 50,000 persons in rural areas of Chorezm not supplied via the existing water mains at project appraisal.

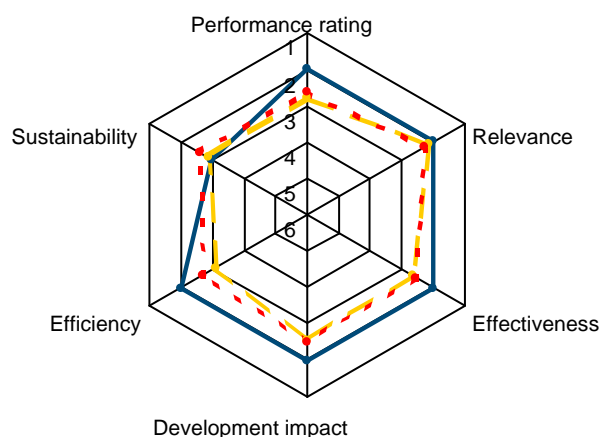
Overall rating: 2

Positive assessment of the private operator's administrative and technical capacity, which assures continuous supply of clean drinking water and beneficial health impacts in the supplied rural settlements. Sustainability satisfactory only.

Of note:

The concept of tasking a private business association as project executing agency is considered ambitious by national and regional standards: that agency assumes ownership of the financed supply systems and repays the FC loan to the Uzbeki Government. The operator runs the facility efficiently and cost-effectively and can guarantee continuous drinking water supply.

Rating by DAC criteria



—●— Project
 - - - Average rating sector (starting 2007)
 - - - Average rating region (starting 2007)

EVALUATION SUMMARY

Overall rating: Due to the favourable assessment of technical and administrative operations, the reliable supply of rural settlements in the project area with clean drinking water and the resultant beneficial contribution to reducing health hazards from water-transmitted diseases, the project is assessed as good. **Rating: 2**

Relevance: The adequate supply of clean drinking water still poses a challenge in Uzbekistan's rural area. This, in particular applied to the Choresm region, which has been severely affected by the Aral Sea disaster and the attendant salination of groundwater; it suffered from very poor groundwater quality combined with a decrepit local, public water supply grid, which provided water only for some hours. The Uzbeki Government sees the adequate supply of clean drinking water as a major factor for advancing national development. It has also recognised the safe drinking water – health nexus. Considering the coverage rate in Choresm Province of about 52%, the objective of providing adequate drinking water all year round for selected locations in the region can still be gauged as appropriate.

A special design feature is the involvement of a private enterprise in rural drinking water supply. The plan was for the project executing agency to repay the KfW loan onlent to it to the Uzbeki Government, thus taking over ownership of the financed supply systems and operating in parallel with the public water utility, Vodokanal. This project design is still unique in Uzbekistan and the region. The executing agency is also the only private water supplier in the country. The project was therefore expected to have structured effects.

Although rural drinking water supply no longer features as a priority of German cooperation with Uzbekistan, the project was carried out in keeping with the BMZ goals and strategies for the water sector. It was closely connected with the World Bank Aral Sea Programme and projects cofinanced by the Kuwait Fund for Arab Economic Development in Karakalpakstan and Choresm. The project was therefore one element in a larger overall setup; nonetheless, it was confirmed locally that little progress has been made in concerted donor harmonisation to date – despite many years of activity by many donors in the water sector.

Due to a plausible intervention logic, the project was suitably designed to achieve the anticipated results. Relevance is therefore assessed as good (Subrating: 2).

Effectiveness: The project objective defined at appraisal was the year-round provision of adequate, hygienically safe drinking water for selected locations in Karakalpakstan and Choresm. This was intended to contribute to reducing health hazards from water-transmitted diseases (overall objective). The project target group consisted of approx. 50,000 persons in rural areas of Choresm with no access to supply from the group water supply system at the time of appraisal. The indicators listed in the table were selected for

project objective achievement. The results for indicator achievement can be summarised as follows:

Indicator	Status at ex-post evaluation
Altogether approx. 50,000 people have access to safe drinking water.	<i>40,000 people in 6,449 households and 65 legal entities have access to clean drinking water.</i>
At least 70% of the residents in the respective settlements have access to clean drinking water.	<i>>90% of the residents in the respective settlements have access to clean drinking water.</i>
Drinking water quality at the offtake points meets WHO standards.	<i>Regular quality assurance controls to national standards have not given rise to objections.</i>
Continuous water supply	<i>24-hour supply assured</i>

As about 40,000 users have currently access to drinking water, the project has not fully met the target of 50,000. However, the project provides piped supply to rural settlements widely dispersed over the Chorezm region with household connections (instead of the originally planned standpipes); besides, water is supplied to 65 legal entities (schools, nursery schools, hospitals) that are also visited by users not presently connected to the water supply grid and not accounted for in user statistics. Consequently, the above figure is regarded as satisfactory.

An indicator for minimum drinking water consumption per capita and day was not cited. At 20 l per capita and day, this currently falls well short of planned capacity of 110 l per capita and day, but still corresponds with the minimum WHO requirements.¹ Despite this low system capacity utilisation, consumption for the observable “critical” uses (food, drink, personal hygiene, washing) appears sufficient in the local setting. This is due to prevailing, traditional water use practices but also because drinking water is solely used for hygiene purposes, whilst additional “utility water” (e.g. for laundry etc.) is obtained from groundwater that is available at a depth of less than 1-3 m in the amply irrigated region.

The planned sanitation components at project appraisal were abandoned in favour of additional service connections. This was warranted by the much smaller sewage volume ascertained due to the common practice of grey water seepage and sewage/faeces disposal by means of basic latrines. No significant deficits in sewage/faeces disposal were observed locally.

Due to the indicators met and performance exceeding planned target figures, we assess

¹ WHO (2008): Guidelines for Drinking Water Quality; Geneva

the effectiveness of the project as good (Subrating: 2).

Efficiency: Owing to a late project start and the addition of a seventh *kolkhoz* (collective farming compound) in the second phase of the project, implementation was delayed by 12 months. The enlarged project scope and the higher consultancy input incurred higher costs, which could be covered through special funds from a follow-on phase.

The investment costs of EUR 350 per person well exceed the estimated maximum costs at the time of project planning of EUR 204 (DM 400). On the one hand, this is attributable to deviating from the cheaper standpipe design foreseen originally. Instead, piped connections were set up for most households. The pipelines also supply some rural settlements that could not be connected to the public grid and are widely dispersed over Choresm Province. In addition to the service connections, 65 legal entities (schools, nursery schools, hospitals) were also supplied with clean drinking water, so that costs can be rated as adequate to the local conditions.

Drinking water supply is efficiently run and maintained by the operator, Choresm Obi Hayet. The connected population has continuous 24-hour access to drinking water of good quality. At over 100% (through the collection of previous amounts owed), collection efficiency and the low technical losses of about 6.5% (average 2006-2008) can be rated as unusually good. The households are evidently currently charged in keeping with income levels. This was confirmed by all households in the project area visited by the evaluation mission. Since final inspection in 2007, the operator has achieved to break even at operating costs, which can be rated as favourable in the context of the sectoral strategy. Full cost recovery, however, is not expected in the medium term. Altogether, the mission gained a positive impression of the capabilities of both executing agency and operator.

Considering the good technical and business performance of the operator, project efficiency is assessed as good (Subrating: 2).

Overarching Development Impact: Through the provision of clean drinking water, the project has delivered beneficial health effects to the area. Those were already confirmed by a consultant study in 2007, with findings being underscored locally by surveys of the target group and information from local health authorities. Reportedly, the number of water-transmitted diseases has declined sharply since project start. The health benefits in the project's rural settlements was stressed, particularly the decline in gall, kidney and bladder stones. The complementary measure also improved hygiene awareness among the population. The evaluation mission observed adequate local hygiene practices.

In the framework of the project, a private operator arrangement for rural water supply was set up for the first time in Uzbekistan. This operator efficiently carries out servicing and maintenance, continuously managing to supply the population with clean drinking water. So far, no other private-sector involvement scheme has been emulated in the region, but

positive capacity-building effects can be expected in future.

Based on the relevant indicators' achievement and the successful implementation of the pilot scheme in a private operator setup, the project impacts are assessed as good (Subrating: 2).

Sustainability: Besides the adequate operation of drinking water supply, maintenance measures are also necessary to sustain the beneficial changes made. The findings at ex-post evaluation give no grounds to question the quality of the drinking water supply system operated by Obi Hayet Choresm. Considering the very good current condition of the connection lines, storage tanks, pump and chlorination stations and distribution grids, there is no indication at present of any risk to sustainable, secure drinking water supply for the population served by Obi Hayet.

The sustainability of the commercial private operator setup is, however, at risk. As already mentioned, the underutilisation of grid capacity poses problems that will have an adverse effect on the financial position of the company, if it is not remedied. With the present underutilisation of the distribution grid and the set tariff structure, Choresm Obi Hayet will not be able to operate at full cost recovery in future, either. It is trying to obtain finance for expanding the supply grid and initial progress has been made. With its own funds, the operator can presently connect 20-40 households every year to the existing grid. Funds have also been pledged by the district authority of the region for connecting another rural settlement. This expansion is, however, too small to completely achieve full cost recovery.

Another way for full cost recovery would be the provision of household connections at full cost for the households. Households currently pay a contribution of USD 100 for connections, with the additional supply costs borne by the operator. It would, however, have the capacity to connect other households, if customers bore the full connection costs.

According to present estimates, full cost recovery could also be achieved by enlarging the grid. To finance this extension, the company would, however, need additional funds. This kind of extension investment ought to enable Obi Hayet to achieve economies of scale and thus meet full costs, including repayment of the FC loan.

Another water tariff increase in the project region could also be an option for securing full cost recovery and the economic sustainability. Both the central government in Tashkent and the population would have to agree, however. As the rates approved by the government only cover operating costs, renewed dialogue would be needed for this – with an uncertain outcome.

Lack of finance for repaying the loan to the Uzbeki Government currently poses the greatest risk for the future economic viability of the operator, but not necessarily for the technical system.

Despite the above economic risks to the operator, reliable and safe drinking water supply can be expected to be maintained in future – due to the declared high priority attached to it. Accordingly, the project's sustainability is assessed as satisfactory (Subrating: 3).

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:

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| 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).