Ex post evaluation – Kosovo

Sector: 14020; Water, sanitation and sewage management
Programme/Project: Drinking Water and Sewage Rehab. (Inv.), BMZ no. 2003 65 775* (Inv.) and BMZ no. 2004 70 146 (AM); (1)
Regional Water Supply and Sewage Disposal VI (Inv.), BMZ no. 2004 65 880 (Inv.) and BMZ no. 2004 70 419 (AM); (2)
Implementing agency: RWC Hidrodrini JSC, RWC Hidroregjioni Jugor JSC, RWC Radoniqi

Ex post evaluation report: 2017

	Project 1 (Planned)	Project 1 (Actual)	Project 2 (Planned)	Project 2 (Actual)
Investment costs (total) EUR million	4.50	4.50	6.80	6.80
Counterpart contribution	0.50	0.50	0.00	0.00
Financing	4.00	4.00	6.80	6.80
of which BMZ budget funds	4.00	4.00	6.80	6.80
Accompanying measure (AM)	0.50	0.50	2.50	2.50
of which BMZ budget funds	0.50	0.50	2.20	2.20

*Random sample 2016

Summary: The "Drinking Water/Sewage Rehabilitation V" and "Regional Water Supply & Sewage Disposal VI" projects continued a series of other German development cooperation and World Bank measures. The projects focused on measures to restore and improve existing water supply systems in the catchment basin of the River Drin in the programme regions of Prizren, Peć and Gjakova/Rahovec, including accompanying measures to support the development of strong institutional and organisational structures for water supply and waste disposal. FC funds of EUR 10.8 million were provided on a grant basis to finance the investments, plus EUR 3.0 million for accompanying measures. The project-executing agencies contributed EUR 0.5 million to the costs of the investment measures, and EUR 0.3 million to the costs of the accompanying measures.

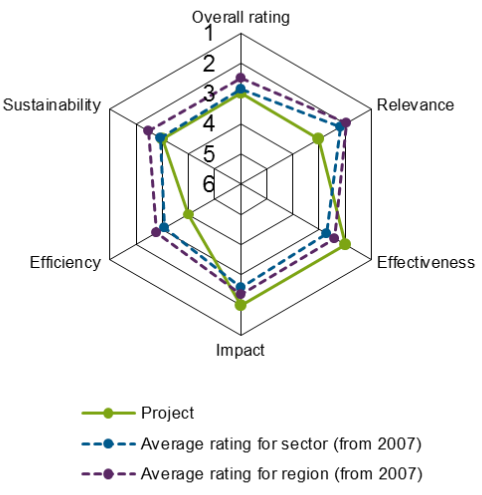
Development objectives: Both projects were designed to contribute to maintaining the improved general health, financial and social conditions resulting from the previous programmes over the medium and long term (ultimate objective). The programme objective for both projects was to contribute to a continuous and sustainable water supply used appropriately by the population at appropriate prices. As an additional programme objective of Phase VI, a contribution was to be made to creating preconditions for expanding the supply areas.

Target group: Around 300,000 residents who are supplied by the Peć and Prizren regional companies and mainly live in urban areas (Projects 1 and 2), with the target group expanding to 400,000 by incorporating the Gjakova/Rahovec region (Project 2).

Overall rating: 3 (both projects)

Rationale: Overall, both projects still have satisfactory impacts. All the FC-financed investments are generally in good condition and are adequately maintained. Both projects evaluated, however, made no notable contribution to reducing the high level of unaccounted for water (UfW) in all three project regions. From today's perspective, a significantly larger amount of investment would have been required to achieve demonstrable improvements.

Highlights: The decentralisation of responsibility for the water supply hinders cross-subsidisation of more cost-intensive locations by more profitable locations. The two-stage implementation process (qualification of locations using performance indicators) led to inefficiencies due to rafts of measures being relatively piecemeal in nature and consulting measures being cancelled.



Rating according to DAC criteria

Overall rating: 3 (both projects)

General conditions and classification of the project

Since the end of the Kosovo War in 1999, the Federal Republic of Germany has been directly involved in rebuilding the country, especially with emergency aid measures in rehabilitating the water supply infrastructure. The measures were later aimed at securing the supply and disposal infrastructure in the long term via investments in expanding the water supply, with due consideration of EU standards.
The Drinking Water/Sewage Rehabilitation V and Regional Water Supply & Sewage Disposal VI measures continued a series of previous emergency aid measures by German development cooperation and the World Bank (Rehabilitation of Urban Water Supply I & III, World Bank's Water Supply Project). The United Nations Mission in Kosovo (UNMIK) functioned as a transitional administration after the end of the war, with government and administrative responsibilities being gradually transferred to the Kosovan authorities, in some cases accompanied by considerable upheaval in the country's general institutional and regulatory conditions. In 2008, Kosovo declared its independence, which has been recognised by over 100 countries to date. UNMIK nevertheless remains in the country and continues to fulfil its mandate as a neutral actor. After the end of the war, administrative responsibility for the water supply resided with the Kosovo Trust Agency (KTA). The dissolution of the KTA in 2008 and the associated restructuring of the water sector, along with the additional and expanded supply needs, created immediate pressure to change the regional utilities that were responsible. At present, all the FC-financed projects to modernise the drinking water supply have been concluded; now, the cooperation is concentrating on promoting projects to modernise sewage disposal (South West Sewage Disposal, Phases I & II).

Relevance

The Drinking Water/Sewage Rehabilitation V and Water Supply and Sewage Disposal VI projects are linked to previous emergency aid programmes to stabilise the drinking water supply and sewage disposal over the long term in the programme areas. These were also embedded in UNMIK's and the KTA's efforts regarding the consolidation and sustainable operation of the water utilities. The projects were closely coordinated with other measures to safeguard the water supply, such as the WV III & IV Financial Cooperation (FC) projects, the Blockmapping and Asset Evaluation Technical Cooperation project in Peć and Prizren, and the World Bank's Pilot Water Supply Project. The sector projects were regularly coordinated in donor rounds, which the KTA and KfW jointly organised. Although the projects' titles suggest a sewage component, only water supply-specific measures were in fact implemented.

The problems identified in the programme proposal, in terms of the companies' low collection rates (30-75%) and high proportion of unaccounted for water (UfW; 60-70%), were accurately detected. In addition, at the time of the programme appraisal, there were considerable shortcomings with the supply to rural areas in the programme region, where the connection rate to the public supply network was only 20-50% (comparable figure of around 95% in the cities). However, the project did not sufficiently take this key shortcoming into account.

Relatively piecemeal investments and accompanying measures were designed as part of the projects and these did not respond effectively to the key problems defined in the programme proposal. The aforementioned problems still exist today. A targeted investment, for example to rehabilitate the supply network as a response to the key problem, would alternatively have been conceivable. However, from today's perspective, this would have required a much larger amount of investment to accomplish demonstrable improvements.

Furthermore, the project concept implied a connection between the water supply quality and the departure and/or non-arrival of companies in the region. The local water supply was already relatively good compared with other regions before the project started, so it was not possible to find any indication within the ex post evaluation that the drinking water supply had been a particular barrier to companies moving in or out. The targeted effect of the project on waterborne diseases also seems to be of little relevance, since adverse incidents of this type were already of low significance in the region before the project started. This

is due to there being a sufficient availability of quality mountain spring water that is inexpensive to produce. Failing to implement the projects would therefore probably have resulted in neither business activity deteriorating in the region nor in growth of waterborne illnesses.

Relevance rating: 3 (both projects)

Effectiveness

The programme objectives defined at the programme appraisal were as follows:

a) The project contributes to a continuous and sustainable water supply via the consolidated water supply utilities at appropriate prices.

b) The project contributes to creating conditions precedent for expanding the supply area (additional programme objective for Water Supply and Sewage Disposal VI).

Indicators, whose level of achievement was determined at the ex post evaluation, were formulated to review both projects' programme target achievement. The table below contains a summary of the review results for both projects.

As of the ex post evaluation, the water suppliers guarantee 24-hour water supply every day in Peć and Gjakova; while there are supply shortages in higher-altitude mountain areas in Prizren's supply area (indicator 1). In terms of water quality, Gjakova and Prizren can make regular quality measurements via appropriate laboratory equipment and consistently verify a WHO standard of water quality. At the time of evaluation, Peć exhibited minor losses of quality and the WHO water quality standard was achieved in 92-93% of water samples (indicator 2). Measurement of domestic water consumption is occasionally affected by weaknesses among suppliers: there are no water consumption meters installed for 3-5% of the house connections in the supply areas. A flat rate payment is made for each of these households instead of them being billed for individual water consumption. This results in uncertainty in measuring actual water consumption (indicator 3). The utilities' operation and maintenance are being carried out appropriately in the case of all water suppliers, as of the ex post evaluation. Investments financed through the FC projects have been visited and are in a good state of repair. Technical installations no longer used by the suppliers are also maintained or stored appropriately (indicator 4).

According to supplier representatives and members of the target group, there is no indication that not all ethnic groups have been supplied without discrimination (indicator 5). All the utilities have to contend with considerable UfW problems of over 30% as of the evaluation, which can be attributed to the dire state of the water pipe systems in the supply areas. This state can be explained by three factors: firstly, the urgency for pipe maintenance is attenuated by the high and inexpensive-to-produce availability of spring water in Gjakova and Prizren; additionally, maintenance and network restoration work takes the form of fairly long-term, costly investment measures and is therefore not a priority area for action in the short term. The water suppliers' maintenance units always concentrate on urgent, ad hoc repairs. Overall, we assess the objective of reducing UfW to 30% with the budget available at the time as unrealistic (indicator 7).

The water consumption is successfully below the target value of 120 litres per capita per day (L/c/d) in all supply areas. Equipping consumers with domestic water meters, as financed by the project, has in turn contributed to a significant decrease in household water consumption, in some cases of 200 l/c/d (at programme appraisal). (Indicator 8). General materials management is appropriate in Peć and Gjakova. The materials storage in Prizren, on the other hand, is in a very poor structural condition. Renovating the building is not planned in the near future, as the plot of land on which the store is located is not owned by the water supplier (indicator 9). All the utilities have mobile maintenance units so they can perform regular, systematic leakage detection searches. The work of these units, however, concentrates on finding larger leaks to secure the basic operation of the pipe network (indicator 11). Salaries and bills are paid when due in all supply areas, according to the operators (indicator 12). The prevailing rates are appropriate in socio-economic terms in all supply areas as of the evaluation; the share of spending by households in the region for drinking water and sewage per year is 1-2% of the average Kosovan household income (EUR 5,843 net household income for a six-person household, according to Kosovan Census). However, particularly poor households (about 10% of consumers) can be registered with the authorities as "indigent

recipients" as a result of a national provision, and benefit from a very low water rate – without the state reimbursing the operators for these losses of income (indicator 13).

In summary, the results are mixed in terms of effectiveness: the operators essentially provide a continuous water supply, adequate water quality, appropriate maintenance of the supply areas and good materials management. However, Prizren's utilities' provider posts worse evaluation results in all cases, as this company generally has to contend with higher production costs and its earnings from business activity just missed the break-even point. In all cases, we rate the extremely high UfW due to the dilapidated condition of the pipe system in the supply areas negatively, as well as the flat rate billing for household water consumption in some cases due to a lack of water meters.

In terms of programme objective 2 (creating conditions precedent for expanding the supply area), all the companies increasingly have difficulties with consumers' arrears, primarily in the case of public institutions such as hospitals or administrative bodies, which puts strain on the companies' financial situation. Consequently, for example, the collection rate in Prizren has worsened, dropping from 80% (2014) to 76% (2015), which resulted in the company losing EUR 715,607 (2014) and EUR 876,455 (2015) in income. Another financial barrier to the network expansion is in the utility providers' high staffing costs. Despite the lack of financial conditions precedent for expanding the supply area, the companies' executive levels regard network expansion as a management priority, which is expected to come at the expense of maintenance and restoration of the existing pipe system.

The attainment of the programme objectives defined at the programme appraisal can be summarised as follows:

Indicator	**Status PA / Target value PA**	**Ex post evaluation**		
		Peć	**Prizren**	**Gjakova**
(1) A continuous water supply is guaranteed	Not collected / 24 h/day	Achieved (24 h/day)	Partially achieved (supply shortages in mountain regions)	Achieved (24 h/day)
(2) The water quality complies with WHO standards	Not collected at two locations / Achieved	Not achieved (92-93%)	Achieved (100%)	Achieved (100%)
(3) Water production and consumption are measured	Not collected / 95% installation of domestic water meters	Almost achieved (94%)	Almost achieved (93-95%)	Achieved (95%)
(4) The utilities are appropriately run and maintained	Unaccomplished / EUR 1.5 maintenance cost per resident supplied	Achieved (Accomplished)	Achieved (Accomplished)	Achieved (Accomplished)
(5) All ethnic groups are supplied without discrimination	Not collected / Accomplished	Achieved (Accomplished)	Achieved (Accomplished)	Achieved (Accomplished)

(6) The revenues from charges cover the operating costs, including an appropriate portion of the costs for maintenance	Not collected / Operating costs proportion > 100%	Achieved (116%)	Almost achieved (98%)	Achieved (106%)
(7) UfW (technical and administrative) is below 30% three years after the programme ended	~40% / <30%	Not achieved (66%)	Not achieved (58%)	Not achieved (48%)
(8) Domestic consumption persistently decreases, moving towards 120 L/c/d and below	Not collected / 120 L/c/d	Achieved (68 L/c/d)	Achieved (86 L/c/d)	Achieved (98 L/c/d)
(8) Materials management is appropriate	Unmet / Met	Achieved (Met)	Partially achieved (Materials management appropriate to some extent)	Achieved (Met)
(10) There is an appropriate budget available for maintaining the utilities.	Unaccomplished / EUR 10 per house connection per year	Achieved (>EUR 10)	Partially achieved (EUR 8.10)	Achieved (>EUR 10)
(11) A systematic leakage search and repairs are carried out	Unaccomplished / accomplished	Achieved (Accomplished)	Achieved (Accomplished)	Achieved (Accomplished)
(12) Bills and salaries are paid when due	Not collected / accomplished	Achieved (Accomplished)	Achieved (Accomplished)	Achieved (Accomplished)
(13) The rates for private consumption are reasonable from a socio-economic perspective	Not collected / <5% of the average household income	Achieved (1.0%)	Achieved (1.4%)	Achieved (1.8%)

Effectiveness rating: 2 (both projects)

Efficiency

In terms of achieving the results above at minimal cost (production efficiency), it is evident that the significant delay to both projects (75 months' delay for Phase V and 67 months for Phase VI, which is approximately equivalent to the implementation period being tripled) caused a substantial rise in the costs for consulting services (from EUR 0.5 million to EUR 1.11 million for Phase V, from EUR 0.65 million to EUR 1.49 million for Phase VI), which accordingly made up a share of around 25% (Phase V) and 22% (Phase VI) of the total financing amount. This did not increase the total project costs, although the corresponding investment expenditure proportions were reduced. The delays were caused by the unexpected dissolution of the original programme executing agency (KTA), the implementation consultant's insolvency, and delays in competitive bidding and construction measures. A positive aspect was the water companies' collection rate, identified as a key issue, improving from 30-75% to 73-83% since the programme appraisal, which stems particularly from the payments made by large consumers.

The results achieved on the projects' ultimate objective level can only be attributed to a minor extent to the investments made, because the projects were patchy in addressing the key problems defined in the "Relevance" chapter. These results included avoidung an increase in registered waterborne diseases and preventing the non-arrival or actual departure of companies due to the deficient water supply. The projects, with relatively high costs, accordingly made an only minor contribution to the effective achievement of the ultimate objectives. Both projects' allocation efficiency in achieving the ultimate objectives defined

at the programme appraisal must therefore be classified as low, despite the improved collection rate. However, we assume that maintaining the supply quality has contributed positively to the target group's living conditions.

The two-stage implementation arrangement must be viewed in a critical light as regards the ratio of costs to the achievement of the programme and ultimate objectives. The intention here was that the regional suppliers would have to meet specific operating and quality targets during the project's first stage to benefit from the second project stage. Certain programme areas were unable to qualify for subsequent stages of the projects due the necessary criteria not being satisfied. The two-stage process aimed to boost the water suppliers' motivation via the principle of competition and to improve sustainable enterprise. However, it became a main cause of project delays and cost increases compared with the conventional project approach because of the piecemeal nature of the measures, each with separate tender procedures. Since the suppliers that successfully participated in Stage 2 of the project already had relatively decent operations and professional management prior to the project, we can assume that an in-depth audit of the suppliers at the start of the project would have been sufficient to support the companies with investments in a targeted manner.

A fixed planning process would thus have been able to facilitate more efficient achievement of the objectives. In addition, it would perhaps have been sensible to assign all the measures in one batch instead of the small-scale lots for each regional supplier.

In summary, the total costs appear to be (too) high in relation to the impacts made.

Efficiency rating: 4 (both projects)

Overarching developmental impact

Both projects' ultimate objective was to contribute to maintaining the improved general health, financial and social conditions resulting from the previous programmes over the medium and long term. The indicators for ultimate objective achievement were:

1) No increase in registered waterborne illnesses, and

2) Preventing non-arrival or departure of companies in the region due to the deficient water supply.

At the time of the ex post evaluation, we could assume that the number of registered waterborne diseases has not increased in any of the supply areas. The suppliers were consistently able to verify a high quality of drinking water with very good results by regularly extracting water samples. In certain rare cases, the suppliers minimize risks by immediately disconnecting the domestic water supply on a temporary basis and then treating the drinking water. Gjakova and Peć benefit especially from the permanent availability of inexpensive, quality spring water from mountain sources, which is supplied to the pipe network around the clock at high pressure. The consistently high water pressure in the pipes substantially reduces the risk of harmful germs and bacteria accumulating. Appropriate chlorination also contributes to the quality of the drinking water (ultimate objective 1).

Water-intensive enterprises (such as breweries) in the region are established as regular customers of the regional suppliers, which indicates an appropriate water supply. No indications could be found, as of either the programme appraisal or the ex post evaluation, to show that companies are leaving the region or not settling there due to the water supply situation. On the other hand, no indications could be found either to show that not implementing the projects would have had a negative effect on business activity in the region (ultimate objective 2).

Overarching developmental impact rating: 2 (both projects)

Sustainability

At the time of the ex post evaluation, the water suppliers in Gjakova and Peć demonstrated that their operating costs were covered by revenues to a stable degree in excess of 100%. We can therefore assume that an appropriate share of the maintenance costs as well as the operating costs is covered by fee revenues. Note, however, that Gjakova and Peć receive their water from higher-altitude mountain sources at relatively low production cost owing to their geographic location. By contrast, Prizren has higher produc-

tion costs due to expensive pumping work; for this reason, slightly less than 100% of its operating costs were covered in this case, resulting in financial losses (see indicators 6 & 10).

The sustainable operation of the water suppliers in Gjakova and Peć will be guaranteed in the years ahead even without the financial support of international donors, which can be ascribed to the staff's sufficient qualification and motivation along with the companies' revenue surpluses. The companies' FC-financed investments are generally in good condition and are adequately maintained. The situation in Prizren poses more of a challenge, as the company is generating deficits overall due to the high production costs. Prizren is aiming to improve the financial situation by making increased investments in the future in gravitational water supply to reduce the production costs, as well as in network expansion to connect more households.

However, the problem of high levels of unaccounted for water, caused by the dilapidated state of the pipe system in the supply areas, poses a serious risk among all suppliers. As a result of these circumstances, a comprehensive rehabilitation of the existing pipe systems – especially in Prizren – is recommended, since the regional supplier generally has to contend with heightened production costs that will rise further in the future due to increasing UfW. Additionally, increasing UfW would also make the the basic water treatment of all regional suppliers more expensive in the future.

Sustainability rating: 3 (both projects)

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:

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

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative 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. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 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" (level 3).