Georgia: Rehabilitation of public infrastructure facilities, Phase I

Ex post evaluation report

OECD sector	1402000 / water supply, sewerage and waste disposal	
BMZ project ID	1998 65 627	
Project executing agency	During the project: Ministry of Environment Protection and Natural Resources Now: United Water Supply Company of Georgia (UWC)	
Consultant	Gauff/Gamma	
Year of ex post evaluation	**2010 (2010 random sample)**	
	Project appraisal (planned)	**Ex post evaluation (actual)**
Start of implementation	Q2 2000	Q2 2002
Period of implementation	36 months	53 months
Investment costs	EUR 4.29 million (excl. GTZ contribution, training)	EUR 3.89 million (excl. GTZ contribution, training)
Counterpart contribution	EUR 0.46 million	EUR 0.19 million
Financing, of which FC funds	EUR 3.83 million (tangible investments) EUR 0.56 million (training)	EUR 3.7 million (tangible investments) EUR 0.56 million (training)
Other institutions/donors involved	GTZ	GTZ
Performance rating	3	
• Relevance	2	
• Effectiveness	3	
• Efficiency	4	
• Overarching developmental impact	3	
• Sustainability	3	

Brief description, overall objective and project objectives with indicators

By eliminating the most serious constraints on water supply (the programme objective), this project aimed at improving the health of the population in the priority region (overall objective 1). The target group was the population of the small and medium-sized towns in the area bordering the Borjomi-Kharagauli National Park (Adigeni, Akhaltsikhe, Bagdati, Borjomi, Khashuri and Kharagauli). Phase I included emergency measures to maintain the supply of drinking water and to provide staff training to meet operational requirements. Later phases were intended to repair the distribution network and to improve the disposal of sewage and waste. A regional authority was to be set up as the future project agency, thereby supporting the Georgian government's decentralisation

efforts (overall objective 2). The development of the regional authority started under Phase I, and it was planned that this would continue during subsequent phases. Each individual phase was constructed in sequential stages. Phase I was designed to be practical and coherent, even if Phases II and III failed to materialise. The subject of this evaluation was the stand-alone impact of Phase I. The programme objectives for Phase I are considered achieved if 1) the target group can be supplied with 80 L of water per person per day and 2) the facilities are being properly run. Overall objective 1 is considered achieved if the target group's overall supply situation has significantly improved.

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

It should be noted here that, following consultations between all those involved, the programme was terminated at the end of Phase I. This was because agreed preconditions for the start of Phase II (criteria such as improvements in collection efficiency, an increase in the tariff, the removal of illegal connections and the transfer of responsibilities to the newly established regional authority) had not been met. In consequence, the programme's ambitions towards decentralisation (overall objective 2) and strengthening the administrative and managerial capabilities of the operating companies were not fulfilled.

The objective of the Phase I stand-alone measures was to eliminate the most serious shortcomings in drinking water supply, i.e. to prevent the collapse of the water supply system. Project appraisal had anticipated a different (i.e. lower) level of sustainability for these stand-alone Phase I measures compared to that expected from a comprehensive programme of rehabilitation.

Plans to fit household water meters and to rehabilitate or install chlorination and filtration plants were abandoned. This represented a significant deviation from the measures originally programmed under Phase I. The measures that had been implemented could not guarantee a continuous supply of water, due to the ramshackle condition of the water distribution network; hence water meters could not be guaranteed to operate, and were therefore not fitted. To achieve supply continuity, the distribution network would have needed work that went far beyond the budget available for Phase I. Plans for chlorination and filtration plants were shelved for similar reasons. Extremely high water distribution losses of 70 - 80% would have made it necessary to provide volumes of suitably filtered and chlorinated water (as well as to construct chlorination and filtration plants) that would, in the long term, have been larger than required. The rather limited level of funding results from the emergency nature of the Phase I measures, and from the overall programme's strategy of linking larger investments to positive developments in the institutional framework arising as a consequence of Phase I.

Key results of the impact analysis and performance rating

The overall project aimed to support Georgia in the area of infrastructure during its transition from a centrally administered system to a decentralised system; the long-term goals were economic and technical sustainability, with all their attendant political, legal and institutional consequences. As a result, the project was beset with all the risks that are inherent in such transformation processes. A substantial number of risks, which had been identified at project appraisal but could not be influenced by the programme, became reality. This included delays, uncertainties and - most notably - changes in strategy which can be traced back to political upheavals and consequent changes in personnel. In the programme region, the decentralisation concept - which

was to be supported by the project under evaluation and, to an even greater extent, by the envisaged follow-on phases - was replaced by a centralised concept for the water sector. The local population's willingness to pay, and the extent to which local operators were prepared to improve their collection efficiency and raise tariff charges, fell well short of expectations. As a result, revenues remain insufficient to cover operating costs. At project appraisal these risks were assessed as moderate, with good prospects for modification or control. What emerged during the course of the programme, however, were high levels of risk with very little prospects for control. Taken overall, the emergence of these risks has contributed to the lack of success to date in the creation of new, sustainable structures in the programme region. Nevertheless, original estimates for the prospects of success seem reasonable even from today's standpoint, since designing the project in the form of a staged programme served to limit the risk of failure.

Relevance: deficiencies in drinking water supply continue to represent a significant constraint for the target group, and rectifying these deficiencies has major developmental significance for Georgia. From today's viewpoint, this project tackled those problems in the project region, and it still remains of great importance. The programme contributes toward MDG 7 'environmental sustainability – halving the proportion of the population without sustainable access to safe drinking water' and accords with the objectives of the partner country and with one of the current priority areas for development cooperation in the South Caucasus region (community development/public infrastructure). Project activities were designed to complement other initiatives in the region (relating to the population of the area bordering the Borjomi-Kharagauli National Park) and – even though plans to integrate them into a decentralisation concept in the programme region were superseded - they remain a good fit with the project agency's current activities, now that technical capacity at the local level has been strengthened.

The programme was appropriately designed to ensure the continued supply of drinking water, whilst simultaneously addressing the risks presented by operational weaknesses and project agency shortcomings. Institutional conditions were not suitable for a long-term engagement. The inclusion of scheduled programme break points ensured that a protracted commitment, whose sustainability could not be assured, was avoided. In the meantime, the water sector in the programme area has once again become centrally organised; hence decentralisation, from today's viewpoint, is no longer of relevance here. By way of contrast, improvements achieved in strengthening the organisation and the technical abilities of the decentralised operating units remain highly relevant. Taken overall, relevance has been assessed from the current perspective as good (rating 2).

Effectiveness: as their objective, the Phase I stand-alone measures aimed at maintaining the supply of drinking water. It was planned to rehabilitate structural facilities and develop technical capacities as far as was absolutely essential for functionality and operation. At the time of ex post evaluation, the facilities were, for the most part, still operational and being repaired as needed. Although, due to the limited scope of the project measures, the desired water quality is not achieved in every programme location and continuity of drinking water supply cannot be guaranteed, both the quantity and quality of supply have clearly improved as a result of the measures enacted. Capacities in those production facilities which have been constructed or rehabilitated are more than adequate to supply the target group with 80 L of water per person per day. Due to high physical water losses in the distribution network (which has not been rehabilitated) and high levels of water wastage, the availability of drinking water supplies within the programme region varies widely, and averages 12 hours per day. This falls short of the Georgian average of 17 hours per day, but represents a

significant improvement on the average of two hours per day noted at project appraisal. Against this background, we see the objective of this phase - 'eliminating the most serious constraints on water supply' - as having been fulfilled in principle. Furthermore, every operator in the local water industry has pointed out that the supply situation in the programme region would probably not have improved without this project. These measures have reached all those households which are connected to the water supply network (approx. 78% of the inhabitants of the programme area). Although developments in the administrative realm were unsatisfactory and failed to meet the conditions for continuing the programme under Phase II, we have assessed the effectiveness of Phase I, measured against its objective as a stand-alone project, as having just achieved a satisfactory level (rating: 3).

Efficiency: we have rated production efficiency as good. The available funds allowed the project to be delivered as planned in all the programme locations, with its aims of supporting all the areas bordering the Borjomi-Kharagauli National Park and increasing acceptance of the National Park itself. There were no indications of any inappropriate expenditure or inflated construction prices. Given the institutional difficulties, we consider the appointment of a project consultant to have been useful and justified; however, at 30% of total costs, consultancy costs were extremely high. As for the tangible project measures, it is difficult to conceive (given the level of funding deployed) of any lower-cost alternatives for improving drinking water supply in the context of a project with such major financial limitations. Furthermore, it should be noted in particular that the rehabilitation measures - especially the partial switchover to gravity-fed systems - emphasised the value of reducing operating costs and maintenance expenditure. However, the programme was not able to make the extent of commercial progress that was desired, and the present situation remains flawed. Collection efficiency has improved from 10-30% at project appraisal to 60% now, and tariff charges have been increased. But despite very low wage levels, revenues are often insufficient to cover even salary costs. With the exception of Akhaltsikhe, neither operating costs nor total costs are recovered. The reasons for this are to be found in the low tariff rates which, to some extent, continue, and in an unsatisfactory debt collection performance. The extremely low wage level is another problem, since it fails to attract qualified staff and offers no incentive mechanism to encourage existing staff to raise efficiency. Taken altogether, we have judged efficiency as unsatisfactory (rating: 4).

Overarching developmental impact: because of the restricted scope of the project's measures and the health risks already present (due to the lack of sewage treatment and waste disposal), its impact on health was not as extensive as expected; major hazards were to be addressed under Phases II+III. But it is safe to assume that the programme, to a limited extent, did have a beneficial impact on health, since both the quality and quantity of drinking water supplies were improved. The programme contributed to improving living conditions for the target group. According to the technical manager of its regional branch in Akhaltsikhe, the UWC has produced a comprehensive manual (based on documentation from the project training initiatives) on the maintenance and operation of the water supply system, and issued it out to the Service Centres. Hence - in spite of the change in the overall concept for the sector - a certain degree of structural impact has been achieved.
Overall, we have assessed the project's overarching developmental impact as satisfactory (rating: 3).

Sustainability: the financial stability of the water supply operation is clearly not assured, but any ambition toward sustainability would not have been appropriate for the stand-alone measures in Phase I. According to local water supply companies, scarcely any

supplementary work to improve the supply network (with the exception of Akhaltsikhe) has taken place since the completion (or termination) of the programme. However, the improved level of supply that was achieved by the limited actions in Phase I has so far been maintained. Those few measures which have been undertaken in the meantime either related to the supply network area, and thereby contributed directly to the rehabilitation of the water transfer system, or served to expand plants which had already been rehabilitated. Investment measures planned for the programme region (the fitting of household water meters and the rehabilitation of the supply network) also tie into the activities undertaken in this project. Although allocative efficiency fell markedly below expectations (which was a decisive factor in ending the project after Phase I), positive developments in the sector within the programme region - the establishment of the United Water Supply Company of Georgia, together with investments planned in this area - suggest that the commercial position of the supply utilities will improve over the medium term; this also suggests that the rehabilitated plants will be used and expanded in future. Overall, we have assessed sustainability as satisfactory (rating: 3).

Overall assessment: it was not possible, during the course of the project, to push forward as planned with the organisational restructuring of the water sector and the development of the project agency. At project close-out, no improvements were identified in the population's supply situation that could be directly attributed to decentralisation. Using a scheduled break point to terminate the project after Phase I was justified, since the institutional conditions were not in place to continue the programme under Phase II. The Phase I stand-alone measures aimed to remove the most serious supply constraints and to maintain drinking water supplies in the programme region. In our opinion this was, in principle, successfully achieved. The rehabilitated facilities are, for the most part, still operational, and repairs are carried out in the event of damage. According to the local water utilities it is likely that, in the absence of this project, water supplies in the programme area (with the exception of Akhaltsikhe) would not yet have improved.

We have assessed the overall success of the project as satisfactory (rating: 3).

General conclusions and recommendations

In the context of poor institutional conditions and the risks they bring, it is highly appropriate to incorporate continuation criteria and scheduled break points as visible features of project design. This supports the delivery of emergency measures which are coherent and relevant in themselves, and can simultaneously serve as preconditions for continued engagement, without the need to enter a long-term commitment where sustainability cannot be assumed.

In pursuit of the objectives, measures to strengthen technical and economic capacity on the ground through training initiatives became intertwined - in a practical fashion - with TC measures to develop a project agency organisation. However, in view of assorted risks and schedule requirements, it seems advisable to configure such initiatives as independently of each other as possible, so that any delays or difficulties in the implementation of one component will have as little negative impact as possible on the other component.

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 is a positive assessment and indicates a successful project while a rating of 4 to 6 is 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. In using (with a project-specific weighting) the five key factors to form an overall rating, 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 ("overarching developmental impact") and the sustainability are considered at least "satisfactory" (rating 3).