

Ex post evaluation – Sri Lanka



Sector: Water supply, sanitation and waste water management (CRS: 14020)
Programm: Water Supply Projects in Galle Districts I & II
 BMZ-Nr. 2005 65 119 & 2005 65 630*
Project Executing Agency: National Water Supply and Drainage Board (NWSDB)



Ex post evaluation report: 2015

		Project I (Planned)	Project I (Actual)	Project II (Planned)	Project II (Actual)
Investment costs (total)	EUR million	7.00	7.00	15.00	18.23
Counterpart contribution	EUR million	0.00	0.00	0.00	0.28
Funding	EUR million	0.00	0.00	0.00	0.00
of which BMZ budget funds	EUR million	7.00	7.00	15.00	17.95

*) Random sample 2014

Description: Project description: The Galle I project was an emergency project (with an abbreviated appraisal process) in response to the 2004 Asian tsunami and provided the immediate delivery of reconstruction material and equipment. It served to first and foremost support the National Water Supply and Drainage Board (NWSDB), to restore water supply for the homeless living in shelters in the destroyed settlements; as well as to provide additional transport capacity. The Galle II project sustainably rehabilitated the water supply system in Galle district, taking future needs and developments into account. Activities included construction of water mains along the coast, extending the existing water production capacity as well as the water treatment plant in Baddegama. Finally the project extended the distribution network in the city of Galle and around the city of Ambalangaoda. Given the location of Galle district in the island's south, the project area was not directly affected by the civil war.

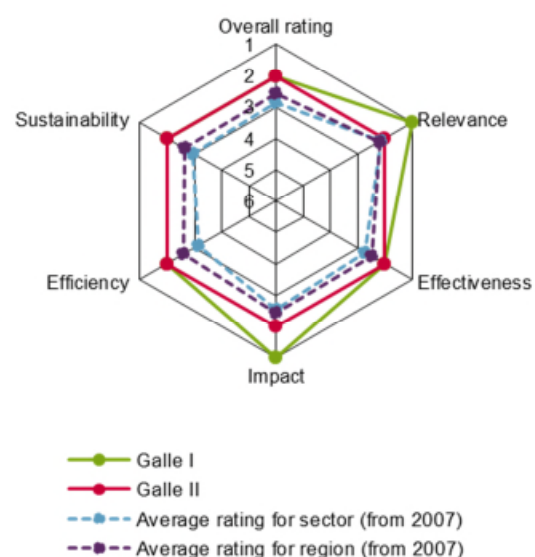
Objectives: The projects' overarching goals were to contribute to a sustainable reconstruction of the water supply system, to support regional development, and to improve living conditions for the local population. The projects objectives were to completely rehabilitate and extend the centralized water supply system so as to supply about 60 percent of the inhabitants in the project area with drinking water. The project was to extend supply capacity of the centralized system to the regions of Ambalangaoda and Galle city.

Target group: The target group consisted of 136.000 inhabitants whose water supply had been damaged by the tsunami, households of the coastal area, that needed to be relocated away from the coast, as well as households living on the outskirts of the city and that had not previously been connected to the system.

Overall rating: 2

Rationale: Both projects were relevant. Project outcomes, efficiency, and impacts have been good or excellent, while sustainability is not rated in the case of the emergency response project and rated as likely for the water supply project

Highlights: An emergency water system was established for the tsunami victims under extremely challenging conditions. All the infrastructure was built as designed and it has been operated professionally and maintained to a very high standard. However, given the likely degradation of the water resource in Sri Lanka in general, and in the project area in particular, and future threats from climate change, addressing the water resource problem may be a challenge for the future.



Rating according to DAC criteria

Overall rating: Galle I & II: 2

Relevance

With the immediate response to the Indian Ocean tsunami in 2004, both projects addressed an urgent need. With the exception of the recent civil war (1983 – 2009) no crisis has been more devastating for Sri Lanka than the 2004 tsunami. Coping with the damage and suffering was the highest priority for the Government of Sri Lanka (GoSL) at the time of project approval. While issues related to the catastrophe are no longer a high government priority, this is due to their being satisfactorily dealt with. The projects were water supply projects as well as an emergency response. Providing safe water to unserved and under-served areas continues to be a high government priority, both for health and quality of life reasons.

The underlying results framework was plausible in that it intended to completely rehabilitate and extend the centralized water supply system, contributing to a sustainable reconstruction of the water supply system. The different donors agreed that they would divide the work so that each donor had a defined geographical area and sector.

According to the BMZ's strategy on the water sector, gray water and sewerage need to be factored in when planning water supply projects. And indeed, the project appraisal documents mentioned the sewerage and drainage system necessary to absorb the increased water quantity produced after project completion. They referred to on-site sanitation and septic tanks to being implemented in co-operation with NGOs and the local government. As of today, Galle district is largely covered by septic tanks that collect waste water and release it into a central sewerage system. Gray water, on the other hand flows through a drainage system along the roads. As for hotels, they are provided with septic tanks to collect waste water that is treated before being released into the drainage system. While waste water treatment was not a priority in the emergency phase of the project, other donors and the local government provided the population with a sewerage system, something that demonstrates effective donor coordination.

At the time of the tsunami, the project responded to the urgent need for reconstruction and thus was in line with German development policy. As of 2014, the BMZ strategy does not focus on Sri Lanka's water sector. Instead, the German government is supporting measures to provide peace education and reintegrate former civil war refugees, establish small and medium-sized enterprises (SMEs), provide vocational training for young people and support administrations in the north and east of the island.

Relevance rating: Galle I: 1 and Galle II: 2

Effectiveness

The project objectives of both phases as defined at appraisal were to completely rehabilitate and extend the centralized water supply system so as to supply about 60 percent of the inhabitants in the project area with drinking water. The project was to extend water supply capacity of the centralized system to the regions of Ambalangoda and Galle city.

In the aftermath of the disaster, water trucks supplied the population with urgently needed drinking water. In the four years since project closing progress has been made on important fronts. The number of households that receive services has steadily increased. Since project closing new piped connections have been delivered to Ambalangoda, Balapitya, and Hikkaduwa. The completion report noted that the distribution capacity created under the project is sufficient for at least 250,000 people although at closing 115,000 people were connected. The current status regarding population served is 136,031. Thus, the indicator of supplying about 60 percent of the inhabitants in the project area with drinking water has been surpassed. As of 2014, the National Water Supply and Drainage Board (NWSDB) supplies 89.7 percent of the population of about 1 million people living in Galle district with access to safe water, 31 percent of it piped. Piped water is available continuously, except for higher elevation user in dry months.

Effectiveness rating: 2 (both)

Efficiency

Almost all the project activities during Phases 1 and 2 experienced some delay. The KfW team appraised the project on an expedited basis because of the tsunami and the critical needs facing the victims. Yet according to the project files the first disbursement for the Galle I emergency project was on August 19, 2005, almost eight months after the disaster event on December 26, 2004. While the material presented above clearly shows that NWSDB was productively engaged during this period, and that it provided important service, it did not opt for expedited procedures where its own processes were concerned, it failed to rapidly marshal all the resources available during a critical period.

The average monthly water production at the Baddegama plant is 690,000 m³ of which 536,485 m³ are billed each month, giving a 22 percent non-revenue water rate, which is around the national average. Taking into account the two other water treatment plants in Galle, the unaccounted for water rises to 31 percent for the whole Galle area. This is due to the Road Development Authority not granting permission to excavate in Galle roadways to deal with the leaks which are known to exist there. There is still about 10,000 m³ of untapped capacity at Baddegama.

The Water Board is very close to the break-even point nationally, and is beginning to enjoy access to commercial credit. Tariffs have been standardized across the country, and they have been raised twice (2009 and 2013) with the result that the NWSDB Galle scheme is profitable. The water sold from the Baddegama plant generates 20,319,848 SLR with which to cover salaries and expenses for energy and chemicals of 14,226,990 SLR. Thus at least the recurrent costs are more than covered.

Allocation efficiency is high in that the population living in the project area was supplied with drinking water in the disaster aftermath and with piped water in the years following the disasters. In addition, the system continues to be extended to other under-served areas.

Efficiency rating: 2 (both)

Impact

The overarching developmental objective as defined at appraisal was to contribute to a sustainable reconstruction of the water supply system, to support regional development, and to improve living conditions for the local population. Following 2014 standards, the evaluation also assessed the health impact of the improved water resources on the local population.

The project improved living conditions dramatically, given the catastrophic state that prevailed at the project outset. According to the last tests in June of 2014, all 62 samples tested for Coliform and E.coli at house taps in Galle district were satisfactory. However, of the laboratories visited, only Ampara has the equipment necessary to identify the presence of modern chemical threats. Baddegama water treatment plant currently does not routinely test for nitrite, phosphate, sulphide, magnesium, manganese, aluminum, arsenic, cyanide, mercury, selenium, lead, zinc, copper and chromium even though there are national standards for many of these chemicals. The mission asked whether a broader analysis had ever been undertaken that included heavy metals and the more toxic agricultural chemicals. The evaluators were told that that had only been done unofficially, and since there were no official results to share, such data would not be provided.

With respect to health outcomes, the local Division of the Ministry of Health provided health data comparing “with and without” scenarios. Cases of Dysentery were generally very rare. The difference in Dysentery prevalence between piped (FC-financed) and non-piped networks were marginal with non-piped networks having marginally lower levels of disease prevalence. This shows that there is no negative water-borne health impact for the local population.

Impact rating: Galle I: 1 and Galle II: 2

Sustainability

Galle I was an emergency project and some of the benefits, such as the delivery of bottled water, were sustained as long as they were required - it would be senseless to expect anything more. Galle II is more of a traditional water project, however, and any analysis of sustainability should review several dimen-

sions. Financially, the NWSDB has made considerable progress with tariffs so project achievements (water service delivery and the operation of treatment plants) can be expected to go forward without diminution. The developmental efficacy of the project is positive to date, but its environmental sustainability is very likely to decline until there is better protection of raw water resources including but not limited to the effective enforcement of existing regulations.

O&M has been put on a sustainable footing by tariff increases and the entire system, including the part of it not financed by the Financial Cooperation is meticulously maintained. A great deal more remains to be done to expand piped coverage.

The project performed as anticipated and the results to date have been good, but this report will go on to argue that the results of settlement densification, national agricultural policy, and a general lack of attention to natural resource conservation by the public in general put the quality of the raw water at the intake and the treated water leaving the water treatment plant that will be delivered in the future in jeopardy.

Thus, with respect to the life cycle of the equipment, we rate sustainability for Galle II as good, while we do not rate sustainability for the emergency part of the project.

Sustainability rating: Galle I: Not rated and Galle II: 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:

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).