

Ex post evaluation – Vietnam

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Sector: Sanitation and waste water management (14022)
 Waste management and disposal (14050)
Project: Waste water and waste disposal in central provincial cities (Vinh, 2002 66 585)* and Waste water disposal in northern provincial cities I (Bac Ninh and Hai Duong, 2002 66 569)
Implementing agency: Infravi (waste water Vinh), URENCO (waste Vinh), BNWSSC (waste water Bac Ninh) and UWMC (waste water Hai Duong)



Ex post evaluation report: 2016

| (Breakdown by individual project on following page) | | (Planned) | (Actual) |
|---|-------------|-----------|----------|
| Investment costs (total) | EUR million | 40.9 | 48.1 |
| Counterpart contribution | EUR million | 11.9 | 17.7 |
| Funding | EUR million | 29.0 | 30.4 |
| of which budget funds (BMZ) | EUR million | 29.0 | 30.4 |

*) Projects 2002 66 585 in the 2016 random sample

Summary: As part of the DC project "Sustainable urban development: municipal environmental management", the FC modules "Waste water and waste disposal in provincial cities, Centre" and "Waste water disposal in provincial cities, North I" comprised the establishment of drainage networks including pumps and treatment plants in the cities of Vinh as well as Bac Ninh and Hai Duong. A landfill was also created in the city of Vinh. The TC modules of the programme were aimed particularly at the performance capacity of disposal companies and the provincial governments as well as at raising the awareness of the population.

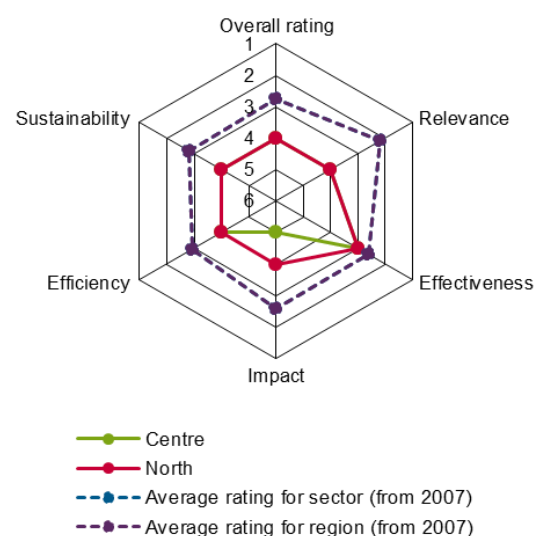
Objectives: The project objective was to ensure a safe and environmentally sound disposal of rainwater and waste water (in Vinh also waste disposal), in line with the economic capacities of the target group (low operating costs). The ultimate objective was to help reduce potential health risks of water-borne diseases, reduce the damage caused by flooding and reduce the negative environmental effects caused by inadequate waste water disposal and unprofessional waste disposal.

Target group: The target group was the project area population living in the cities of Vinh, Bac Ninh and Hai Duong, especially in inner-city districts lacking proper means of disposal.

Overall rating: 4/4 (Centre/North)

Rationale: The projects did achieve improvements to the living standards of the target group. This included, in particular, improved urban drainage networks and waste water drainage, which have reduced flooding in the three urban areas and increased the cleanliness of open inner-city waters. However, the new treatment plants made no relevant contribution to the achievement of objectives as significant parts of the polluting load make their way into the environment through other routes because of the broad use of septic tanks. The environmental impacts of the landfill in Vinh are a problem because of the inadequate leachate treatment and air pollutions from an incineration plant (not part of the project) on the landfill site.

Highlights: Due to the extensive use of septic tanks, which are not emptied on a regulated basis, a significant part of the polluting load is held back at the connected households. What is more, the entry of external water into the waste water network and deposits in the sewer network mean that the waste water is only lightly contaminated when it arrives at the treatment plants. Concepts addressing the treatment of sewage sludge produced in the treatment plants have not been sufficiently implemented.



Rating according to DAC criteria

Overall rating: 4/4 (Centre/North)

Breakdown of total costs

| Costs (in EUR million) | Vinh Waste- water (plan- ned) | Vinh Waste- water (actual) | Vinh Solid waste (planned) | Vinh Solid waste (actual) | Bac Ninh Waste- water (planned) | Bac Ninh Waste- water (actual) | Hai Duong Waste- water (planned) | Hai Duong Waste- water (actual) |
|--|---|-------------------------------------|-------------------------------------|------------------------------------|--|---|--|---|
| 1. Investment costs | 11.4 | 11.9 | 3.0 | 1.8 | 11.5 | 15.1 | 6.0 | 9.2 |
| 1.1 Wastewater and stormwater drains, pump- ing stations | 10.1 | 7.2 | - | - | 9.1 | 11.1 | 5.5 | 7.3 |
| 1.2 Wastewater treatment plant | 1.3 | 4.7 | - | - | 2.4 | 4.0 | 0.5 | 1.9 |
| 1.3 Landfill | - | - | 3.0 | 1.8 | - | - | - | - |
| 2. Additional costs includ- ing consulting services | 1.1 | 2.9 | 0.9 | 1.2 | 4.5 | 3.7 | 2.5 | 2.3 |
| Total costs | 12.5 | 14.8 | 3.9 | 3.0 | 16.0 | 18.8 | 8.5 | 11.5 |

Relevance

Some of the environmental and health risks in the project cities were caused by the regular flooding of urban areas and the highly polluted surface waters in the project cities. In this context, the measures implemented under the wastewater component were suitable for making a relevant contribution to solving the identified problems. At the same time, from today's point of view, reducing the risk of flooding during periods of heavy rainfall in three cities has made a significant contribution to adapting to climate change.

In the past there has been – and there continues to be – a further problem in the unregulated emptying of septic tanks. As a significant share of the polluting load is collected by septic tanks – even in households connected to the sewage network – the environmentally sound emptying of said tanks is an important element of wastewater disposal in these cities; this element has not been addressed by the programmes, however.

The assumption at the time of the appraisal was that the central introduction of collected but untreated wastewater into the respective receiving waters would result in a high environmental impact on these waters as well as corresponding health effects for downstream areas. This problem was not acute, however, thanks to a number of factors, including in particular the aforementioned septic tank issue, but also due to the dilution of wastewater in the sewage networks through external water, with the result that the construction of the three wastewater treatment plants was unable to help resolve the problem in a relevant way.

What is more, in none of the cities were tertiary networks and house connections expanded within the framework of the projects. A problem in this context is that the tertiary networks do not fall within the direct responsibility of the respective wastewater operating companies – it is instead the respective city districts (wards) that are primarily responsible for expansion, operation and maintenance; the funding of the tertiary networks from FC funds was rejected by the partner for legal reasons. The further expansion of tertiary networks and house connections would have contributed to achieving the ultimate objectives, however. This also negatively affects the relevance of the implemented measures.

With regard to waste disposal in Vinh, the primary problem was the lack of suitable treatment or disposal facilities for the waste collected in the city area, because the previously used landfill had reached its capacity limit. Due to the absence of a functional landfill, waste collection in the city area was reduced ac-

cordingly. The newly constructed landfill near Vinh thus represents a suitable solution for the existing problems.

The programmes were integrated into both the national sector strategy and international donor coordination. However, since the measures only addressed part of the core problem and because significant programme components (wastewater treatment plants) contribute only slightly to solving the problem unless further measures are taken, the relevance of both programmes is considered unsatisfactory.

Relevance rating: 4/4 (Centre/North)

Effectiveness

The achievement of the project objectives defined during the project appraisal can be summarised as follows:

Project Centre (Vinh):

| Indicator | Target value | Ex post evaluation |
|---|------------------|---|
| (1) Wastewater treatment plant discharge values ^a BOD5 (mg/l) COD (mg/l) TSS (mg/l) | 50 150 100 | 30.3 55.6 45.0 |
| (1b, new) Pumping stations in operation 24/7 ^b | Yes | Yes |
| (2) Connection rate of households in the project area to the wastewater network | 70% | 71% |
| (2a, new) Coverage of operating costs by tariff revenues (wastewater) | 50% ^c | 37% (2015) 32% (2016 forecast) |
| (3) Volume of waste sent to landfill 1 year after start-up of operation | 60,000 t | 65,000 t currently around 100,000 t p.a. |
| (4) Coverage of operating costs by tariff revenues (waste) | 100% | approx. 27% ^d |

(a) Target values have been adapted to the current Vietnamese limit values (QCVN 40:2011/BTNMT, col. B), which are generally applicable to the discharge of wastewater into public waters. For the purposes of the evaluation it was seen as acceptable to exceed these limits by up to 30% due to the very strict Vietnamese standards.

(b) This indicator was added later, when the wastewater treatment plant was not fed with wastewater temporarily following the start-up of operation due to conflicts regarding responsibilities, and there was no night-time or weekend operation of the pumping stations due to a limited budget, both of which had negative consequences for the operation and effectiveness of the wastewater treatment plant.

(c) The very low target value is derived from the “roadmap” negotiated between the donors and Vietnamese institutions; this is defined on an individual basis for each city with wastewater systems. Regardless of the selected target value, the current cost recovery ratio is not satisfactory. The calculation is based on the operating budget provided to the operator.

(d) Reliable data on the cost structure of waste collection and treatment is not available. The indicated value is an estimate based on the waste disposal budget provided by the municipality.

The original target level for the discharge values of the wastewater treatment plants was set according to the technology used. This appears to be problematic for reasons of consistency and illustrates a conflict of objectives that arises during selection of the appropriate treatment technology in the context of the project cities. On the one hand, the systems should be able to meet the applicable legal limit values as a matter of course, in particular with regard to reliable official approval for operations. On the other hand, there is consensus among the active donor institutions in the sector that the limits in force in Vietnam are exces-

sively restrictive, do not correspond to the stage of development of the country and result in excessive investment and operating costs. From today's point of view at the EPE, the very low pollution load values of the wastewater being introduced into the wastewater treatment plants would justify the choice of simpler technology (as in Hai Duong), even if this does not meet all legal limits, especially as these are subject to frequent changes. This applies in particular if the constructed plants allow for the possibility of later supplementing further treatment stages, as provided for in the design of the Hai Duong wastewater treatment plant.

Therefore, for the purposes of the evaluation, the target level for all three sites will be set in line with the general Vietnamese standard for the discharge of wastewater into public waters; in this context, exceeding the limit values by up to 30% of the legal values will be considered acceptable. This approach allows the very strict Vietnamese standards to be mitigated to some extent.

The achievement of the required discharge values by the wastewater treatment plant in Vinh proves that there is no disproportionate contamination of the receiving waters at the outlet of the wastewater treatment plant (via the Kênh của Bac canal into the river Ca). However, only to a very limited extent is it possible to deduce from this that the disposal of the wastewater in the project area is environmentally sound. Rather, the very low load values measured at the inlet of the wastewater treatment plant (BOD₅ at 64 mg/l) suggest that the bulk of the polluting load does not reach the wastewater network, or at least does not reach the wastewater treatment plant. The widespread use of septic tanks is a significant contributing factor here. A major factor for the achievement of the project objective (environmentally sound wastewater disposal) would therefore be the orderly emptying of septic tanks. This was addressed by the project only to the extent that the wastewater treatment plants were equipped with devices for emptying suction tankers. However, these are not used, or only to a small extent. In addition, there has been no significant expansion of the tertiary network (responsibility of the local partner, expanded by approximately 3% since project completion), with the result that only about half of the total population in Vinh has been connected to the wastewater network up to now¹. Further reasons for the highly diluted wastewater include the back-log of rainwater into the sewage networks depending on the weather, as well as possible deposits in the sewer network due to low gradients and thus greatly reduced flow velocities (especially during the dry season). Accordingly, the targeted water quality **after** treatment has already been achieved at the **inlet** of the wastewater treatment plant (with the exception of filterable substances/TSS: 158 mg/l where the maximum is 130 mg/l).

It is positive to note that there has been a decline in flooding events recorded in all project cities. Although there are no reliable statistical records available, all parties involved agree that the expansion of the drainage systems has led to a large decline in flooding in the city areas. The project's sub-objective of safe, environmentally sound rain water disposal has thus been achieved.

In addition, it can be assumed that the part of the polluting load that reaches the wastewater treatment plant (however small) has to date been directed into the public waters in the project area. Although no reliable measurement data is available for the city of Vinh in this regard, it can be assumed that the quality of the surface waters has at least tended to improve as a result of the decline in raw sewage intake.

The project objective of environmentally sound solid waste disposal is only partly covered by the indicators. The use of the landfill is quantitatively in line with expectations. However, a high amount of heavily polluted leachate is produced, with the lack of cover on the deposited waste resulting in further increases in leachate quantity. Although ground water samples close to the landfill do not show any abnormal values thus far, the level of contamination of the wastewater discharged into a nearby river is too high² due to the inadequate performance of the leachate treatment plant, and thus poses a corresponding environmental and health risk for the river's downstream areas. This affects the targeted positive environmental impact of the new landfill.

¹ The project area is defined as the section of the urban area connected to the primary wastewater system.

² Measured values as per June 2016: COD 900 mg/l, BOD 212 mg/l

Project North (Bac Ninh/Hai Duong):

| Indicator | Target value Bac Ninh | Actual value as at EPE Bac Ninh | Target value Hai Duong | Actual value as at EPE Hai Duong |
|---|---------------------------|---|------------------------------------|----------------------------------|
| (1) Contamination (as measured by BOD5) of open channels and ponds within the city is significantly reduced | - 30% | partially met | - 30% | Achieved |
| (2) Wastewater treatment plant discharge values ^a | | | | |
| BOD5 (mg/l) | 50 | 7.7 | 50 | 68.1 (+36%) |
| COD (mg/l) | 150 | 14.7 | 150 | 105.6 |
| TSS (mg/l) | 100 | 2.7 | 100 | 30.6 |
| (2a, new) Coverage of operating costs by tariff revenues (wastewater) | 80% (2017) 100% (2018) | 52% (2015) Achievement of milestones unrealistic | 70% ^b from 2019 onwards | 45% (2015) |

a) See comments on Vinh project for this indicator above

b) The very low target value for Hai Duong is derived from the "roadmap" negotiated between donors and Vietnamese institutions; this is defined on an individual basis for each city with wastewater systems. Regardless of the selected target value, the current cost recovery ratio is not satisfactory.

Both wastewater treatment plants largely observe the target discharge values. In the case of Hai Duong in particular, where the most heavily polluted wastewater (albeit still at a very low level) among the three sites under review is dealt with using the simplest treatment technology (purely mechanical treatment), all target values are observed, with the exception of a 36% exceedance of the BOD5 limit value, which is not considered a problem.

The statements made about the Vinh site concerning the dilution of the wastewater arriving at the wastewater treatment plant and the alternative disposal of a substantial part of the polluting load (septic tanks) also apply to the Bac Ninh and Hai Duong sites. In these two cities as well, the tertiary networks and house connections have been expanded only slightly (by approximately 4 - 5%) to date, due in particular to the absence of available funds. In Bac Ninh as well as in Hai Duong, the targeted water quality after treatment has already been achieved at the **inlet** of the wastewater treatment plant (with the exception of the BOD5 value in Hai Duong: 105 mg/l instead of 65 mg/l³).

In Bac Ninh the number and intensity of flood events in the city areas has been significantly reduced due to improvements in rain water drainage. According to reports, there was no flooding in the project area in 2014 and there has been none in 2016 (to date), while prior to the execution of the project this area regularly saw floods lasting 12 hours and more. The situation has improved significantly in Hai Duong too, where the city centre was often flooded following rainfall. In 2015, there was just one day of flooding which occurred after extremely heavy rainfall.

The pollution of surface waters was reduced in Bac Ninh, but only in the case of some of the water bodies. As already stated in the context of the final inspection, under certain weather conditions at least, raw sewage seeps into Van Mieu lake as the result of faulty connections; this comes in particular from a near-

³ Legal threshold 50 mg/l x 1.3 = 65 mg/l

by hospital. According to representatives of the provincial government, the hospital effectuates a pre-treatment of this wastewater; however this could not be verified during the inspections, particularly as the hospital is not subject to any external monitoring. In at least one other place (overflow to the planned but not yet constructed Phuc Ninh Lake) it was possible to observe the discharge of raw sewage into an existing pond. The overall impression is that the wastewater and drainage network in Bac Ninh fulfils its purpose only to some extent, though this may also be related to the difficult hydraulic and topographical conditions in the area.

The situation in Hai Duong appears much better, where the significantly reduced contamination of surface waters can be traced using detailed analytic data. The introduction of external water into the sewage system seems to be a lesser factor here, which is in line with the generally higher concentration of wastewater arriving at the wastewater treatment plant.

As a result of the comprehensive Technical Cooperation (TC) measures in institution building, the operator companies are qualified to operate the plants. However, this applies only with restrictions to the wastewater treatment plant operator in Vinh (Infravi) and does not apply to the solid waste component in Vinh (operating company: URENCO), where neither the operational status of the landfill nor the availability of commercial data are satisfactory. The TC measures to support the landfill operator – which were originally to be provided by the Danish International Development Agency (DANIDA) – did not materialise and German TC intervention failed due to a lack of funds. The alternative offer to finance corresponding measures from FC funds was not adopted by the Vietnamese partners to a relevant extent.

The question of operating cost coverage from tariff revenues is discussed in the section “Sustainability”. Since the remaining problems could be eliminated without exception by the introduction of additional measures, the effectiveness of both projects is considered satisfactory.

Effectiveness rating: 3/3 (Centre/North)

Efficiency

Severe delays were encountered in Vinh in relation to the implementation of both the solid waste and wastewater components. A series of factors contributed to these delays. In addition to modifications regarding the development plans of the city, complicated tendering procedures and weak state-owned construction companies, the large number of stakeholders involved also led to delayed decisions and partly uncoordinated building activities. As a result, the project duration was extended from 5.5 years to 10 years, which accordingly delayed the intended effects of the project. Even after the start-up of operation the wastewater treatment plant could not be operated for extended periods, in particular due to conflicts resulting from the division of responsibilities for the wastewater treatment plant and the sewerage network to two different operators. Furthermore, the delays also resulted in higher costs for supervision of works. The total project costs ended up being around 8% over the planned costs.

From the perspective of allocation efficiency, the design of the wastewater treatment plant is also problematic. Although the hydraulic capacity of the plant is appropriate for current and future requirements, the plant’s complex technical design, which includes a biological treatment stage as well as the disinfection of wastewater, has led to correspondingly high investment and operating costs. Even if the biological treatment stage was considered necessary in order to meet the strict Vietnamese standards, this solution cannot be considered efficient in light of the low wastewater concentration.

The solid waste component in Vinh should be regarded as efficient with regard to the investment, especially as the planned costs were undercut by around a quarter due to favourable tendering results, thus providing additional resources for the wastewater component. However, this does not apply to the operation of the landfill. The comparatively unsystematic placement of waste on the landfill and the low degree of waste compaction will result in the landfill area being exhausted long before the landfill’s theoretical capacity is utilised. In addition, some of the waste is incinerated at high cost in an incinerator (operated by a private company at the landfill site, not a project component – see next section). The cost to the city per tonne of incinerated waste is six times the cost of landfilling. This method cannot be justified from an economic point of view.

For largely the same reasons as in the Vinh project, Bac Ninh and Hai Duong experienced significant overruns of the planned implementation period (11 years instead of 5.5), with the result that the project effects were significantly delayed. The total costs increased by 18% (Bac Ninh) and 35% (Hai Duong).

Due to the simpler technical design of the wastewater treatment plants in Bac Ninh and in Hai Duong in particular, the allocation efficiency can be assessed somewhat more favorably than in Vinh; however, the centralised treatment of wastewater can be described as efficient only with restrictions due to the very low wastewater concentrations.

Efficiency rating: 4/4 (Centre/North)

Impact

The reduction in floods in the urban areas and the improved quality of the inner city water bodies are particularly relevant for the achievement of the overall developmental objectives (reduction of health and environmental risks). Both reduce the possibility of those living in the project areas coming into contact with raw sewage. The environmental risks, however, are reduced only to some extent. Due to the unregulated and uncontrolled emptying of septic tanks, a large part of the polluting load is disposed of outside of the wastewater system, presumably endangering ground water and agriculture. This results in the partial 're-location' of the problem.

The environmental effects of the waste component in Vinh were also critically examined. In addition to failures within the context of the newly constructed landfill site (lack of water supply, problematic hygiene conditions for landfill workers as a result and dysfunctional tyre cleaning equipment for delivering trucks), the inadequate treatment capacity of the leachate treatment plant should also be noted. The inadequate treatment of the leachate leads to heavily contaminated wastewater being discharged into open streams, with a corresponding risk to local residents, agriculture and fish farming. What is more, the wastewater treatment plant was temporarily flooded by leachate during the implementation phase, as concerned residents had blocked the leachate discharge, which at that time fed directly into an agricultural irrigation canal.

In addition, the privately operated incinerator installed at the landfill site should be viewed critically. Although this did not form part of the project, it must be assumed that the technology used – which does not ensure adequate treatment of fumes – represents a significant impairment in terms of the intended environmental impact of the project as well as a considerable health risk for the employees at the landfill site.

From today's point of view, the treatment of the sewage sludge produced in wastewater treatment plants also presents a problem. Although disposal concepts were drawn up, these have not been implemented properly. To date, the sludge that has accumulated has been brought to landfills, but these do not have adequate, safe storage capacities. In Bac Ninh, sewage sludge is currently stored next to the landfill site lacking any ground sealing or cover. This inevitably results in pollutants finding their way into the soil.

Although it has been possible to reduce the health risks for the urban population, it should be noted that a significant portion of the polluting load is discharged uncontrolled into nature along with sewage sludge as the result of incorrect disposal, or fails to even reach the wastewater treatment plants due to the unregulated emptying of septic tanks. The impact is therefore assessed as inadequate/unsatisfactory.

Impact rating: 5/4 (Centre/North)

Sustainability

The aforementioned negative environmental impacts also affect the sustainability of both projects.

Furthermore, the sustainability of the investments made depends on the adequate maintenance of the facilities and, in the case of the landfill in Vinh, on the planned and efficient use of the existing landfill site. From today's perspective, the operation is unsustainable due to the lack of waste compaction and the poorly planned placement of the delivered waste, both of which will result in the premature exhaustion of landfill areas.

The operators of the wastewater plants receive an operating budget from each province. According to the operators, only at the Bac Ninh site is this budget sufficient for the proper operation and adequate maintenance.

nance of the entire plant. Due to the tight budgets in Vinh as well as in Hai Duong, maintenance and cleaning works have to be postponed until acute problems arise, particularly when it comes to the drainage systems. As a result of the corresponding increase in blockages, the performance of the sewage networks as well as the capacity of the drainage systems will be reduced over the course of time, meaning that new floodings cannot be ruled out in the foreseeable future. According to the figures provided, the operators in Vinh and Hai Duong receive only 85% and 70% respectively of the resources they need for all operating and maintenance work.

The wastewater tariffs in Vietnam are very low, even when measured against the disposable income of the population. For example, the charges for wastewater treatment correspond to between 0.02% (Hai Duong) and 0.08% (Bac Ninh) of the average household income. Even when expenditure for drinking water is added, this figure is still below 1%. Therefore, even a significant increase in tariffs would be far from being financially challenging for the users.

Furthermore, the low tariffs result in the low coverage of operating and maintenance costs from tariff revenues. With the support of TC, the provincial governments have adopted a tariff schedule to recover operating and maintenance costs in the affected cities. In accordance with this schedule, 100% of the operating and maintenance costs for a whole city area will be recovered from tariffs by the year 2018 in the case of Bac Ninh, and by the year 2020 in the case of Vinh. In Hai Duong, 50% of operating and maintenance costs will be covered by wastewater tariffs by the year 2017 and 100% by the year 2021. This means there is a chance that the current financial burden on the budgets of the three cities as a result of the operating and maintenance costs in the disposal facilities will decrease. The financing of reinvestments or major repairs from tariff revenues does not appear to be realistic, however, even in the long-term.

From today's perspective, we rate the sustainability of the project as unsatisfactory.

Sustainability rating: 4/4 (Centre/North)

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 development effectiveness. 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 development effectiveness of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The development effectiveness 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 development effectiveness 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 development effectiveness.

Sustainability level 4 (inadequate sustainability): The development effectiveness 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 development goal (“impact”) **and** the sustainability are rated at least “satisfactory” (level 3).