Ex post evaluation – Costa Rica

Sector: Formal sector financial intermediaries (CRS code 24030)
Project: Costa Rica: SME Environmental Credit Line via BNCR I + II
BMZ No. 2004 65 419 (Environmental credit line via BNCR I)*
BMZ No. 2006 66 206 (Environmental credit line via BNCR II)
BMZ No. 1984 70 098 (CM Study and Expert Fund I)
BMZ No. 1987 70 315 (CM Study and Expert Fund II)
Implementing agency: Banco Nacional de Costa Rica (BNCR)

Ex post evaluation report: 2018

EUR million	Phase I (Planned)	Phase I (Actual)	Phase II (Planned)	Phase II (Actual)	CM (Planned)	CM (Actual)
Investment costs	18.00	18.00	18.00	18.00	0.97	0.97
Counterpart contribution	3.00	3.00	3.00	3.00	0.00	0.00
Financing	15.00	15.00	15.00	15.00	0.97	0.97
of which BMZ budget funds	15.00	15.00	15.00	15.00	0.97	0.97

*) Random sample 2017

Summary: By refinancing environmental investment loans, the FC programme helped to reduce the environmental pollution caused by SMEs in Costa Rica. Furthermore, it was to expand the financial sector by establishing long-term lending for financing environmental investments through selected financial intermediaries. In addition to the investment funds, a consultancy component for SMEs was carried out, too.

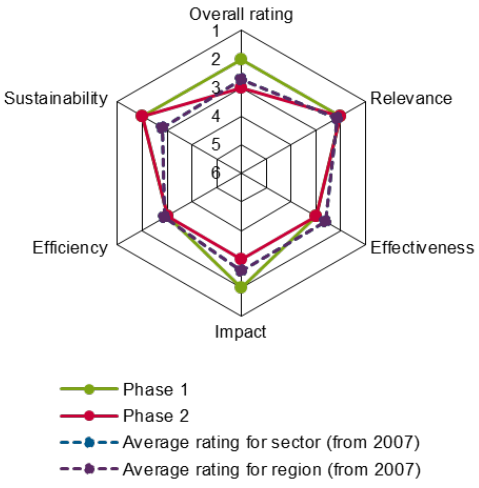
Objectives: Programme objective: contribute to reducing environmental pollution caused by SMEs and expanding the financial system (impact). Module objective: need-based and efficient allocation of long-term loans to SMEs in the industrial and service sectors in order to finance effective environmental protection investments (outcome).

Target group: SMEs in the industrial and service sectors, including tourism.

Overall rating: 2/3 (Phase 1/2)

Rationale: The projects are in line with the priorities of the Costa Rican government in terms of promoting SMEs, protecting the environment and reducing greenhouse gases. Improving access to financial services is also a priority for Costa Rican SMEs. Almost all of the project objectives were achieved, but the expected environmental impacts were only partially reached. In addition, an eight-year delay in the project impacted on efficiency. The developmental impacts are visible both in the financial system and at companies, and are likely to be sustainable in the long term, but their effect on the environment is limited.

Highlights: Although the positive impacts of the project in relation to reducing environmental pollutants and/or reducing the consumption of resources are not clearly quantifiable, the evaluation shows notable impacts at the micro-level and in terms of promoting innovation. Nevertheless, the evaluated projects clearly show that there is a trade-off between ambitious requirements for the environmental impacts of the individual measures on the one hand, and a rapid outflow of funds on the other.



Rating according to DAC criteria

Overall rating: 2/3 (Phase 1/2)

Ratings:

Relevance	2/2
Effectiveness	3/3
Efficiency	3/3
Impact	2/3
Sustainability	2/2

General conditions and classification of the project

The project was planned back in 2004 (phase 1) and 2006 (phase 2). However, due to the lengthy process for ratifying the intergovernmental agreement through the Costa Rican parliament, the loan agreement could not be signed until November 2011, and the Special Agreements until October 2013. The first promotional measures were therefore funded from December 2011 onwards. The tender for the consultancy fund was closed relatively late (December 2014), with the result that the consulting activities could not be implemented until the beginning of 2015. Due to these unforeseen delays, both the line of credit and the consultancy fund could only be implemented with a delay and under considerable time pressure.

Relevance

Costa Rica is characterised by decades of continuous growth in its economic performance. Per capita gross domestic product has tripled since 1960, while economic growth averaged 4.5% p.a. between 2000 and 2013 and was thus higher than the regional average of 3.8%. A slight slowdown in growth from 4.7% to 3.9% p.a. has been recorded since 2015, and a further small decline to 3.6% is expected for 2018. Despite the solid growth of recent decades, Costa Rica is facing the challenges of a steadily growing budget deficit and increasing inequality. There is also a need to ensure that growth is environmentally sustainable.

The thematic areas of “Environmental Protection and Spatial Planning” and “Competitiveness and Innovation” represented two of the four pillars of Costa Rica’s 2010 National Development Plan (2011–2014). The Costa Rican government’s most recent development plan (2015–2018) is based on the three pillars of “Growth and Employment”, “Reducing Inequality and Poverty” and “Fighting Corruption”. Environmental protection also plays a prominent role in this plan, as evidenced by the formulation of ambitious indicators in areas such as energy efficiency and forest conservation. In addition to this, Costa Rica has set itself the goal of becoming a “zero-emission country” by 2021 and developing a corresponding strategy (Carbon Zero Strategy). Although it is unlikely that this goal will be achieved, the underlying objective has provided a guide for current and future policy in the country. In September 2016, Costa Rica became the first country in the world to sign a “national pact”, which serves as a roadmap for achieving the Sustainable Development Goals (SDGs). The President of Costa Rica, Carlos Alvarado, who was newly elected in April 2018, also set out targets and measures for SME promotion and for sustainable and low-emission development in the country as part of his election campaign.

The concept for the line of credit was based on the impact hypothesis that making the loan available to the BNCR and a commercial bank would enable them to extend long-term loans efficiently and to meet the needs of SMEs in the industrial and service sectors, thereby financing effective environmental investments. On the one hand, this would contribute to the expansion of the financial system; at the same time, the provision of financial resources would encourage Costa Rican companies to invest more in environmentally and resource-efficient technologies. Such investment would then bring about a reduction in resource consumption and environmental pollution, as well as a decline in greenhouse gas emissions. However, the lack of enforcement meant that there was little regulatory pressure on companies to invest in environmental technologies. The main reasons for investing were the competitive advantages and the

high levels of environmental awareness among many entrepreneurs in the country. On the other hand, the company visits clearly confirmed that access to credit met a fundamental need of the companies. This access was made somewhat more difficult by the fact that corresponding capital goods (such as solar panels) were not accepted as collateral, however. At the same time, the evaluation did not show that the investments made could not have been financed through a standard bank loan, which adversely affects the additionality of the project approach. The evaluation allowed the impact hypotheses used in the appraisal to be confirmed in full for the financial sector, and in part for the environmental aspect.

From today's perspective, the projects are still in line with the priorities of the Costa Rican government in terms of promoting SMEs, protecting the environment and reducing greenhouse gases. Improving access to financial services is also a priority for Costa Rican SMEs. In addition, Costa Rican companies have recognised the potential to save costs through green investment, thereby improving both their competitiveness and their image. Finally, the project takes into account the priorities of German FC in matters of climate change and environmental protection, and promises to contribute to the achievement of several SDGs. The relevance of the projects is rated as good.

Relevance rating: 2 (both projects)

Effectiveness

The module objective (outcome) for both projects was the need-based and efficient allocation of long-term loans to SMEs in the industrial and service sectors in order to finance effective environmental protection investments. The module objective also appears appropriate from today's perspective.

To measure the achievement of the module objective, three indicators were defined which appear appropriate from today's perspective. The measured parameters for these three original indicators relate to the lending activity itself and thus to the expansion of the financial system. To obtain an assessment of the environmental impact of the line of credit, a fourth indicator was added as part of the preparation for the evaluation.

The attainment of the project objective defined at the project appraisal can be summarised as follows:

Indicator	PA target value	Ex post evaluation
(1) Minimum of 100 funded environmental loans	100	370 Indicator fulfilled
(2) No more than 7% of the funded sub-loans are in arrears (SUGEF criteria "D" or "E") at any point in the programme[1]	Yes	Yes Indicator fulfilled
(3) Maximum credit processing period of the BNCR of 7 working days for forwarding the FC funds to financial intermediaries	Yes	Yes Indicator fulfilled
(4) 80% of projects financed by the line of credit reduce environmental impact and/or resource consumption.	Indicator 4 was added for the EPE to obtain an assessment of the environmental impact of the line of credit.	Positive environmental effects were identified for the majority of companies visited during the evaluation. However, the strong focus at the time of the appraisal on urban-industrial environmental protection and companies with a particularly large environ-

[1] SUGEF: Superintendencia General de Entidades Financieras, Costa Rican Financial Supervisory Authority

		mental footprint was not maintained during the implementation. Indicator partially fulfilled

However, the strong focus at the time of the appraisal on urban-industrial environmental protection and companies with a particularly large environmental footprint was not maintained during the implementation. In total, 370 investments were funded through the line of credit (both projects). Indicator 1 is thus 370% fulfilled, which is reflected in correspondingly smaller investments. Indicators 2 and 3 were used to measure compliance with the institutional objectives of the financial intermediaries (SUGEF criteria, maximum deadline for the transfer of funds). Indicator 2 also provides information on the extent to which competitive companies receive financing. According to the FI, both indicators were easily achieved.

No indicator was formulated for the consultancy fund (Fondo de Asistencia Técnica – FAT) during the PA. However, in the performance specification for executing the consultancy component it was agreed that the FAT consultants would provide 100 short or extended management consultancies. This agreement was respected, but no consultancy services were carried out for the companies participating in the KfW programme owing to the delay in the tender procedure for hiring the consultant consortium.

Although an environmental impact assessment of the project was planned from the outset, this ended up being more complicated than expected, mainly due to the lack of a baseline for environmental pollution or the consumption of resources. In a short study conducted by the FAT consortium, a sample of 23 companies was analysed in relation to their environmental impact. The study revealed that negative environmental impacts were reduced in all companies participating in the programme. From the evaluation point of view, this conclusion is not detailed enough – especially since at the time of the study it would have been possible to collect such data and to make more detailed statements on the reduction of pollutants achieved. This shortcoming in terms of impact measurement could not be remedied during the evaluation due to the limited availability of funds. During the company visits carried out as part of the evaluation, however, it was possible to gain an impression of the extent to which the individual investments brought about positive environmental effects. The investments can roughly be divided into two types: a) investment in measures with a direct positive impact on the environment, e.g. in renewable energies, energy efficiency measures or recycling activities, and b) investment to support companies in the environmental sector, e.g. market development of biological repellents.

Following a corresponding change in the funding regulations, a significant portion (USD 16.5 million, 41%) of the tranche B funds was used for the modernisation of bus fleets. On the one hand, the use of funds for energy-efficient and low-emission means of transport was a requirement of the private bank for its participation in the FC project. On the other, this focus allowed the funds to be drained very quickly and before the end of the project. The environmental impact of the modernised buses has not been documented, however, and can only be estimated retrospectively with difficulty (see section entitled “Impact”).

The company visits carried out as part of the evaluation have shown, however, that the positive environmental effects are not always directly visible. The investments financed by the programme recorded predominantly positive economic effects; while ecological effects were achieved, in some cases these played only a minor role in the investment decision. This is also attributable to the fact that the selection of investments was based on a white list (lista positiva) defined by KfW, in which the selection criteria were very broad and the relation to environmental effects could not always be deduced directly.

The indicator for measuring the reduction of environmental impact, developed as part of the evaluation, is therefore only partially fulfilled from the point of view of the evaluation. Stricter criteria for defining eligible investments could have increased the environmental focus of the project, but most likely at the expense of the demand for funds.

The three indicators originally formulated were met in full, but these only related to the “lending” dimension. The other significant impact dimension is represented by the additional indicator added later, which was only partially fulfilled. The effectiveness of the project is therefore assessed as satisfactory.

Effectiveness rating: 3 (both projects)

Efficiency

For economic reasons, the investments were made by the companies under the best market conditions. The reduction in the interest rate associated with the line of credit was reported to customers by the partner banks. The investments appear appropriate from a microeconomic point of view.

The complementary measure involved additional costs of around EUR 1 million. The funds were used to advise 100 Costa Rican companies on environmental technologies. In addition, eleven workshops with a total of 247 participants were organised in 2015 as part of the CM for training managers at national level. In 2016, a further ten workshops on environmental management and the promotion of consultancy services took place with a total of 350 participants. Although the consortium mandated with implementing the CM did not start its work until the majority of investments had already been made, due to the significant delays in tendering and signing the consultancy contract, it was able to carry out the activities defined in the performance specification in an efficient and targeted manner. The BNCR contributed USD 216,648 of its own funds as agreed, thus meeting its obligation to fund 15% of the total FAT budget.

The funds made available under the line of credit were fully implemented by the BNCR and the private bank participating in the project. It is noteworthy that the private bank succeeded in disbursing tranche B (representing 63% of the total funds) within a year, although it did not join the programme until March 2016. The budget for the FAT, which was only controlled by the BNCR, was also disbursed in full for feasibility studies, workshops, promotional materials and training events.

During the company visits carried out as part of the evaluation, all of the entrepreneurs and managers interviewed confirmed that they had been granted the loan from their respective financial institution on the basis of their good, long-standing and trusting relationship. The companies were unaware of the fact that they had benefited from the FC-financed programme by receiving a lower interest rate. Also thanks to the strong fluctuations in interest rates, it could not be determined during the course of the evaluation whether the ultimate borrowers received more favourable interest rates by participating in the project.

In particular, the company visits revealed that the environmental line of credit promoted very sensible and, in some cases, innovative investments. One good example of this is the production of natural and biodegradable detergents and repellents for flies and mosquitos by a Costa Rican company, which has received several awards and is now exporting to 8 Central American countries. It can thus be concluded that windfall effects did not adversely affect the project, or at least were limited. The eight-year delay between planning and implementing the project as well as the late start of the consultancy component did, however, lead to efficiency losses. The FAT consultancy services in particular could not be aligned with the investments financed by the project.

The efficiency of the project is assessed as satisfactory.

Efficiency rating: 3 (both projects)

Impact

In line with the project design at the time of the project appraisal, the aim (impact) of the project was to contribute to reducing the environmental impact of SMEs and to expanding the financial system by establishing long-term lending for financing environmental investments through selected financial intermediaries. The anticipated overall impact therefore comprised the two dimensions of “environmental protection” and “financial system development”.

To measure the achievement of the programme objectives, it was agreed during the PA that a retrospective impact analysis based on a sizeable random sample of the ultimate borrowers in the programme would be used to investigate the reduction in environmental impact or in the consumption of resources achieved by the investments. As already stated in the “Effectiveness” section, a short study was carried out as part of the complementary measure which certified that the project had positive environmental effects. However, this study offered limited informational value in terms of determining the quantifiable environmental impacts. Company visits conducted during the mission confirmed that the negative environmental impacts of the companies were reduced in many cases. At most of the companies visited during the evaluation, however, the relevant investments had primarily been made for economic reasons.

The environmental impact of the investments in lower-emission buses (Euro 3), which were subsidised as part of the FC measure, depends on both the action alternatives offered to the borrowers and on the intended use assigned to the buses which were taken out of service. While the Euro 3 standard is not mandatory for the registration of buses in Costa Rica, it can be assumed that replacement investments in modern, lower-emission and more fuel-efficient buses would have taken place sooner or later, but the availability of credit may have made it appealing to bring the replacement investment forward.

According to statements made by the borrowers interviewed during the evaluation, the old buses were either scrapped or used for spare parts. In other cases, however, the buses were sold on for use as school or university buses. In the case of such sales, the old buses are still in operation, but on much shorter routes over much smaller distances. A positive but limited environmental impact can therefore be deduced overall.

The impacts of the project at the micro-economic level are considered to be very positive. The entrepreneurs visited confirmed that the programme closed financial gaps and allowed them to continue or expand their business. What is more, the evaluation indicated that the project often promoted innovative companies or the introduction of modern technologies, and that the effects on innovation – for example through the development of new environmentally friendly products – were also positive.

No indicators or agreements have been formulated to measure the impacts on “financial system development”. From the results of the discussions with the partners and companies, we can conclude that the partner banks participating in the project have now developed their own lines of credit based on the experience gained from the project. For example, investments were promoted by the banks that were identified in the energy and environmental audits conducted by the FAT but could not be funded through the project. The project has thus clearly contributed to the expansion of the financial system. The survey of the financial intermediaries involved in the project, which was conducted during the evaluation, showed that these now have improved skills in relation to the design of environmental lines of credit. The consultancy component of the complementary measure was of particular relevance in this context.

According to statements from the partner banks, the project had no exclusion or crowding out effect on other private banks.

Although the positive impacts of the project in relation to reducing environmental pollutants and/or reducing the consumption of resources are not clearly quantifiable, the evaluation shows notable impacts at the micro-level and in terms of promoting innovation. In addition, the project has contributed to expanding the financial system.

The overall impact of the project is therefore considered positive and is assessed as good (phase 1) and satisfactory (phase 2 due to the limited environmental impact of the bus purchases).

Impact rating: 2 (Phase 1), 3 (Phase 2)

Sustainability

To assess the sustainability of the environmental line of credit, several evaluation dimensions must be taken into account. On the one hand, the effects on the financial system brought about by the project must be assessed with regard to their sustainability. On the other hand, it is important to analyze and assess the sustainability of the financed investments in the companies and the effects which go beyond the individual companies. In addition, the complementary measure must be assessed in terms of the sustainability of its effects.

The financial intermediaries involved in the project confirmed that they are now better placed to set up and manage environmental lines of credit that meet the needs of companies. New environmental lines of credit have already been set up by the FI (e.g. Crédito Verde). The environmental line of credit financed through the KfW programme provided an important learning experience for these institutions.

During the company visits, it was found that the investments had improved the essential core processes of the companies; the associated effects of these changes continue to this day. The survival rate of the companies is very high.

In addition, the project-executing agency and the private bank which participated in the project have written up the positive results of the investments financed through the environmental line of credit and made these available to other companies.

The effects for the financial system and for the companies are likely to be long-term. The complementary measure is also considered exemplary. No notable risks which could jeopardize these effects have been identified. The project's sustainability is rated as good.

Sustainability rating: 2 (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).