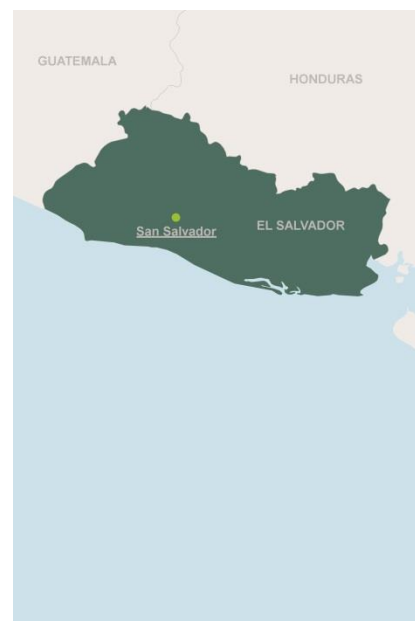


Ex post evaluation – El Salvador

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Sector: Sustainable economic development - Sub-sector Environmental finance (CRS Code: 410100 Environmental policy and administrative management)
Programme/Project: Credit programme for Environment and Renewable Energies, BMZ No.: 2008 65 451 (Inv.)* and BMZ No.: 1997 70 280 (AM)*
Implementing agency: Banco de Desarrollo de El Salvador (BANDESAL)



Ex post evaluation report: 2016

		Project (Planned)	Project (Actual)	AM (Planned)	AM (Actual)
Investment costs (total)	EUR million	24.40	24.40	0.62	0.67
Counterpart contribution	EUR million	4.90	4.90	0.02	0.02
Funding	EUR million	19.50	19.50	0.60	0.65

*) Random sample 2015

Summary: The FC measure comprised an FC development loan (reduced-interest loan) financed using funds of the special "Climate and Environmental Protection Initiative" facility (IKLU) to the national development bank of El Salvador "Banco de Desarrollo de El Salvador" (BANDESAL) amounting to EUR 19.5 million. This was to provide long-term loans to fund environmental investments, especially by small and medium-sized enterprises (SMEs) (Component 1) and to fund small renewable energy projects (Component 2). Additionally, advisory services of EUR 0.65 million were financed to prepare for projects and to provide consulting and information to participating commercial banks and companies. The consulting services were implemented by the "Fondo de Asistencia Técnica". This project constitutes the second line of environmental credit to BANDESAL.

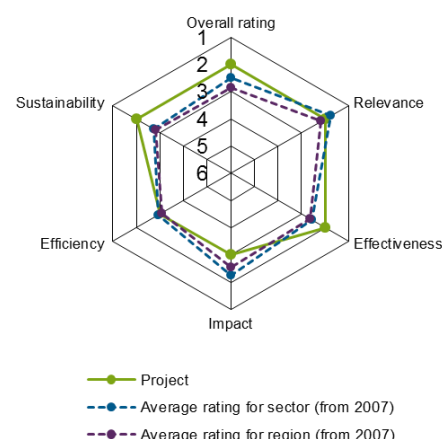
Objectives: The ultimate development objective (impact) of the project was to contribute towards environmental protection, reducing environmental pollution and the more efficient use of natural resources by companies. The project aim of the FC measure focused on the efficient disbursement of needs-based, long-term loans to fund environmental investments, especially by SMEs, and to fund small projects in the field of renewable energies.

Target group: The target group of Component 1 is SMEs, particularly in industry, whose production processes have negative environmental effects. In individual cases in manufacturing and the transport sector, larger national companies were also to have access to the line of credit. The target group for Component 2 is national private energy firms.

Overall rating: 2

Rationale: The project recognises the lack of long-term funding for environmental investments as a constraint. The programme objectives were largely achieved and can be considered appropriate from today's perspective too. The studies funded as part of the accompanying measure largely contributed towards the successful implementation of the project. The efficiency of the project, measured in terms of the impacts achieved in relation to the associated costs, varies by sector. The best impacts were achieved with environmental protection investments in the manufacturing sector. The transport sector accounts for a large part of the overall investments, and benefits particularly from the access to funding that this line of credit has allowed; however, there are efficiency-related weaknesses in the transport sector. Overall, the line of credit was implemented efficiently by BANDESAL and the commercial banks.

Highlights: Awareness of the need to save resources and interest in environmental investments in El Salvador have developed positively since the start of the project. The successful implementation of the credit line was ensured not least by the commitment of BANDESAL.



Rating according to DAC criteria

Overall rating: 2

Relevance

El Salvador is facing serious environmental pollution: severe surface water pollution, air pollution caused by the heavy traffic in major cities, and waste disposal continue to pose major challenges for the country. In this context, the lack of long-term financing options for environmental investments in small and medium enterprises (SMEs) was recognised as a bottleneck and confirmed during the evaluation. On the whole, environmental financing is a relatively new topic in El Salvador, though the concept is increasingly gaining in importance.

The structure of the loans is suited to promoting investments related to the environment and renewable energies. Since 2012, credit has been granted not only via one of the participating commercial banks, but also via BANDESAL's newly founded "Fondo de Desarrollo Económico". The studies for ultimate borrowers funded by means of the "Fondo Asistencia Técnica" (FAT) continue to represent a key element of the programme, intended to ensure the high quality of projects particularly in relation to new technologies.

The project is integrated into the strategies of the partner country in a coherent way, although there are still gaps in their implementation as the result of the limited decision-making authority and personnel shortages in the Ministry for the Environment. The project's focus on the environment and renewable energies is also in keeping with the strategies and priorities of German development cooperation. There are synergies with the Gesellschaft für Internationale Zusammenarbeit (GIZ) in particular: GIZ supports the institutions performing the studies throughout project evaluation and is working with BANDESAL on a tool for profitability analyses of energy projects. The project is also in line with the financial system development sector concept of the Federal Ministry for Economic Cooperation and Development (BMZ).

From today's perspective, the project is relevant. As a result of the improving framework conditions – particularly in the case of renewable energies – increased demand for these environmental loans can be expected in a follow-up phase. The demand for environmental loans, however – and thus also the relevance of the project – is limited by the lack of state enforcement of applicable environmental laws. Moreover, this lack of enforcement also contributes to environmental protection being afforded a lower priority by the public.

Relevance rating: 2

Effectiveness

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

Indicator	Status PA	Ex post evaluation
(1) A minimum of two renewable energy projects and at least 200 company investments are financed under the programme.	2 or 200	Achieved: 2 "real" renewable energy projects, however, at least part of the investment was used for renewable energies in a total of 11 projects. Over 200 company investments.
(2) The average interest rate of the programme loans is lower than the Salvadorian market interest rate for SME loans.	At least 0.5 % below the market interest rate.	Achieved.

(3) In at least 30 % of the studies financed by means of the FAT, the granting of relevant programme loans results in the investment suggested in the study.	30 %	Not achieved: 28.8 %.*
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* This figure is taken from the evaluation study prepared by external consultants

The first two indicators relate to the successful and efficient supply of the financial product on the market and are well-suited to assessing the operational aspects of lending. The affordable programme interest rate was perceived by investors as an incentive to undertake investments in the area of the environment, which otherwise would not have occurred or would only have been undertaken later. Both indicators were fully met. The benefits of the affordable funding were, to a significant extent, passed on to the ultimate customers. According to a BANDESAL study, the commercial banks adhered to the proposed interest margin of 400 basis points in 90 % of cases; this difference was even narrower in 5 % of cases, and was larger than proposed in just 5 % of cases. The margin being above the proposal applies in particular to the relatively small-scale yet high-risk transport sector.

The technical complexity, the regulatory framework conditions and the lack of expertise in terms of renewable energy projects posed a challenge for both the ultimate borrowers and the commercial banks (assessment of risks, etc.) and contributed significantly to the low number of funded projects in this area.

The studies funded from the FAT made an essential contribution to reducing the technical risk. Five institutions were accredited by BANDESAL to perform the studies. Samples have revealed a notable variation in terms of the quality of these studies, ranging from very good to an unsatisfactory rating.

The third indicator relating to the FAT is well-suited in principle to assessing the effectiveness of the accompanying measure; the indicator was set very low, however, with a target value of 30 %, and was narrowly missed in the implementation. Reasons for this include the design of the credit process and the market situation, to name but a few. As anticipated, some of the ultimate borrowers chose not to invest at this time in light of the necessary measures and costs. This does not necessarily need to be assessed negatively it can also underpin the usefulness of these studies. Further explanations for this include the ultimate borrowers funding from their own resources, errors in loan applications on the part of the borrower, and cases in which the commercial banks preferred to finance customers using their own resources (faster procedure than via BANDESAL). This was the case particularly when it came to attractive customers from which the banks expected follow-on investments. The concept for the financing of preparatory studies by means of the FAT was already optimised in the subsequent phase of the programme (loan agreement signed in December 2015).

The advertising measures for the line of credit also financed by the FAT accelerated the flow of funds, particularly in the second half of the project period. The sample showed a direct link between advertising measures and lending.

The second loan to BANDESAL, evaluated here, was able to help significantly boost awareness of the necessity and economical aspects of environmental investments and renewable energies. Despite a low proportion of FAT-initiated projects, the effectiveness of the measure can be rated as good.

Effectiveness rating: 2

Efficiency

The line of credit was implemented efficiently by BANDESAL and the commercial banks; the quality of the loan portfolio is also deemed to be satisfactory. This is also reflected in the high levels of satisfaction amongst ultimate customers. The types of product offered and their conditions meet the needs of the target group. The subsidising of loans seems appropriate particularly in relation to purely environmental measures. This holds true with some reservations for the transport sector, where the subsidies in many cases have no or only a very small environmental impact. In some cases, the subsidisation and access to financing had an environmental impact insofar as new buses were purchased instead of keeping older

buses in the company or on the system for longer. The process for commissioning FAT-funded studies shows weaknesses in the assessment of the potential borrowers' risk category, with the result that some customers were not offered credit upon successful completion of the study.

The relationship between achieved impacts and associated costs varies between as well as within the various sectors. The best impacts in relation to the use of funds (allocation efficiency) were achieved in downstream investments, such as the flue gas cleaning system installed in the La Magdalena sugar factory that was visited, for which all values were well below the statutory limit values. Even in the case of investments in milk processing establishments it was possible to determine highly positive impacts in relation to costs in some cases. The efficiency of measures for the energy efficiency of machinery was significantly lower, as these were often accompanied by considerable capacity increases. Windfall profits also occur sporadically with these capacity increases. Although the sample in the transport sector showed huge improvements in terms of fuel efficiency, the investments often also included the expansion of the transport company's route network. On a positive note for the transport sector, however, it should be noted that entrepreneurs in that sector often have difficulty obtaining funding at all through the banking sector to replace outdated buses. Scrapping older buses is theoretically obligatory, but relevant control and implementing bodies are lacking.

Efficiency rating: 3

Impact

The mission visits and interviews were carried out on the basis of a self-selected sample from twelve companies (ten visits and two phone calls) from the total of 220 credits in the line. This sample was supplemented by the results of an impact assessment¹ prepared by consultants and by a BANDESAL² evaluation report. If we consider the total of 198 commissioned studies plus the 151 projects in the transport sector (only one company in this sector commissioned a study), we have an almost complete picture of the credit line's impact.

Indicator	Status PA	Ex post evaluation
(1) The financed environmental investments led to a significant reduction in resource consumption and in the environmental pollution caused by the participating companies.	Significant reduction.	Achieved. However, the composition of the portfolio differs from the composition assumed at appraisal (see below).
(2) Each year, the financed investments avoid more than 14,000 tonnes of CO ₂ emissions from the use of fossil fuels.	14,000 CO ₂ p.a.	Achieved: the figures for tonnes of CO ₂ emissions saved comes primarily from the conducted studies; on this basis, the objective has been surpassed. Please see the explanatory notes on portfolio composition in the text below.
(3) NEW: The proportion of environmental loans in the bank's overall portfolio continues to grow after full disbursement.	n.a.	Achieved.

¹ Informe Final para la Evaluación y Medición de Impacto Ambiental, Económico y Social; October 2014.

² Informe Final, February 2014.

The overarching developmental objectives have been achieved. However, the reduction in resource consumption and in environmental pollution varies greatly depending on the sector. One drawback though is that while the impacts actually achieved through CO₂ avoidance surpass the indicator, this has a different profile than was anticipated in the programme proposal. Demand for the subsidised environmental loans was focused in the transport sector and in manufacturing. The still incomplete regulatory framework for renewable energies as well as the complex approval procedures had a limiting effect on the size and number of financed photovoltaic projects and hydroelectric power plants, with the result that fewer projects were funded than had been anticipated. A 92 kWp photovoltaic system and a 350 MW biogas plant are two of the small number of projects financed in the area of renewable energies. As envisaged in the programme proposal, this situation also led to a very high proportion within the transport sector, as measured by funding volume and number of individual loans. In the transport sector projects it was not always possible to achieve the intended impacts. In some projects, the newly purchased vehicles were not used to replace older vehicles in an effort to reduce pollution, and were instead used to establish new transport lines. Within the transport sector projects (approximately 50 % of total funding), the evaluation mission estimates the share of projects with little or no environmental impact at 50 % based on the interviews conducted, various discussions and the experience of the consultants who performed the Banco de Desarrollo de El Salvador (BANDESAL) evaluation study. This fact should be taken into consideration in a follow-up project and, for example, an appropriate filter should be introduced by the commercial banks as early as at the project appraisal. In terms of this result it should be noted that the positive list defined for the selection of investments sets few quantitative objectives or guidelines in respect of environmental impact or reductions within the meaning of the above-mentioned indicators. The list defines investments with a positive environmental impact in certain sectors, such as the replacement of machines with more energy-efficient machinery, the reduction of pollution in the workplace or the use of innovative processes and products with significant resource savings. No minimum quantity for resource savings and emission reductions is defined in this context. In the transport sector, criteria are defined for the purchase of a vehicle. These include the maximum age for used cars, adherence to emissions regulations and the minimum capacity of the vehicles. Thanks to the variety of possible investments, the projects bring about a wide range of positive environmental impacts.

Relative to the total investment sum, the environmental impact was low in some industrial companies. In these cases, however, significant positive impacts were also generated in terms of strengthening the company's economic performance capacity. The securing of jobs also ultimately contributes to the developmental objective of poverty reduction. Moreover, the projects have been imitated by individual investors. The aforementioned biogas plant, for example, is being used as a model; four more potential investors in biogas projects are currently awaiting the commissioning and expected success of the plant. This development was supported by parallel marketing activities within the framework of the accompanying measure. Finally, this impact also contributes to improved environmental awareness among the population.

Impact rating: 3

Sustainability

The sustainability of the programme in terms of lasting positive impacts relates both to the financial sector as well as to the individual environmental and energy projects. The sustainability of the investments was ensured by profitability appraisals on the part of BANDESAL and by studies financed through the FAT. The companies visited in the context of the sampling indicated the sustainability of the investment in both financial and technical terms. The investments very often contributed to the diversification of the companies' production lines. It can be assumed that the companies will continue to exist on the market in the future. The sustainability of the line of credit is secured by the continuation and expansion of the environmental business of BANDESAL and the commercial banks. The subsidisation of these loans can only be ensured by means of further external funds, from international financial institutions for example. However, the already approved third phase of the FC credit programme, the activities of other players in the area of renewable energies and environmental investments, and the commitment of local commercial banks, promise the long-term continuation of the programme. The subsidisation of loans in the field of the environment and renewable energies continues to be necessary at this time, especially when it comes to purely environmental investments. Environmental protection measures which are not integrated into pro-

duction, such as the use of air filters or measures to reduce process wastewater are not generally profitable. These measures can only be adequately financed by means of subsidisation. For smaller companies in particular, the subsidies are an incentive to undertake investments to ensure that the stipulated legal requirements for environmental protection and resource conservation are implemented by the company of its own accord, even if the state controls are often inadequate in this area. The high-risk transport sector often only has access to financing through the line of credit. The participating commercial banks are strengthened by the margins achieved for each loan granted. The work of BANDESAL demonstrates a high level of quality. The establishment of the “Fondo de Desarrollo Económico” and of the “Fondo de Salvadoreño Garantías” highlights the efforts of BANDESAL to promote and support SMEs in the long term.

The professional events financed by means of the FAT raised companies’ awareness of the need for certain environmental investments. Judging from the companies included in the sample, both technical and financial sustainability of the investments can be considered as good. It can be assumed that the ultimate borrowers financed under the project will remain on the market in the future, and will be able to expand and diversify their businesses to some extent.

The risk of delayed implementation mentioned in the programme proposal materialised: the last disbursements took place in 2014, instead of in 2011 as planned. After initial stagnation the disbursements increased strongly in 2013, with the result that some loan applications could no longer be financed under the programme. The product is now relatively well-established on the market, with significantly more rapid disbursement expected for the future.

This more rapid disbursement is accompanied by an increased demand for environmental investments. This can be explained not least by a higher degree of environmental awareness among the population. Following the example of successfully financed and implemented projects, sensitised by marketing events and the results of studies, and favoured by the subsidised loans on offer, many investors deliberately are opting for environmentally-relevant investments.

Sustainability rating: 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).