KfW Development Bank

Ex post evaluation EcoCasa I, Mexico

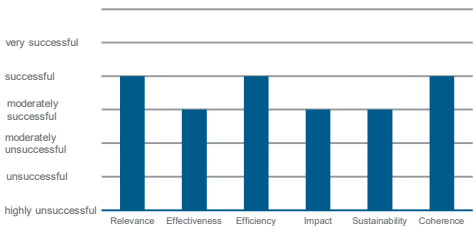
Title	FC programme for renewable energies, energy efficiency and environmental protection (EcoCasa)		
Sector and CRS code	Energy policy and administrative management, 23110		
Project number	2011 661 64		
Commissioned by	Federal Ministry for Economic Cooperation and Development (BMZ)		
Recipient/Project-executing agency	SOCIEDAD HIPOTECARIA FEDERAL (SHF)		
Project volume/ Financing instrument	EUR 80,000,000/interest rate reduction (ZV)		
Project duration	24 July 2013 – 30 April 2018		
Year of report	2022	**Year of random sample**	2021

Objectives and project outline

The objective at outcome level was to make a contribution to the Mexican government's efforts to reduce carbon emissions in the new construction sector. At impact level, the objective was to improve the sustainability of Mexico's energy system.

The project's main measure was to provide EUR 80 million as a development loan for a line of credit from partner Sociedad Hypotecaria Federal, which was used to fund low-interest transitional loans for project developers to build energy-efficient housing units.

Overall rating:
moderately successful



Key findings

The project has demonstrated by way of example that it is possible, with little effort and low additional costs, to build houses for families with low and medium incomes which emit at least 20% fewer greenhouse gases in the simulation than conventional houses. The project has laid the foundations for a transformation of the new construction sector towards climate-friendly construction methods. The project was rated as "moderately successful" overall for the following reasons:

– In terms of its relevance, the project met the high demand for social housing, Mexico's objectives for improving energy efficiency and the country's intended contribution to fulfilment of the Paris Declaration.

– The design and implementation of the measure were part of an overall concept by the Mexican state for sustainable construction, closely coordinated with other donors, so that there was a high degree of coherence both internally and externally.

– The savings targets set were largely achieved. However, these are results of simulations that have not been verified in practice and will probably not occur in the theoretically calculated amount, which is why the success of the CO2e reduction and the proven development effectiveness are limited.

– The project is characterised by a high level of efficiency, which was reflected in the rapid execution of the construction measures and the considerable number of newly built energy-efficient housing units, among other things. The widespread impact of the project was exemplary worldwide in comparison with similar promotional programmes. The microeconomic benefits of the measures for the target group are low due to high energy subsidies, for example, and macrosocial benefits are a given.

– In the first phase, the project laid the foundations for a sustainable impact. However, the transformation process is not completed and continues to require substantial support.

Conclusions

– The main impact hypothesis, that the construction of new energy-efficient, social housing units will increase significantly with low-interest bridging loans, has been confirmed.

– A key success factor for the high number of energy-efficient new buildings was cost neutrality for the buyer.

– The main conclusions are:
(a) Verification of the savings calculated by the simulation tool through actual measurements would allow a more robust evaluation of the impact.
(b) Analysis of the profitability of energy efficiency measures is pivotal for buyers and project developers.
(c) Information campaigns for buyers are important to develop the market.

1 = very successful, 2 = successful, 3 = moderately successful, 4 = moderately unsuccessful, 5 = unsuccessful, 6 = highly unsuccessful

Evaluation according to DAC criteria

Overall rating: 3

Ratings:

Relevance	2
Coherence	2
Effectiveness	3
Efficiency	2
Impact	3
Sustainability	3

Relevance

Mexico is one of the 15 countries in the world with the highest absolute greenhouse gas emissions. After Brazil, it has the second highest CO_2 emissions in Latin America. In 2013, electricity generation accounted for around 27% of total emissions. The household sector accounted for 24% of this. Further greenhouse gas emissions in households are caused by burning gas for cooking, heating and hot water. The government has supported substantial investments in the housing construction sector because of high population growth and the severe housing shortage. The project addressed the government's desire to make the necessary construction measures more climate-friendly in order to reduce the increasing energy consumption and thus the growing CO_2e emissions[1] of the household sector.

The core problem identified during the project appraisal was that energy efficiency measures were generally given little consideration when building housing for cost and profitability reasons. From today's perspective, this is also one of the main reasons why potential CO_2e-savings are not being utilised in Mexico. High energy consumption occurs primarily in households with higher incomes, but they were not the programme's target group. Rather, the project concentrated on new buildings for low-income groups, as several hundred thousand social housing units were required every year due to population growth and the high number of households without adequate housing. Due to the quantity effect, their energy efficiency has a significant impact on future household sector emissions, even if the energy consumption of low-wage earners is low in comparison with higher income groups. There was therefore a high level of urgency to modernise the new construction sector in terms of climate protection. Mexico's government offered mortgage loans to low- and middle-income families in the 1990's to purchase real estate that had specific energy efficiency technologies. However, this had only a limited large-scale effect, as the construction industry itself was not involved in these measures. The bridge loans for project developers and house builders promoted as part of the project addressed this problem. It was therefore assumed that subsidised bridge loans would remove investment barriers for the construction of energy-efficient housing and encourage the construction industry to use energy-efficient technologies. At the same time, the low-interest loans made it possible to neutralise the additional costs, thus making the prices of the energy-efficient housing attractive enough for home buyers that Mexican households would buy the constructed homes. A prerequisite for successful implementation of the measures was the fact that the SHF had set up a line of credit with the help of FC and had the processes and products in place to finance energy-efficient housing via financial intermediaries, and that the construction companies were qualified to use energy-efficient technologies within the framework of complementary measures. The project fully met Mexico's national objectives, the country's intended contribution to the fulfilment of the Paris Declaration and the Sustainable Development Goals, in particular SDG 7 "Ensure access to affordable, reliable, sustainable and modern energy for all".

[1] CO_2e = A carbon dioxide equivalent or CO_2 equivalent, abbreviated to CO_2e, is a metric measure used to compare emissions from different sources based on their global warming potentials by converting the individual gases into the corresponding carbon dioxide quantities with the same global warming potential.

The project was awarded several international prizes as an exemplary energy efficiency programme. The SHF was asked by German TC to incorporate the project's experience into two trilateral cooperation programmes with Colombia and Guatemala. The project thus serves as an example, even beyond Mexico, of how energy efficiency measures in residential construction can be promoted on a large scale as part of a financial sector project.

Relevance rating: 2

Coherence

The project is part of a programme aimed at improving the sustainability of the energy system in Mexico. On the one hand, the programme includes modules aimed at increasing primary energy generation through renewables and, on the other hand, modules aimed at reducing energy consumption and the thereby avoided greenhouse gas emissions. The project was therefore integrated into a larger programme approach, which was intended to contribute to a climate-friendly transformation of energy generation and use. Even from today's perspective, such a programme approach makes sense. The "EcoCasa I" project was based on the conceptual preparatory work of the "ProNAMA" TC project, in which energy consumption and greenhouse gas emissions of various standard buildings were analysed with the help of TC and a tool was developed to calculate savings using energy-efficient technologies. Accompanying conceptual and training measures were also executed by TC during the implementation of the EcoCasa project. The project was therefore complementary and collaborative within German DC, with the various instruments complementing each other effectively.

The project was implemented in cooperation with other donors in the sector, in particular with the Inter-American Development Bank (IDB), which participated financially in the credit line for the bridge loans for project developers and house builders and financed various complementary measures to qualify the participants. The project also built on the partner's existing promotional programmes such as "Esta es tu Casa" and "Hypotecas Verdes", so that the construction of energy-efficient houses was supported by several parties overall. The design and execution of the programme are therefore closely linked to the activities of other donors and are part of an overall concept for the sustainable construction of the Mexican state.

However, as part of the cooperation with the IDB and the partner, a detailed follow-up of the results under real-life conditions was not carried out as intended, which significantly reduces the informative value of the calculated savings and improvements. Since this concerns the contribution of several donors, a stronger joint effort by all parties involved would have been necessary for it to be possible to measure and adequately evaluate the results actually achieved.

Coherence rating: 2

Effectiveness

The FC measure was used to fund subsidised bridge loans from financial intermediaries to Mexican project developers for the construction of energy-efficient housing, which were intended to reduce greenhouse gas emissions by at least 20%. The development loans granted with FC funds were to finance approx. 65% of the total construction costs. The remaining investment costs were provided by the project developers. The objective at outcome level was to "make a contribution to the Mexican government's efforts to reduce CO2e emissions in the new construction sector".

The construction of energy-efficient housing did not promote individual technologies, but instead took a full building approach in which the project developers were free to decide which technologies they would like to implement. The only requirement was to ensure that the anticipated CO_2e emissions in the calculation tool DEEVI were at least 20% lower than that of the reference buildings. Typical features of EcoCasa houses included the insulation of the roof and walls with insulation panels or hollow blocks filled with insulation material, window shading, energy-efficient domestic water heating (gas boiler or solar thermal) and water-saving fittings. In rarer cases, windows with multiple glazing were installed. On average, construction projects with 190 housing units were funded, with an average housing unit size of around 57 m². However, loans were also granted for individual buildings.

The target achievement at outcome level is summarised in the table below:

Indicator	Status PA, target PA	Ex post evaluation
(1) Potential average CO_2 saving[2]	20% or 12 kg/m²/year in comparison with reference buildings or 17,784 tCO_2 per year [3]	The average CO_2e savings according to the simulation was 12.69 kg/m²/year (baseline: 46.82 kg/m²/year, EcoCasa: 34.13 kg/m²/year) or, according to a new calculation with a new baseline, 15.89 kg/m²/year. In terms of the total number of housing units supported by FC funds, this corresponds to 26,518 tCO_2e/year.[4] Target value theoretically achieved
(2) Number of financed housing units with energy efficiency standard 80	26,000 by 2020	In November 2016, 27,927 housing units were funded, by the end of 2017, this number was 36,216 of which 25,642 houses were allocated to the FC contribution. By the end of 2018, 28,033 houses had been financed with the FC contribution alone. Target value achieved
(3) Lower electricity demand per household (kWh/m²/year)	64% in comparison with reference housing units	According to ex ante calculations, the electricity demand was 50 kWh/m²/year = 71% of the baseline value. Target not achieved
(4) Potentially lower electricity costs per household (USD/year)	64% in comparison with reference households (100%)	The anticipated cost of electricity was 67% of the baseline. This would result in savings of around EUR 45 (EUR 38–51) per household per year, which is roughly 50% of the minimum monthly wage. Target value theoretically almost achieved
(5) Potential improvement in household comfort standards (°C)	Target value: the temperature is 20–25°C (20–27.5°C with ceiling fan): • tropical climate: 40% of time; • dry, hot climate: 60% of time • moderate climate: 80% of the time	In EcoCasa houses, it is possible to achieve temperatures within the comfort zone of 20–25°C (20–27.5°C with fan) 47% of the time (tropical climate), 58% of the time (dry, hot climate) and 78% of the time (moderate climate) under the conditions defined in the simulation tool. Target value theoretically largely achieved

Indicator (2), which relates to the target value of the overall programme, was exceeded by SHF due to the high demand from project developers for low-interest loans for new energy efficiency buildings and the rolling use of funds, with “energy efficiency standard 80” meaning that the housing unit consumes 20% less primary energy than the reference buildings without this standard. Indicator (3) was not achieved. The targeted reduced electricity demand could only be achieved in part. The reason for this was that equipment with high power consumption and correspondingly high savings potential was included in the

[2] with unchanged or only slightly changed framework conditions (such as the energy mix).

[3] It is assumed that 26,000 housing units with an average size of 57 m² will be built and the conditions (energy mix/household appliances) will hardly change over the course of the project years.

[4] 12.69 kg/sqm/a x 57.7 sqm x 36,216 housing units = 26,518,000 kg/housing unit/a

calculations with a lower factor than anticipated due to its low prevalence in social housing. This also had an impact on the results for indicators 1 and 4, which are largely determined by electricity demand. Only an average savings of 8.84 kg $C0_2$e/m²/year was achieved in temperate climate regions of Mexico where air conditioning systems are not used. In the warm, dry and humid regions, on the other hand, the target value was achieved with savings of an average of 15.91 kg $C0_2$e/m²/year or 12.73 kg $C0_2$eq/m²/year. As only 23% of the houses were built in temperate climate regions, which means that they are less significant in the overall calculation, indicator 1 was achieved overall in theory. However, the measurement proved to be difficult due to the lack of access to energy providers' data. High energy savings were achieved with gas thanks to the use of solar hot water tanks. The results for indicators (4) and (5) are within the target range. However, the qualification that these are unverified theoretical simulation values must also be noted here. Both the amount of savings in energy costs and the degree of improvement in living comfort are decisive for whether buyers see an advantage in purchasing energy-efficient housing units.

Overall, the indicators were mainly achieved, but with restrictions.

Effectiveness rating: 3

Efficiency

The total costs of the first phase of the EcoCasa programme amounted to around EUR 160 million, of which EUR 80 million came from FC, which was used exclusively to finance bridging loans for project developers. As basket funding, the Inter-American Development Bank provided a further EUR 37.1 million to increase the budget for bridge loans. Around USD 2.265 million (approx. EUR 1.7 million) were made available by the IDB for the management of the programme and for accompanying measures (development of calculation tools, follow-up, evaluation, reporting, training (and advancement)). At 1.5%, the share of programme-related costs for Technical Assistance (TA) in the total costs funded worldwide is comparatively low, which is due to the high management professionalism of the executing agency SHF. The counterpart contribution on the Mexican side amounted to around EUR 40 million.

The project is characterised by the fact that the planned measures were implemented much more quickly than planned. The target set for the overall programme of 26,000 new housing units was already achieved in 2016 instead of 2020. The early raising and repayment of the bridge loans made it possible for the FC funds to be reused 3.5 times instead of 2.4 times as planned until December 2017, so that the project developers had a total of EUR 280 million (EUR 80 million x 3.5) in bridge loans at their disposal. As a result, 25,642 housing units (FC share) were funded by December 2017.[5] This corresponds to a loan averaging around EUR 11,000 per housing unit or EUR 191 per m² with an average floor area of 57.67m². Since the total loan amounted to no more than 65% of the construction costs, the average investment costs per housing unit were around EUR 16,800. These costs include the extra expenses for energy-saving technologies ranging from EUR 250 to EUR 3,000 depending on the climate zone and the technologies deployed. Overall, construction costs were favourable against international comparisons at an average of EUR 296 per m² of floor area; the loan amount was appropriate. Since the purchase of the housing units was also subsidised by the state with grants for low-income households, the housing units were affordable for large sections of the population.

The aim of the EcoCasa bridge loans was to absorb the additional costs for energy efficiency measures by means of interest rate subsidies, so that the houses were sold without price surcharges in comparison with the reference houses. The amount of the interest rate subsidy was not determined. It generally ranged between 1.75% and 2.6% p.a. Based on the average loan of EUR 11,000, this meant savings of EUR 192–286 with a 12-month term of the loan for the project developers. For two- or three-year terms, the savings increased accordingly to up to EUR 850. It was therefore only possible to achieve full cost neutrality in some projects with high interest rate subsidies and comparatively low additional investments. Nevertheless, investments in the EcoCasa housing units appealed to both project developers and buyers, as low-income households were given priority with regard to the subsidies from the Comision Nacional de

[5] Even after the official end of the project, the FC funds continued to be used to finance bridge loans, meaning that 31,269 housing units were built with the FC share by June 2019, with funds being used five times.

Vivienda (CONAVI) for the purchase of EcoCasa houses. As a result, EcoCasa houses were more affordable to purchase than conventional houses, which strongly boosted demand.

According to calculations by SHF, the 36,216 housing units supported by FC and IDB by the end of 2017 will theoretically save 946,095 tCO_2e over a period of 40 years in comparison with reference buildings.[6] Based on average investment costs of EUR 500–900 for energy-saving technologies, this results in expenses of EUR 19–35 per theoretically saved tonne of CO_2. The costs would therefore be roughly comparable to the current price of EUR 25/t set by the Emission Trading System, but in the medium term, in any case less than the planned price of EUR 55 or higher. However, it must be noted that the calculated value for the greenhouse gas emission savings can only be achieved under certain conditions and could not be verified.

According to calculations by SHF, energy efficiency technologies installed as part of the EcoCasa programme can save an average of around 35 kWh/m²/year (20.76kWh electricity (old baseline) + 14kWh gas) or 42kWh (27.76kWh electricity (new baseline) + 14kWh gas). Based on an average electricity price of USD 0.0363 and USD 0.075 for gas, as assumed in the calculation tool, this results in savings of USD 43.76 (EUR 38.5) (old baseline) and USD 58.04 (EUR 51) (new baseline). The savings are in the order of magnitude of a monthly minimum wage in Mexico, which is around EUR 96.

The Mexican state subsidises the price of electricity with approx. 2 MXN/kWh (~9 euro cents). It would therefore save around EUR 106 per year[7] per 57m² EcoCasa housing unit, i.e. under consistent conditions, approx. EUR 3.8 million for the financed 36,216 HU per year, provided that the calculations are confirmed in reality. Subsidies for natural gas liquids, which the Mexican state would save by reducing gas consumption, would also potentially have to be taken into account. However, no information is available on the subsidisation of natural gas liquids.

The overall efficiency is considered to be successful, taking into account the framework conditions.

Efficiency rating: 2

Impact

The project's development objective was to improve the sustainability of the energy system in Mexico. Since neither the status nor the target values were quantified for the individual indicators, the target achievement cannot be ascertained, but rather the developmental impact can only be described in terms of quality. Target achievement at the impact level is summarised in the table below:

Indicator	Status PA, target PA	Ex post evaluation
(1) Increase in annual savings in energy consumption (PJ/year or GWh/year).	Status and target value not quantified. No business-as-usual (BAU) scenario specified either.	The household sector's energy consumption rose by 10% between 2013 and 2018, due in particular to the significantly higher demand for electricity, which is mainly due to population growth. The energy consumption per household remained almost the same. Target value presumably not achieved.
(2) Increase in annual avoided greenhouse gas emissions ($tC0_2e$/year).	Status and target value not quantified. No BAU scenario specified.	Greenhouse gas emissions also increased due to increased energy consumption in the household sector. The extent to which substantial amounts of greenhouse gas emissions have nevertheless been saved in the sector cannot be ascertained due to a lack of

[6] In SHF's monitoring and reporting, the number of supported housing units was recorded and presented separately according to FC and IDB contribution, but the CO2e and energy savings were only calculated in summary form for the programme as a whole.

[7] 20.76 kWh/sqm/a (old baseline) x 57sqm x EUR 0.09 = EUR 106.49/a

		BAU data. Target value cannot be determined.
(3) Increase in % - share of energy-efficient houses (at least 80% standard) in new buildings.	Not quantified, no base value available.	According to the national building register Registro Único de Vivienda (RUV), 1,627,249 housing units were built between 2013 and 2017. The share financed by Eco-Casa is just over 2% of this. Although no data is available on the total share of energy-efficient houses among new buildings for 2022, a further increase can be assumed. Target value expected to be achieved.

With more than 36,000 energy-efficient housing units supported by SHF's bridge loans, the EcoCasa programme has demonstrated that energy and emissions savings are possible, with micro- and macro-economic benefits when properly applied. Initial indications suggest that individual project developers are using energy efficiency technologies in new buildings even if they are not subsidised with low-interest loans. However, the proportion of energy-efficient housing units recorded in the total number of new buildings is still low or unknown. According to the national building register Registro Único de Vivienda (RUV), 1,627,249 housing units were built between 2013 and 2017. The share financed by EcoCasa is just over 2% of this. A complete conversion of the new construction sector to a more climate-friendly construction method is therefore only to be expected in the medium term if it is possible to enforce corresponding building regulations and raise the demand for energy-efficient housing units.

The project generally benefited the entire population, with the target group being low- and middle-income households with 5 to 12 minimum wages per month. With average investment costs of approx. EUR 16,800, the housing units were able to be offered at a reasonable price, which was roughly equal to three times the annual salary of buyers with five times the minimum wage (EUR ~5,700/year). The housing units were therefore affordable for precisely the population group that was to be addressed by the project. However, lower-income households also profited from the construction measures, as the Comision Nacional de Vivienda (CONAVI) also subsidised the acquisition of the houses by households with an income of less than five times minimum wage of up to EUR 4,000.

EcoCasa housing units, when used correctly, have the potential to reduce energy expenditure for residents and improve living comfort by better maintaining a comfortable indoor climate. They thus contribute to improving the living conditions of the target group. The project has a broad impact through the high number of energy-efficient new social housing units, which have a model character and are replicable. The project therefore has a structure-building effect.

Impact rating: 3

Sustainability

The present report evaluates the first phase of the EcoCasa programme, which covers the period from 2013 to 2017. With the FC funds, further low-interest bridge loans for project developers were granted after 2017 with the still revolving funds from the first phase, as well as with additional FC funds as part of the second and third phases of the EcoCasa programme. A sound assessment of the extent to which the positive impacts achieved by the entire EcoCasa programme are of a lasting nature can only be made towards the end of international support. As already presented in the evaluation of developmental impacts, it will be crucial here whether the use of energy-efficient technologies will prevail as a standard in the Mexican construction sector and whether a market for such technologies develops with correspondingly high demand and low-cost offers.

The first phase of the programme has laid important foundations for this kind of market development. Various calculation tools adapted to Mexican conditions have been introduced, with which the energy and water requirements of residential units, the environmental footprint of building materials and the living

environment with its infrastructure (urban quality) can be analysed. This means that all construction measure participants have access to a uniform set of instruments for evaluating the energy efficiency and sustainability of scheduled projects. The results of the calculation tools also form the basis for the labelling of residential projects according to their overall impact on the environment (IDG labelling), which is to be recorded in the national building register 'Registro Único de Vivienda' (RUV). At the same time, the criteria for energy-efficient construction were harmonised in various key promotional programmes (such as those of CONAVI). This also means that the energy efficiency standard NOM-020-ENER, which defines the maximum thermal conductivity values for masonry and windows, must now be taken into account, which was only partially the case until now.

With over 36,000 housing units, the practicality and benefits of energy-efficient housing units were tested in the first phase of the programme. The project developers gained valuable experience in the selection, evaluation, procurement and installation of various products and technologies. The project developers acquired additional expertise through accompanying further training events. Other stakeholders, such as financial intermediaries, government officials, experts and consultants, were also involved in the qualification measures financed by the IDB, resulting in a significantly broader basis of knowledge on energy-efficient construction in the Mexican construction sector.

As part of the first phase, new technologies such as special multiple-layered glass or insulation materials were introduced, which are now offered by several local companies. At the same time, the quality and price of existing technologies (such as solar hot water systems) have improved. There are therefore several signs that the market for energy efficiency technologies in Mexico is developing positively.

However, further support measures, such as those of the second and third phase of the programme, are needed to build on the momentum that has emerged. Project developers require more experience with the calculation tools and the use of new energy efficiency technologies to make them an integral part of their construction planning. In addition, the construction of energy-efficient houses is still too dependent on subsidies and low-interest loans, which is a problem given the government’s current reduction in promotional funds. The willingness to finance, build and purchase houses with higher energy efficiency standards still needs to evolve within the large mass of financial institutions, project developers and home buyers.

It can be assumed that the institutions and people participating in the EcoCasa programme will continue to support the construction of energy-saving houses. This is also indicated by the fact that the organisations had agreed to increase the requirements for the baseline, as specific efficiency measures (such as insulation of ceilings and shading or orientation of the buildings) can be carried out at no extra cost and should therefore be firmly integrated into the existing standard NOM 020. The very high media presence of the EcoCasa programme has also helped to promote interest in the topic of “sustainable construction” and the associated improvements in living conditions among a broader audience in the construction sector. However, there is a risk that, at the end of the promotional measures, the offer will concentrate more on the wealthier customer segments, which can easily pay the resulting additional costs, and that the additional costs for energy efficiency cannot be financed in social housing construction.

In summary, it can therefore be said that the first phase laid the foundations for the sustainable and widespread use of energy-efficient technologies in the new construction sector. However, the transformation process is far from complete and therefore continues to require substantial support.

Sustainability rating: 3

Notes on the methods used to evaluate project success (project rating)

Projects are evaluated on a six-point scale, the criteria being **relevance, coherence, effectiveness, efficiency, overarching developmental impact** and **sustainability**. 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.

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).