

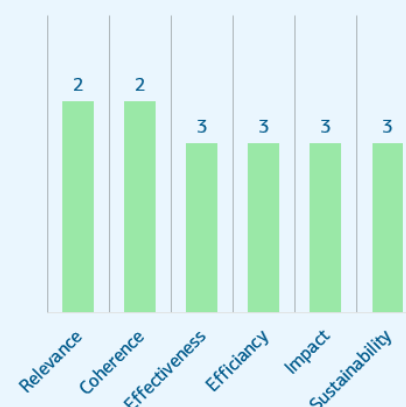
Ex-post evaluation

Rural basic education, Guatemala

Title	Rural Basic Education programme (PROEDUC IV)		
Sector and CRS code	1120 Basic education		
BMZ number	2009 66 945		
Commissioned by	BMZ		
Recipient and executing agency	Ministry of Finance (MINFIN)/ Ministry of Education (MINEDUC)		
FC financing volume and instrument	EUR 16.13 million/ grant		
Project duration	2012–2024	Reporting year 2025	Year of random sample 2023

Overall rating

Moderately successful (3)



1: very successful – 6: highly unsuccessful

Project objectives and implementation

The project primarily focused on rehabilitating or expanding infrastructure at primary schools. In addition, national building standards were developed, parent associations were established to support operation and maintenance of the schools, bilingual school materials were financed, and regional education authorities were supported. The objective of the project was to increase the use of educational services thanks to an improved learning environment and equal access to (bilingual) primary education (grades 1 to 9) in disadvantaged, rural and indigenous regions of Guatemala (outcome). This was intended to raise the level of primary education among the target group (impact).

Key findings

The project achieved structural improvements in the school system and provided meaningful impetus. However, its development effectiveness is limited, and its sustainability is partially at risk. The project is overall rated as 'moderately successful':

- The project pursued a meaningful and holistic approach and supported a severely disadvantaged population group.
- It built on Guatemalan priorities and previous experience of Guatemalan-German development cooperation and engaged in ongoing sectoral dialogue with other donors.
- It improved school infrastructure at reasonable cost, but was significantly delayed due to complex tendering procedures, changing governments and legal frameworks, and the poor performance of a construction company.
- Significant improvements in the level of basic education in the project regions are not plausible due to the limited scope of the FC infrastructure project. External factors such as migration and the COVID-19 pandemic also contributed to the limitations in reaching the desired developmental impact.
- Successes included the updating of public maintenance and construction standards and the formalisation of parental involvement. These nationally expanded approaches have a broad impact and, if applied appropriately, can improve local ownership and infrastructure maintenance nationwide. They are also institutionally anchored and, as expected, sustainable. Sustainability risks remain for the other project components, partly due to the executing agency's limited capacities, personnel and resources.

Conclusions

- Maintenance and construction standards can bring about structural improvements nationwide. To achieve this, they must be communicated intensively, monitored consistently and, if necessary, non-compliance must be sanctioned.
- Parental involvement is highly relevant. However, transferring responsibility for technical school maintenance to the target group without sufficient training and financial support jeopardises the proper implementation of maintenance work.
- A variety of factors influence school enrolment rates, educational participation and success. The potential impact of infrastructure projects alone is therefore limited.

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Abbreviations

AECID	Agencia Española de Cooperación Internacional para el Desarrollo
PCR	Project completion report
GDP	Gross domestic product
BMZ	Federal Ministry for Economic Cooperation and Development
CNE	Consejo Nacional de Educación
CNEM	Consejo Nacional de Educación Maya
DAC	Development Assistance Committee
DIGECADE	Dirección General de Gestión de Calidad Educativa
DIGECUR	Dirección General de Currículo
DIPLAN	Dirección de Planificación
EPE	Ex-post evaluation
EDUVIDA	Programa Educación para la Vida
EUR	Euro
FC	Financial cooperation
FC E	FC Evaluation
HDI	Human Development Index
IDB	Inter-American Development Bank
INE	Instituto Nacional de Estadística
MDG	Millennium Development Goals
MINEDUC	Ministerio de Educación
OPF	Organización de Padres de Familia
PACE	Project to Support Educational Quality
PEC	Proyectos Ejecutados por la Comunidad
PA	Project appraisal
PAR	Project appraisal report
PRONADE	Programa Nacional de Desarrollo Educativo
PP	Project proposal
RIED	Red Interagencial de Educación
SEGEPLAN	Secretariat for Planning and Programming of the Presidency
SDG	Sustainable Development Goals
ToC	Theory of Change
TC	Technical Cooperation
URL	Universidad Rafael Landívar
USD	US dollar

Overview

General conditions and classification of the project

The 1996 peace treaties officially ended the 36-year civil war in Guatemala. However, the effects and traces of violence are still palpable and pose social, economic and political challenges for the country. In the 2008 government negotiations between Guatemala and Germany, education was identified as a key sector for addressing these challenges and combating racism and discrimination. PROEDUC (German title: "Rural Basic Education") was part of the German development cooperation programme "Education in Guatemala" that emerged from these negotiations.

PROEDUC IV was implemented from 2012 to 2019¹ and promoted the learning environment and equal access to rural education in disadvantaged departments² in Guatemala. Specifically, the project promoted primary education (grades 1 to 6, subject to compulsory schooling) and early secondary education (grades 7 to 9, not subject to compulsory schooling). The previous phases pursued similar objectives in the area of school infrastructure and quality improvement but intervened in some different communities. PROEDUC III also piloted the PEC model (*Proyectos Ejecutados por la Comunidad*), which was originally intended to be widely applied in PROEDUC IV. These project phases were not evaluated ex post.

The ex-post evaluation team conducted site visits and interviews with experts and beneficiaries. In addition, with the support of the Ministry of Education (Ministerio de Educación, MINEDUC), a semi-structured online survey was sent to the school administrators of all 20 project schools.³ 17 of the 20 school administrators responded to the questionnaire between June and September 2024.

Brief description

The PROEDUC IV project aimed to improve the learning environment and equal access to basic education (grades 1 to 9) in disadvantaged rural areas of Guatemala and contribute to the appropriate use of educational opportunities (outcome target). At a higher level, the project aimed to raise the level of bilingual, intercultural primary education in the six project departments, with a particular focus on gender equality (impact and development cooperation programme objective).

Several components were implemented to achieve the objectives:

- i. The largest component (around 60% of the total volume) involved the implementation of rehabilitation and new construction projects for pre-schools and primary schools (grades 1 to 6) as well as extension and new construction projects for lower secondary schools (grades 7 to 9). New construction projects included the complete renovation of existing schools; however, no new schools were opened. Accordingly, school places (the learning environment) were improved, but no new school places were created.
- ii. The participation of parents (and parents' associations) in the project was intended to increase local ownership, the sustainability of the project and school attendance among children.
- iii. Innovative approaches such as school networks or education regions and so-called "distance learning" were intended to expand the range of secondary education on offer.
- iv. The financing of multilingual learning and teaching materials, including mini-libraries and teacher and parent training, was intended to improve access for children who do not speak Spanish when they start school. This is of high relevance given the linguistically diverse context: in addition to the national language Spanish, 22 Mayan languages and two other indigenous languages (Garífuna and Xinca) are spoken in Guatemala.
- v. As part of institutional strengthening, building standards and plans for public schools should be developed to improve construction standards in the school system nationwide.
- vi. The construction and furnishing of a departmental education administration office (located in the departments themselves) was to be financed in order to support the decentralisation of MINEDUC.

¹ The project was scheduled to run until the end of 2019. However, due to delays in the implementation of Component 3 (strengthening the Ministry of Education), the remaining funds to be cut had not yet been finally defined at the time of the EPE in mid-2024.

² Department refers here and in the following to the administrative unit "Departamento", the largest administrative unit in Guatemala (22 in total nationwide).

³ To ensure the anonymity of respondents, the completed questionnaires were sent directly to the evaluation team, which forwarded them in a slightly aggregated and anonymised form to MINEDUC so that the ministry could use the information.

According to the project proposal (PP), the target group for the project was an estimated 14,000 children from poor and/or indigenous families in rural areas, specifically from the 126 poorest communities in the country.

Breakdown of total costs

	Phase 1 (plan)	Phase 1 (actual)
Investment costs (total) in EUR million	20.5	21.34
Own contribution in EUR million	4.25	5.09
External funding in EUR million	16.25	16.25
of which BMZ funds in EUR million	16.25	16.25

Table 1 : Breakdown of costs

Map of the project region

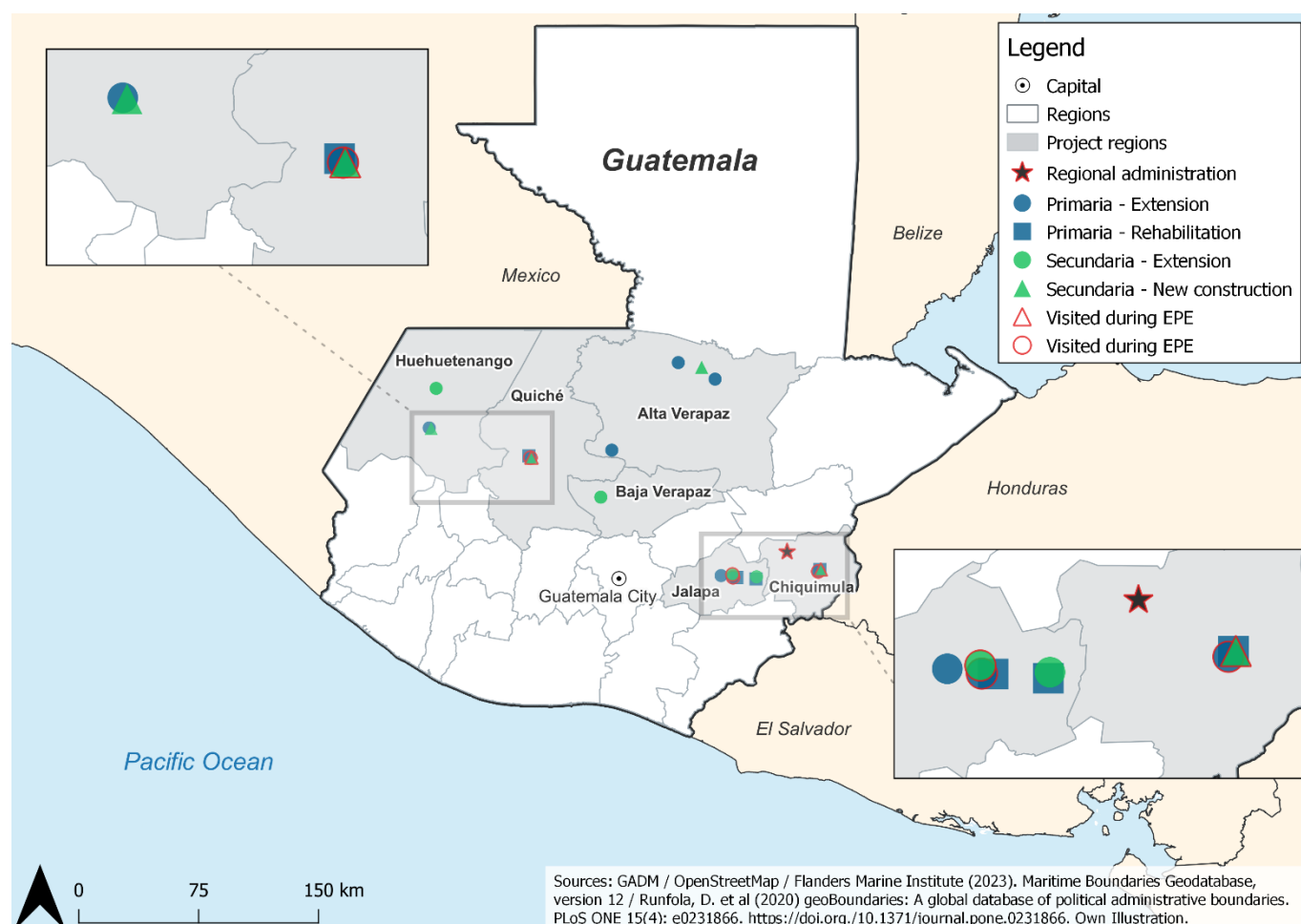


Figure 1: Map of the project country including project locations and EPE site visits.

Source: Own illustration.

Figure 1 shows the six project departments, as well as the 12 primary schools supported by the project ("Primaria", 8 extensions, 4 renovations), the 8 secondary schools supported ("Secundaria", 4 new buildings, 4 extensions) and the renovated departmental administration in Chiquimula. It also shows the locations visited as part of the ex-post evaluation (EPE): 3 primary schools and 3 secondary schools in 3 regions. The 320 interventions of the OPF are not illustrated.

Linguistic Atlas of Guatemala

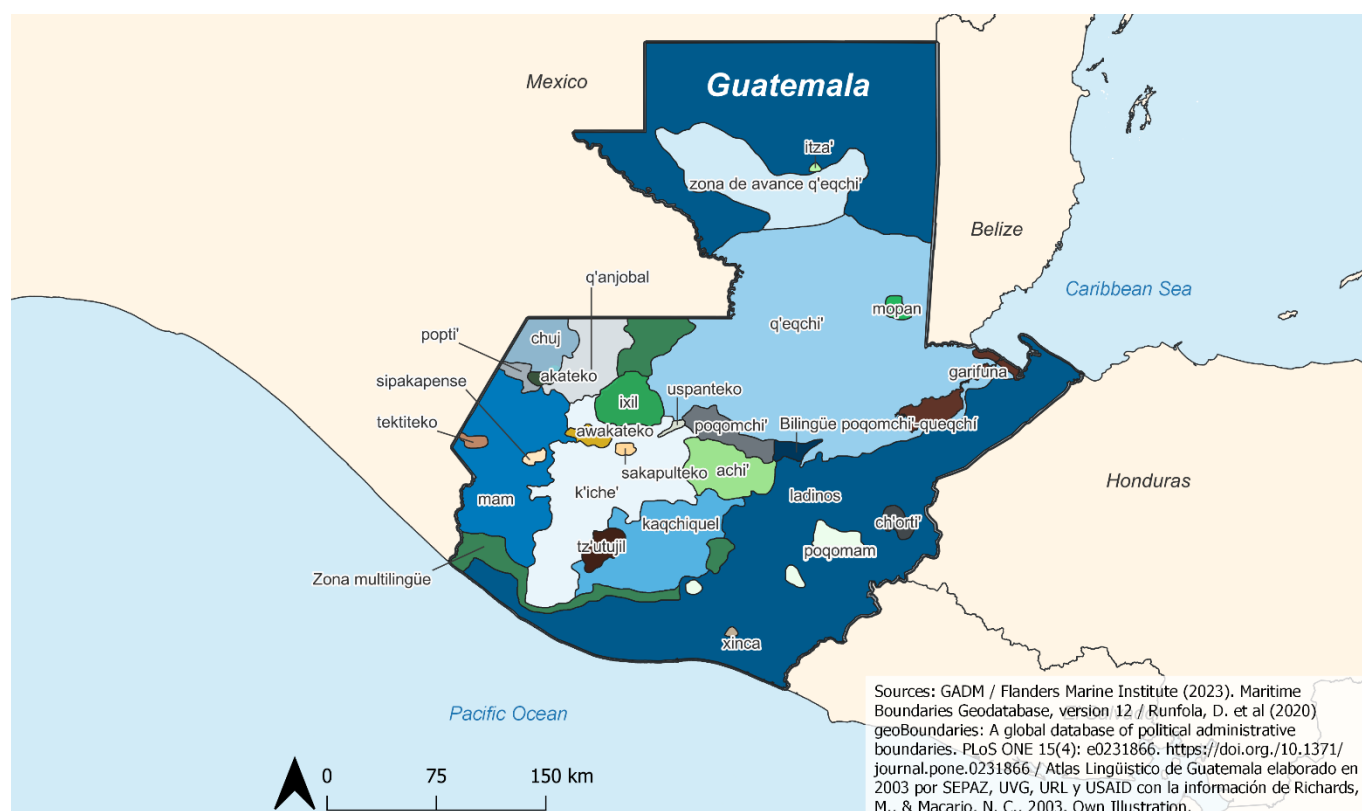


Figure 2: Linguistic Atlas of Guatemala.
Source: Own illustration.

Figure 2 shows the geographical distribution of indigenous languages in Guatemala, highlighting the high demand for bilingual education. In addition to the national language Spanish, 22 Mayan languages and two other indigenous languages (Garifuna and Xinca) are spoken.

Strengths and weaknesses of the project

The strengths include in particular:

- The project design was holistic, with a clear focus: it sought to improve the learning environment and access to education from various angles (infrastructure, quality of education, institutional strengthening) without creating inefficiencies through a fragmented approach.
- Parental involvement in school administration and the implementation of the project budget through local structures via parents' associations (Organización de Padres de Familia, OPF) proved particularly effective. However, parental involvement only worked in the area of administration, less so in the area of (technical) school repairs.
- The exchange formats between the donor organisations in the education sector and MINEDUC were particularly effective during most of the implementation period. For example, in 2013, a sub-working group for the promotion of secondary and vocational education was established within this framework, which provided important impetus for subsequent development cooperation projects.
- The revision of building standards and maintenance management contributed significantly to the impact of the project beyond the project region (broad impact).

The weaknesses include in particular:

- The implementation of repairs by the OPF suffered in part from the weak implementation capacities and lengthy processes of MINEDUC and the regional education authorities. According to interviews, school administrators had to rely on improvised financing and maintenance solutions for urgent repairs, e.g. by appealing to parents for donations, which can compromise the construction quality of schools.
- The efficiency of the measure suffered considerably from delays caused by bureaucratic procurement processes and political deadlock. These delays meant that, due to exchange rate devaluations, less investment could be realised than originally planned and the costs for consulting services rose.

General conclusions/lessons learned

- Uniform standards and transparent processes are crucial in school infrastructure projects to ensure a minimum level of construction quality and to avoid widely varying construction concepts that can lead to differences in quality. However, compliance with standards depends on sufficient familiarity and capacity at the local level, as well as viable political support at the higher level.
- The main responsibility for the technical maintenance of schools should not be fully transferred to the target group (parents' associations), as they have neither the necessary technical capacities nor sufficient financial resources or remuneration for this high level of responsibility. Instead, the main responsibility should remain with the regional education authorities; this means, among other things, that the parents' associations must be supported by the education authorities in terms of technical and human resources in an appropriate and timely manner.
- The rehabilitation/expansion of only 340 of a total of 13,160 schools in the project departments can naturally only contribute to a very limited extent to achieving the overarching development policy objective of the project – an increase in the basic education level of the target group.
- Migration due to a lack of economic prospects and the effects of the COVID-19 pandemic were very important factors in school enrolment and dropout rates; this was beyond the influence of the project.

Rating according to OECD DAC criteria

Relevance

1. Alignment with policies and priorities

At the time of the PROEDUC IV project review (2010), Guatemalan education policy pursued the goal of ensuring equal access to high-quality, culturally and linguistically appropriate education for all by 2012. Under the Colom administration (2008–2012), enrolment fees were abolished, the cash transfer programme Mi Familia Progresá was introduced, and the gross enrolment rate rose to 113%. However, the increase in student numbers posed challenges for the education system in terms of infrastructure and teaching staff. Significant steps were taken in the area of intercultural and bilingual education, including a subsidy programme for bilingual teaching staff. At the same time, trade unions exerted strong influence on MINEDUC's budget planning, and strikes by teaching staff, partly due to inadequate wages, put pressure on the government's originally planned budget. After Parliament rejected the 2010 budget, Guatemala's MINEDUC found itself in a financial bottleneck and had to cut central positions, among other things, in order to finance the growing demand for teachers.

During the implementation of PROEDUC IV, the governments under Pérez Molina (2012–2015) and Morales (2016–2020) largely continued the education policy. The 2012–2016 strategy aimed to achieve high-quality education through improved education management, strengthening the teaching profession and taking cultural and linguistic diversity into account, particularly in view of the high proportion of indigenous people, whose cultural background and multilingualism were to be incorporated more strongly into teaching and teaching practice. MINEDUC's 2016–2020 education strategy focused on access, quality, inclusion, learning spaces, participatory management, and linguistic and cultural diversity. Under both governments, the education budget remained largely unchanged at around 3.1% of GDP, which is below the Latin American average of 4–5%.

PROEDUC IV supported MINEDUC's 2016–2020 education strategy, particularly in the areas of (1) access to education (primarily improvement, not expansion) and (2) education quality, equity and inclusion. The project also contributed to the K'atun 2032 National Development Plan by aiming to reduce discrimination against the indigenous population. The project's efforts to strengthen basic education with a view to sustainability were also in line with the objectives of the strategy paper "Políticas Educativas 2008–2012" and followed on from the agreements set out in the 1996 peace agreement to improve the educational conditions of the predominantly indigenous rural population.

The original objectives of the project were based on the Millennium Development Goals (MDGs), in particular MDG 1 "Poverty Reduction", MDG 2 "Primary Education for All" and MDG 3 "Gender Equality". The project was also in line with the UN Sustainable Development Goals (SDGs), in particular SDG 4, 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' (4.1, 4.3, 4.4 and 4.5). It also followed the goals of the UNESCO initiative "Basic Education for All by 2015" and was in line with the BMZ Education Strategy 2015 and BMZ Concept 139 "Development Cooperation with Indigenous Peoples in Latin America and the Caribbean".

The choice of project departments and target groups also followed the priorities of the Guatemalan government: the measures were limited to the 126 poorest communities in the country ⁽⁴⁾, which had been prioritised by the government. According to the Guatemalan National Institute of Statistics (Instituto Nacional de Estadística, INE), 51% of the population nationwide lived below the poverty line in 2009 (15.2% were extremely poor), with the figure rising to 70% in rural areas. In the 126 project communities, the poverty rate in 2009 was 83.9% (34.6% extremely poor), which is significantly above the national average. The 126 communities also have a strong indigenous character, which represents a significant barrier to access in the absence of bilingual basic education provision.

At the time of the EPE, Guatemalan education policy continued to focus – in line with the project – on improving access to high-quality education, especially for indigenous and rural communities. However, challenges such as inadequate digital infrastructure and the impact of the COVID-19 pandemic on the education system were increasingly at the forefront. Work was also carried out on adapting the curriculum and on measures to close learning gaps among pupils.

⁴ The 126 municipalities were selected according to need criteria and based on data from MINEDUC and the National Statistics Office (Instituto Nacional de Estadística, INE). Specifically, poverty, extreme poverty, the net enrolment rate in primary education and illiteracy were taken into account.

2. Alignment with the needs and capacities of the stakeholders and beneficiaries

The geographical focus of the project on the poorest – and strongly indigenous – communities in the country ensured a high level of general need among the target group. In addition, at the time of the project review, there was a high level of need in the education sector among the target group: low net enrolment rates, very low completion rates and inadequate infrastructure. Specifically, according to the PP and the INE, the net enrolment rate for primary education in 2009 was 95% nationwide, while in the project departments it was only around 86%. In secondary education, the national enrolment rate had improved from 20% to 37% between 1999 and 2009 but remained significantly lower in the project departments at only 18%. Completion rates in rural areas were alarmingly low: only about half of the children enrolled in school completed primary school, and only 12% completed lower secondary school. A major problem was poor reading comprehension, which also had a negative impact on mathematics performance. Added to this was inadequate school infrastructure: only 53% of school buildings nationwide met the minimum requirements of MINEDUC, and the need for investment was particularly acute in rural areas. In the 126 poorest municipalities alone, 3,600 schools were in need of rehabilitation or expansion. There were not enough secondary schools nationwide: for a total of 17,500 primary schools, there were only about 4,500 secondary schools, of which only 40% were state-run (and therefore free of charge). This discrepancy exacerbated limited access to higher education, especially for disadvantaged children and young people.

Against this backdrop, the project did not primarily aim to increase access to basic education in pre-schools, primary and secondary schools, but rather to improve the learning environment and equal access to education, thereby addressing a core problem of a severely disadvantaged population group.

The project planned to expand, rehabilitate or renovate at least 10 schools and carry out up to 450 minor repairs. The country has a total of 13,160 schools. Given this small relative scope, the project's impact on regional education indicators was already foreseeable as limited at the time of the project appraisal.

One of the main reasons for the low quality of education in the project departments was the inadequate training and further education of teachers. At the time of the project appraisal, Guatemala and Haiti were the only countries in Latin America where there was no university training for primary school teachers. Instead, teachers were and are trained at vocational schools ("Escuelas Normales").⁵ PROEDUC IV did not primarily address this capacity gap, but the TC project PACE complemented it by developing an expanded teacher training programme.⁶ At the time of the PP, only 30% of all indigenous primary school pupils in rural areas were taught by a trained bilingual teacher. Adequate teaching materials – especially bilingual textbooks – were also not available in sufficient quantities.

According to the programme proposal, the target group and their parents were to be actively involved in the implementation. To this end, parents were originally to be involved through so-called "projects carried out by the community" ("Proyectos Ejecutados por la Comunidad", PEC).⁷ However, the PEC procedure could not be applied due to changes in the legal framework. Instead, parents were involved through parents' associations ("Organización de Padres de Familia", OPF), particularly in the awarding of small repair contracts: funds thus flowed through the OPF instead of through the municipalities and were therefore legally permissible. The participation of parents was primarily intended to contribute to the appropriateness, effectiveness and sustainability of the project in order to better address the needs of children in relation to their educational environment; however, it also implicitly promoted the capacities and ownership of the parents.

At the time the programme was proposed, MINEDUC was considered a weak partner institution. The general question arose as to whether MINEDUC was the appropriate authority for school construction or whether it should rather only assume responsibility for setting guidelines (building standards, defining investment locations, etc.). However, at the time the project was planned, there was no alternative state authority for project implementation. MINEDUC lacked implementation capacity – especially for school construction – and was hampered by complicated bureaucratic processes. These obstacles were exacerbated by frequent personnel changes: two changes of minister before the start of implementation led to significant personnel changes at national and regional level, both in management and operational positions. Responsibility for implementing the school infrastructure was

⁵ These were reformed in 2007 by the previous Berger government, and the duration of training was extended from three to four years. However, under pressure from the teachers' union, the Colom government withdrew the reforms in September 2008.

⁶ The training courses focused on core subjects such as mathematics, natural sciences, social sciences, communication and language, and how these could be taught more effectively in a bilingual, intercultural context. The proposal from PACE was developed in collaboration with the Ministry of Education, the teachers' union and the Universidad San Carlos, integrated into the national training plan and has been implemented ever since.

⁷ Firstly, parents should be involved in the construction and awarding of construction contracts, carrying out minor construction work themselves where possible and making their own contribution through the maintenance and operation of the schools. This should strengthen their connection to the school buildings and establish regular school attendance for their children. Secondly, community committees (known as "user committees") should be trained before construction begins, receive organisational and technical support from external experts during the construction phases, and be closely accompanied throughout the entire process. Thirdly, education councils should be established to actively involve parents in school management and to train them on topics such as school operations, teaching materials and simple repairs.

to be borne by a newly established steering unit and an independent implementation unit for construction and maintenance. To counteract these weaknesses, the implementation unit was to be supported by a heavily involved implementation consultant.

In order to build capacity in the sector – and thus indirectly strengthen project implementation and ensure the sustainability of the project – the project also supported three activities.

- i. Firstly, the transfer of the project's implementation unit to a new, independent department for school infrastructure under MINEDUC for the administration and upgrading of school infrastructure. From the last programme year onwards, this department was to take over the tasks, staff and equipment of the implementation unit⁸.
- ii. Secondly, the construction and equipping of regional education administrations should contribute to the decentralisation of MINEDUC in order to increase *good governance*, decision-making based on the principle of subsidiarity and ownership, and thus efficiency, flexibility and citizen participation in Guatemalan education policy/work.
- iii. Thirdly, as part of institutional strengthening, building standards and construction plans for public schools should be developed in order to improve building standards in the school system nationwide.

3. Appropriateness of design

The slightly adjusted⁹ impact objective within the framework of the EPE was "Increased use of educational opportunities by schoolchildren in the project regions thanks to an improved learning environment and access to basic education in disadvantaged regions". The impact objective, which was also slightly adjusted¹⁰, is "to increase the level of bilingual, intercultural basic education in the project departments, with particular emphasis on gender equality."

The project's **impact logic** was largely consistent. See Figure 1 for the detailed Theory of Change (ToC) developed as part of the EPE. The project focused on the rehabilitation, renovation or expansion of school buildings to improve the learning environment. However, complementary measures were also intended to improve the quality of teaching and education, decentralise the education sector and strengthen it institutionally. The ToC presents these measures in six areas of action, which together were intended to have a positive effect on net enrolment and completion rates, gender ratios and learning outcomes of (indigenous) girls and boys in order to raise the level of bilingual, intercultural education in the project departments. In the long term, improved bilingual and intercultural education can increase completion rates in secondary education and facilitate access to higher education and the labour market, thereby reducing poverty and inequality (not part of the target system).

The project was developed as part of the education programme, taking into account the peace agreements, and should help to reduce **inequality and discrimination against the indigenous population** and promote educational and gender equality. This is theoretically plausible, but not realistic in the short term. Although a disproportionate increase in school enrolment and completion rates among indigenous children automatically leads to a reduction in educational inequality, the scale of the project (an estimated 14,000 children in the project region according to the PP) is not sufficient to make a substantial contribution at the national level. It is unlikely that a single education project will have a measurable impact on discrimination, as discrimination is caused by a variety of historical, social, economic and political factors. In addition, although almost all project departments had a high indigenous population, the project was predominantly designed and perceived as an infrastructure project, as the majority of the budget and activities were allocated to construction measures. The design did not give sufficient priority to bilingual and multicultural aspects to have a direct and substantial impact on discrimination against the indigenous population. These aspects were mainly the responsibility of the PACE TC project and could therefore only be achieved through cooperation between TC and FC.

Gender equality was identified as a key challenge in the problem analysis and was explicitly included by measuring indicators separately for girls and boys, but no specific measures to promote girls' participation in education were specified in the project. In retrospect, given the small gender differences in the indicators both at the time of the PA and at the time of the PCR (see Impact), no additional measures were necessary for this specific goal.

⁸ Due to a change in legal requirements pushed through by the then new government, which was beyond the scope of the project, it was not possible to set up this independent department within MINEDUC as originally planned.

⁹ The original objective was "The improved quality and quantity of basic education provision in disadvantaged rural regions is being used appropriately". The slight rewording emphasises the active role of the project in improving provision.

¹⁰ The original objective was "to improve bilingual, intercultural basic education in Guatemala". It has been adapted to more clearly define the level of basic education and to cover gender equality, which is strongly emphasised in the indicators and PP.

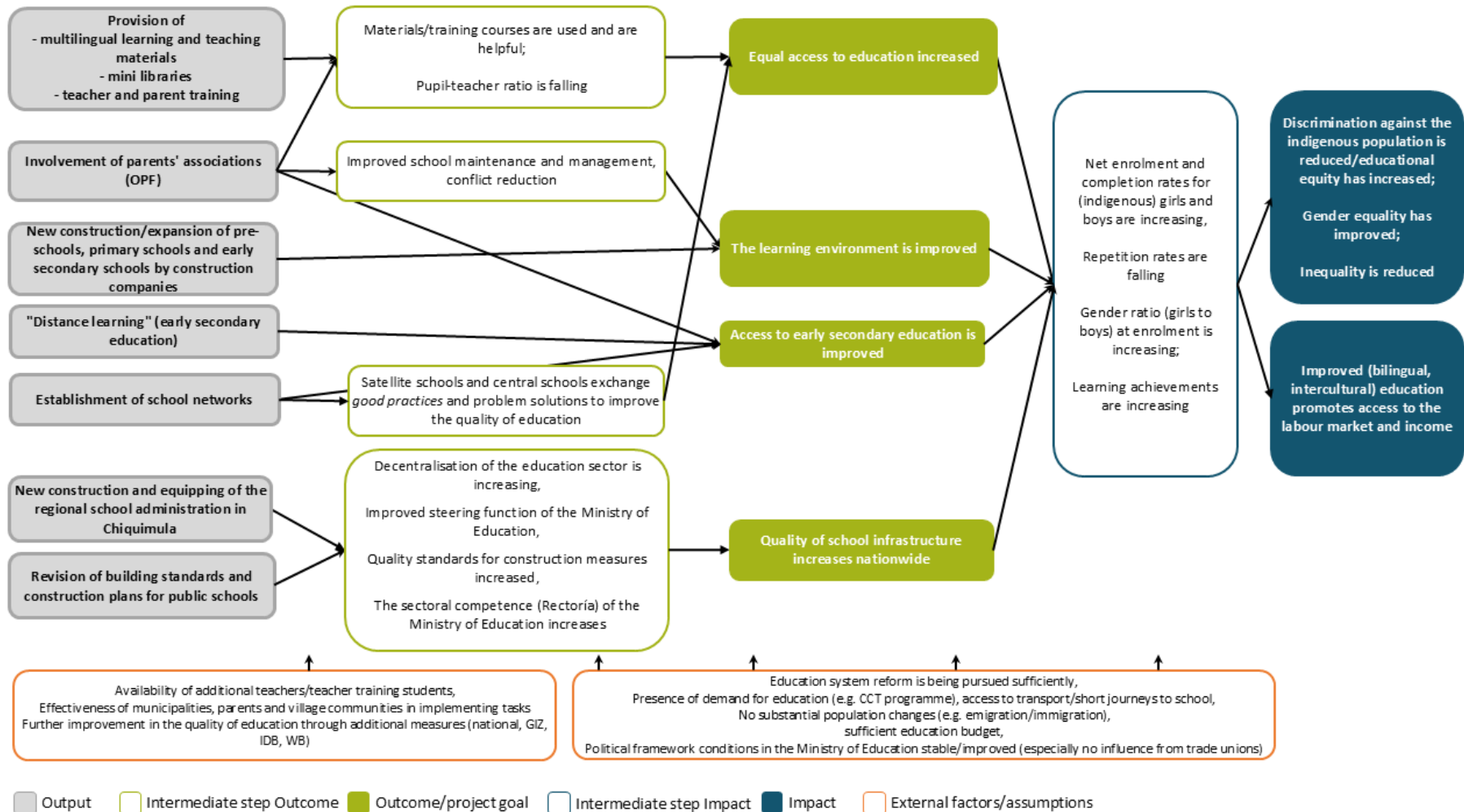


Figure 3: Theory of Change.
Source: Own illustration.

PROEDUC IV aimed to create transparency and increase the **participation of local stakeholders**¹¹, especially parents, in the school environment (particularly in maintenance management). Involving parents in the construction component was a sensible move in order to promote their responsibility and sustainability. In retrospect, however, a stronger focus on strengthening human resources and involving regional school administrations in maintenance would have been appropriate, as sufficient technical expertise cannot be assumed among parents (despite training). While ownership by school administrators and communities was identified as important in other evaluations of FC project, the main responsibility for carrying out repairs should remain with MINEDUC via the regional education administrations. School administrators and parents can be involved in a complementary manner, but the education administrations need the necessary capacities to provide them with sufficient technical and personnel support.

School networks should promote exchange between teachers in order to share *best practices* and develop improvements in the teaching curriculum. These networks should also better connect remote schools and facilitate the transition to early secondary education by promoting continuing education in the satellite schools (primary schools) through the network's central schools (early secondary schools). The school networks made sense conceptually given the low net enrolment rates in secondary education and the geographical distribution of primary and secondary schools in rural departments of Guatemala. Overall, the concept made sense, but in retrospect, there was a lack of follow-up on the measures and, later, an appropriate exit strategy for the TC and FC to ensure their sustainability from the partner's capacities.

The construction of the new education department administration building in Chiquimula and the equipping of the remaining five **department administrations** in the project departments was intended to improve their performance of tasks in general, but in particular to enable them to independently implement and manage infrastructure measures. The revision of construction plans and standards for public schools and the introduction of a handbook of maintenance standards for school infrastructure ("Guía de Mantenimiento de Infraestructura") aimed to improve, standardise and sustainably institutionalise construction standards and maintenance processes. The goal was to achieve a sustainable increase in the quality of school infrastructure nationwide. The approach made sense conceptually, even in retrospect.

A central assumption of the project design was that access to basic education and dropout rates depend mainly on the infrastructural learning environment and bilingual education provision. However, this assumption proved to be incomplete, as factors such as economically driven waves of migration, the number and training quality of teachers, and demand for education (specifically, insufficient awareness among parents and pupils of the benefits of educational qualifications) also posed significant challenges. Although these factors were recognised in the design, no sufficient mitigation measures were included (see also assumptions on external factors in the ToC).

The impact matrix was generally appropriate, but marginal changes were made to the target formulations, indicators and value assignments as part of the EPE. The impact level of the FC module was appropriately linked to the EZ programme, as both aim to raise the level of basic education in rural and indigenous project departments.

4. Adaptability – response to change

As part of the predecessor project PRONADE III, a three-party cooperation model (PEC model) was developed, which was to be expanded in PROEDUC IV.¹² Due to changes in the legal framework beyond the project's control, it was not possible to establish an independent implementation unit within MINEDUC as originally planned, and the PEC procedure could not be implemented. As a result, adjustments had to be made to the implementation strategy and the modalities for involving the target groups. In accordance with the new implementation concept, the planning department of MINEDUC (Dirección de Planificación, DIPLAN), in particular the sub-department for external financing, assumed primary responsibility for the implementation of the project. There was also close coordination with the Department for Educational Quality (Dirección General de Gestión de Calidad Educativa, DIGECADE) and the Department for Curriculum Development (Dirección General de Currícula, DIGECUR). Implementation was based on two models: i.) direct transfers from MINEDUC to OPF for the participatory implementation of minor repairs, and ii.) the awarding of contracts for major repairs and new buildings, particularly for secondary schools, by MINEDUC to construction companies.

Right from the start of the project, it was clear that MINEDUC's human resources in the area of school infrastructure were insufficient. Even today, regional school construction coordinators have too few staff, budget and logistical resources – on average,

¹¹ This refers to school administrators, teachers, regional education authorities and parents.

¹² The original core objective was for school buildings to be constructed in a decentralised manner by local authorities in cooperation with village communities and financed by direct transfers from MINEDUC. However, MINEDUC was no longer legally permitted to transfer funds directly to local authorities.

one person per region is responsible for around 1,300 schools. To compensate for this lack of capacity, an international consulting firm was heavily involved instead of using an implementation unit within MINEDUC, as originally planned.

The original plan was to renovate and equip up to six departmental administrations.¹³ However, an analysis revealed that four of these administrations did not have legalised land. In addition, unfavourable exchange rate time series for Guatemala meant that new buildings for all six departmental administrations would no longer have been financially viable. Only the municipal administration in Chiquimula was prepared to transfer a suitable plot of land to MINEDUC, whereupon the construction of a new administration building and its equipment was approved. However, the construction project was significantly delayed. The main reasons for this were the poor performance of the construction company and the inadequate condition of the building site. After the last approved extension of the deadline had expired, the construction contract with the original company was terminated in September 2019 and the remaining work was transferred to another construction company.

The originally planned implementation period of four years was extended to around eight years by the time of the PCR, which is why the contract with the implementation consultant also had to be extended several times. As only the construction of the school administration building in Chiquimula was incomplete, the consulting firm's involvement was reduced to one person from the end of 2020. The extension of the implementation period was crucial for the successful completion of the component.

Rating summary of relevance: **successful (2)**

The project supported indigenous children from low-income rural areas through a multi-layered approach. The project design was meaningful and geared towards both existing needs and the priorities and policies of the Guatemalan government. Particularly noteworthy is the identification of institutional shortcomings in school infrastructure and the attempt to reduce these through revised standards. In addition, the project demonstrated a high degree of adaptability in a politically unstable environment from the outset. However, the planned capacity building in regional education administrations was not sufficiently equipped in terms of concept and funding. Overall, the relevance of the project is rated as successful.

Coherence

5. Internal coherence

The FC module was implemented in conjunction with the TC module PACE III (2010–2014, Promoting the Quality of Basic Education) and the FC project PRONADE III (2007–2013, Rural Primary Education) and URL II (2010–2016, Regional Centres of the Universidad Rafael Landívar) were part of the development cooperation programme "Education in Guatemala" in the field of basic education. The development cooperation programme was coherently designed to provide holistic support to the predominantly indigenous and rural target group with a focus on multilingual and intercultural education. It promoted basic education (PRONADE III, PROEDUC IV, PACE III), early secondary education (PROEDUC IV, PACE III) and further education (URL II, EDUVIDA). From 2014 (end of the development cooperation programme), labour market integration was strengthened through projects such as EDUVIDA II and PROEDUC V. The development cooperation instruments complemented each other in this regard. FC expanded educational opportunities and quality through school and administrative buildings and the printing of teaching materials, while TC strengthened educational quality through further training and education for teachers and regional education authorities, as well as through the development of teaching materials. Measures were targeted at the poorest communities prioritised by the Guatemalan government. This resulted in geographical overlaps and focal points, which subsequent projects were also able to build on.

PROEDUC IV was closely coordinated with the TC's PACE III project, which simultaneously supported the promotion of bilingual and intercultural primary education in almost the same project departments, for example by providing mini-libraries. As part of a national reading programme, bilingual literature was developed with the support of PACE III, which was later used for the mini-libraries funded by PROEDUC IV in bilingual school classes. There was also close coordination and synergies with the TC programme EDUVIDA (2013–2017) in establishing and strengthening school networks in early secondary education, including through the participatory development of their strategic planning (EDUVIDA in Quiché, PROEDUC IV in the other five administrative districts). They also cooperated in setting up seven conference rooms for training school administrators, teachers, parents and school administration staff, known as "Centres for Pedagogical Resources" ("Centros de Recursos Pedagógicos"). Further synergies between TC and FC were evident in Cunén (Quiché administrative district) through close cooperation in a school network

¹³ All departmental administrations already had office space at their disposal before the project began, either rented or owned. However, in order for PROEDUC IV to be able to implement infrastructure measures in the departmental administrations, the legal ownership of the land had to be clearly clarified. This required the transfer of ownership of this land from the municipalities to MINEDUC.

that was intended to serve as a model for other networks in the project. The division of labour between TC and FC largely followed the standard pattern (TC: capacity-building measures, FC: infrastructure measures).

The target group appraised the cooperation between TC and FC positively, particularly in the school network workshops and the introduction of school parliaments. However, since the completion of EDUVIDA in 2017, coordination between TC and FC has naturally declined. The target group felt that there was a lack of concrete follow-up, particularly in the school networks. It was unclear to them whether the main responsibility for establishing and continuing the school networks lay with the TC or the FC, which indicates potential for improvement in communication with the target group and, where necessary, between the TC and FC. In principle, the local agency should assume responsibility, but there was a particular lack of administrative coordination of offices for the networks.

With regard to international norms and standards, it is noted that PROEDUC IV supported the human rights to education and access to education, to participation in cultural life and cultural heritage, and to equality before the law and protection from discrimination.

6. External coherence

The project meaningfully supported the partner's own efforts (see relevance).

In the practical implementation of the school construction project, there was close cooperation within the framework of the development cooperation programme between the FC (via PRONADE III) and the Spanish development cooperation agency (Agencia Española de Cooperación Internacional para el Desarrollo, AECID). Together with MINEDUC, it developed a tripartite, decentralised cooperation model (PEC procedure) between MINEDUC, regional development councils (CODEDE) and local authorities, as well as official guidelines for school construction. This model was intended to enable the transfer of German FC and Spanish sector budget financing funds to local authorities for decentralised school construction. The model was originally adopted as an implementation model for PROEDUC IV, but could not be applied due to changes in the legal framework, which prohibited direct transfers to municipalities.

The project also complemented other government measures, which were financed partly by state funds and partly by international donors such as the IDB. According to an online survey (see effectiveness), the programme schools provided school meals ("Alimentación Escolar"), earmarked cash transfers ("Gratuidad") and subsidies for teaching aids and school materials ("Valija Didáctica" and "Útiles Escolares"). Outside Guatemala City, however, the government does not contribute to school transport, which would have been an illustration of a crucial element in effectively promoting school networks.

In the education sector, government agencies, international organisations (including German development cooperation), non-governmental organisations (NGOs), academic institutions and civil society representatives have joined forces under the leadership of MINEDUC in the so-called Inter-institutional Education Network (Red Interagencial de Educación, RIED). The RIED serves and has served as a platform for the exchange of information, the coordination of measures and the development of joint strategies to improve the education sector in Guatemala. At the time of the PCR, coordination was handled by TC with support from FC and UNICEF as the secretariat. Previously, the IDB and the EU were responsible for coordination. Development cooperation coordinated closely with various donors within the framework of the RIED. In addition, there was close cooperation between TC, UNICEF, OEI, AECID and the RIED within the framework of the national Intercultural Bilingual Education (IZE) Congress.

At the end of May 2009, the Guatemalan government also established the Sectoral Roundtable for Education ("Mesa Sectorial" or "G13") with a narrower focus on the development and implementation of concrete education strategies and policies. This sectoral roundtable, which was led by the Secretariat of Planning and Programming of the Presidency (Secretaría de Planificación y Programación de la Presidencia, SEGEPLAN), involved key actors in the sector, including representatives of civil society and two appointed donor representatives (at the time of project design, one representative from the G13, then USAID, and one from RIED, then the World Bank). The sectoral roundtable was part of a comprehensive policy orientation in the context of the Paris Declaration and the Accra Agenda for Action.

However, with the outbreak of the COVID-19 pandemic, donor coordination within RIED declined significantly. Exchange processes were restructured under the leadership of UNICEF and reorganised within the framework of a cluster for education.

Rating summary of coherence: **successful (2)**

The project complemented the measures taken by TC and FC in the departments prioritised by the Guatemalan government. Coordination processes with other donor organisations in the education sector were structured and goal-oriented during the implementation period. The only criticism is that the project did not manage to effectively exploit the potential for synergy with TC in

a sustainable manner, particularly in the establishment of school networks. The coherence of the project is appraised as successful overall.

Effectiveness

7. Achievement of objectives

The outcome objective of the¹⁴, which was slightly adjusted within the framework of the EPE, is: Increased use of educational opportunities thanks to an improved learning environment and access to basic education in disadvantaged regions.

The following indicators were used to measure the outcome target:

Indicator	Status at time of audit (2010)	Target value at EPE (audit)	Actual value at PCR (2019)	Actual value at EPE (2024)
(1a) The pupil-teacher ratio in project schools three years after completion.	24:1 for 2013 Average in project departments according to implementation consultant based on DIPLAN data	Lower	20:1 According to EPE recalculation	20:1 Target achieved
(1b) Proportion of project schools with a pupil-teacher ratio below the average (24:1) measured at the start of the project in the project departments.	72.22%	Increasing	100%	80% Target achieved
(2) The pupil-classroom ratio in project schools three years after completion.	N/A	Decreasing	N/A	28:1 Target achieved
(3a) Net enrolment rate ¹⁵ in primary education in the project departments	93.64% (669,308 pupils)	increases	88.44% (644,832 pupils) According to EPE recalculations	92.29% (684,949 pupils) Target value not achieved
(3b) Enrolment rate in grade 1 of all children of school age in the project departments	73.04%	Increasing	63.99%	65.55% Target not achieved
(3c) Proportion of (female) pupils enrolled in primary education among all children enrolled in the project departments	49.46%	49.99%	49.83%	48.82% Target not achieved
(4) Sufficient school networks are permanently active within the framework of frequent and regular exchange formats.	0	9 networks are active, each with at least 2 exchange formats per year and at least 70% of schools participating.	N/A	3 active networks Target value not achieved

Table 2: Outcome target achievement.

Source: Own illustration.

Note: The in the indicators considered schools include all 20 (primary and secondary) project schools. The underlying data on the project departments comes from the MINEDUC statistical database, while the specific data on the project schools was provided by DIPLAN. Information on indicator (3) comes from the online survey (information from 85% of the 20 schools).

¹⁴ Objective at outcome level according to the project concept: The improved quality and quantity of basic education provision in disadvantaged rural regions is being used appropriately.

¹⁵ The net enrolment rate is the proportion of pupils who are of the appropriate age for a particular level of education and are actually enrolled, in relation to the total population in that age group. This excludes children who are "too old" or "too young".

Table 2 shows that two of the four outcome indicators were met at the time of the EPE. In addition, two of the targets not covered by indicators were achieved and one was partially achieved (see below). Overall, the indicators must be viewed with caution, as they partly consider fluctuating population groups (in absolute terms) and there are interdependencies between the indicators. Accordingly, little weight should be given to slight fluctuations.

Pupil-teacher ratio (1a-1b): The indicators show that 80% of all project schools at the time of the EPE (2024) were below the average pupil-teacher ratio in project departments of 24:1 (2013) as recalculated by the implementation consultant ⁽¹⁶⁾. In primary schools that were rehabilitated, expanded or newly built as part of the project, the average fell to 19:1. This development indicates a qualitative improvement in teaching between the start of the project and the EPE. The baseline value of the indicators also suggests that, contrary to the initial situation described, there was no acute shortage of teachers in the project departments receiving funding. Nevertheless, during the evaluation mission, school administrators anecdotally estimated that the shortage of teachers in terms of quantity and quality was one of the biggest challenges at the start of the project.

Pupil-classroom ratio (2): At the time of the evaluation mission, the pupil-classroom ratio was 28:1 according to the online survey (33:1 for new buildings, 29:1 for expanded schools and 22:1 for rehabilitated schools). No data on the ratio at the start of the project is available. However, school administrators, teachers and OPFs reported a noticeable improvement. Observations made by the evaluation mission and the qualitative assessment of school administrators indicate that this ratio is appropriate, i.e. there is no under- or over-utilisation of classrooms.

Net enrolment rate (3a-3c): The net enrolment rate in primary education in the project departments (indicator 3a) fell by around 5 percentage points by the time of the PCR (in absolute terms, from 669,308 pupils in 2010 to 644,832 pupils in 2019), but rose slightly again three years after the project was completed (to 684,949 pupils in 2023). However, the absolute numbers of pupils enrolled show that the number of children enrolled in primary education increased compared to 2010, indicating an increase in the number of children of school age at the time of the EPE. Fluctuations in enrolment rates are generally influenced by strong migration movements. The enrolment rate for Grade 1 (indicator 3b) declined between PA and EPE. The proportion of girls among all children enrolled in primary school (indicator 3c) also declined slightly and thus does not represent an improvement.

School networks (4): The establishment of functional school networks and the creation of "Centros de Recursos Pedagógicos", which were intended to improve educational curricula and promote networking between primary schools and early secondary schools, fell well short of the mark. Nine school networks were established, of which only three were still active in mid-2024, according to an online survey ¹⁷. In most schools, the networks were no longer functional by the outbreak of the pandemic at the latest and focused mainly on promoting early secondary schools to primary schools. The "Centros de Recursos Pedagógicos" were actually intended to serve as meeting places for teaching staff to develop qualitative improvements in educational provision. However, in several (three out of six) of the schools visited during the evaluation mission, these premises were used for other purposes, such as school management offices or storage. According to the online survey, the function of the premises provided had been changed in 35% of the schools surveyed. The main reason given for the failure of the school networks in the qualitative interviews conducted by the evaluation mission was that the planned administrative coordination offices had not been staffed.

Increased learning comfort and motivation: One objective not covered by the indicators was increased educational comfort and motivation thanks to improved school facilities and classrooms/learning environments. According to interviewees, before the project, lessons were sometimes held in corridors or poorly equipped rooms. The new classrooms led to improved concentration, increased comfort and motivation for children and teachers. This is also confirmed by most, but not all, school administrators in the online survey: according to 76% of school administrators, the spatial design of the classrooms is suitable, and according to 71%, the furniture is adequate and meets the needs of teachers.

Equal access to education through bilingual/intercultural education: another activity was the establishment of bilingual mini-libraries to increase bilingual education opportunities and the provision of printed teacher handouts on intercultural education. Further activities were to be implemented through the PACE TC project of the same development cooperation programme.

Parental participation: Strengthening parental participation was included in the project design, but was not supported by indicators. A strengthening of parental ownership in the OPFs was observed during the implementation period, particularly in the form of initiative in relation to infrastructure and maintenance problems. According to the online survey, 100% of OPFs are still actively registered, which is to be expected as this is a prerequisite for financial support from MINEDUC for repairs. In addition, 94% of school administrators stated that OPFs are actively involved in the administration and implementation of MINEDUC support programmes.

¹⁶ The baseline values were adjusted to take into account all six project regions instead of four.

¹⁷ Five school administrators stated that the school network at their school is still active, but some of them are part of the same network.

Institutional strengthening: Another objective of the project not covered by the project indicators was to strengthen implementation capacities in the area of school infrastructure at MINEDUC, DIPLAN, the regional school administration in Chiquimula, as well as the OPFs and school administrations. To this end, five activities were implemented, some of which were unsuccessful, while others were successful.

Firstly, the planned creation of an independent infrastructure department was not successful because Guatemalan law has prohibited the implementation of programmes and projects by project implementation units that independently manage external funds since 2013. This continues to exist as a sub-department of DIPLAN.

Secondly, the construction of a new building for the regional school administration in Chiquimula was completed, but the building has not yet been occupied due to a lack of basic utilities such as electricity and water. According to information from the regional education administration, the move was still planned for 2024, but had not been completed at the time of the EPE in May 2024. In addition, only one person was still responsible for the entire region. Accordingly, at the time of the EPE, an improvement in the regional school administration's implementation capacities with regard to school infrastructure is not plausible or is heavily dependent on complementary additional investments in personnel.

Thirdly, the "Manual of Normative Criteria for School Infrastructure" ("Manual de Criterios Normativos") was drawn up, approved by ministerial agreement at the end of 2015 and already applied in the context of PROEDUC IV for larger school construction projects and repairs. In addition to a general increase, systematic communication and standardisation of standards, they also included, for the first time, environmental standards with potentially positive effects on environmental sustainability in school construction. The standards form an important basis for MINEDUC's steering function in the area of school infrastructure and are binding for all institutions making investments in this area (e.g. local authorities, NGOs). This is particularly relevant as, in the past, investments were often made without adequate planning and construction supervision, which could lead to precarious conditions in school infrastructure.

Fourthly, another instrument for institutional strengthening of DIPLAN's school infrastructure sub-division was the development of the maintenance manual for public schools for OPFs and school administrators. It aimed to systematise, raise, and standardise maintenance standards. In the medium term, this should increase efficiency in maintenance management and ensure the sustainability of construction projects. However, compliance with the maintenance manual is not guaranteed among all stakeholders. For example, not all school administrators and OPFs are familiar with the manual, so repair measures are often improvised and carried out on their own initiative.

Fifthly, the "OPF model" has been formalised in such a way that it can now also be used for national funds and replicated in other projects (see Impact).

8. Contribution to the achievement of objectives

Pupil-teacher ratio: A low pupil-teacher ratio is an important indicator of teaching quality. However, in addition to infrastructure development, additional teaching staff must be hired in order to achieve this indicator. The project's contribution to infrastructure development is clear: it financed four new buildings, four renovations and twelve extensions to primary and early secondary schools, as well as minor repairs to a further 320 schools. These measures resulted in the construction of 19,618 square metres of new space and the repair of 14,006 square metres of existing space. The new functional areas provided include 69 classrooms, two school libraries, four art rooms, five science laboratories, nine computer rooms, 14 workshops, eight offices for school administrators, 18 sanitary modules and three kitchens.

However, the project had no direct impact on the prevailing shortage of (qualified) teaching staff; an indirect impact is theoretically possible and, according to school administrators, has occurred, as the attractiveness of the locations has increased due to improved infrastructure, attracting more teaching staff. According to an online survey, 29% of school administrators stated that they were able to hire new teachers as a result of PROEDUC IV. It is therefore plausible that the project contributed to the successful achievement of its objectives, but only in conjunction with successful, complementary investments by MINEDUC or through support from municipalities in the area of teaching staff.

Pupil-classroom ratio: The project has made a positive contribution to improving the pupil-classroom ratio in the project schools thanks to the successful construction investments mentioned above. The construction of new classrooms also meant that early secondary schools were able to use their own premises and no longer had to share them with primary schools.

Net enrolment rate: A positive contribution of the project to increasing the net enrolment rate is theoretically plausible due to i.) increased attractiveness of schools for children, parents and teaching staff, and ii.) the involvement of parents in the school system. According to 82% of school administrators (online survey), PROEDUC IV had a positive impact on attendance, retention,

performance and support for pupils in project schools. School networks were also intended to have an impact on enrolment rates in lower secondary schools, but these are not active enough to have any effect. However, the scale of the project (e.g. intervention in 340 out of a total of 13,160 schools (2.58%)) is insufficient to have a substantial impact on the project department-wide indicator.

According to school administrators, the pandemic (external factor) has had a lasting negative impact on educational attainment, enrolment rates and completion rates in primary education, especially during the lockdown (approx. March – summer 2020). In the project departments, many families did not have access to remote learning, which is why this period remained largely unused in terms of education. According to interviewees, the high level of migration¹⁸ from the project departments to other countries may also have increased dropout rates in some cases.

Learning environment through equipment and training: The project equipped 69 classrooms, created 6,900 mini-libraries and conducted 45¹⁹ training courses. The mini-libraries proved particularly effective as part of a national reading programme, which, according to interviewees, had a positive impact on basic education levels (impact)²⁰. For the video-based teaching programme for lower secondary schools ("telesecundarias"), 10,000 planning aids and 26,500 instructions for trainers were produced and distributed. In addition, intercultural and bilingual teaching materials were produced, such as the "Text on intercultural education for young people" ("Texto de educación intercultural para jóvenes") and the "Manual on intercultural education for teachers" ("Manual de educación intercultural para docentes"), which reached a total of 43,200 pupils. A total of 21,835 texts and 2,182 manuals were printed. According to the final review, the provision of teaching and learning materials resulted in a total of 977,224 pupils and 45,881 teachers being beneficiaries. Eight textbooks and teacher's manuals for secondary education were also developed for the Mayan languages K'iche' and Q'eqchi', of which 13,425 textbooks and 2,000 manuals were printed and distributed. A contribution by the project to improving the quality of education is therefore plausible to a limited extent. This is only partially corroborated by the online survey, in which only 59% of school administrators appraised the quality of the educational resources provided as moderate to very high. In addition, 82% stated that their school is capable of fulfilling the current MINEDUC curriculum.

Parental participation: According to interviewees, the project did achieve an impact, but not through the mechanisms originally envisaged (active involvement of parents, PEC procedure), but rather out of necessity: the unexpected discontinuation of the PEC procedure and the inefficient processes of the departmental administrations in the infrastructure sector forced parents and school administrators to take the initiative themselves. However, this cannot be sufficient or sustainable, as neither the necessary technical capacities are available nor can compliance with building standards by parents and school administrators be guaranteed. The formal route of parental involvement via the OPF used by the project is theoretically more efficient, provided that all stakeholders comply with the processes and standards set out in the handbook for the maintenance of school infrastructure. In practice, the introduction of the OPF as an implementation model for infrastructure measures has ensured parental involvement, particularly at the administrative level, and contributed to capacity building in the area of OPF administration.

School networks and institutional strengthening: The effectiveness of these measures was partly low (school networks, see above), incomplete at the time of the EPE and of poor quality (regional school administration building), and partly successful (two manuals and OPF model).

9. Quality of implementation

The quality of implementation was hampered by the extremely poor performance of one of the three construction companies commissioned. This had a serious impact on the efficiency and quality of the buildings constructed by this company (see Efficiency): three out of 20 schools were handed over with defects. This was confirmed by the evaluation mission at one of the schools visited, where toilets and the water pump were not working and had to be put into operation on a temporary basis, for example by relocating the tank, on the initiative of the school management. After the last deadline extension expired, the construction contract with the company was terminated early in September 2019. Following a complex tendering process (), which had to be repeated due to a lack of suitable bids, a new construction company was finally commissioned in 2022 to complete the unfinished construction work.

In addition, the poor quality of the building site, which initially required further measures, led to considerable delays in the construction of the school administration building in Chiquimula. At the time of the EPE, the new building for the Chiquimula regional school administration could not be put into operation because essential utility connections were missing and the minimum requirements for commissioning were therefore not met. This also impaired the effectiveness of the project in the area of institutional strengthening (see above).

¹⁸ According to INE statistics, the project regions accounted for around 33% of returnees (as a proxy for previous emigration) to Guatemala in 2023.

¹⁹ In addition, the 320 participating OPFs received further training.

²⁰ According to INE statistics, the reading level of sixth graders improved in 54% of the municipalities in the project regions between 2010 and 2014.

No significant deficiencies were identified in the management of the project during the EPE. The only shortcoming was the project executing agency's commitment, which was insufficient in some cases because DIPLAN had limited implementation capacities, leading to administrative bottlenecks such as delays in DIPLAN's reporting.

The project risks identified during the PP that could have been particularly problematic for project management – such as a decline in the intensity of the education reform or the politicisation of measures to promote demand for education (e.g. cash transfers for school meals and teaching materials) – did not materialise.

10. Unintended effects (positive or negative)

Unintended effects at the outcome level included the potential for conflict arising from the construction of new public schools in the project departments, particularly between project schools and neighbouring private and cooperative schools. The improved quality of education in the project schools led to increased competition for pupils in the region. Traditionally, private or cooperative schools were preferred because they offered better education and infrastructure in the past and were often considered a status symbol. Through the project, this gap was reduced. According to the school administrators surveyed as part of the EPE, this potential for conflict led to tensions, but never to concrete escalations.

In fact, an increased number of schools also means more competition for the limited resources of the municipalities. Some of the schools visited had the impression that this financial support was often distributed arbitrarily.

According to school administrators and teachers, an additional positive, unplanned effect of the project was the improved reputation of the supported schools due to the expanded IT offerings, which were not available in all neighbouring schools. This increased the children's motivation and attracted more children. The good reputation also meant that children from rural areas were more likely to attend school in rural areas, thus reducing the proportion of children from rural areas attending urban schools. This could also be one reason why rural schools were able to recruit more teachers.

Rating summary of effectiveness: **moderately successful (3)**

The majority of the planned outputs were delivered as planned and are currently being used, particularly in the area of school infrastructure, the main measure of the project (57% of total costs). As a result, two of the four outcome indicators were met. In addition, there have been successes in the area of educational quality thanks to equipment, positive reputation and parental participation, but little effectiveness in the area of institutional strengthening. The reasons for this were, in particular, a weak construction company and changes in the legal framework. The development of the above-mentioned manuals has a high potential impact, but the exact extent of their use could not be quantified. The effectiveness of the project is assessed as moderately successful.

Efficiency

11. Production efficiency

The total cost of the project amounted to approximately EUR 21.34 million, which was around EUR 0.84 million above the costs envisaged in the PP; this was covered by an increased contribution from the executing agency. The FC funds amounted to EUR 16.25 million. At the time of the PCR, EUR 3.41 million of the FC contribution was still outstanding. According to data provided by the implementing body, a further EUR 3.01 million was spent between 2020 and 2023 (after the PCR). At the time of the EPE, the remaining funds to be reduced amounted to EUR 90,448.

The project funds were distributed as follows among the three components of the PROEDUC IV project and the services of the implementation consultant:

- i. School infrastructure: 59.36% or EUR 9.40 million
- ii. Quality of education: 19.70% or EUR 3.12 million
- iii. Strengthening MINEDUC: 7.80% or EUR 1.24 million
- iv. Implementation consultant: 13.14% or EUR 2.08 million

Figure 4 shows that i.) costs are heavily concentrated on Component 1, ii.) a large part of the costs was financed by the FC grant, and iii.) the planned total costs for Component 2 were slightly exceeded and those for Component 1 were slightly underrun.

The costs for the construction of four new school buildings and the extension/rehabilitation of 16 buildings (Component 1) were mainly determined by the design standards specified by the project. According to the final inspection, the unit costs (construction costs and construction management) calculated in the four construction contracts averaged around EUR 1,478 per newly created school place and thus proved to be very cost-effective. In addition, the construction costs achieved under the programme were

around 25% below the thresholds for comparable public buildings at the time of the PCR in 2019. All school administrators interviewed stated that, in their opinion, the classrooms built as part of the project were of higher construction quality than those built in previous national or international construction projects. However, according to the final report of the implementation consultant, the construction quality in 3 out of 20 schools was poor due to the inadequate performance of the responsible construction company (see effectiveness).

The costs of the measures to improve the quality of education (component 2) were reasonable in view of the outputs achieved. The majority of the costs, around 94%, were attributable to the establishment of mini-libraries, which complemented a national reading programme that was a high priority for the government. These mini-libraries, developed in consultation with the TC, contained bilingual teaching materials and were distributed to 6,900 schools in the six project departments.

In retrospect, the measures to strengthen MINEDUC (component 3) by promoting regional school administrations and DIPLAN in regional infrastructure management were not financially sufficient to enable the originally planned rehabilitation and equipping of all regional administrations in the project area. However, as four school administrations were unable to provide legalised land and a fifth municipal administration did not want to transfer the land to MINEDUC, they were not allowed to receive any investment. MINEDUC therefore applied in the meantime to use the funds for the construction of the regional administration building in Chiquimula, as this was housed in rented premises and its municipality was the only one to transfer land. The costs for this construction project exceeded the amount estimated in the PP for five renovations by EUR 0.13 million.

As the financed school administration building in Chiquimula was not yet operational at the time of the EPE, it is not yet possible to make a final assessment of the effectiveness and thus production efficiency (and also impact and thus allocation efficiency) of this component. However, it is foreseeable that these measures are not sufficient and that complementary measures to strengthen capacities would have been necessary: each school administration usually has only one position for the administration and coordination of regional school infrastructure measures for around 1,300 schools. Redistributing costs in favour of this component would therefore probably not have significantly improved production and allocation efficiency and would not have solved the problem of a lack of suitable land. It is plausible that the resources of this component could have been used more effectively in targeted (personnel) capacity building in the area of school administration, as these were clearly insufficient at the time of the PA and the EPE. To do this, however, MINEDUC would first have to create the positions for school infrastructure.

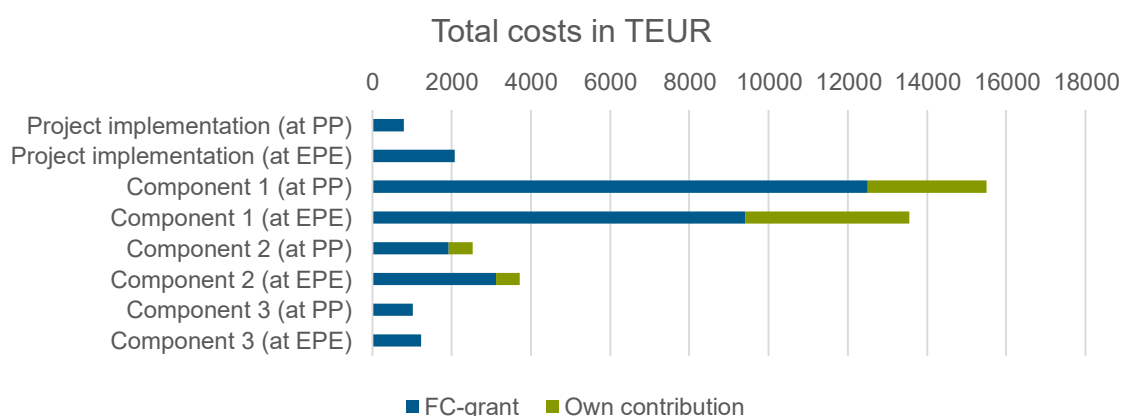


Figure 4: Cost distribution of components by financial source (in TEUR).

Source: Own illustration, final review of PROTEP and financial reports of MINEDUC.

The costs for the implementation consultant were reasonable, as he also had to take on the tasks of the project implementation unit within MINEDUC that had originally been planned but ultimately not established. In addition, key implementation processes, such as pre-investment and tendering processes, took longer than planned, with the pre-investment processes alone taking an average of 26 months per infrastructure measure.

Exchange rate devaluations²¹ during the extended project period had a negative impact on the production efficiency of the project: the real value of the funds provided declined and fewer investments than planned could be made (especially for component 2).

²¹ The exchange rate originally assumed was 1.32 USD/EUR; in fact, it averaged 1.15 USD/EUR with relatively stable exchange rates between the Guatemalan GTQ and the USD.

The implementation period for the project was set at just under four years during the audit, but had to be extended several times, resulting in a total project duration of 7 years and 10 months until the PCR. After this period, the PCR was conducted. At the time of the PCR, it was not yet foreseeable that the construction of the building for the Chiquimula regional education administration, its furnishing and the completion of work on a school would not be finalised in time. Consequently, following the PCR, a no-cost extension was arranged in order to implement the outstanding funds of EUR 2.07 million ⁽²²⁾ and complete the incomplete activities. ²³After the PCR, the project duration had to be extended several times, mainly due to delays in the acceptance of the unfinished regional education administration building by MINEDUC and in the construction of the regional education administration building in Chiquimula. The remaining funds were reduced by EUR 116,078.00 in April 2025 and the project was formally completed. The project thus ran for 13 years and 2 months.

The delays have the following rationale. Initial delays resulted from the necessary but time-consuming coordination processes with the relevant ministries. Several changes of government, especially at the beginning of the project, also required repeated coordination processes. A particular time problem was that the original implementation strategy and the modalities of target group participation had to be adapted due to changes in the legal framework.

All construction projects (component 1) had a very long lead time: on average, around 16 months elapsed between the first site visit and SNIP approval (Sistema Nacional de Inversión Pública), the national planning and approval procedure for public investments, while the tendering and award process took a further 11.5 months. The contractually agreed construction times were exceeded by an average of 60%. Added to this was the handover process to MINEDUC, which also took several months.

The school administration building in Component 3 was also affected by delays, mainly due to the poor performance of a contracted construction company, whose contract had to be terminated and re-awarded due to repeated deficiencies. According to the final inspection, Component 3 should have been completed in mid-2020, but after further delays, it was only handed over to MINEDUC at the end of 2023 and with deficiencies (see effectiveness) and had not yet been finalised at the time of the evaluation mission in May 2024.

Given the complex requirements for educational infrastructure measures in Guatemala and the political challenges during project implementation, the extensions were unavoidable in order to complete the outstanding activities. A less optimistic schedule could have anticipated this and avoided the administration of extensions and increased costs for consulting services.

12. Allocation efficiency

The overall impacts expected from the project were partially achieved, but often only marginal changes can be observed. In addition, many impact dimensions cannot be clearly attributed to the project due to a large attribution/data gap (see Impact).

Migration proved to be one of the most significant factors in school dropouts. Comprehensive measures to mitigate migration (and its effects) would have exceeded the scope of this project. Mitigating the effects of the Covid pandemic was also beyond the scope of the project. A stronger focus on awareness-raising measures for parents and children, particularly with regard to the advantages of secondary education, could have increased enrolment in secondary education, reduced school dropouts, and thus increased the impact of the project and, consequently, Allocation efficiency. This does not apply to low enrolment rates and dropouts due to existential economic reasons. However, it should be noted that this task was partially taken over by the TC.

Rating summary of efficiency: **moderately successful (3)**

Despite the low Production efficiency of Component 3 and the increased project duration, the use of the available funds was appropriate overall in view of the complexity of the processes and the low unit costs achieved per school place created in the project vis-à-vis the outputs and outcomes achieved. Allocation efficiency cannot be fully appraised, as the scope of the project and the underlying level of funding can only have a limited impact on overarching development goals. In general, more effective institutional strengthening measures would have been relevant in order to strengthen coordination between MINEDUC/DIPLAN and the regional school administrations, as well as the capacities for implementing infrastructure measures at both levels (central and regional), thereby increasing the efficiency (and sustainability) of the project. Overall, efficiency is appraised as having been only partially successful.

²² According to the monitoring note dated 9 January 2020, the disbursement status in January 2020 was EUR 14.1 million.

²³ According to the monitoring note dated 9 January 2020, it was initially assumed that the project would be completed in 2019 and the PCR was therefore planned for 2019. However, due to delays, particularly in the construction of the regional education administration in Chiquimula, the project had to be extended several times and had not yet been officially completed at the time of the evaluation mission.

Impact

13. Overarching developmental changes

The EPE-adjusted²⁴ target for the National Education Programme was: To increase the level of bilingual, intercultural basic education in the project departments, with a particular focus on gender equality. The achievement of the target at the impact level can be summarised as follows.

Indicator	Status at audit	Target value at EPE (audit)	Actual value at PCR	Actual value at EPE
(1a) The completion rate for the first grade of primary school in the project departments.	61.92% (133,895 pupils)	Increasing	96.02% (161,723 pupils)	72.86% (124,686 pupils) Target value achieved
(1b) The completion rate for the sixth grade of primary school in the project departments.	93.74%	Increasing	96.87%	92.67% Target value not achieved
(2a) Net enrolment rate in lower secondary education in the project departments.	25.54%	Increasing	30.79%	31.93% Target value achieved
(2b) Transition rate from primary to secondary education in the project departments	76.07%	Increasing	68.78%	67.84% Target value not achieved
(3a) Proportion of female pupils repeating a year among all female pupils in the first three years of primary school in the project departments.	19.44% (38,150 pupils)	Decreasing	15.66% (34,142 pupils)	17.71% (51,355 female pupils) Target value achieved
(3b) Proportion of repeat (male) pupils among all (male) pupils in the first three years of primary school in the project departments	20.87% (57,434 pupils)	Decreasing	18.83% (43,838 pupils)	20.77% (48,052 pupils) Target value not achieved

Figure 3: Impact target achievement.

Source: Own illustration.

Table 3 shows three indicators (completion rate, transfer rate, repetition rate), partly broken down by gender, which approximate the basic education level of children. Measurements of the actual basic education level, i.e. standardised reading and mathematics tests, are not available. Overall, the indicators must be viewed with caution, as they partly consider fluctuating population groups (in absolute terms) and there are interdependencies between the indicators. Accordingly, little weight should be given to slight fluctuations.

Overall, Table 2 shows that the project's expected overarching impacts have been partially achieved, but that the changes observed are often only marginal and fluctuating. No appraisal can be made in the areas of interculturalism and bilingualism due to a lack of data.

Completion rates (1a-1b): the completion rate in the first year of primary school rose substantially between 2010 (PA) and 2019 (PCR) from around 62% (133,895 pupils) to 96% (161,723 pupils), but fell again to 73% (124,686 pupils in absolute terms) by 2024. The indicator is still being met at the time of the EPE, but the negative trend calls into question its sustainability. The absolute numbers of children graduating are also significantly lower at the time of the EPE, which indicates either a low enrolment rate or a declining number of children living in the region, e.g. due to migration. The graduation rate for the sixth (and final) year of primary school fluctuated slightly, but shows no visible success; absolute figures are not available.²⁵

²⁴ Impact objective according to the project design: "Improvement of bilingual, intercultural basic education in Guatemala". The impact objective was formulated too generally, while the indicators at the impact level were very specific but only described an improvement in bilingual, intercultural basic education in Guatemala to a limited extent. The indicators at the impact level were partially adjusted to improve the measurability of the increase in the level of bilingual, intercultural basic education (impact objective). The absolute figures in brackets correspond to the respective percentage and not to the total (100%).

²⁵ It is important to note that the completion rates for (1a) and (1b) refer to different populations: children who leave the school system during school years 1-5 are therefore no longer included among the children considered by indicator (1b) in grade 6. This may explain the higher completion rates in grade 6 compared to grade 1.

Net enrolment rate/transition to secondary school (2a-2b): 68% of children who completed primary school in the project region had transitioned to secondary school by 2023. This proportion fell from 76% (PA 2010), which means that the indicator must be appraised as not fulfilled. This contradicts the impressions of the school principals surveyed as part of the EPE, who reported that the transition rate had improved in recent years, which may be true for the schools that received funding.

However, during the same period, the net enrolment rate in early secondary education rose from 25.54% to 30.79% (indicator met), i.e. of all children of school age (early secondary education or 7th grade) in the project region, more children entered secondary education than at the time of the PA.²⁶

Grade repetition (3a-3b): The proportion and absolute numbers of children repeating a grade declined until the PCR, but then rose again by the time of the EPE: The change is marginal for boys (20.87 to 20.77%) and slightly higher for girls, but also insignificant (19.44 to 17.71%). Girls thus perform slightly better than boys on this indicator. It remains possible that girls have fewer opportunities to enrol in primary school and that, as a result, girls who are stronger learners tend to be selected²⁷; at the same time, better school performance by girls in these age groups – once access to education exists – is a phenomenon observed worldwide²⁸.

Equality: In addition to a slight decrease in girls repeating a year, school administrators and project staff from other donor organisations reported that parents had become increasingly aware of the importance of girls' education during the course of the project. According to a school principal in Cunén, another sign of girls' increased participation in education is the growing number of girls taking part in school sports. According to the survey, in 2024, 80.3% of teachers in the 20 project schools came from the school region and only 35.96% of teachers were bilingual. The latter may also be due to the fact that there are not enough bilingual teachers available.

14. Contribution to overarching intended developmental changes

The choice of indicators is based on the theoretical assumption that children with higher learning achievements (better basic education level) will pass their exams or not have to repeat classes and will move on to secondary school. However, three things must be noted for all three indicators. Firstly, these proxies can also be influenced by other factors, e.g. fluctuating audit standards or strictness in promotion to subsequent classes, the number of available school places in secondary education or the economic ability of families to finance school attendance (i.e. children have to contribute to the household income). Secondly, the indicators refer to the entire project region and are therefore strongly influenced by developments in non-supported schools (similar to effectiveness): the project has carried out OPF repair, rehabilitation, expansion or new construction measures in 2.6% of all public schools in the project departments. Without the OPF repairs, the proportion is only 0.15%.²⁹ Thirdly, the figures are all relative proportions and therefore heavily dependent on the underlying absolute number of children and interdependencies between the indicators; for example, the number of children enrolled in school has a direct impact on the completion rate. Due to this attribution gap, the indicators and their attribution to the project measures must generally be treated with caution.

Completion rates: The improved completion rate in the first grade can plausibly be attributed to the project, for example through improved (spatial) learning conditions and smaller classes or a lower teacher-pupil ratio. However, the completion rate in the sixth grade does not show successful target achievement. In addition, the project only has a direct impact on the project schools; the completion rate across all schools in a department can therefore only be influenced to a limited extent by the project.

Net enrolment rate/transition to secondary education: An increase in the net enrolment rate in early secondary education could theoretically be attributed to the following project activities: i.) an overall improvement in basic education levels thanks to better (spatial) learning conditions and smaller classes or lower teacher-child ratios, and ii.) increased awareness among children and parents of the importance of secondary education (e.g. economic advantages) thanks to parental participation and (albeit less active) school networks. According to school administrators, enrolment rates rose because secondary schools were able to offer morning classes thanks to their own premises (instead of borrowing them from primary schools); children apparently prefer morning classes, possibly also because this allows them to work in the afternoons. Teachers, school administrators and staff of other donor organisations also emphasise that children used to drop out of school after sixth grade in order to contribute financially to their families (in the sense of a general cultural change). A contribution of the project to enrolment rates in early

²⁶ The different trends of the two indicators may be due to a higher enrolment rate in primary school: more children attend primary school, but relatively fewer of them transfer to secondary school, while even more of the total number of children of primary school age transfer to lower secondary school. The reason for this could be that more children (with higher school barriers) are enrolled in primary school but do not progress to secondary school. Such a dynamic could be considered a success overall, even if indicator (1b) is not met at first glance.

²⁷ From 2010 to 2023, fewer girls than boys of school age were enrolled in primary school. In 2023, the number of girls enrolled was 337,385, while 347,564 boys were enrolled.

²⁸ Snilstveit et al. (2015): 'Interventions for Improving Learning Outcomes and Access to Education in Low- and Middle-Income Countries: A Systematic Review'. 3ie Systematic Review 24. London: International Initiative for Impact Evaluation (3ie), 2015.

²⁹ The definition of the indicator for the entire project region is nevertheless appropriate, as it allows the indicator to better capture "general equilibrium effects" (effects that a change in one part of a (local) system has on other parts of the (geographically larger) system). This meets the requirements of an impact level.

secondary education seems particularly plausible, as the project has specifically built, expanded and rehabilitated schools at this level. However, the possible impact of the project on the department-wide indicator is low.

Grade repetition: Although the reduction in repetition rates in the first three years of primary school for girls and boys indicates a generally marginal improvement in basic education levels, the project's influence is only plausible to a limited extent and its potential impact on the indicator is low.

Gender equality: Gender equality was included in the project indicators and was therefore explicitly included in the target formulation adapted by the EPE. However, the project design did not include specific measures to promote equality. Interviewees pointed out that the above-mentioned awareness of the importance of girls' education is partly due to general social changes and also to awareness campaigns by other projects in the project departments. Accordingly, a decisive contribution by the project does not seem plausible.

Institutional strengthening: Although not reflected in the impact indicators, the project achieved structural changes and broad impact in the area of institutional strengthening (see effectiveness). The further development and increased formalisation of the OPF model (see effectiveness) achieved by the project, as well as the experience gained in the project, were incorporated into the new "National School Maintenance Programme", in which school repairs are to be carried out directly by parent representatives. Provided they can prove that they are an active OPF, the OPFs receive a one-off payment of up to approximately EUR 8,600 directly from MINEDUC. In 2018, MINEDUC financed 2,944 measures nationwide with a total of EUR 18.9 million and continued the programme in 2019. Although the introduction of the OPF model for schools is voluntary in principle, it becomes mandatory as soon as repairs have to be organised through OPFs as part of MINEDUC programmes.

In addition, the 'Handbook for Normative Criteria for School Infrastructure' prepared by the project and the "Maintenance Manual for Public Schools" created by the project are applicable and, for the most part, binding for all nationally and internationally funded projects in the area of school infrastructure. The resulting positive effects on the quality of school infrastructure are highly relevant and plausible, but consistent compliance with the standards set out in the manuals is crucial and cannot be verified within the framework of the EPE.

According to interviewees, high levels of migration from the project departments to other countries due to a lack of economic prospects (external factor) jeopardised the effectiveness and efficiency of the project. Migration has led and continues to lead to families being torn apart and children receiving less emotional support and guidance during primary school, which in turn can have a negative impact on educational attainment.

15. Contribution to overarching unintended developmental changes

No unintended effects were identified.

Rating summary of impact: **moderately successful (3)**

The impact indicators were partially fulfilled, but overall, minor fluctuations and negative trends between project completion and ex-post evaluation can be observed, which could also be attributed to interdependencies between indicators. The project's potential to influence the indicators is limited due to its relative small scale. Although the project genesis placed a strong focus on gender equality and improving the level of bilingual basic education, little attention was paid to this in the implementation of the FC project, and the area of bilingualism was covered by the TC activities. Overall, the data available from EPE does not suggest any significant successes in the area of improved basic education.

However, structural changes are already evident in the area of school infrastructure in Guatemala, which are having a broad impact: improved construction quality, maintenance management, and the systematic involvement of parents through the OPF model. Overall, the overarching developmental impact is rated as moderately successful.

Sustainability

16. Capacities of the beneficiaries and stakeholders

In general, the project executing agency (MINEDUC) and its planning department DIPLAN are well represented in the project departments and have regional offices in all affected areas. Nevertheless, the project executing agency's capacities remain weak in both the general and technical implementation of infrastructure measures. MINEDUC, DIPLAN and the regional offices require additional (technical) staff in order to implement projects independently: at DIPLAN, only two to four people are explicitly responsible for infrastructure, while in the regional offices, often only one person is responsible for supporting an average of 1,300 schools. In order to ensure project implementation, the implementation consultant had to provide significant support to many of DIPLAN's areas of responsibility until the end of the project: a clear indicator of insufficient capacity.

This low staffing level also implies that the technical capacities, experience and networks in both DIPLAN and the regional offices are concentrated in the hands of a few individuals, which poses a considerable sustainability risk in the event of staff changes. It is worth noting, however, that despite several changes of government during the project, the technical staff remained largely unchanged; changes mainly affected the management level.

Parental involvement in school management and maintenance was expanded (see Effectiveness, Impact). Provided that parents can demonstrate that they have a functioning and registered parent representative body (OPF), they receive transfers from MINEDUC for school support programmes. This led to a noticeable improvement in participation and personal responsibility, school management and administrative capacities among school management and OPF. However, there is also a risk of capacity loss in the event of a change of headteacher or personnel changes in the OPF. In addition, 82% of school management teams confirmed in the online survey that the community contributes to the maintenance of schools, which highlights parental involvement beyond the OPF.

MINEDUC provides hardly any budget for maintenance measures, i.e. there is no specific budget line for maintenance measures in schools within the framework of MINEDUC's support measures. Although OPFs can use budget funds from the "Gratuidad" support programme for minor repairs in accordance with the manual, these funds are extremely limited. OPFs do not focus on maintenance measures carried out by themselves, but in practice mainly on fund transfer and budget monitoring (administration). During the EPE, individual maintenance measures were observed³⁰, but these were carried out solely on the initiative of the school management and OPFs and did not always comply with the standards defined by the project in the manual for school infrastructure maintenance. This is partly due to a lack of knowledge of the standards and a lack of technical training (despite strengthened administrative capacities) among the OPF and school management, and partly to the need to remedy defects – such as roof damage – quickly and improvisationally. The formal route via the regional education authorities is perceived as too bureaucratic and lengthy, which in turn is due to insufficient capacity within the administrations.

17. Contribution to supporting sustainability capacities

The development of the "Maintenance Manual" and the "Manual for School Infrastructure Standards", as well as the further development of the OPF model, are important first steps towards improving school infrastructure in line with national standards and its maintenance. The sustainability of the quality standards is likely, as they are mandatory for all construction projects in the area of school infrastructure.³¹ SEGEPLAN, which advocates the introduction of the manuals developed in the project and monitors compliance with them, supports the use of the manuals; an important factor for their use, albeit at a higher level of implementation. The manuals and the OPF model also support capacity building in MINEDUC and regional education administrations, induced initial decentralisation steps within MINEDUC and partially reduced the risk of administrative delays that can arise from changes in government or leadership. However, the measures taken under the project were not sufficient to substantially increase capacity within MINEDUC, particularly due to a lack of personnel (see above).

However, the effects on technical capacities and, consequently, on the maintenance of school infrastructure at the local level – among OPFs and school administrators – are not plausible (see above): according to the project design, OPFs were to be trained and supervised by external technical personnel in carrying out the necessary maintenance measures, but this was only possible during the project implementation phase thanks to the support of the implementation consultant. After the consultants left, at the time of the evaluation mission, such training and supervision was no longer observed. The application of the manual also does not always seem appropriate at this level.

The positive developments in the administrative capacities of school management and OPFs described above were clearly facilitated by the beneficiaries, which optimised the process of establishing parent representatives and contributed to the

³⁰ According to the online survey, maintenance work was carried out at 59% of schools between December 2020 and December 2023. For 2024, 24% of schools had received approval for and budgeted the MINEDUC's annual maintenance budget.

³¹ Whether the school infrastructure projects developed under PROEDUC IV comply with the construction specifications of the "Handbook for School Infrastructure Standards" cannot yet be conclusively assessed, as a census of school infrastructure, which had been planned and postponed several times, was still pending at the time of the EPE.

establishment of a clearly defined funding line for OPFs. According to the online survey, all supported schools will continue to have active OPFs in mid-2024.

18. Durability of impacts over time

The cornerstones for improved school administration and infrastructure maintenance have been laid (manuals, OPF funding), but it is questionable whether these manuals will be used extensively. The condition of the infrastructure measures visited was appraised as predominantly positive by a local infrastructure expert as part of the EPE; minor defects were mainly found in doors, door handles and some toilets. Furthermore, the improvement in net enrolment rates in early secondary education appears to be sustainable. On the one hand, this rate has continued to increase three years after the project was completed, and on the other hand, it is not only due to the expanded availability of school places and improved learning conditions in early secondary education, but also to a cultural change. Both parents and pupils increasingly see more prospects in further education. The remaining effects were either minor or had already diminished three years after the project was completed, which argues against a sustainability. An external risk to the level of school education and the appropriate use of school infrastructure is high migration (seasonal, interregional, rural-urban and international). The pandemic has further reduced the impact and sustainability of the project, particularly in terms of school enrolment and dropout rates. The resulting damage to basic education levels is likely to be permanent for the affected age groups, but should no longer play a role for current primary school children.

Rating summary of sustainability: **moderately successful (3)**

The structural changes in school infrastructure achieved through the project can be considered sustainable. This is based on the institutionalisation of construction and maintenance standards and political support for their compliance. These changes represent direct contributions of the project. Parental involvement has also been sustainably institutionalised through the refinement of the OPF model. Due to the small scale of the project, overarching developmental impacts are only possible to a limited extent. Migration as an external factor and the continuing weak capacities of MINEDUC and regional education authorities pose a high risk to the provision of education and thus to the educational outcomes of the target group. Overall, sustainability is rated as moderately successful.

Overall assessment: **moderately successful (3)**

The project pursued a sensible holistic approach by promoting infrastructure and education quality measures, institutional strengthening and local ownership for a severely disadvantaged population group. The project achieved good coordination with other projects, including German technical cooperation (TC), in a diverse donor landscape. Given the complexity of the processes and the low unit costs per school place created in the project, the use of available funds was appropriate overall in relation to the outputs and outcomes achieved, but was only partially successful, and hence efficient, in some project components. The efficiency of the project also suffered from a significantly extended project duration. The project succeeded in achieving necessary structural improvements in the area of school building infrastructure. These improvements led to standardisation of building standards, greater transparency of processes and local ownership, which will also benefit the government and other donors in follow-up projects and have an impact beyond the project departments. Specifically, the target groups benefited from the improved infrastructure and learning environment. However, there is no data to substantiate a clear improvement in the level of basic education in the project departments that can be attributed to the project.

The overall rating is particularly affected by the fact that one of the core deficiencies identified in the design, namely strengthening MINEDUC's implementation capacities in the area of school infrastructure, could not be significantly improved. This is partly because MINEDUC is not the ideal partner for projects with a focus on infrastructure. Sufficient capacity on the part of the executing agency would have been important to ensure compliance with the revised standards at regional and local level and ultimately to sustainably improve construction quality and sustainability at national level.

Contribution to Agenda 2030

The project was designed before the introduction of the 2030 Agenda and therefore did not contain any explicit references to the SDGs. Indigenous girls were identified as a particularly vulnerable target group in the design phase. Although gender equality was not explicitly formulated as a project goal, individual indicators aimed to measure changes in this direction. In combination with the project's targeted focus on poverty through the selection of project departments and target groups, the project tended to support gender equality (SDG 5) and poverty reduction (SDG 1) among the predominantly rural population of the project departments. In particular, its classification as a rural development measure was therefore appropriate.

The choice of project locations with a high proportion of indigenous people and the promotion of bilingual and multicultural education aimed to reduce discrimination, racism and inequality (SDG 10). The project was originally developed in the context of the Guatemalan peace negotiations, with improving the educational situation of the predominantly indigenous rural population being a central component of the peace agreement signed in 1996. The project therefore tended to contribute to SDG 16 (peace, justice and strong institutions), among other things by promoting the capacities of MINEDUC and regional education administrations with the aim of strengthening institutions, advancing their decentralisation and promoting good governance. The focus on quality education (SDG 4) was central to the project, as it was an education project involving school infrastructure measures. This was reflected in the objectives of improving the quantitative and qualitative use of basic education provision in disadvantaged departments (outcome) and increasing the level of bilingual, intercultural basic education in the project departments, with a particular focus on gender equality (impact).

Methodology

Evaluation methodology

The ex-post evaluation follows the methodology of a rapid appraisal, i.e. a data-based, qualitative contribution analysis, and represents an expert opinion. The project is attributed effects based on plausibility considerations, which are based on a careful analysis of documents, data, facts and impressions. Where possible, this also includes the use of digital data sources and modern techniques (e.g. satellite data, online surveys, geocoding). The causes of any contradictory information are investigated, attempts are made to resolve them, and the assessment is based on statements that are confirmed by several sources of information (triangulation), where possible.

The analysis of the effects is based on assumed causal relationships, documented in the impact matrix developed during the project appraisal and updated during the ex-post evaluation, if necessary. The evaluation report sets out arguments as to why certain influencing factors were identified for the effects observed and why the project under review probably made a certain contribution (contribution analysis). The context of the development measure is taken into account in terms of its influence on the results. The conclusions are put into relation to the availability and quality of the data basis. An evaluation concept serves as the reference framework for the evaluation.

The method offers a balanced cost-benefit ratio for project evaluations, on average, with a balance between knowledge gain and evaluation effort, and allows for a systematic assessment of the effectiveness of DFG projects across all project evaluations. Individual ex-post evaluations cannot therefore meet the requirements of a scientific assessment in the sense of a clear causal analysis.

The main objective of the evaluations (knowledge interest) is to measure impacts, provide accountability, promote transparency and enable institutional learning.

Type of evaluation:

Trip to the project area with national expert.

Key questions of the evaluation:

- *Was the core problem correctly identified? Was the concept for solving the core problem appropriate at the time of the intervention and from today's perspective?*
- *To what extent do the selected project locations actually serve disadvantaged population groups?*
- *Is the chain of effects plausible (graphical illustration)?*
- *To what extent did the project build on lessons learned from previous and TC measures?*
- *How did the changed implementation structure influence the project and its measures? Were the adjustments sensible from today's perspective?*
- *How are the costs distributed (graphical comparison of planned and actual costs)? How can deviations be explained?*
- *What are the costs per school/pupil? How do these "unit costs" compare to similar projects?*
- *How do the three components (component 1: school infrastructure, component 2: quality of education, component 3: strengthening the ministry) relate to each other financially?*
- *What is the current condition of the rehabilitated/newly built schools?*
- *To what extent has a sustainability-based administrative structure been established? To what extent can this be attributed to the measures taken?*
- *To what extent are established structures such as school networks and parents' associations being used? To what extent are the learning and teaching materials, mini-libraries and "distance learning" provided being used today? How would you appraise their quality?*
- *To what extent have the measures influenced the quality of education?*
- *How has the project affected net enrolment rates? How are these effects distributed between boys and girls?*
- *To what extent has the project influenced dropout rates? To what extent have other measures (e.g. school meals) influenced dropout rates?*
- *Are there any unintended positive/negative direct effects (social, economic) that can be identified (or are foreseeable)?*
- *What potential/risks arise from the positive/negative unintended effects and how should these be appraised?*
- *What is the sustainability of the effects (as expected)?*

Internal and external documents

Internal project documents, secondary specialist literature, strategy papers, comparable evaluations, media reports.

Data sources and analysis tools

Survey, expert interviews, MINEDUC (digital) database, MINEDUC data sets, partner monitoring data.

Project sites visited

Chiquimula, Jalapa, Quiché

Interview partners

Project executing agency, target groups (school administrators, teachers and parent representatives), regional school administrations, implementation consultant, other donors

The following aspects limited the evaluation

- *Due to logistical challenges, only three of a total of six project regions could be visited during the evaluation mission.*
- *Only 85% of the school administrators surveyed responded to the questionnaire conducted as part of the evaluation.*
- *Some of the school administrators and parent representatives involved in PRODEUC IV had already left by the time of the EPE, so some interviewees were only able to report on the implementation period to a limited extent.*
- *The MINEDUC statistics system was permanently disrupted during the EPE, which meant that additional data relevant to the indicators could not be viewed or downloaded.*

Assessment methodology

A six-point scale is used to assess the project according to OECD DAC criteria, with the exception of the sustainability criterion. The scale values are as follows:

Level 1 Very successful: results significantly above expectations

Level 2 Successful: results fully in line with expectations, without significant shortcomings

Level 3 Moderately successful: results below expectations, but positive results predominate

Level 4 Moderately unsuccessful: significantly below expectations and negative results dominate despite recognisable positive results

Level 5 Unsuccessful: despite some positive partial results, the negative results clearly dominate

Level 6 Highly unsuccessful: the project is useless or the situation has deteriorated

The overall rating on the six-point scale is based on a project-specific weighting of the six individual criteria. Levels 1–3 of the overall rating indicate a 'successful' project, while levels 4–6 indicate an 'unsuccessful' project. It should be noted that a project can generally only be classified as "successful" in terms of development policy if both the achievement of objectives at the outcome level (effectiveness) and impact level, as well as sustainability, are rated at least as "moderately successful" (level 3).

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