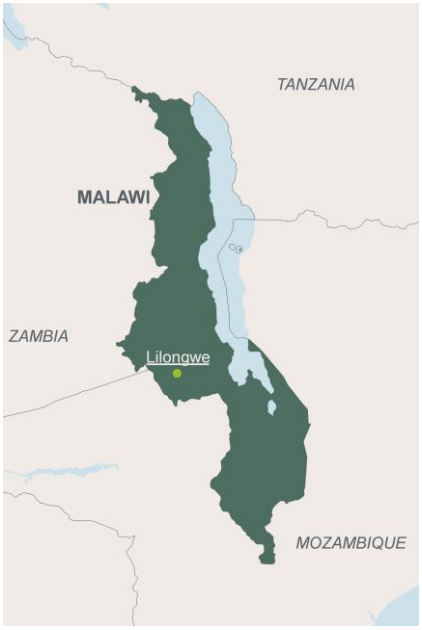
Ex post evaluation – Malawi

Sector: Primary education (CRS code 11220)
Programme/Project: Primary school education III (including primary school teacher training), BMZ no. 2001 66 215*, FC/TC cooperation project
Implementing agency: Ministry of Education, Science and Technology (MOEST)



Ex post evaluation report: 2016

		Plan at appraisal	Actual**
Investment costs (total)	EUR million	5.65	8.72
Counterpart contribution	EUR million	0.61	0.50
Funding	EUR million	5.04	8.22
of which BMZ budget funds	EUR million	5.04	7.62

*) Random sample 2016

**) Cost increases covered by raising German contribution by EUR 2.0 million and using residual funds from phase II totalling EUR 0.7 million; actual costs include EUR 0.6 million of Canadian CIDA to equip teacher training colleges.

Summary: The project was to contribute to the improvement of primary school teacher training in Malawi. The measures included the renovation and equipping of five teacher training colleges (TTC) and the construction of accommodation for additional students. As part of the project, a maintenance and operating concept was also developed for the TTC, whose implementation was supported by German TC (FC/TC cooperation project). The project's implementing agency was the Ministry of Education, Science and Technology (MOEST).

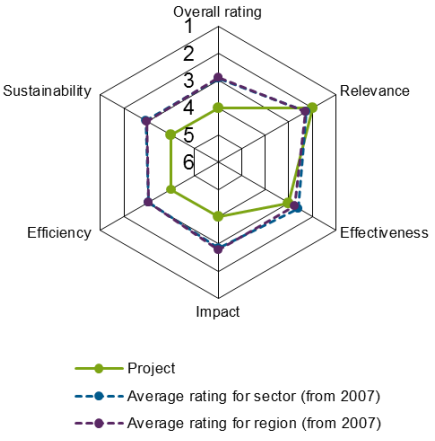
Development objectives: Improving teacher training (project objective) was to help improve the quality of primary school education in Malawi (ultimate objective).

Target group: The target group of the project was all primary school children in Malawi, who were to benefit from the better teacher training at the TTCs (currently around 4.6 million students).

Overall rating: 4

Rationale: Due to financial constraints at the Ministry of Education, caused primarily by the termination of budget support from many donors, graduates of the TTCs were only placed in a job with a significant delay, if indeed they were at all. The student numbers at the TTCs were reduced as a result, so these institutions are underutilised at present. A lack of maintenance at four out of the five TTCs lowers the efficiency and sustainability of the investment.

Highlights: Teachers and head teachers at six primary schools visited demonstrated high appreciation of the TTC graduates as a result of their improved teaching methods and professional knowledge in comparison to older colleagues. This is an indication of the high professional quality of the graduates.



Rating according to DAC criteria

Overall rating: 4

Relevance

Learning performance studies over the past decade indicate an extremely low level in Malawi. In 2004, at the time of the appraisal for the project evaluated here, the completion rate for primary school education was 58 %, which was slightly below the average for Sub-Saharan Africa (SSA) (60 %). Dropout and repetition rates were above the regional average. Various studies indicate that teacher training and the number of pupils per teacher can significantly influence learning outcomes, repetition rates and completion rates. Malawi's pupil–teacher ratio was 72:1 at the time of the appraisal. Measured against the UNESCO guideline of 40:1 and the average for Sub-Saharan Africa at the time of 44:1, this is extremely high. The numbers were even higher in Malawi's rural areas and for lower grades. The lack of primary school teachers was therefore a core problem of the education sector in Malawi.

The Teacher Training Colleges (TTCs) consistently had a higher demand for places than they were able to provide, were at times utilised beyond their capacities, and were mostly in poor condition at the time of the appraisal. From today's point of view, the renovation and capacity expansion of the TTCs which allowed to train more teachers therefore seems a sensible approach for contributing towards the improvement of teacher training and the quality of primary education. However, further important conditions (see Impact) are lacking for a coherent results chain. Malawi's key document for policy-making in the education sector at the time of the project appraisal (PA), the Policy and Investment Framework (PIF), provided for reducing the pupil–teacher ratio to 60:1. The FC project therefore fit well into the national strategy for the education sector.

The donor activities are aligned to the sectoral plan and complement each other well. GIZ supports the revision of the current curriculum for teacher training, amongst other measures, and has placed Development Advisors in the TTCs who are committed to improving teaching methods. The World Bank has supported the Human Resources department of MOEST in developing a database of teachers, among other things. USAID is working to improve reading ability among primary school pupils. DFID is working on a project to keep girls in school (including the construction of sanitary facilities, scholarships, and conditional cash transfers).

The project forms part of the priority area for cooperation between the German Federal Government and Malawi. It was directly linked to the FC measure Primary School Education Programme II (BMZ No. 1999 66 128), as part of which primary schools and accommodations for teachers were built and provided with equipment.

The targeted development impacts were also a high priority at international level at the time of the project appraisal (Millennium Development Goal 2: "Achieve Universal Primary Education", Target 2.A: "Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling").

Overall, the relevance of the project is in line with that of a good project.

Relevance rating: 3

Effectiveness

The project objective (outcome) was to contribute to the improvement of primary school teacher training. The indicators were defined as follows: (1) One year after project completion, 744 additional students successfully complete training at the TTCs each year; (2) A functional maintenance system is in place at all TTCs.

The first indicator appears appropriate for measuring the (quantitative) contribution to the improvement of teacher training. Since a number of other TTCs have been opened in Malawi since the appraisal, however, it should be specified that the indicator relates only to the five TTCs involved in the project.

The second indicator will not be used to assess effectiveness as it a) does not measure the improvement in teacher training, and thus does not fit with the project objective and b) is more suitable for measuring success at the output level.

The number of students enrolled (2) and the bed occupancy rates for the student residences of the five TTCs (3) shall be used as additional indicators for measuring effectiveness in the ex post evaluation.

The development of the project objective indicators can be summarised as follows:

Indicator	Status at PA (2004)	Target value at PA	Ex post evaluation (2015)
(1) One year after project completion, 744 additional students successfully complete training at the five TTCs each year.	Total 2,200	Total 2,944*	Total 3,324 (2013) 3,713 (2014) 3,292 (2015)
(2) Number of students enrolled in the five TTCs supported by the project	2,228 (2005)	-	1,898
(3) Bed occupancy rates of student residences (number of students/number of beds)	100 % (2005)	-	61 %

*Reduced from an original 3,000, since one of the designated TTCs was converted into a university and was thus excluded from the project.

Source: Department for Teacher Education, MOEST; TTC GIZ Development Advisors (by e-mail, April-June 2016). The figures refer only to the five TTCs supported by FC. These were the only TTCs in Malawi at the time of the PA; there are now a total of eight public and four private TTCs.

In 2013, 3,324 students successfully completed their training at the five TTCs; in 2014 this number was 3,713 and in 2015 it was 3,292. The project objective indicator (1) was achieved and exceeded in this respect, while it should be noted that the number of graduates fell in 2015. It does not appear that the increase in the number of students attending the TTCs resulted in any decline in terms of the quality of teaching, as the proportion of students who pass the centrally assessed final exams has increased from about 85 % to over 90 % in the last 10 years.

By 2014, the additional accommodations that had been created were at full capacity, which resulted in a higher number of graduates, as mentioned above. In 2014, however, all TTCs were instructed to reduce their student numbers, as the Malawian government did not have a large enough budget to place all future graduates in teaching jobs. The TTCs currently utilise only 61 % of their accommodation facilities on average. In all supported TTCs, with the exception of Karonga, the number of beds currently being utilised is even lower than the number available before the project. Consequently, the number of graduates will also drop below the number prior to the intervention.

In summary, we conclude that the results are marginally satisfactory.

Effectiveness rating: 3

Efficiency

The total costs of the project amounted to EUR 8.72 million, roughly 54 % above plan as at the project appraisal. The costs for accommodation were between 190 and 240 EUR/m². When compared to the average construction costs for simple, one-storey buildings in Malawi, which range between 170 and 300 EUR/m², this seems appropriate.

With a share of 24 %, the consulting services made up a relatively large share of the total costs (EUR 2.1 million) when compared with the guideline value of 20 % (based on KfW's experience). This is due to the relatively long implementation phase of approximately eight years.

The costs increased significantly during the implementation, which also resulted in an increase in the German contribution of EUR 2 million[1]. The elevated costs were mainly due to (1) increases in the price of building materials, (2) the need for unforeseen additional measures (e.g. sewage disposal, the security wall for the TTC Blantyre) and (3) delays in construction, resulting in increased costs for construction and consulting contracts. These cost increases were partly compensated by savings made in the renovation measures (mainly kitchens, administrative buildings and common areas) and reductions in non-essential construction measures (coating, tiling, roofing over pathways, thermal insulation of roofs).

The implementation was delayed considerably. Thirty months were envisaged for implementation at the project appraisal. In the end, however, implementation took 99 months (July 2004 to October 2012). Even after deducting the temporary interruption, 78 months were needed for the implementation. However, when compared to other projects in the education sector which involve the construction of simple school or teaching buildings, a project duration of over eight years does not appear unusual[2].

The significant deterioration and lack of maintenance of the financed infrastructure indicates a lack of efficiency with regard to the resources used (see further explanations on maintenance in the section entitled Sustainability). Given that a large proportion of graduates in recent years have not been able to find a teaching job until much later, or have not yet begun teaching, and the investments in training have thus far only benefited primary education to a limited extent (see Impact), the allocation efficiency is also below expectations.

Overall, the efficiency of the project is rated unsatisfactory.

Efficiency rating: 4

Impact

The ultimate objective of the project in terms of development policy (Impact) was to contribute to improving the quality of primary school education. No indicators were selected at the project appraisal to measure the achievement of objectives. The results chain from the expansion of the TTCs to improvements in the quality of primary education is relatively long. A necessary prerequisite for improving basic education through the training of primary school teachers is the effective introduction of trained teachers into the teaching profession. Therefore, (1) the number of new teacher appointments, and (2) the number of pupils per (trained) teacher are used as auxiliary indicators at the ex post evaluation. Although these do not measure the quality of primary education, they are directly linked to the project and connect the outcome and impact levels.

Another important part of the results chain is that both teachers and pupils attend classes, and that during classes, curriculum-relevant lessons take place. Data on teacher attendance in Malawi is collected at school level and reported to the administration at district level. This data is not systematically evaluated, however. Interviews conducted with pupils, teachers and head teachers at six primary schools in Malawi in the course of the ex post evaluation suggest high levels of pupil and teacher absence, but do not allow any quantifiable conclusions to be drawn. It is therefore unclear to what extent teacher and pupil absences reduce the potential impacts of the project.

Data on the quality of teaching is not available for Malawi; as a result, this aspect cannot be investigated further as part of the evaluation.

Various indicators can be used to measure primary school quality, such as repetition rates, dropout rates, completion rates, and learning performance. However, some of these cannot be used for this project, either because there is a lack of meaningful data available (learning performance) or because insufficient time has passed since the project ended (learning performance, completion rates). Repetition and dropout rates are therefore defined as indicators for this evaluation.

The table below provides an overview of indicator development since the project appraisal.

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[1] In addition to this, around 700,000 EUR in residual funds from phase II were put to use.

[2] See, for example, approximately ten years for “Primary Schools I” in Guinea (BMZ No.: 1996 66 595).

Indicator	Status at PA (2004)	Status at completion (2012)	Ex post evaluation
(1) Number of appointments of qualified teachers*	0	3,570	0 (2014) 0 (2015) 10,290 (2016)**
(2a) Pupils/teacher*	72	74	70 (2014)
(2b) Pupils/trained teacher*	_	95	78 (2014)
(3) Repetition rate	19 %	19 %	22 % (2015)
(4) Dropout rate	11 %	12 %	10 % (2015)

*These indicators do not measure the quality of primary education directly, but instead serve as a link between the outcome and the impact level and can be used here as auxiliary indicators.

** The TTC graduates from 2014 were not employed until 2016, and those from 2015 have not yet been employed.

The number of new places for qualified teachers rose significantly, bearing in mind that in 2014 and 2015 no teachers were employed in public primary schools at all. In 2014, more than 10,000 qualified teachers were not hired because the government did not have enough funds to pay their salaries. These teachers were not employed until April 2016, almost two years later. More than 9,000 graduates from the year 2015 have not yet been employed. According to MOEST, however, these graduates should be placed this year. The delays, and thus the teaching capacities which remain untapped over long periods of time, clearly limit the effects of the project on primary education.

The significant reduction in the ratio of pupils to teachers and of pupils to qualified teachers between 2012 and 2014 suggests positive developments, which are likely to become evident in the next few years using further indicators. This can hardly be attributed to the effects of the project, however, since the training to become a primary school teacher in Malawi lasts two years and thus the full impact on primary education would not be felt until two years after completion of the construction measures at the earliest, i.e. from 2014. As mentioned above, however, no TTC graduates were employed in 2014. Nevertheless, some developmental impacts may have been achieved in 2012 and 2013 as some construction measures were completed earlier.

Teachers and head teachers at six primary schools visited demonstrated high appreciation of the TTC graduates as a result of their improved teaching methods and professional knowledge in comparison to older colleagues. This points to the high professional quality of the graduates and thus to their potential to contribute towards improving primary education.

The dropout rate has fallen from 11 % to 10 % since the project appraisal. The repetition rate has risen from 19 % to 22 %. On the basis of these indicators, no clear statement can be made as to whether the quality of primary education has improved or deteriorated since the intervention.

Impact rating: 4

Sustainability

It is not conceivable that the financial situation of the Ministry of Education in Malawi will significantly improve in the coming years. The Malawian government has very limited resources overall. Total public expenditure in 2014 was around USD 1.5 billion. Per inhabitant, public expenditure is USD 90, which is less than a quarter of the Sub-Saharan African average (around USD 400 per inhabitant). In OECD countries,

public expenditure per person averages about USD 18,000[3]. With a net ODA ratio of 30 % of its gross national income in 2013, Malawi is very much dependent on ODA. The education budget totalled just under 14 % of the total budget in 2013. Following a corruption scandal in 2013, most donors have discontinued budget support for the education sector for the time being, which has left a considerable gap in the education budget. We therefore do not expect the Ministry of Education to have a great deal of room for manoeuver if external shocks occur (e.g. further reduction of external financing). There are also likely to be significant budget bottlenecks in the coming years, possibly with a negative impact on TTC utilisation and teacher appointments.

It is still unclear how many TTC graduates will be placed in teaching jobs in the coming years. However, the current low levels of TTC capacity utilisation suggest that the number of newly hired teachers will drop over the next two to three years and that it may not be possible to continue the reduction in the pupil–teacher ratio achieved in recent years. With regard to the high population growth in Malawi and the goal that all children complete primary school, it is quite possible that the pupil–teacher ratio will increase once again, with corresponding negative effects on the quality of primary education. The MOEST is considering withdrawing the automatic placement of all graduates in the public school service. Rather, the placement of graduates in public primary schools should be based on available budgets. Additional graduates could look for jobs in private schools. Currently, however, only about 4 % of all primary school teachers in Malawi are employed in private primary schools. Consequently, this alternative is not expected to provide a far-reaching solution.

An important factor for the long-term operation of the improved infrastructure in the TTCs is the implementation of the agreed maintenance concept. Since the majority of the education budget is spent on teachers' salaries, there are hardly any resources available for improving or maintaining infrastructure. Serious deficiencies in financed infrastructure were observed during the evaluation trip (with the exception of St. Joseph's TTC) including, for example, non-functioning toilets, broken windows, missing door locks and water taps, and exposed wiring on sockets. The maintenance manuals for the TTCs developed by the TC as part of the project are not used. In some cases, the head teachers or persons responsible were not aware of these. Smaller maintenance works, such as the replacement of lights or water taps, are carried out by the TTCs. However, TTC representatives reported that the budget provided by the government was not sufficient and was not reliably available (with the exception of the St. Joseph's TTC). In addition, there are frequent incidents of vandalism and theft.

Teacher and pupil absences further hinder the positive effects of the project. The majority of Malawi's primary school children and their families have limited financial resources (around 51 % of the Malawian population live below the national poverty line), HIV prevalence is high at 10 %, and state social protection systems (e.g. to compensate for crop failures or illness) are not widespread. Overall, it cannot be assumed that the target group has many options for adjustment when it is affected by external shocks. For example, some pupils may need to stay at home to care for a sick relative rather than attend school.

Overall, the sustainability is rated as unsatisfactory.

Sustainability rating: 4

[3] The figures for public expenditure for Malawi, SSA and OECD countries come from different databases and are therefore not directly comparable. Furthermore, they do not take into account differences in purchasing power. They serve only as a rough guide.

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

Projects (and programmes) are evaluated on a six-point scale, the criteria being **relevance, effectiveness, efficiency** and **overarching developmental impact**. The ratings are also used to arrive at a **final assessment** of a project's overall developmental efficacy. The scale is as follows:

Level 1	Very good result that clearly exceeds expectations
Level 2	Good result, fully in line with expectations and without any significant shortcomings
Level 3	Satisfactory result – project falls short of expectations but the positive results dominate
Level 4	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
Level 5	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
Level 6	The project has no impact or the situation has actually deteriorated

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative assessment.

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability): The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The **overall rating** on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (level 3).