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Agriculture



# Mozambique McGovern-Dole Food for Education Project

## FINAL EVALUATION

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# Mozambique McGovern-Dole Food for Education Project: Final Evaluation

The United States Department of Agriculture (USDA) Food for Education project in Mozambique (Phase II) was implemented by Planet Aid from 2015 to 2021. The project addressed the interrelated challenges of health, well-being and education of schoolchildren in Maputo Province through a comprehensive program that combined school feeding with nutritional education, bilingual literacy, on-site food production, construction, water and sanitation, and teacher training.

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Implemented by: Planet Aid Inc.

Evaluation Authored by: Dr. Simone Doctors

With Calibio Matine, Valerie Legg, Apolowil Mozambique and NFER

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# Food for Education Project phase 2

Prime Recipient: Planet Aid Inc

Funded by the US Department of Agriculture

## Final Evaluation Report

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## List of abbreviations and acronyms

<b>ADPP</b>	<i>Ajuda de Desenvolvimento de Povo para Povo</i> Development Aid from People to People
<b>ASA</b>	American Soybean Association
<b>CE</b>	Cambridge Education
<b>CPD</b>	Continuous Professional Development
<b>CSB+</b>	Corn Soy Blend-Plus
<b>DNUSE</b>	<i>Direção Nacional de Nutrição e Saúde Escolar</i> National Directorate for Nutrition and School Health, MINEDH
<b>DPEDH</b>	<i>Direção Provincial de Educação e Desenvolvimento Humano</i> Provincial Directorate of Education and Human Development
<b>EGRA</b>	Early Grade Reading Assessment
<b>EPC</b>	<i>Escola Primária Completa</i> Complete primary school, which includes Grades 1-7
<b>EPF</b>	<i>Escolas de Professores do Futuro</i> (teacher training colleges run by ADPP)
<b>FFE</b>	Food for Education (project title)
<b>FFK</b>	Food for Knowledge (alternative project title)
<b>FGD</b>	Focus Group Discussions
<b>GoM</b>	Government of Mozambique
<b>HGSFG</b>	Home Grown School Feeding Garden
<b>INDE</b>	<i>Instituto Nacional para Desenvolvimento da Educação</i> National Institute for Education Development
<b>ISSET/OWU</b>	<i>Instituto Superior de Educação e Tecnologia</i> One World University (ISSET/OWU)
<b>IT</b>	Information Technology
<b>KII</b>	Key Informant Interviews
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MGD</b>	McGovern-Dole International Food for Education and Child Nutrition Program
<b>MINEDH</b>	Ministry of Education and Human Development
<b>NFER</b>	National Foundation for Education Research
<b>ODK</b>	Open Data Kit (data collection software for resource-constrained environments)
<b>PAI</b>	Planet Aid, Inc.
<b>PRONAE</b>	<i>Programa Nacional de Alimentação Escolar</i> National School Feeding Program
<b>QA</b>	Quality assurance
<b>SDAE</b>	<i>Serviço Distrital de Actividades Económicas</i> District Office for Economic Activities
<b>SDEJT</b>	<i>Serviço Distrital de Educação, Juventude e Tecnologia</i> District Office for Education, Youth and Technology
<b>SDSMAS</b>	<i>Serviço Distrital de Saúde Mulher e Acção Social</i> District Service for Women's Health and Social Action
<b>SEN</b>	Special Educational Needs
<b>SFC</b>	School Feeding Committee
<b>SO</b>	Strategic Objective
<b>TB</b>	Tuberculosis
<b>ToC</b>	Theory of Change
<b>TTC</b>	Teacher Training Colleges
<b>USAID</b>	United States Agency for International Development
<b>USDA-FAS</b>	United States Department of Agriculture - Foreign Agricultural Service
<b>WFP</b>	World Food Program
<b>WHO</b>	World Health Organization
<b>WISHH</b>	World Initiative for Soy in Human Health
<b>WPM</b>	Words per minute



## Executive summary

The final external evaluation of the 2015-2020 McGovern Dole Food for Education project phase 2 (FFE2), supported and funded by the Foreign Agricultural Service (FAS) of the United States Department of Agriculture (USDA), which builds on the 2012-2016 project of the same name, is presented in this report. FFE2 is a comprehensive school-feeding project with child health, nutrition education, teacher training, water and sanitation components, an innovative literacy component, including early grade literacy in local languages, and a local production component, with a focus on sustainability. The project is implemented in Mozambique by Planet Aid Inc. (PAI) and a consortium of implementing partners: *Ajuda de Desenvolvimento de Povo para Povo* (ADPP), Planet Aid's local partner in Mozambique; the World Initiative for Soy in Human Health program (WISHH) of the American Soybean Association (ASA); Cambridge Education (CE) and the Ministry of Education and Human Development (MINEDH).

The final evaluation reviews the project in December 2020 at the conclusion of its second phase, after more than eight years. This final evaluation has been conducted during the national emergency imposed in Mozambique in response to the Covid-19 pandemic: this is reflected in both the methods used and the focus of the evaluation. The methods used sought to maintain as much continuity with previous evaluations as possible, whilst ensuring the safety of all members of the evaluation team, project staff and beneficiaries. Key objectives of this evaluation are to compare the situation at end point against the baseline and midterm evaluations, to assess and document progress since the beginning of phase two; assess how the project has acted on recommendations and lessons learned from previous evaluations; and assess the impact of the project's positive changes and the potential for these to be sustained over time, in the wider context of school feeding in Mozambique. A separate objective of the evaluation concerns assessing to what extent learning from the evaluation process, adapted to take account of the Covid-19 context, is applicable and generalizable for future evaluations in the post-Covid-19 reality.

Three major components of the project were implemented with support from three different agencies: i) 90,278 students in 271 target schools in 4 districts of Maputo Province received a daily meal consisting of nutritious porridge made from corn soy blend-plus (CSB+). School gardens and eight large-scale Home Grown School Feeding Gardens (HGSFGs) sought to encourage diversification and sustainability of school feeding. These "core" areas of the project were implemented by the FFE project team. ii) The project literacy team, with technical assistance from CE, supported innovative literacy teaching in schools with materials developed to reinforce reading and writing skills for 1st, 2nd and 3rd grade children, teacher training and coaching. iii) A team managed by the WISHH implemented a comprehensive nutrition education campaign in the beneficiary districts of Maputo province.

The final evaluation of FFE2 was conducted by a consortium composed of: a) Dr Simone Doctors (evaluation lead and international evaluation coordination, qualitative data collection and analysis, main report author), b) Apolowil (quantitative data collection), c) the National Foundation for Educational Research (NFER; quantitative data analysis), d) Calíbio Samuel Matine (national evaluation coordination, oversight of enumerator training, independent oversight and quality assurance [QA] of fieldwork, interview and Focus Group Discussion [FGD] facilitation), and e) Valerie Legg (data verification and checking against source data, producing charts and graphs, supporting analysis of quantitative data and drafting report sections). The consortium members worked collaboratively under the coordination of Simone Doctors. The evaluation was originally designed to build on the baseline and midterm evaluations of FFE2, comparing the same indicators at three time points and completing the cohort study of students begun at baseline. Constraints imposed by the Covid-19 pandemic have required a reorganization of the evaluation; while the methods used have sought to continue to compare the situation of all project indicators at end point, the source and nature of the data used has had to be modified, due to the fact that schools were closed and to the need to preserve the safety and health of informants (beneficiaries, the project team, government and non-governmental actors) and the evaluation team.

### **Covid-19 Methodologies**

During previous evaluations, a combination of quantitative and qualitative information was gathered using a mixed method approach to gather and analyze three types of data: a) existing information provided by FFE; b) quantitative data collected and analyzed by the evaluation team, including literacy testing (Early Grade Reading Assessment [EGRA]) of students, interviews and anthropometric measurements of the same students, survey of a sample of project schools and teachers, classroom observation of teaching; and c) qualitative data collected and analyzed by the external evaluators: Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs), visits and observation of project schools, school gardens and HGSFGs, visits to the project headquarters and main warehouse; visits and observation of three *Escolas de Professores do Futuro* (EPFs; teacher training colleges run by ADPP) to observe teaching practice by EPF students, and internal self-review by the project team and stakeholder review workshop. Given the impossibility of international travel and of conducting fieldwork in schools during the Covid-19 pandemic and the undesirability of undertaking significant travel to communities to collect data, the final evaluation was conducted as follows:

- The evaluation was coordinated at distance by an international coordinator, working closely with a national coordinator based in Mozambique;
- A risk assessment involving the entire evaluation team, the FFE leadership and Monitoring and Evaluation (M&E) team was conducted prior to commencing fieldwork;
- Much of the fieldwork was conducted remotely, with KIIs and FGDs conducted using video conferencing or audio calls and an internal self-review by project staff conducted using video conferencing;

- A limited number of KIIs and FGDs was conducted face-to-face by the national coordinator, using Covid-19 secure methods and implementing the risk assessment;
- No fieldwork was conducted in project schools or directly with children, meaning it was not possible to continue the cohort study begun at baseline and continued at midterm (including an EGRA, anthropometric measurements and interviews of students), to conduct face-to-face surveys of teachers and school directors or conduct school visits and observations, including lesson observation;
- As an alternative, four remote surveys were conducted using mobile technology and
- Existing project monitoring data, including EGRA data collected by the project literacy team, was analyzed by the evaluation team, as an alternative to conducting externally administered EGRA.

The four online surveys, of schools, teachers, parents/community members and EPF students respectively, aimed to collect comparable information to that originally planned. All evaluation instruments, including the four remote surveys, were extended and adapted to include a focus on the impact of the Covid-19 crisis and the project's response.

### **Structure of the Report**

This report follows the structure adopted for the midterm evaluation report, according to the logic of the project Theory of Change (ToC). Findings are grouped according to the project indicators, beginning with Strategic Objective 1 (SO1, improving literacy of school-age children in Mozambique), then addressing Strategic Objective 2 (SO2, increasing the use of health and dietary practices). Further attention is given to a number of crosscutting themes, followed by a section on the impact of Covid-19 on the FFE2 project and assessment of the project's response to Covid-19.

In line with the project's ToC, project interventions were designed to improve the quality of literacy instruction through training teachers in project schools in literacy, a significant addition in phase two of the project, giving learners improved access to school supplies and materials and other interventions to improve attendance. Interventions designed to improve health and dietary practice include nutrition education, school gardens and deworming. Achievement of both SO1 and SO2 depend upon increased engagement of local organizations and community groups and increased capacity of government institutions. Improving school infrastructure and increasing enrolment and attendance, as a result of the school feeding program and other interventions to increase enrolment, was expected to further contribute to improving child literacy.

### **Improved Literacy of School-age Children (SO1)**

Assessing the literacy levels of students who have benefited from the literacy program supported by CE is key to evaluating the success of this intervention and of the wider project (**SO1, MGD 1.1**). At final, 100,403 individuals were benefiting directly from USDA-funded interventions, resulting in a final target 117% achieved.

The number of individuals benefiting indirectly from USDA-funded interventions was 361,112, which exceeds the project's target. In order to assess students' literacy levels, a cohort study to measure students' performance in EGRA at three time points had been begun at baseline and continued at midterm, with the intention of completing this at end point. Due to the Covid-19 pandemic and the complete closure of schools in Mozambique at the time of the final evaluation, it was not possible to complete the cohort study, or to collect any data from students. Instead, the FFE literacy team made available internally conducted EGRA results dating from the period following the midterm evaluation for the evaluation team to analyze. Of the datasets, analysis was performed on a full EGRA, conducted in September and October 2019 for a sample of 204 students from class one, 211 students from class two and 208 students from class three, in the three program languages (Portuguese, Xichangana and Xirhonga), consisting of sub-tasks 3 to 9 (the same sub-tasks used at midterm with the exception of sub-tasks one and two) for classes one and two, and sub-tasks 8 and 9 only for class three.

The results of each EGRA subtask for each year group were analyzed across the following comparisons: a) Portuguese as the language of testing vs local languages used for testing; b) the "home language" (the language that students reported speaking at home) as the language of testing vs use of a different language from that spoken at home for testing.

The results of the full EGRA show that students tested in local languages performed better than those tested in Portuguese in 17 of the 28 cases reported. The difference was even more pronounced in the second comparison group: students tested in their home language outperformed those tested in a different language in 25 of the 28 cases reported. This finding provides promising evidence that instruction in local languages helps facilitate a more rapid transition to literacy for young learners.

EGRA results also showed progress since midterm in relation to the percentage of students meeting the literacy benchmark. Of all the year 3 students tested, 25.9% met the benchmark (they were able to read all of the selected text correctly and answer the first 3 comprehension questions correctly). This is 58% of the project's final target. When considered against the very low baseline levels and the overall challenging context of the Mozambican education system, this is a considerable achievement.

It is unfortunate that it was not possible to finish the cohort study, as lack of comparability between instruments used and the students tested mean it is not possible to attribute with certainty the results presented in this report to the project literacy intervention, or to claim that they are representative of the performance of all students benefiting from that intervention. However, taken together with both the evidence from the midterm evaluation and the qualitative evidence gathered at end point, these results provide further confirmation of the findings of the midterm report, namely that the literacy intervention and bilingual program are proving effective. Interestingly, a survey of parents showed that their attitudes to their children learning to read in the home language are lagging behind this and demonstrates that there is still work to be done to communicate the

benefits of bilingual education (this is outside the scope of the project; the information was gathered to provide context).

The project ToC encapsulates the assumption that the quality of literacy instruction will be improved by a) better access to school supplies and materials and b) increased skills and knowledge of teachers. The project has contributed to teachers and pupils having improved access to teaching and learning materials. At final, 85,609 textbooks and other teaching and learning materials had been provided as a result of USDA assistance (**SO1, MGD 1.1.2**), resulting in 216% achievement of the final target. 271 schools had received school supplies and materials as a result of USDA assistance, resulting in 103% achievement of the final target.

Awards have been provided to both pupils and teachers since the beginning of the project to encourage both to make efforts in teaching and learning, with the final targets for awards to teachers and students being surpassed.

A range of literacy books and pedagogical materials in local languages Xichangana and Xirhonga and in Portuguese has been produced by the project literacy team, and final targets for distributing these have been surpassed. These teaching and learning materials are now official MINEDH textbooks for bilingual literacy instruction and are being used as a model for adaptation in other local languages in other provinces, leaving schools with the capacity, both in terms of skills and materials, to continue to teach reading in local languages (**SO1, MGD 1.1.3**).

A major dimension of the project targets improving the skills and knowledge of teachers (**SO1, MGD 1.1.4**): 586 teachers in project schools received training in teaching reading and writing using phonics and 27 reading coaches provided ongoing in-school support until schools were closed due to Covid-19. GoM informants reported that the program was considered so successful that it is now being modeled in other regions of Mozambique. At provincial level, the DPEDH have set up a bilingual teaching strategy for 2021-29, drawing on the project's expertise and experience. At the end of the program, since it was not possible to observe teaching, the results from the teacher survey of questions considered to demonstrate "new and quality teaching techniques" were analyzed, and the final target was considered to have been surpassed. Despite the interruptions due to Covid-19, schools have the teaching and learning materials they need to continue early grade literacy instruction in local languages, as well as teachers who are confident in phonics and child-centered learning methods.

Prior evaluations of the FFE project have underlined the important contribution the eleven ADPP-run teacher training colleges (EPFs) are making to Mozambique's teacher pool. At the time of the final evaluation, 9,222 trained teachers had been trained or certified at the EPFs, more than double the final target. EPF students at final were surveyed regarding their attitudes to teaching and studying at the EPF. The responses showed overwhelmingly that trainee teachers are highly motivated, consider their instruction to be of very high quality and revealed that active learning methods are in regular use at the EPFs. The EPF teacher training also provides

significant improvement in Portuguese language competence via remedial support to student-teachers who arrive at the EPF with poor levels of Portuguese: at the final evaluation 75% of students had improved their Portuguese literacy skills during pre-service training.

Based on data gathered from the final survey of school directors, the final target for the number of school administrators and officials in target schools who demonstrate use of new techniques or tools as a result of USDA assistance has been 106% achieved (**SO1, MGD 1.1.5**); the target for the number of school administrators and officials trained or certified as a result of USDA assistance has been 161% achieved.

Short-term hunger leads to lack of attentiveness in the classroom, leading to problems in learning. The final evaluation sought to gather data on attentiveness and short-term hunger to compare with baseline and midterm (**SO1, MGD 1.2, 1.2.1**). This proved somewhat challenging, as Covid-related school closures meant that teachers were reporting from their memory of pupils in the classroom nine months earlier, and parents had to be surveyed in place of the students themselves. At final, 94% of teachers reported that their pupils “often” or “sometimes” had attention problems, a higher percentage than at baseline. 87% of teachers said that their pupils “often” or “sometimes” appeared to be hungry during the school day, an increase from 76% at baseline. It is difficult to draw clear conclusions from this for several reasons, among them the fact that teachers surveyed at the final evaluation were not the same group of teachers as those surveyed previously, and have a much greater level of awareness of concentration problems caused by short-term hunger, due to in-service training received as part of the project. Parents were less likely to report their children experiencing attention problems or hunger during the school day than students at baseline or midterm, however these results cannot be considered truly comparable to earlier reports from students themselves and must be treated with caution.

The distribution of school meals was very nearly to target (**SO1 MGD 1.2.1.1**). As of September 2020, 43,524,765 daily school meals (breakfast, snack, lunch) were provided to school-age children as a result of USDA assistance prior to Covid-19 school closures, which is 90% of the final target. 90,278 school-age children were receiving daily school meals, exceeding the final target. Following school closures CSB+ was distributed in the form of take-home rations; targets for these were achieved. 94% of parents and 100% of teachers surveyed said they thought the project’s organization of school lunches had been “excellent” or “good”.

Analysis of project monitoring data demonstrates that final targets for school attendance (**SO1, MGD 1.3**) have been surpassed. Due to school closures at the time of the final evaluation, these figures are based on the project’s own reporting system which uses the biannual report recording the highest number of meals distributed (in this case report 8, in September 2019).

One project activity intended to promote increased school attendance is support to extra-curricular learning clubs. Of the schools surveyed at final, all but one reported having one or more learning clubs. 134% of the final target has been achieved for the number of after-school learning clubs active, and 117% of the final target for

the number of school children participating. Due to the closure of schools due to the pandemic, a program of revitalizing after-school clubs with new registration procedures had to be cut short.

Targets for maintaining the school infrastructure provided by the project have been surpassed (**SO1, MGD 1.3.3**), with 1,852 maintenance interventions performed in kitchens, storerooms, and firewood-saving stoves at final, or 234% of the final target.

The project ToC considers enrolment as a prerequisite to attendance and therefore to improved learning. Final targets for enrolment of students have been surpassed, achieving 122% (**SO1, MGD 1.3.4**). Information provided by the DPEDH contained some inconsistencies, however when considered over the period from 2012 to 2019 the data shows an overall trend of reduction in dropouts in project schools.

At the time of the final evaluation, the project reports two investments leveraged through public-private partnerships to a total value of \$401,292 (**SO1, MGD 1.4.3**): 100% of the final target for number of public-private partnerships and 502% of the final target for the value of investments.

At final, 271 school feeding committees (SFC) were reported to have been supported, exceeding the final target. The parents' survey revealed a willingness on the part of many parents to participate in the preparation of school lunches without incentives, a sign of ownership and positive engagement with the project, although some parents still regretted the absence of incentives (**SO1, MGD 1.4.4**).

### **Use of Health, Nutrition and Dietary Practices (SO2)**

The project's second Strategic Objective (**SO2**) concerns the use of health, nutrition and dietary practices. Targets for training in good hygiene practice, including training volunteer cooks in health and hygiene, have been greatly surpassed. In regard to the percentage of students that demonstrate acceptable knowledge of health and hygiene practices, the final target has been 170% achieved; the final target for food preparers at target schools trained in hand washing, safe food preparation and storage practices has been 123% achieved. FFE2 targets for training individuals in child health and nutrition have been greatly surpassed, at 247% of the target (**SO2, MGD 2.1, 2.2, 2.3**).

Local production of food is both part of the plan for sustainability of school feeding and an important element of students' education. School gardens have been encouraged and supported since the inception of the project, and the final target for the number of school children benefiting from school gardens has been achieved. Eight Home Grown School Feeding Gardens (HGSFGs), which function on a much larger scale, were implemented by the project in phase two, providing more diversified food to students and their families. This has become particularly significant during the Covid-19 pandemic. Project agricultural technicians report that the HGSFGs provide the surrounding communities with a healthier diet and the potential to create jobs and increased cash

flow. The technicians report the communities where they work have learned significantly since the midterm evaluation, and are also applying newly-learned farming techniques and environmentally sustainable approaches to their own small-scale agricultural production. Once the support from the project finishes, the HGSFGs will need to be self-sustaining if they are to continue their contribution to school feeding. This will require considerable leadership and good management in order to succeed.

Access to safe water is critical for school feeding, as well as for the health, hygiene and wellbeing of students, teachers and the community. At final evaluation, project records reveal that all of the project schools are using an improved water source (**SO2, MGD 2.4**), resulting in almost 90,000 school children benefitting from clean water sources. The majority of schools report the creation of water committees responsible for management and regular maintenance and cleaning of the water infrastructure, an important step towards autonomy and sustainability after the project's end. However, a number of schools report continued challenges with the provision of clean water, including the fact that it is sometimes not possible to repair a water source and that funds are not always sufficient to repair the infrastructure. Some schools only have water during the rainy season, thanks to rainwater harvesting.

The final target for number of schools with improved sanitation facilities was surpassed, leading to more than 88,000 school children benefitting from access to latrines and hand washing facilities. At midterm it was recommended to identify latrines likely to become full imminently and work with schools to either empty these where possible or to cover them over and replace them; interviews with project staff indicate that this recommendation has been followed. The final target for number of students receiving deworming medications was 200% achieved, using door-to-door distribution of the medication at the time of the Covid-19 pandemic (**SO2, MGD 2.5**)

Distribution of laundry and dish soap to volunteers was introduced in FFE2 following a recommendation made by evaluations of FFE1. This has continued since midterm, with soap being distributed to a further nearly 3,000 volunteers by the final evaluation (**SO2, MGD 2.6**). Qualitative data collected at final confirms that this relatively small incentive provides significant returns in volunteer motivation and commitment.

Targets associated with the objective of building capacity of government officials at national, provincial and district levels to continue to provide school feeding after the project's closure have all been surpassed, as has training of community leaders, school council members and SFC members. FGDs and KIIs during the final evaluation revealed positive assessment of the training received (**SO2, MGD 2.7.1, 2.7.4**).



### **Crosscutting Themes and the Impact of Covid-19**

The evaluation provides further analysis of crosscutting themes which concern the overall operations, strategy and vision of the project. These are human resources, capacity, collaboration and ownership; transport; administrative and financial systems and procedures; monitoring and evaluation; and sustainability and relevance to the local and national school feeding policy and program environment.

Finally, the evaluation reports on the impact of Covid-19. This is outside the scope of project indicators, however the final survey presented an opportunity to gather information on the pandemic, emergency response measures and their effectiveness in maintaining continuity across the project's areas of oversight and support, using survey questions formulated by the project itself. This data provides context for the report as a whole and could prove useful to government and other organizations working in the region.

Emergency measures taken by the project included a series of classes produced by the literacy program for broadcast via radio and television. Parents and teachers had mixed opinions on the usefulness of these lessons; although the majority considered them to be of good enough quality, many parents do not have the means (radio or television access) to receive the broadcasts, and 42% could not support their children in understanding them. Of the schools that were able to maintain contact with at least some of the children, 95% of teachers reported producing and distributing worksheets for their students.

The impact of Covid-19 school closures on hunger and food supply is also examined through responses to parent surveys. Some parents report being forced to resort to a variety of measures to deal with food shortages and limited access to food.

The EPFs adopted a variety of responses to the Covid-19 crisis, including delivering the teacher training program online and extending the academic year, with an adjustment to the schedule for payment of fees. One positive aspect of the response to Covid-19 has been the individual and institutional learning regarding distance education, with WhatsApp and Google classroom used to continue teaching online.

All of the final surveys included a series of questions designed to measure general awareness of Covid-19, including its symptoms and preventative measures. These consistently showed teachers to be the most well-informed group. Teachers and EPF students were also more likely than parents to report using preventative measures to protect against spread of the disease.

## **Conclusion**

Over the course of 8 years, the FFE project has worked with government, communities and schools to create the infrastructure, systems and capacity to feed 90,000 pupils, grow food locally and develop and roll out two innovative programs: one to promote literacy in local languages, the other to deliver nutrition education. This is a significant achievement in the challenging environment of Mozambique. The evaluation team attributes much of this success to Planet Aid and ADPP's community development approach, which builds community capacity on the ground through "working shoulder to shoulder with the poor", combined with energetic leadership, a determination to get things done and progressively developing effective systems and procedures.

Most of the project's planned activities have been implemented as intended, and the majority of targets exceeded, many by a wide margin, despite considerable obstacles, including the pandemic. The project has responded to the pandemic with distribution of take-home rations, use of the HGSFGs to feed the surrounding communities, production and broadcasting of distance lessons for primary students, and the provision of online teacher training by the EPFs.

Although Covid-19 restrictions on data collection make it difficult to compare outcomes between midterm and final, the evaluation reveals the project has led to much positive change: students are reading better; trainee teachers show improved literacy levels in Portuguese; in-service teachers are aware of active, student-centered learning approaches; the HGSFGs are producing large amounts of food to benefit schools and communities; school water committees exist to maintain water systems. The pandemic has interrupted the project's withdrawal plan to transfer management and implementation to communities and government after the formal closure of the project. As the FFE project closes, the goal of sustainability must be maintained. FFE2 made significant progress in that direction, building human capital, knowledge and systems. Thanks to advocacy and collaboration with other agencies, school feeding is now on the GoM's agenda, with progress made towards a national school feeding law. However, sustainability will require resources to fund the base food. The report ends with a call to the GoM to ensure that the necessary material and human resources are mobilized to ensure school feeding continues. Likewise, it is important to continue to pursue and expand the successes of the local language literacy program. The evaluation team congratulates the FFE project on its achievements and wishes the GoM every success in pursuing and building on these.

## Introduction

This report presents the findings of the final external evaluation of the 2015-2020 McGovern Dole Food for Education project phase 2 (FFE2), supported and funded by the Foreign Agricultural Service (FAS) of the United States Department of Agriculture (USDA), which builds on the 2012-2016 project of the same name.<sup>1</sup> FFE2 is a comprehensive school-feeding project with child health, nutrition education, teacher training, water and sanitation components, complemented by an innovative literacy component, including early grade literacy in local languages, and a local production component, all designed to promote sustainability after the end of the project. The project is administered in Mozambique by Planet Aid Inc. (PAI) and a consortium of implementing partners: *Ajuda de Desenvolvimento de Povo para Povo* (ADPP), Planet Aid's local partner in Mozambique; the World Initiative for Soy in Human Health (WISHH) program of the American Soybean Association (ASA); Cambridge Education (CE) and the Ministry of Education and Human Development (MINEDH). The project was conceived as an integral part of the national school feeding program (*Programa Nacional de Alimentação Escolar*, or PRONAE) being developed and implemented by the Government of Mozambique (GoM) with collaboration and assistance from the World Food Program (WFP) and other partners, and designed to model different approaches to school feeding in order to support the PRONAE.

The second phase of the project concluded in December 2020 after eight years. The final evaluation has been conducted during the unprecedented national emergency imposed in Mozambique in response to the Covid-19 pandemic: this is reflected in both the methods used and the focus of the evaluation. The methods used sought to maintain as much continuity with previous evaluations as possible, whilst ensuring the safety of all members of the evaluation team, project staff and beneficiaries. Despite the inevitable focus on Covid-19, the final evaluation seeks to assess FFE2 in its entirety and to

- compare the situation at end point against the baseline evaluation and the midterm evaluation, in order to assess and document progress over three time points and changes since the beginning of phase 2;
- assess how the project has acted on recommendations and learning from previous evaluations; and
- assess the impact of the project in terms of positive changes produced and the potential for these to be sustained over time, in the wider context of school feeding in Mozambique.

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<sup>1</sup> The project is often referred to internally as Food for Knowledge (FFK) or *Comida para o Saber*, in Portuguese. FFE1 is the first phase of the project and FFE2 is the second phase. However, in reality these phases merged seamlessly, in terms of many activities and in the perception of the beneficiaries, so this distinction is particularly for organisational and contractual/accountability/budget issues. In this report, FFE2 is used when referring specifically to contractual dimensions e.g. the midterm evaluation, indicators, and some activities which were only introduced in phase 2, such as the literacy program. FFE is used when referring to the project in general, or to aspects which refer to both phases. This general rule also applies to the use of FFK.

Despite modifications due to the Covid-19 pandemic, this final report carefully builds on the phase 2 baseline and midterm reports, tracing continuity between the three time points, so as to:

- Account to project stakeholders, including but not limited to the donor, for strategic directions taken and the use of resources; and
- Identify lessons learned of relevance to other McGovern Dole projects and to the wider school feeding and early grade literacy agenda.

A further objective, whose importance became apparent after beginning the evaluation planning and execution, concerns assessing to what extent learning from the evaluation process, adapted to take account of the Covid-19 context, is applicable and generalizable for future evaluations or research activities in the post-Covid-19 reality and may be able to contribute to the new but growing body of new methods and evidence of best practice (see, for example, Lupton, 2020).

The state of national emergency announced in response to the Covid-19 pandemic, which included the closure of all schools, is only the latest in a series of recent crises to affect Mozambique. The midterm evaluation report presented a worrying educational context and a deterioration in the wider political, economic and environmental context since the onset of the project. The ravages of cyclones Idai and Kenneth in March and April 2019, the ongoing international controversy surrounding the illegal debt and ensuing suspension of much international development aid and the ever worsening armed violence in the northern part of Mozambique, close to the third largest natural gas reserve in Africa, which is not being utilised for the good of the country, to combat poverty and inequality, all reveal an increasingly concerning political, economic and environmental context. The disruption caused by Covid-19 to education, school feeding and other activities, including the final evaluation of the FFE2 project needs to be considered against this wider backdrop, as do the results of the final evaluation reported here.

## **Background**

The FFE2 project was informed by the McGovern-Dole (MGD) Results Framework and associated assumptions about causal, hierarchical change pathways within a holistic Theory of Change (ToC). It sought to promote the health, wellbeing and education of school aged children, through integrated, multifaceted interventions including school feeding, health interventions, water, sanitation, nutrition and local production components and a major literacy program. As captured by the McGovern Dole Results Framework (see Annexes 1 and 2), the project's two overarching Strategic Objectives (SOs) were to improve literacy of school-age children in Mozambique (SO1) and to increase the use of health and dietary practices (SO2).

Under SO1:

- Improvement of quality of literacy instruction was targeted by providing intensive literacy training to teachers in project schools including an innovative program of literacy in local languages;
- increased skills and knowledge of primary school teachers were targeted by coaching of in-service teachers within project schools by a team of literacy coaches;
- improved literacy instruction was targeted by providing teachers and learners with improved access to school supplies and materials, through the development and distribution of bespoke materials by the FFE2 literacy team;
- reduced short-term hunger in the classroom was targeted by school feeding; reduced short-term hunger was expected to lead to improved student attentiveness and therefore learning;
- improved student attendance was targeted through improved school infrastructure (including kitchens, water and sanitation);
- increased enrolment was targeted through increased student access to food within school.

Under SO2:

Increased use of health and dietary practices is targeted using:

- improved knowledge of health and hygiene practices, such as hand washing;
- increased knowledge of safe food preparation and storage practices, for example through training of volunteer cooks;
- increased knowledge of nutrition, through nutrition education and access to school gardens and Home Grown School Feeding Gardens (HGSFGs);
- increased access to clean water and sanitation (latrines);
- increased access to preventative health interventions, such as de-worming and tuberculosis (TB) screening.

The Foundational Results of increased engagement of local organizations and community groups and increased capacity of government institutions are assumed to be prerequisites for the achievement of both SO1 and SO2.

The strategic effort to achieve these objectives involved three major components, implemented by different agencies, yet closely integrated:

### **1. School feeding, water supply development, school gardens, and related activities**

The project provided over 90,000 students in 271<sup>2</sup> target schools in Moamba, Magude, Manhiça and Matutuine districts of Maputo Province with a nutritious daily meal of fortified corn and soy porridge. School gardens and eight large-scale HGSFGs were intended to encourage diversification of students' diet whilst contributing to sustainability of school feeding after the end of the project. Schools were provided with a safe and adequate school water supply, latrines and hand-washing facilities. Students received regular de-worming. In order to provide an improved learning environment, enrolment and attendance for all pupils, after-school clubs were established and kits of educational and recreational materials provided. These "core" areas of the project are implemented by the FFE project team.

### **2. Early grade reading and writing intervention**

Innovative literacy teaching, in both Portuguese and local languages (Xirhonga or Xichangana), used specially developed materials to reinforce reading and writing skills for 1<sup>st</sup> 2<sup>nd</sup> and 3<sup>rd</sup> grade children<sup>3</sup>. Literacy coaches moved between schools to train and support teachers to use the new methods, through classroom observation and lesson coaching. The literacy intervention was implemented by a dedicated FFE project literacy team, supported by CE.

### **3. Nutrition education program**

A comprehensive nutrition education program operated in the 4 beneficiary districts of Maputo province and the 11 teacher training colleges run by ADPP (the *Escolas de Professores do Futuro*: EPFs). Teachers from project schools were trained as Nutrition Educators or "coaches," and trained colleagues in the same schools. The EPFs provided nutrition education as an integral part of their teacher training curriculum. Nutrition and health education curricula for teacher trainers, teachers, and students were produced and approved for use by the MINEDH. The Nutrition Education program was implemented until the end of 2019 by a team based in the project office managed by the WISHH program; after this, responsibility for nutrition education was transmitted to the wider project team as part of the wider sustainability and project exit strategy.

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<sup>2</sup> Significantly increased from the original proposal and contract with USDA to provide meals to 74,000 students in 264 schools and, again, from the 88,000 students benefiting at midterm.

<sup>3</sup> Although most students in project schools speak only Xichangana or Xirhonga when they enter school, they have traditionally been taught to read in Portuguese, the official national language. This is a major obstacle in their acquisition of reading and writing skills and wider education. Bilingual education introduces early literacy in the home language, whilst simultaneously teaching the language of instruction, into which teaching and learning transitions in grade 3.

## Overview of the FFE2 Final Evaluation

### The Final Evaluation team

The final evaluation of FFE2 was conducted by an international consortium, whose April 2020 bid to conduct the evaluation was successful. The consortium was composed of:

- a) Dr Simone Doctors (evaluation lead and international evaluation coordination, qualitative data collection and analysis, main report author);
- b) Apolowil (quantitative data collection);
- c) the National Foundation for Educational Research (NFER) (quantitative data analysis);
- d) Calíbio Samuel Matine (national evaluation coordination, oversight of enumerator training, independent oversight and quality assurance (QA) of fieldwork, interview and Focus Group Discussion (FGD) facilitation);
- e) Valerie Legg (data verification and checking against source data, producing charts and graphs, supporting analysis of quantitative data, and drafting report sections).

### Alignment with previous evaluations

Regular evaluations of the FFE project have been conducted, in accordance with the project Evaluation Plan:

- a baseline study of FFE1 in May 2013 by project staff with support from an external evaluator;
- a midterm evaluation of FFE1 in 2014 by an external evaluation team;
- a final evaluation of FFE1 in late 2016 (report dated July 2017) by an external evaluation team;
- a baseline study of FFE2 in 2017 (report dated July 2018) by project staff with support from an external evaluator (to avoid redundancy and in order to make the best use of resources, the baseline of FFE2 built on the final evaluation of FFE1).
- a midterm evaluation of FFE2 in 2019 (report dated October 2019)

The current and final evaluation of the FFE2 project completes this series. It was originally designed to build on the baseline and midterm evaluations of FFE2, comparing the same indicators at three time points and completing the cohort study of students begun at baseline. Constraints imposed by the Covid-19 pandemic have required a reorganization of the evaluation; while the methods used have sought to continue to compare the situation of all project indicators at end point, the source and nature of the data used has had to be modified, due to the fact that schools were closed and to the need to preserve the safety and health of informants (beneficiaries, the project team, government and non-governmental actors) and the evaluation team.

## Methodology

During previous evaluations, a combination of quantitative and qualitative information was gathered using a mixed method approach, with the objective of maintaining consistency and comparability of the information gathered and methods used, allowing assessment of change over the duration of the project. Three types of information were gathered and analyzed:

- Existing information provided by FFE / *Direção Provincial de Educação e Desenvolvimento Humano* (DPEDH), and reviewed, collated and analyzed by the evaluation team;
- Quantitative data collected and analyzed by the evaluation team, including: literacy testing (Early Grade Reading Assessment (EGRA)) of students in project and comparison schools, interviews and anthropometric measurements of the same students, survey of a sample of project schools, survey of teachers from project schools, classroom observation of teaching in project and comparison schools, statistical modelling to account for measured background differences between intervention and comparison group, to measure potential changes associated with the program.
- Qualitative data collected and analyzed by the external evaluators: Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs), visits and observation of project schools, school gardens and HGSFGs, visits of the project headquarters and main warehouse; visits and observation of three EPFs, observation of teaching practice by EPF students, results of an internal self-review by the project team, results of a stakeholder review workshop.

### Impact of Covid-19 on the final evaluation design

Given the impossibility of international travel and of conducting fieldwork in schools during the Covid-19 pandemic and the undesirability of undertaking significant travel to communities to collect data, the final evaluation was modified from the original plan as follows:

- The evaluation was coordinated at distance by an international coordinator, working closely with a national coordinator based in Mozambique.
- A risk assessment involving the entire evaluation team, the FFE leadership and Monitoring and Evaluation (M&E) team was conducted prior to commencing fieldwork.
- Much of the fieldwork was conducted remotely, with KIIs and FGDs conducted using video conferencing or audio calls and an internal self-review by project staff conducted using video conferencing.
- A limited number of KIIs and FGDs was conducted face-to-face by the national coordinator, using Covid-19 secure methods and implementing the risk assessment.



- No fieldwork was conducted in project schools or directly with children, meaning it was not possible to continue the cohort study begun at baseline and continued at midterm, including an EGRA, anthropometric measurements and interviews of students; nor was it possible to conduct face-to-face surveys of teachers and school directors or conduct school visits and observations, including lesson observation.
- As an alternative, four remote surveys were conducted using mobile technology.
- Existing project monitoring data, including EGRA data collected by the project literacy team, was analyzed by the evaluation team, as an alternative to conducting externally administered EGRA.

All evaluation instruments, including the four remote surveys, were extended and adapted to include a focus on the impact of the Covid-19 crisis and the project's response to that. Table 1 below shows how data collection methods used at baseline and midterm were adapted to maintain maximum continuity and comparability of data.

Data gathered at baseline and midterm	Methods used at end point (including Covid-19 adaptation/compensation strategies)
Internal self-review by project leaders and staff conducted during workshop with external evaluation team	Internal self-review by project leaders and staff conducted using hybrid small groups – remote methods
EGRA conducted with sample of students from intervention and comparison schools	Analysis by NFER of EGRA and mini-EGRA conducted by project literacy team for internal monitoring
Interviews and anthropometric measurement of same students	Survey of parents/community members (including some of the questions usually asked of students)
Survey of sample project schools/head teachers	Remote survey of same sample of head teachers (same questions as baseline and midterm)
Survey of sample of project teachers	Remote survey of extended sample of project teachers (same questions as baseline and midterm and extended content)
Lesson observation of intervention and comparison schools	Extended remote teacher survey
FGDs and KIIs	FGDs and KIIs conducted remotely or in person using Covid-19 secure methods
Analysis of project monitoring records	Remote analysis of project monitoring records
Visits to EPFs, observation, FGDs with EPF trainers, KIIs with EPF directors.	Visit to EPF Maputo, FGD with trainers from EPF Maputo, remote KIIs with EPF directors
Observation of teaching practice by EPF students; FGDs with EPF students	Remote survey of EPF students

Table 1: Data collection methods and how these were adapted for final evaluation due to Covid-19 to maintain maximum continuity and comparability of data

77 key informant interviews and 8 focus group discussions were conducted, either remotely or face-to-face using Covid-19 secure methods. Interviewees included representatives of USDA/FAS, Planet Aid, ADPP (including EPF headteachers and staff), FFE staff and volunteers, WISHH, CA, the GoM, school directors and pedagogical directors and other organizations working in school feeding.

## Online surveys

Four online surveys were conducted: of schools, teachers, parents/community members and EPF students respectively, in an attempt to collect comparable information to that which would have been possible without the Covid-19 pandemic. The rationale for conducting each survey and sampling method used in each case, summarized in table 2 below, was as follows:

**School surveys/directors:** the survey sought to follow up on the survey of a sample of 170 project schools conducted at baseline and midterm. For that reason, the evaluation team attempted to contact only the head teachers of schools which had already responded to the survey at the previous two time points. 54 responses were obtained.

**Teachers:** the survey sought to a) follow up on the survey of a sample of 200 teachers in project schools conducted at baseline and midterm; the evaluation team attempted to re-contact all of those teachers; and b) add an additional 300 teachers who had had particular roles or responsibilities within the project, such as storeroom manager, nutrition focal point or literacy specialist. The team attempted to contact a further 350 teachers identified by the FFE2 M&E team as corresponding to those criteria. Of the total 550 teachers targeted, 199 responses were submitted.

**Parents/community members:** since it was not possible to collect data from school students, and thus complete the cohort study begun at baseline and continued at midterm, the survey sought to engage with parents of students in project schools, in the hope of gathering some comparable information from them. Initially a rigorous sample of families was drawn up, based on interval sampling of families of all approximately 90,000 students enrolled in project schools. However, it proved very difficult to obtain contact details for this sample of parents, due to schools being closed, and to the limited number of parents with functional mobile phones. An alternative strategy was therefore used: ten families from each project school were selected by the FFE2 project staff, based on those whose phone numbers they were able to obtain (this is obviously a less rigorous sampling method and is likely to result in the respondents selected being known to project staff, with the risk that these were possibly not wholly representative of the population of parents: it is possible they were more prominent or engaged in the school or the community overall and had maintained contact with the school during the closure due to the State of Emergency; however, it was decided that it was preferable to have a larger sample of not wholly representative parents than a very small sample). This survey was conducted by phone call by research assistants in Xichangana, Xirhonga or Portuguese as appropriate, in order to reach parents who had a simple mobile phone but not a smart phone and /or do not speak Portuguese sufficiently well to participate in that language. Of the 1,200 parents whom researchers attempted to contact, 550 responses were obtained.

**EPF students:** Since it was not possible to visit individual EPFs or conduct focus groups with students, due to the Covid-19 pandemic, and since the EPFs had put in place a significant program of distance support to their

students during the closure of schools, it was decided to conduct a survey of 200 EPF students (trainee teachers). The sample was drawn using interval sampling of the entire population of students from the 11 EPFs. It was anticipated that the response rate would be high, so only 200 students were selected. In the event, 170 responses were received, including from 13 students who declined to participate, making a total of 157 responses.

Survey	Sampling rationale	Number of contacts attempted	Number of responses anticipated	Number of responses obtained
School directors (survey in Portuguese)	All those surveyed at midterm recontacted, as follow up	170	Up to 170	54
Teachers (survey in Portuguese)	All those surveyed at midterm recontacted + 350 additional teachers identified by FFE2 M&E team based on project roles	550	500	199
Parents/community members (survey conducted by research assistants in Xichangana, Xirhonga or Portuguese)	Initially interval sampling of all families; after major difficulties contacting these, 10 families per school identified by FFE project officers	1200	900	559
EPF students (survey in Portuguese)	Interval sampling of students from all 11 EPFs (only 200 were selected, on the assumption the response rate would be better than it was)	200	200	157 (+ 13 who declined to participate, so 170 responses received in total)

Table 2: Sampling method, number of respondents contacted and responses obtained for four remote surveys

## Management and quality assurance of the Final Evaluation

The evaluation team members worked collaboratively under the coordination of international external evaluation coordinator Simone Doctors to design, plan and conduct the evaluation. Simone and national external evaluation coordinator Calibio Matine worked remotely throughout the planning, data collection and analysis, to ensure these processes ran smoothly and ensure effective communication between the consortium members. Planet Aid and the FFE leadership and staff assisted the evaluation team with planning and logistics and made information available but were not involved in data gathering activities.

The evaluation instruments, including FGD and KII scripts, the internal self-review and four surveys were developed collaboratively by Simone Doctors and Calibio Matine, based on those used at baseline and midterm, with input from members of the FFE team where necessary, so that the information collected would meet the needs and vision of the project team. All instruments were modified to include a focus on the impact of and project's response to Covid-19. After finalization of the four survey instruments in paper form and approval by the FFE M&E team and relevant components, these were scripted and coded in Open Data Kit (ODK) by Apolowil, in preparation for remote data gathering. Each of the four surveys was extensively tested by Simone and Calibio and amended by Apolowil so that they worked as intended. Each was pre-tested, and a data set reviewed by Simone Doctors and the NFER team: the small number of "bugs" identified in the instruments was then addressed by Apolowil before the survey went live.

Since the survey of parents/community members was conducted by research assistants, these were recruited and trained by Apolowil and Calibio over a period of one week in Maputo city. The training materials were prepared in liaison with Simone Doctors and included a strong focus on Covid-19 security and data collection ethics. The capacity of the research assistants to conduct remote interviews in Portuguese, Xichangana and Xirhonga was carefully assessed by Calibio. The data sets collected using the remote surveys were cleaned by Apolowil, then uploaded to NFER's secure server for analysis.

Qualitative data from KIIs and FGDs was collected by Simone Doctors and Calibio Matine using video and audio conferencing. Calibio Matine conducted carefully controlled visits to each of the project districts to visit HGSFGs, interview government officials (*Serviço Distrital de Educação, Juventude e Tecnologia* - District Office for Education, Youth and Technology (SDEJT), and *Serviço Distrital de Saúde Mulher e Acção Social* - District Service for Women Health and Social Action (SDSMAS)) and conduct FGDs with School Feeding Committees (SFCs), volunteer cooks and water committees, observing Covid-19 secure methods. Calibio also visited EPF Maputo and interviewed the director and pedagogical director. KIIs and FGDs were recorded using a digital voice recorder, then transcribed by Apolowil, before being analyzed by Simone Doctors, using a version of framework analysis.

Simone Doctors assumed overall responsibility for the quality of the data collection and analysis process. Quality assurance (QA) protocols used to ensure consistency during data collection and data validity included:

- QA by Calibio of data gathering by research assistants, including monitoring their performance in Xichangana and Xirhonga, conducting random spot checks and providing support during data gathering<sup>4</sup>;
- Review of all evaluation instruments, including translations, by Calibio and Simone;

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<sup>4</sup> In the only case where a research assistant was found to have falsified a small number of interviews, these were deleted from the data set; the research assistant was then retrained and their work monitored intensively, both during data gathering and after uploading.

- QA of Apolowil's transcription of FGDs and KIIs by Apolowil, first by Ernest (Apolowil) then by Simone, conducting random spot checks of 10% of transcriptions, including checking against original recordings;
- Intensive testing of all remote data collection instruments first by Apolowil, then by Simone and Calbio;
- Analysis of data sets by Apolowil to ensure inter-enumerator consistency and validity of the data gathered.

Rigorous data security protocols were in place. Following signing of a data management agreement between all consortium members and Planet Aid, all data were uploaded to NFER's secure server, so data containing personal information was not transmitted using email or other non-secure methods. Data collected from remote surveys was stored on encrypted computers, then uploaded to NFER's secure server. Qualitative data for transcription were uploaded to NFER's secure server. For more information about the data gathering process, please see the evaluation Fieldwork Report, dated 6 December 2020.

Preparation of the draft report was coordinated by Simone Doctors, with extensive support from other consortium members. The draft report was then sent to Planet Aid, FFE and the other implementing partners for factual verification. The evaluators wished to ensure that the report fairly and accurately reflected the lived experience of the implementing teams and incorporated any information which provided context for the report's findings. The evaluation team responded to all comments and requests for clarification received, retaining a strictly independent stance, and dealing with each comment on a case-by-case basis. The final draft of the report was prepared by Valerie Legg and Simone Doctors, and reviewed by Planet Aid before finalization by the evaluation team.

## Final evaluation findings

This report follows the structure adopted for the midterm evaluation report, according to the logic of the project ToC (see Annex 1). Findings are grouped according to the project indicators, beginning with SO1, then following back through the various change pathways, then addressing SO2 and each of the associated change pathways in turn. A number of crosscutting themes: Human Resources, capacity, collaboration and ownership; Transport; Administrative and financial systems and procedures; M&E; and Sustainability and relevance to the local and national school feeding policy and program environment are then addressed, followed by a section on Impact of Covid-19 on the FFE2 project and assessment of the project's response to Covid-19. Like the midterm report, where appropriate, each section addresses the three evaluation questions which had informed previous evaluations, minimizing overlap and repetition:

- Internal validity (*did the project do what it said it would do?*)
- Initial impact (*has it made a difference?*)
- Strategic relevance regarding effectiveness, efficiency, impact and sustainability (*were these the right things to do? what can be learned?*)

At the beginning of each section, boxes summarize the relevant project targets and results, broken down by the indicators associated with each activity. Figures given are as of the end of September 2020. In the small number of cases where the final target had not been achieved as of the end of September 2020, a figure as of December 2020 is also given. Targets used are the project final targets unless indicated<sup>5</sup>. The data presented comes from a variety of sources, which are indicated in each case.

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<sup>5</sup> The final targets are set out in the document entitled Attachment E in Amendment # 5: Performance Indicators Modification 1. Several of the project activities were extended into 2021 due to Covid-related disruptions, and a final target set for that fiscal year. Where this is the case it has been noted alongside specific indicators.

## Improved literacy of school-age children (SO1)

The first of the two large strategic objectives of the project within the project ToC, SO1 concerns improved literacy of school-age children. This report presents each project activity following the structure and logic of the ToC and associated indicators.

### Strategic Objective 1: Notable Achievements

Students tested in reading in local languages tended to perform better than those tested in Portuguese, and students tested in the language they spoke at home consistently outperformed those tested in a different language. 25.9% of the students tested were able to meet the national literacy benchmark, a significant improvement from midterm.

All schools received textbooks and other teaching and learning materials, achieving 216% of the final target for distribution. Teachers, students and government officials are very appreciative of these and consider them useful.

Development of teaching and learning materials for the bilingual curriculum has led to sustainable capacity development as institutions and individuals supported by Cambridge Education ‘learned by doing.’ These materials are now the official MINEDH textbooks for literacy in Xichangana and Xirhonga and provide a model for adaptation in local languages in other provinces. The DPEDH have set up a bilingual teaching strategy for 2021-29, drawing on the project’s expertise and experience. The program has left schools with the capacity, both in skills and materials, to continue to teach reading in local languages.

Continuous professional development and in-school support of primary school teachers in project schools continued until schools closed due to Covid-19. Despite the interruption, schools now have teachers who are confident in phonics and modern, child-centered teaching and learning methods.

9,222 primary teachers have been trained at the EPFs, more than double the final target. Trainee teachers at EPFs are highly motivated, consider their instruction to be of high quality and reported that active learning methods are in regular use at the EPFs. Remedial Portuguese language support provided at the EPFs enabled 75% of students to improve their Portuguese literacy skills during training.

The target for the number of school administrators and officials trained or certified as a result of USDA assistance has been 161% achieved.

Prior to the Covid-19 pandemic, 90,278 school-age children were receiving daily school meals thanks to the project, exceeding the final target. After schools closed, CSB+ was distributed in the form of take-home rations for students, with targets achieved.

School attendance has improved. The overwhelming majority of schools reported having one or more extracurricular learning clubs, which positively influenced students' attendance and attainment.

School infrastructure provided by the project (kitchens, storerooms, and firewood-saving stoves) has been maintained, with more than twice the final target met.

There is some evidence that enrolment increased and dropouts decreased as a result of project activities, with an overall downward trend in the dropout rates in project districts.

Two investments were leveraged through public-private partnerships to a total value of \$401,292.

Finally, 271 School Feeding Committees were created and supported, exceeding the final target.

**Indicator 26 (Outcome): Percent of students who, by the end of two grades of primary schooling, demonstrate that they can read and understand the meaning of grade level text. Final target: 45%  
Final results (December 2020): 25.9%<sup>6</sup> (Female: 26.7%; Male 21.7%)  
Final target 58% achieved (Female: 59%; Male 48%)**

**Indicator 27 (Output): Number of individuals benefiting directly from USDA-funded interventions.  
Final target: 85,560 (Female: 45,450; Male: 40,110; Continuing: 78,748; New: 6,812)  
Final result (September 2020): 100,403 (Female: 47,080; Male: 53,323; Continuing: 94,819; New: 5,584)  
Final target 117% achieved (Female: 104% achieved; Male: 133% achieved; Continuing: 120% achieved; New: 82% achieved)**

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<sup>6</sup> The final evaluation team considered that the reading assessment texts provided internally in Portuguese and in Xichangana/Xirhonga were not strictly comparable - in particular, differences in the length and difficulty of the respective texts resulted in falsely inflated scores for the group tested in Portuguese: because the Portuguese text was relatively long, and the comprehension questions for the bilingual group concerned material that was earlier in the reading text, students in the bilingual group were more likely to be asked all of the questions and therefore had a greater chance of answering at least one question wrong. The team therefore explored different interpretations of the available data. The data in annex 4 (pp 167-174) presents the different interpretations considered by the evaluation team. The 25.9% of pupils recorded here are the pupils who met the benchmark in its most narrow interpretation ('Benchmark A'): they correctly read the first 33 (Xichangana), 38 (Portuguese), or 41 (Xirhonga) words of the text and answered the first 3 comprehension questions correctly. 'Benchmark B' records pupils who attempted the first 33 (Xichangana), 38 (Portuguese), or 41 (Xirhonga) words of the text, without necessarily reading all of them perfectly, and answered the first 3 comprehension questions correctly. In this case the percent meeting the benchmark increases to 38.1% of the pupils, or 85% of the final target. 'Benchmark C' consisted of the 69.6% of students who attempted to read enough of the text to answer the questions, then answered the first 3 comprehension questions correctly (155% of the final target). All of these students demonstrated ability to draw meaning from a grade-level text, though not all strictly met the literacy benchmark.



**Indicator 28 (Output): Number of individuals benefiting indirectly from USDA-funded interventions.**  
**Final target: 336,000**  
**Final result (September 2020): 361,112**  
**Final target 107% achieved**

### **Analysis of internally-conducted EGRA**

In order to assess the literacy levels of students who have benefited from the literacy program delivered by FFE, with technical assistance from CE, a cohort study to measure students' performance in EGRA at three time points had been begun at baseline and continued at midterm, with the intention of completing this at end point.<sup>7</sup> Due to the Covid-19 pandemic and the complete closure of schools in Mozambique at the time of conducting the final evaluation, it was not possible to complete the cohort study, or to collect any data from students. As a solution the literacy team supported the final evaluation team by making available several internally conducted EGRA results from the period following the midterm evaluation. Two data sets were analyzed:

- A “mini-EGRA” conducted in April 2019 for a sample of 217 students from class three, in the three program languages (Portuguese, Xichangana and Xirhonga), consisting of sub-task 8 (timed reading aloud of a short text followed by comprehension questions);
- a full EGRA, conducted in September and October 2019 for a sample of 204 students from class one, 211 students from class two and 208 students from class three, in the three program languages (Portuguese, Xichangana and Xirhonga), consisting of:
  - for class one and two, sub-tasks 3 to 9 (the same sub-tasks used at midterm with the exception of sub-tasks one and two);
  - for class three, sub-tasks 8 and 9.

The evaluation team had no influence over the selection of students or the instruments used. The literacy team reported that a sampling process was used (selecting students at defined intervals on the class list) but were aware that the samples may not have always been rigorously drawn and were open and transparent about this fact. Subsequent analysis of the instruments by the evaluation team revealed some inconsistency between some of the instruments: in particular, although most of the texts had been designed to be equivalent between languages, in the mini-EGRA the Portuguese text was simpler and less demanding than the bilingual one, and in the full EGRA the Portuguese text was longer than the bilingual one (although it was deemed to be comparable in difficulty). Despite some reservations about the sampling of students and calibration of the instruments, the evaluation team considers them able to reveal findings of note, particularly in light of the fact that they reveal

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<sup>7</sup> The midterm data collection took place in March-April 2019 and used a carefully calibrated instrument designed to be equivalent in the three languages.

consistent trends across stratification groups, as will be shown. Having considered the inconsistencies in the instrument used for the mini-EGRA, although it was originally planned to use the mini-EGRA results to assess pupils' progress in relation to national benchmarks, the benchmark results were instead drawn from the full EGRA, subtask 8 (assessing reading fluency and comprehension).<sup>8</sup>

The full EGRA consisted of 7 subtasks designed to assess progressively more complex pre-reading then reading skills. Each of the three language versions consisted of the following language-specific subtasks:

- ST3<sup>9</sup>. Phonological awareness (indicate the picture of an object whose name begins with the same initial sound as that of a stimulus object – 10 items)
- ST4. Concepts of print (perform tasks to demonstrate familiarity with how printed language functions – 10 items)
- ST5. Letter sounds (produce the letter sounds when shown printed lower and upper case letters – 100 items)
- ST6. Syllable recognition (read aloud syllables consisting of consonant and vowel combinations permitted in the target language – 50 items)
- ST7. Reading simple words (read aloud a list of words progressively longer and less common - 30 items)
- ST8. Reading fluency (read a short passage – number of words read correctly within 60 seconds –ranging from 15 to 95 items depending on the assessment) and reading comprehension (respond to questions based on the passage just read – 3 to 5 items [three for year 1, four for year 2, and five for year 3])
- ST9. Writing (correctly write first name and family name – 2 items) and dictation - words (correctly write 5 words dictated – 5 items).

Detailed discussion of the students' performance on each EGRA subtask can be found in Annex 3 of this report.

### ***EGRA results: Presentation***

At midterm students' scores were compared based on whether they had received both school feeding and the literacy intervention, school feeding only, or neither. For the final evaluation, scores were compared in two contrast groups: the first comparing students tested in Portuguese with those tested in local languages, and the second comparing students tested in the same language that they spoke at home with those tested in a different language to that spoken at home. A comparison of the EGRA subtask scores for year 1 students reveals that in the first contrast group (students tested in Portuguese compared with students tested in local languages) the students tested in local languages outperformed those tested in Portuguese in seven out of eleven subtasks (indicated in red in tables 3 and 4 below). Year 1 students who were tested in the same language that they spoke

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<sup>8</sup> Cambridge Education representatives were in agreement with the evaluation team's concerns regarding the validity of the mini-EGRA data.

<sup>9</sup> ST1 and ST2 assess very rudimentary pre-reading tasks and were not analyzed.

at home performed better than students tested in a different language in nine out of the eleven subtasks, and in a tenth (reading comprehension) there was no difference in score.

EGRA subtasks	Mean score achieved				
	Year One overall	Contrast One		Contrast Two	
		Portuguese as language of testing	Bilingual language of testing	Home language same as language of testing	Home language different from language of testing
Phonological awareness	8	7.7	8.3	8	7.9
Concepts of print	8.3	8.1	8.5	8.4	8.0
Letter sound recognition	16.2	17	15.4	16.8	14.2
Reading syllables	9.8	8.5	11	10.6	7.2
Reading words	5	3.7	6.3	5.4	3.7
Reading fluency (WPM)	6	6.4	5.6	6.2	5.4
Comparative reading fluency	32.4	28.8	36	34.5	25.5
Comprehension of reading	1.0	1.1	1.0	1.0	1.0
Writing dictation: individual words	1.8	1.5	2.0	1.9	1.4

Table 3: EGRA results compared, year 1 students

Writing own name	Percent of students able to perform task correctly				
	Year One overall	Contrast One		Contrast Two	
		Portuguese as language of testing	Bilingual language of testing	Home language same as language of testing	Home language different from language of testing
Writing first name correctly	59%	61%	57%	58.9%	59.2%
Writing family name correctly	24.5%	24%	25%	25.8%	20.4%

Table 4: EGRA name-writing subtask results compared, year 1 students

Among year 2 students, in the first contrast group the students tested in local languages outperformed those tested in Portuguese in six out of eleven subtasks (indicated in red in tables 5 and 6 below). In a further two subtasks, there was no difference between the two groups. Year 2 students who were tested in the same

language that they spoke at home performed better than students tested in a different language in all of the EGRA subtasks.

EGRA subtasks	Mean score achieved				
	Year Two overall	Contrast One		Contrast Two	
		Portuguese as language of testing	Bilingual language of testing	Home language same as language of testing	Home language different from language of testing
Phonological awareness	9.2	9.1	9.2	9.2	9.0
Concepts of print	9.0	9.0	9.0	9.1	8.7
Letter sound recognition	20.2	22.3	18.3	20.3	19.7
Reading syllables	15.7	17.2	14.4	16.1	14.5
Reading words	9.2	9.1	9.2	9.7	7.5
Reading fluency (WPM)	15.9	18.3	13.9	16.6	14
Comparative reading fluency	33.9	32.6	35.1	37.2	24.2
Comprehension of reading	1.4	1.4	1.4	1.5	1.0
Writing dictation: individual words	2.4	2.1	2.6	2.6	1.6

Table 5: EGRA results compared, year 2 students

Writing own name	Percent of students able to perform task correctly				
	Year Two overall	Contrast One		Contrast Two	
		Portuguese as language of testing	Bilingual language of testing	Home language same as language of testing	Home language different from language of testing
Writing first name correctly	80.2%	73.7%	86.1%	86.4%	62.3%
Writing family name correctly	55.1%	54.5%	55.6%	59.7%	41.5%

Table 6: EGRA name-writing subtask results compared, year 2 students

Year 3 students were only tested on six of the EGRA subtasks, outlined in tables 7 and 8 below. In this year group, students tested in local languages outperformed those tested in Portuguese in four of the subtasks. Students who were tested in the same language that they spoke at home performed better than students tested in a different language in all but one of the EGRA subtasks.

EGRA subtasks	Mean score achieved				
	Year Three overall	Contrast One		Contrast Two	
		Portuguese as language of testing	Bilingual language of testing	Home language same as language of testing	Home language different from language of testing
Reading fluency (WPM)	35.3	40	29.5	34.2	37.1
Comparative reading fluency	46.8	41.6	53.2	51.3	38.9
Comprehension of reading	2.5	2.5	2.4	2.5	2.4
Writing dictation: individual words	3.2	2.9	3.6	3.5	2.7

Table 7: EGRA results compared, year 3 students

Writing own name	Percent of students able to perform task correctly				
	Year Three overall	Contrast One		Contrast Two	
		Portuguese as language of testing	Bilingual language of testing	Home language same as language of testing	Home language different from language of testing
Writing first name correctly	85.9%	83.3%	89%	87%	83.8%
Writing family name correctly	73.7%	68.4%	80.2%	79.4%	63.5%

Table 8: EGRA name-writing subtask results compared, year 3 students

Furthermore, in several of the subtasks reported above, students tested in local languages were more likely to achieve a perfect score (the maximum possible score) than were students tested in Portuguese; and students tested in their home language were more likely to achieve a perfect score than students tested in a language different from their home language. This result contrasts with the belief held by many of the parents surveyed (reported on pages 40-41, figure 4 and table 10 below) that instruction in Portuguese facilitates learning.<sup>10</sup>

An exact, exhaustive comparison of the final results with those obtained at baseline and midterm is unfortunately not possible, due to the different groups tested at these respective time points; however some general trends can be observed.<sup>11</sup> The midterm group that lends itself most readily to comparison with findings

<sup>10</sup> Over 70% of the parents disagreed with statements such as 'it is better to learn in a language which one understands well,' and 80% with 'it is better to learn in the language spoken at home,' however the results of the EGRA at final evaluation show that young students consistently perform better when tested in their home language.

<sup>11</sup> At midterm three main cohorts of students were tested: those receiving school feeding plus the literacy intervention, those receiving school feeding only, and a control group. All were in grade 3.

from the final evaluation is the midterm “FFE + literacy” group, that is pupils who were benefitting from both school feeding and the literacy intervention at midterm. Although all of the pupils tested at midterm were in grade 3, it is striking to see that they were consistently outperformed by grade 2 and even, in many cases, grade 1 pupils at the final evaluation<sup>12</sup> (see figures 1 and 2 below). The internal EGRA was conducted approximately 6 months later than the midterm evaluation, so some progress between the two assessments is to be expected.<sup>13</sup>

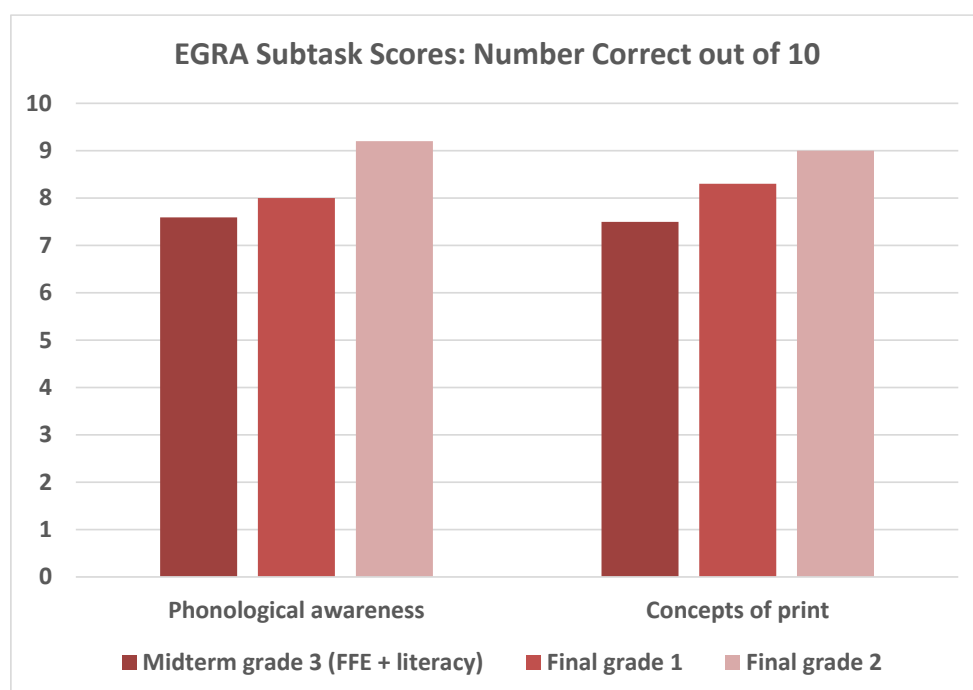


Figure 1: Midterm scores compared with final evaluation scores: phonological awareness and concepts of print

<sup>12</sup> Grade 3 pupils did not undertake these subtasks at the final evaluation.

<sup>13</sup> As previously indicated, the pupils tested at midterm and in the internal EGRA were not the same and the sampling method varied on each occasion, so caution should be exercised when considering these comparisons. The protocol of enumerator training also differed between midterm and final.

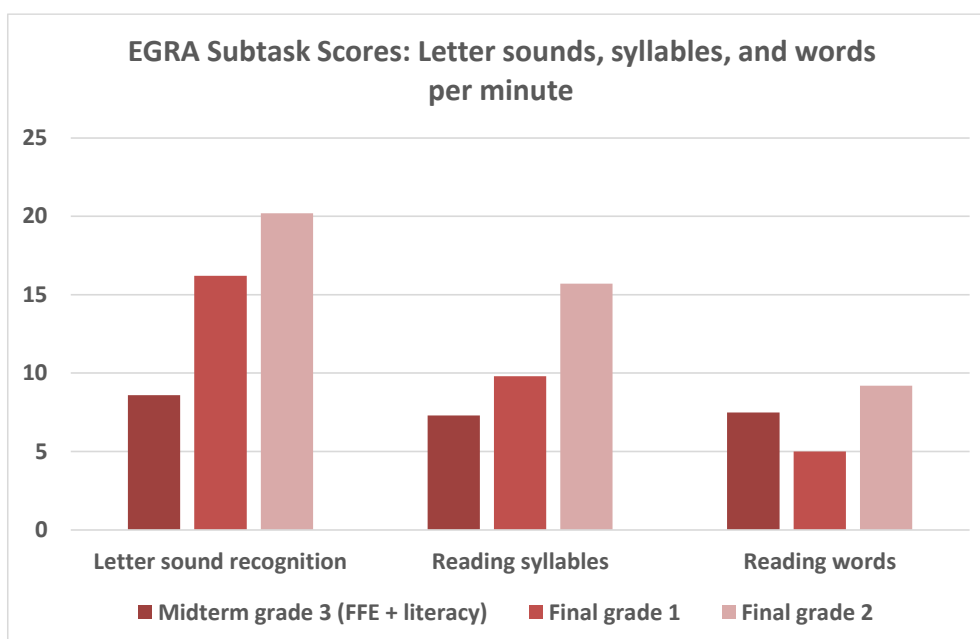


Figure 2: Midterm scores compared with final evaluation scores: letter sounds recognition, syllables and words

When the scores of pupils from the same year group are considered, grade 3 pupils from the final evaluation show a marked improvement over those tested at midterm (see figure 3).<sup>14</sup>

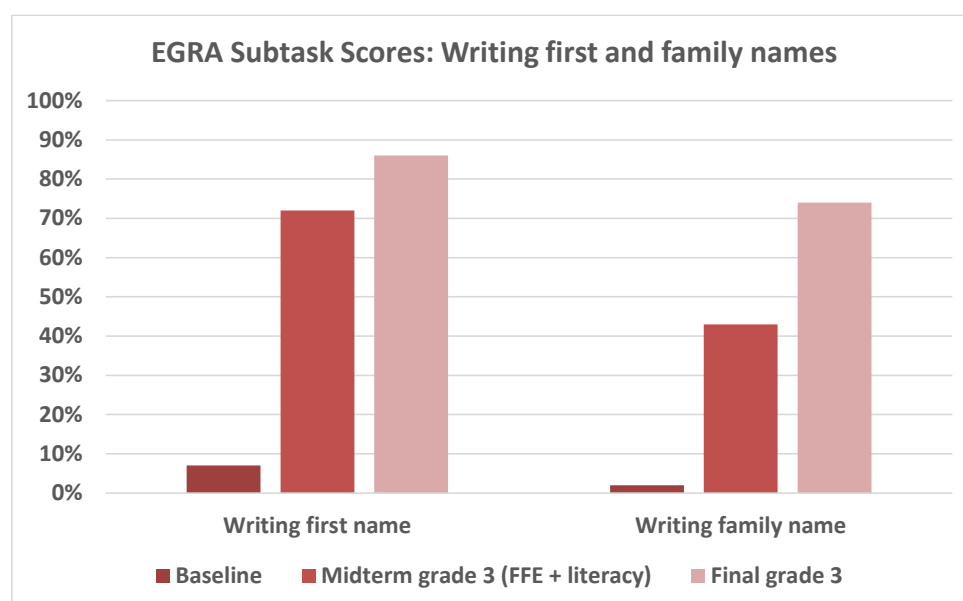


Figure 3: Baseline through final evaluation scores: percent of pupils able to correctly write their own names

<sup>14</sup> Recall that in the internal EGRA conducted in September and October 2019, grade 3 students were tested only on subtasks 8 and 9 (reading comprehension and writing, respectively), therefore it has not been possible to provide comparison here with other subtasks performed at midterm.

### ***Progress in relation to national benchmarks***

The indicator “Percent of students who, by the end of two grades of primary schooling, demonstrate that they can read and understand the meaning of grade level text” assumes a nationally accepted benchmark, or general agreement as to what children of a particular grade should be able to do. In the absence of official national benchmarks, but in line with recommendations developed by the USAID *Vamos Ler* (Let’s Read) project<sup>15</sup>, the project literacy team has been working with the following definition: 30 words per minute (WPM) for Portuguese; 25 WPM for local languages (Xichangana/Xirhonga) and 3/4 (75%) comprehension questions correct in each case. This is the measure of “demonstrate that they can read and understand the meaning of grade level text” which was therefore adopted for the purpose of previous evaluations of this project.

Table 9 shows the percentage of students in each comparison group that attained the benchmark, with the higher results from each contrast in red.

Comparison Groups		Percent of students meeting the benchmark
Year 3 students overall		25.9%
Contrast One	Portuguese as language of testing	24.1%
	Bilingual language of testing	28.0%
Contrast Two	Home language same as language of testing	28.0%
	Home language different from language of testing	21.9%

Table 9: Percentage of year 3 students who attained literacy benchmark

The analysis of students meeting the literacy benchmarks repeats the pattern identified in discussion of the full EGRA results: students tested in local languages perform better than those tested in Portuguese, and students tested in the language they speak at home achieve greater results than those tested in a different language to that spoken at home.

Results from the final evaluation are also overall significantly higher than those recorded at baseline and midterm. However, due to the fact that the final results were from an internally conducted EGRA and therefore not comparable to the cohort studies conducted at previous evaluations, it is unfortunately not possible to draw definitive conclusions from comparison of these with previous results.

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<sup>15</sup> The five-year USAID-funded Mozambique *Vamos Ler!* Program, which began in 2016, develops bilingual education pedagogical tools and activities to improve national early grade literacy.



### ***EGRA results: Discussion***

The EGRA results show that, at least for the sample of students tested, they had made considerable progress in reading when compared to the midterm evaluation results. Overall, bilingual students were likely to perform better than students tested in Portuguese. At all levels, students tested in their home language performed better than students tested in a language other than their home language. This is a noteworthy observation as it was never suggested to reading coaches to consider that a same or different home language should predict differences in pupil performance. This result is therefore unlikely to be due to any different treatment or expectations on the part of the coaches administering the tests.

At least for the sample of students tested, then, these results provide further confirmation of the findings of the midterm report, that the literacy intervention is beginning to show promising results and that the bilingual program is working. It is unfortunate that it was not possible to finish the cohort study, which might have allowed this claim to be made more forcefully, based on the comparison of a sample of students, representative of the whole population of students benefiting from the literacy intervention, with other groups. Despite the caveats mentioned previously, it is nevertheless encouraging to see evidence that at least some students are learning to read in what has been a very bleak context for early grade literacy until recently. The evaluation has shown that at least some students as early as grade 1 are demonstrating the ability to perform pre-reading and reading tasks better than many grade 3 students tested at midterm. It is also encouraging that the students taught and tested in local languages are performing so well (the fact that students tested in their home language systematically outperformed those tested in another language reinforces the central premise of bilingual literacy education). There is work to do before these successes can be generalized to the whole early grade population. The fact that parents' attitudes to learning to read in the home language are lagging behind this (see page 41) demonstrates that there is also much work to be done to communicate the benefits of bilingual education. However, taken together with both the evidence from the midterm evaluation and the qualitative evidence gathered at end point, these results suggest the literacy intervention has been successful in training and supporting teachers to better teach children to read.

### ***Parents' experience of and attitudes toward the literacy program***

Due to the Covid-19 pandemic and the closure of schools in Mozambique at the time of the final evaluation, it was not possible to collect survey data from students. In lieu of this, a remote survey of 550 parents of students benefiting from school feeding within the FFE project was conducted in the hope that this would to some extent function as a proxy for student interviews. It was not an aim of the project to change parents' attitudes; this contextual information was considered to be relevant background to the evaluation of the bilingual program.

The final evaluation survey included a number of questions relating to the parents' experiences of and opinions about the literacy program. 53% of parents with children 5-10 years of age reported that their children could read fluently and understand everything, while 30% reported that their children could read fluently but had

difficulty understanding some words. 11% said that their children had difficulty understanding many of the words, while 5% reported that their children rarely or never read and had great difficulty with comprehension.

Asked whether their children brought books home from school to read, 37% of parents reported that they did. Of these, 19% said that their children brought books home every day, 56% that they brought books home around once a week, and 24% around once a month.<sup>16</sup> Asked whether their children had access to sufficient teaching and learning materials, 87% of parents thought that they did; 13% that they did not.

When asked in what language(s) their children were learning to read, the vast majority (99%) of parents responded that their children were learning in Portuguese, with 23% also learning in Xichangana and 4% also learning in Xirhonga. The survey sought to gain insight into parents' general beliefs about literacy education and attitudes towards language of instruction. Taken together, these results indicate an overwhelming belief amongst parents that the use of Portuguese facilitates student learning (83%), although a significant minority (34%) believe that the use of local languages facilitates student learning.<sup>17</sup> 11% of parents thought that the use of Portuguese made learning more difficult; 4% thought that the use of Xichangana made learning more difficult; only around 1% thought that the use of Xirhonga made learning more difficult (see figure 4 below).

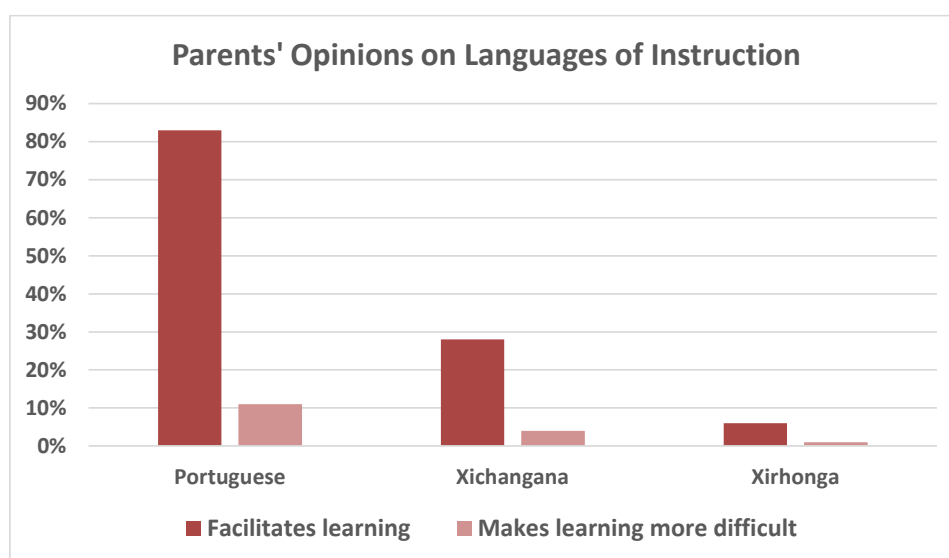


Figure 4: Parents' opinions on which languages facilitate learning or make it more difficult

The survey asked whether parents agreed or disagreed with a series of statements designed to further elicit their views on the use of Portuguese or local languages as language of instruction (LOI). Table 10 below compares

<sup>16</sup> Here and in other instances where percentages do not total 100%, this is because the percent of responses was rounded up or down to the nearest whole number.

<sup>17</sup> Parents were able to select multiple responses, hence the totals exceed 100%

the results. These reveal a range of opinion among parents, but show a definite inclination towards the use of Portuguese rather than local languages in schools. This aligns with the opinion of the majority of parents, stated above, that the use of Portuguese in schools best facilitates students' learning. This is unsurprising given the social status of Portuguese as the official language and language of instruction in Mozambique, but is at odds with the expert consensus regarding the advantages of early learning in the home language (see, for example, Kioko *et al*, 2014), as well as the results shown in the EGRA.

Statements regarding literacy instruction	Percent of parents who agreed	Percent of parents who disagreed
It is better to learn in a language which one understands well	28%	72%
It is better to learn in Portuguese, which will be more useful later on	59%	41%
It is better to learn in Portuguese, because it is the language of school	45%	55%
It is better to learn in the language spoken at home	20%	80%
The language used is not so important; the most important thing is that the teacher teaches well	23%	77%

Table 10: Parents' opinions on literacy instruction

For details, see Technical Appendix, pp 486-508.

### ***Literacy and language in the home environment***

In order to build a picture of the literacy levels and language use in the children's home environments and to inform the analysis of the EGRA results, the survey for parents included a number of questions regarding languages spoken at home and the reading ability of the adults in the household. 46% of parents declared that Portuguese was most commonly spoken at home, 77% that Xichangana was most commonly spoken, and 11% that Xirhonga was commonly spoken.<sup>18</sup> Parents were also asked about their perceptions of the use of different languages at home and how this might affect students' learning at school; these are presented in figure 5 below.

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<sup>18</sup> Multiple answers were accepted for this question to allow for multi-lingual households.

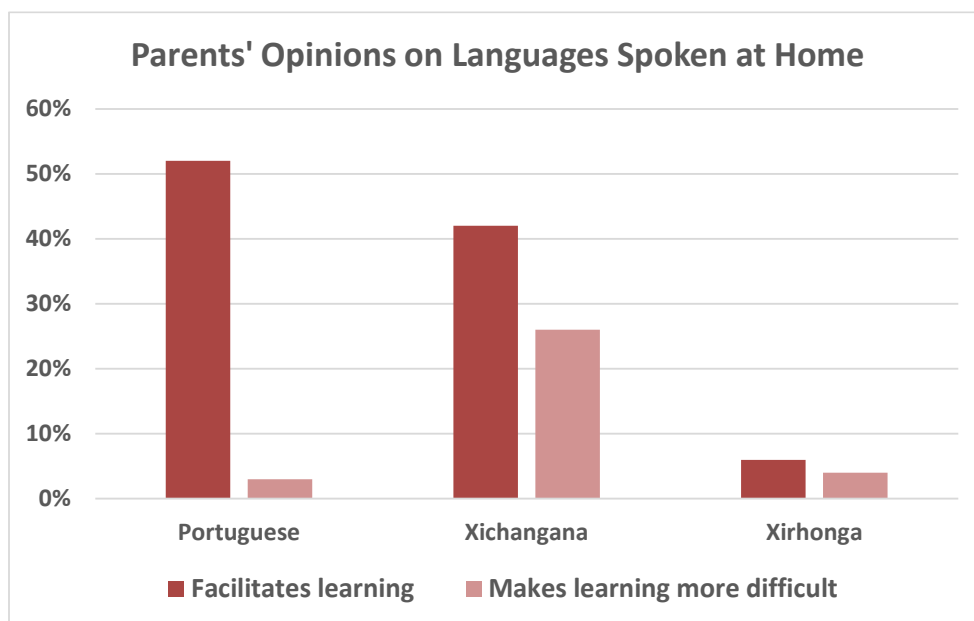


Figure 5: Parents' opinions on which languages facilitate learning or make it more difficult

54% of the parents stated that all of the adults in the family could read, 36% that at least one adult could read, and 10% that none of the adults in the family could read (see figure 6 below).<sup>19</sup> For details, see Technical Appendix, pp 486-508.

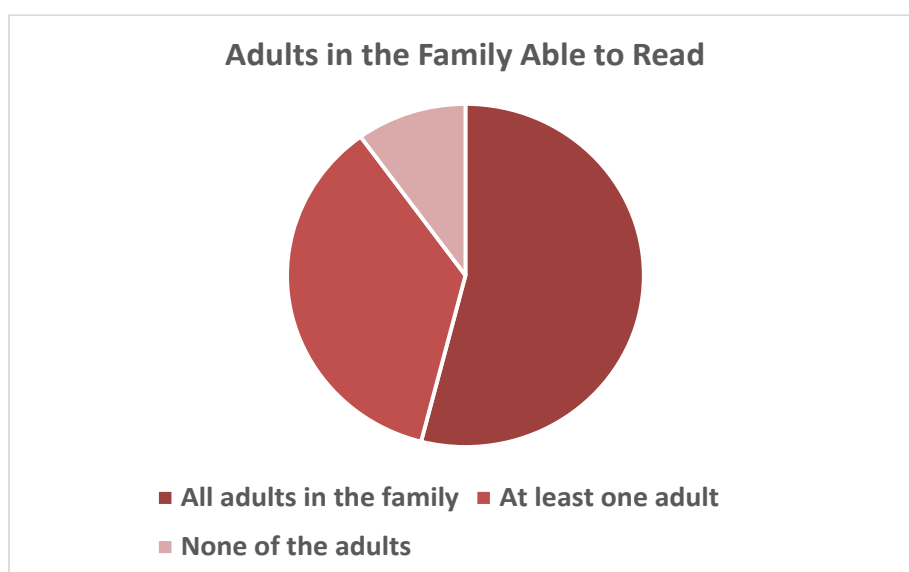


Figure 6: Parents report how many adults in the family are able to read

<sup>19</sup> The UNESCO Institute of Statistics figure, as of 2017, puts the literacy rate in Mozambique overall at about 61% (reported by the World Bank, September 2020). ("Literacy Rate, Adult Total (% Of People Ages 15 And Above)") These self-reported results are significantly higher, suggesting some social desirability reporting bias.

## Improved Quality of Literacy Instruction (MGD 1.1)

According to the project ToC, two conditions are necessary to improve the quality of literacy instruction: a) better access to school supplies and materials and b) increased skills and knowledge of teachers. The project interventions to address these are presented below.

### Access to School Supplies and Materials (MGD 1.1.2)

<b>Indicator 2 (Output): Number of textbooks and other teaching and learning materials provided as a result of USDA assistance. Final target: 39,600</b> <b>Final results (September 2020): 85,609</b> <b>Final target 216% achieved</b>
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<b>Number of schools receiving school supplies and materials as a result of USDA assistance. Final target: 264</b> <b>Final results (September 2020): 271</b> <b>Final target 103% achieved</b>
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The project has continued to distribute textbooks and other instructional materials intended to support extracurricular learning clubs, although schools have discretion over how they are used. These materials are separate from the literacy materials developed by the literacy program and distributed in schools benefiting from the literacy program although this distinction is not always clear to teachers who receive them.

At the final evaluation 96% of teachers said that they had received support materials for after-school learning clubs from the project (compared with just over 80% at midterm). Of these:

- 52% said that schools were consulted in selecting these materials (compared with just over 30% at midterm);
- Nearly all (99%) of those who received support materials for learning clubs said that they made use of the materials (compared with 93% of teachers in FFE + literacy schools and 100% in FFE only schools at midterm);
- 54% of the teachers surveyed rated the materials as “extremely suitable” for club activities, 35% said that they were “well suited,” and 11% considered them “reasonably suited”.

When teachers were asked whether their classes now had sufficient, suitable resources for teaching and learning, 65% replied that they did (compared with 52% of FFE + literacy teachers and 44% of FFE only teachers at midterm). For details, see Technical Appendix, pp 130-138.

These responses confirm the contribution made by the project to ensuring improved access to teaching and learning materials. Previous evaluations revealed that the range of materials was appreciated by teachers, who

found these brought variety and useful additions to the textbooks they usually receive. Although the interpretation of some of the responses to the teacher survey is unclear given that schools were closed at the time, previous evaluations have confirmed through a variety of methods (including school visits, observation, KIIs and FGDs) that the materials provided by the project were both used and valued by teachers and students alike. The final evaluation revealed that government officials were similarly very appreciative of the materials provided by the project. One senior provincial government representative explained how valuable the project provision of teaching and learning materials had been:

*because in reality, we as a government do not have the capacity to produce materials ... we have many limitations in terms of budget. However, now we have a lot of teaching and learning materials.*

<b>Number of awards given to students. Final target: 30,000</b> <b>Final results (September 2020): 30,453</b> <b>Final target 102% achieved</b>
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<b>Number of awards given to teachers. Final target: 7,500</b> <b>Final results (September 2020): 8,118</b> <b>Final target 108% achieved</b>
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Since the onset of the project, rewards were bestowed on both pupils and teachers to incentivize efforts in teaching and learning. FFE2 focused on more local events and competitions involving local schools and families to promote interest in school and sustainability of the project activities.

Analysis of the project monitoring records reveals that the final targets for awards to both students and teachers have been surpassed. Project staff reported conducting activities, such as school competitions, to help those students with greater learning difficulties, although many events and competitions involving awards had to be cancelled due to the Covid-19 related school closures.

Awards continue to be considered by school leaders and government officials as an effective incentive to motivate teachers and students.

### Literacy Instructional Materials (1.1.3)

<b>Number of grade 1-3 children receiving literacy books. Final target: 22,300</b> <b>Final results (September 2020): 33,345</b> <b>Final target 150% achieved</b>
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<b>Number of supplementary literacy materials produced and distributed to project schools. Final target: 159,500</b> <b>Final results (September 2020): 245,754</b> <b>Final target 154% achieved</b>
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As reported in the midterm evaluation report, the project literacy team, working with experts from *Instituto Nacional para Desenvolvimento da Educação* (INDE) and with support from CE's reading experts, produced a range of literacy books and materials in Xichangana and Xirhonga and in Portuguese. Analysis of project records shows that targets for the production and distribution of literacy materials have been surpassed. The literacy team describes the experience of developing and implementing the literacy program and materials as a rich collaboration of linguists, methodology experts and curriculum experts, from CE, the FFE team and the MINEDH, which has led to real and sustainable development of the national capacity at both institutional and individual levels:

***For me, this mix [of professionals] led to a lot of learning, and Cambridge Education brought the experience of other international countries. We learned by doing.***

These teaching and learning materials are now the official MINEDH textbooks and are being used as a model for adaptation in other local languages in other provinces. Although at some point the pedagogical materials will need to be renewed, the program has left schools with the capacity, both in terms of skills and materials, to continue to teach reading in local languages. There has also been a notable change of culture surrounding reading books, with students and parents now expecting books to be brought home so students can practice reading regularly, rather than seeing them as something to be left in school.

### Skills and Knowledge of Teachers (1.1.4)

Project interventions aiming to improve the skills and knowledge of teachers consist of: i) in-service training (continuous profession development, or CPD) of primary school teachers in schools in the project districts, as part of the literacy intervention coordinated and supported by CE and ii) the initial teacher education (pre-service teacher training) delivered by the teacher training colleges (EPFs) run by ADPP in partnership with the MINEDH in each of the eleven provinces of Mozambique. The skills and knowledge of primary school teachers in project schools are considered below, followed by the skills and knowledge of trainee teachers in EPFs.

### In-service training in literacy of primary school teachers

**Indicator 6 (Output): Number of teachers/educators/teaching assistants trained or certified (primary schools) as a result of USDA assistance. Final target: 879**

**Final results (September 2020): 2,916<sup>20</sup>**

**Final target 332% achieved**

**Number of teachers who receive in-service training as a result of USDA assistance. Final target: 293**

**Final results (September 2020): 2,517 [586]<sup>21</sup>**

**Final target 859% [200%] achieved**

**Indicator 5 (Outcome): Number of teachers/educators/teaching assistants in target schools who demonstrate use of new and quality teaching techniques or tools as a result of USDA assistance.**

**Final target: 525**

**Final result: 539 (estimation)<sup>22</sup>**

**Final target 103% achieved**

The 586 teachers in project schools trained in phonics and their use in teaching reading and writing continued to receive training and the 27 reading coaches continued to provide ongoing in-school support to these teachers until schools were closed due to Covid-19.

The literacy program, particularly the introduction of literacy in local languages, is considered by many informants as one of the outstanding successes of the FFE project, in terms of innovation and impact. GoM informants reported that the program was considered so successful that it is now being modeled in other regions of Mozambique. There are now 114 schools teaching the bilingual curriculum in the districts supported by the literacy program. The training of almost 600 teachers to teach in local languages and promotion of an active teaching and learning relationship between teacher and student, with students who feel more comfortable and

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<sup>20</sup> The figure of 2,916 refers to the number of person training events conducted, including all refresher trainings. The project reported that the teachers trained were not only from the 114 schools benefiting from the literacy program but that teachers from other FFE schools were also included in the trainings, as a response to SDEJT requests, as well as teachers from non-intervention districts such as Namaacha, Boane and Marracuene.

<sup>21</sup> These numbers refer to in-service training activities accomplished, rather than number of teachers who have received in-service training. The literacy program reports having continued to train the same 586 primary teachers throughout the course of FFE2. The figure of 2,517 refers to person-training activities as literacy teachers received trainings during literacy team supervisions regarding the use of new tools and materials for teaching. The numbers in square brackets report the results in terms of numbers of teachers who received training.

<sup>22</sup> At midterm this number was extrapolated from the results of teaching observation. Since it was not possible to observe teaching at end point, two questions from the teacher survey considered to demonstrate “new and quality teaching techniques” and where the responses had progressed considerably since baseline and through midterm were used to calculate this indicator. 94% of teachers surveyed claimed to use pupil reading books every day and 90% claimed to record the stages achieved by their students in a record book; these responses were used to estimate the result for this indicator. The average of these results (92%) was applied to the number of teachers trained by the project (586), to obtain 539.



confident participating and learning socially along with other students, have been greatly welcomed by the MINEDH, which had long hoped to implement phonics-based bilingual reading instruction and more student-centered learning methods but had lacked the resources to do so. Other improvements brought by the project, through the mentoring by reading coaches, include more systematic use of continuous assessment and recording of student progress. At provincial level, the DPEDH have set up a bilingual teaching strategy for 2021-29, drawing on the project's expertise and experience. At the end of the program, despite the interruptions due to Covid-19, the schools have all the teaching and learning materials they need to continue teaching initial literacy in local languages and teachers who have been training in and are confident in phonics and child-centered, active learning methods.

Informants also cite the program's involvement of parents in their children's literacy education, by ensuring students took books home to read and communicating more with parents about the process of learning to read, as a huge step forward and a key to improving literacy outcomes among children. This includes encouraging parents to attend adult literacy classes to learn to read and to request access to the school books themselves. The level of collaboration with schools, school leaders and individual teachers was reported by teachers and the project literacy team to be good, with information sharing and cooperation a priority. One particular success was the level of ownership of the literacy program by district education officials (the SDEJT focal points), due to the decision early on to train and involve them as trainers/mentors to the teachers being trained. One literacy coach reported that everyone involved with the project (teachers, focal points, district and provincial education officers, government officials) took part in the training, either taking part or assessing. It was reported that the focal points in Magude district had subsequently taken the initiative to organize "quick" training sessions between teachers to capitalize on the training provided by the program.

### ***Adjusting to bilingual education***

Respondents reported initial skepticism and even hostility towards bilingual education on the part of school councils and local communities, with the perception that children would suffer from not learning in Portuguese, the perceived "correct" language of education. Despite initial reservations about bilingual education and an ingrained conviction that Portuguese was the proper language of education, once parents understood that bilingual education involved learning in both local languages and Portuguese, were glad their own children had the opportunity to learn to read and write in their home language. This was especially true of parents who were aware of the bilingual education available in neighboring South Africa and the advantages that has brought.

***Teachers, parents and school leaders held literacy in some contempt and didn't understand its philosophy. But at the beginning of 2018, they started to understand how it worked and its advantages. This was when we started having good cooperation from schools, teachers and students, as well as parents.*** (An FFE reading coach.)

Several respondents claimed that bilingual students were achieving better outcomes than students studying only in Portuguese. One reading coach stated that, since the bilingual classes begin by teaching the most commonly used sounds, within a few weeks children are beginning to read. Having access to sufficient reading books in the language of instruction, including easy readers produced by the literacy program, allowed students to get into the habit of reading regularly.

According to a program official, the bilingual program was also popular amongst government officials, due to the dynamism displayed:

***Sometimes, when we visit schools [for monitoring visits], all the supervisors want to visit the bilingual classes because the teacher-student interaction is spectacular.***

There was considerable pride in the bilingual literacy program at the wider level, as a significant innovation, in addition to the more immediate impact on students' learning. One project staff member commented that:

***Bilingual teaching has challenged the government itself to make the most out of our cultural heritage and this was a good experience.***

### ***Challenges, suggestions and lessons learned***

Challenges encountered by the program include the frequent transfer of teachers between schools, meaning that teachers who had been trained by the project in bilingual literacy would often be transferred to another school or even district, which was not part of the bilingual program, and replaced by a teacher who had not been bilingually trained (or, in certain cases, did not speak or read Xichangana or Xirhonga).

Another challenge mentioned was the increased self-consciousness of students who would be hesitant to speak because they were unsure how to say something correctly. However, this reported disadvantage is probably indicative of a heightened linguistic awareness produced by the bilingual program, likely to translate into improved linguistic performance and learning over time. In certain cases, class sizes made it difficult to use the new methods: literacy coaches reported working in classes with a pupil-teacher ratio of up to 70:1.

Literacy coaches reported that teachers were initially suspicious of their presence in the classroom and suspected them of spying on them. However, with time, teachers came to see the benefits of the new methods they were trained to use and became more confident in their own abilities, able to solve issues in the class and willing to ask for support when needed. They came to see the benefits of preparing lessons well, of collaborative working and team work, and of appropriate seating arrangements to support the more student-centered approaches and of displaying students' work and teaching materials on the classroom walls. Reading coaches reported that, following the training, school leaders began supporting teachers to implement the new methods, whereas they had been quite skeptical, even hostile, at first. One significant milestone was the development

and introduction by the project of the *Guide of Methodological Suggestions* which allowed the teachers more autonomy to consult an independent source, rather than asking the reading coaches for help.

Teachers also reported that it had not always been easy to adapt to the new methods and teaching and learning materials when they began using them in 2018; however, by the following year, they were reporting improved understanding of phonics, the child-centered approach, and bilingual education in general and in implementing these. Teachers who had benefited from the literacy intervention also report improved reading outcomes amongst their students.

It was also suggested that bilingual education should be taken further and should include early grade numeracy. A further suggestion was that those who had taken part in the program should receive certificates of participation.

For the literacy program's response to the Covid-19 crisis, please see page 130.

### **Teachers' experience of in-service training**

77% of the teachers who responded to the final survey said that they had benefitted from literacy training under the school feeding project (69% of the teachers from Portuguese-only schools and 90% of those from bilingual [both Portuguese and local languages] schools). The survey asked whether teachers had received certain types of pedagogical support and, if so, whether they had found them useful: 59% said they had received training in the five components of literacy (of which 99% found this useful), 97% had received materials to improve teaching of reading and writing (of which 100% found them useful), and 89% had received a *Guide of Methodological Suggestions* to help with lesson planning mentioned above (of which 100% found it useful).<sup>23</sup> For details, see Technical Appendix, pp 182-183, 247-258.

### **Increased teacher knowledge and awareness**

As part of the final evaluation survey, as at baseline and midterm, teachers' knowledge of some basic literacy concepts, as presented in the literacy training, was evaluated by asking them to match five literacy concepts to their correct definitions (one extra definition was included in the survey). The correct responses at end point,

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<sup>23</sup> As indicated above, the proportion of teachers stating they had benefited from literacy training as part of the project (77%) is higher than the 58% who mentioned literacy training as one of the areas in which they had received support. One possible explanation for this is that the respondents took literacy training in this section of the questionnaire to refer to support with after-school clubs and using the materials provided for these, an activity provided to all schools as a separate activity from the literacy training *per se* provided by the FFE literacy team with support from CE. The following questions were intended for teachers who had actually participated in the literacy training; it is possible that they were answered by some teachers who had not actually been part of the literacy program, in the belief that they referred to other materials provided, for example as part of the support to after-school clubs. Alternatively, they may have simply given the response they perceived to be expected.

midterm (disaggregated into FFE + literacy and FFE only teachers) and baseline are presented in table 11 below; the final evaluation answers appear in bold. Although prudence is required in interpreting these results, since the teachers surveyed at the final evaluation are not those surveyed at baseline and midterm, and those surveyed at end point are not disaggregated according to whether they benefited from the literacy intervention, a clear pattern emerges of teachers progressing since baseline in their ability to define the concepts correctly.<sup>24</sup>

Concept defined	Final evaluation: all teachers surveyed (% of correct responses)	Midterm: FFE + literacy (% of correct responses)	Midterm: FFE only (% of correct responses)	Baseline: all teachers surveyed (% of correct responses)
Phonological awareness	<b>53%</b>	52%	32%	8% (23% of responses) <sup>25</sup>
Phonetics	<b>46%</b>	42%	23%	9% (26% of responses)
Fluency	<b>77%</b>	62%	52%	30% (86% of responses)
Vocabulary	<b>73%</b>	57%	52%	28% (80% of responses)
Comprehension	<b>78%</b>	58%	62%	31% (89% of responses)

Table 11: Teachers' awareness of definitions of literacy skills

When asked about the different stages of the instructional model "*eu faço, nós fazemos, vocês fazem*" (I do, we do, you do), taught to teachers as the basis of the literacy intervention, 61% of teachers (56% of Portuguese teachers and 71% of the bilingual teachers) were able to correctly define the stage "*eu faço*." 66% of teachers (58% of the Portuguese teachers and 79% of the bilingual ones) were able to correctly define the stage "*nós fazemos*." 64% of teachers (60% of the teachers from Portuguese-only schools, 71% of the teachers from bilingual schools) were able to correctly define the stage "*vocês fazem*." The teachers from bilingual schools consistently performed better than the teachers from Portuguese-only schools in answering these questions. This is likely because the teachers from bilingual schools are more likely to have taken part in the literacy training and also had been provided with the *Guide of Methodological Suggestions*, which featured this content. Figure 7 below compares the performance of the teachers from Portuguese-only schools with that of the teachers from bilingual schools at the final evaluation. Figure 8 shows the progression from baseline to final of all teachers surveyed (although, as previously stated, the teachers surveyed at end point were not the same as at baseline and midterm). The table shows a clear progression between baseline and end point of the teachers surveyed; it

<sup>24</sup> As previously stated, only some of the teachers surveyed at midterm were able to be recontacted at end point. Teachers who responded to the final evaluation survey were disaggregated into those who taught in Portuguese-only schools and those who taught in bilingual (both Portuguese and local language) schools. Not all those surveyed benefited directly from training by the literacy program.

<sup>25</sup> At baseline, there was a high proportion of non-responses. The figures in brackets are percentage of responses obtained.

is not surprising that FFE + literacy teachers at midterm performed better than all teachers combined at end point. Unfortunately it was not possible to follow these respective groups through to end point to ascertain their respective progress.

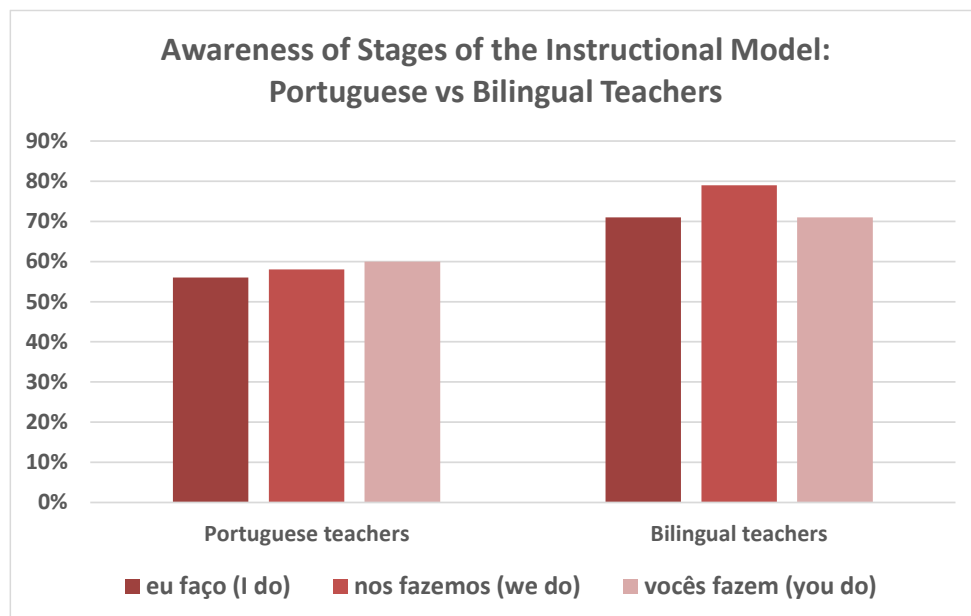


Figure 7: Teachers' ability to identify the stages of the instructional model at final evaluation: Portuguese and bilingual group compared

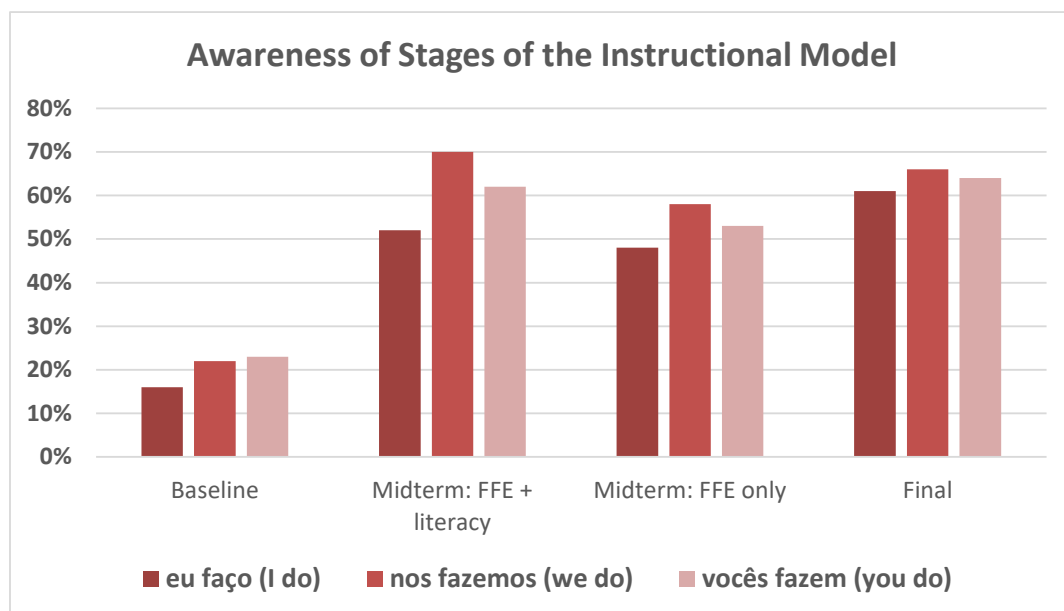


Figure 8: Teachers' ability to identify the stages of the instructional model: progression from baseline to final

As at baseline and midterm, teachers were shown a series of paired statements relating to primary education and asked which they agreed with, in order to test their familiarity with modern classroom practice and approaches to literacy education, which are those taught and promoted by the project's literacy intervention. The results are shown in table 12 below, with the options which are considered to be more compatible with modern classroom practice shaded. These are compared with responses at baseline and midterm. It is encouraging to note the degree of progress here, with more teachers at the final evaluation choosing the statements that are in accordance with current best practice (although the same caveats about the final evaluation teacher sample apply). The one area where the majority of respondents at end point still chose the "traditional" response was when asked to choose between the two affirmations "Young pupils learn best when reading is done from the blackboard" (chosen by 54% of respondents) and "Young pupils learn to read best when they are holding a book and can learn at their own pace" (chosen by 46% of respondents), showing that old habits and assumptions continue to prevail in this area at least.

Answer A	Final	Midterm FFE + literacy	Midterm FFE only	Baseline %	Answer B	Final	Midterm FFE + literacy	Midterm FFE only	Baseline %	N/R at baseline%
It is important to allow pupils to take their books home (baseline)/ It is important to allow pupils to use books regularly (midterm/final) <sup>26</sup>	<b>97%</b>	92%	92%	23% (77% of responses)	Pupils should not take schoolbooks home (baseline)/ Books should be used occasionally so as to preserve them for the future (midterm/final).	<b>3%</b>	8%	8%	7% (23% of responses)	70%
Pupils cannot practice reading at home because the majority of parents cannot read	<b>5%</b>	15%	14%	2% (6% of responses)	Pupils should practice reading at home, even if their parents cannot read	<b>95%</b>	85%	86%	29% (94% of responses)	69%
Grade one pupils are too young to be responsible for handing out books	<b>34%</b>	47%	43%	12% (46% of responses)	Grade one pupils can learn to hand out books	<b>66%</b>	53%	57%	14% (54% of responses)	74%
Pupils should be seated in rows facing the front so they can take part in the class	<b>9%</b>	26%	32%	7% (24% of responses)	The way pupils are seated should be adapted to suit different activities	<b>91%</b>	74%	68%	22% (76% of responses)	71%

<sup>26</sup> The formulation of this item (both A and B) was changed at midterm, at the request of the literacy team.

Preparing classes in advance is necessary for good classroom management	<b>97%</b>	97%	96%	27% (93% of responses)	Preparing classes in advance does not help much with classroom management	<b>3%</b>	3%	4%	2% (7% of responses)	71%
Young pupils learn best when reading is done from the blackboard	<b>54%</b>	56%	44%	12% (41% of responses)	Young pupils learn to read best when they are holding a book and can learn at their own pace	<b>46%</b>	44%	56%	17% (59% of responses)	71%
Independent practice is not useful for young pupils because they make mistakes	<b>6%</b>	25%	18%	3% (11% of responses)	Being able to make mistakes during independent practice is an important part of learning	<b>94%</b>	75%	82%	25% (89% of responses)	72%

Table 12: Familiarity with modern classroom practice and approaches to reading: teachers' responses

The teachers' responses at the final evaluation are compared with those of EPF trainee teachers, who were asked to perform the same task, in figure 9 below. It is noteworthy that in several areas the teachers' awareness of current "best practice" outstrips that of the trainees, an indication of the effectiveness of the project's in-service training of primary teachers. For details, see Technical Appendix, pp 184-211, 292-313, 611-621.

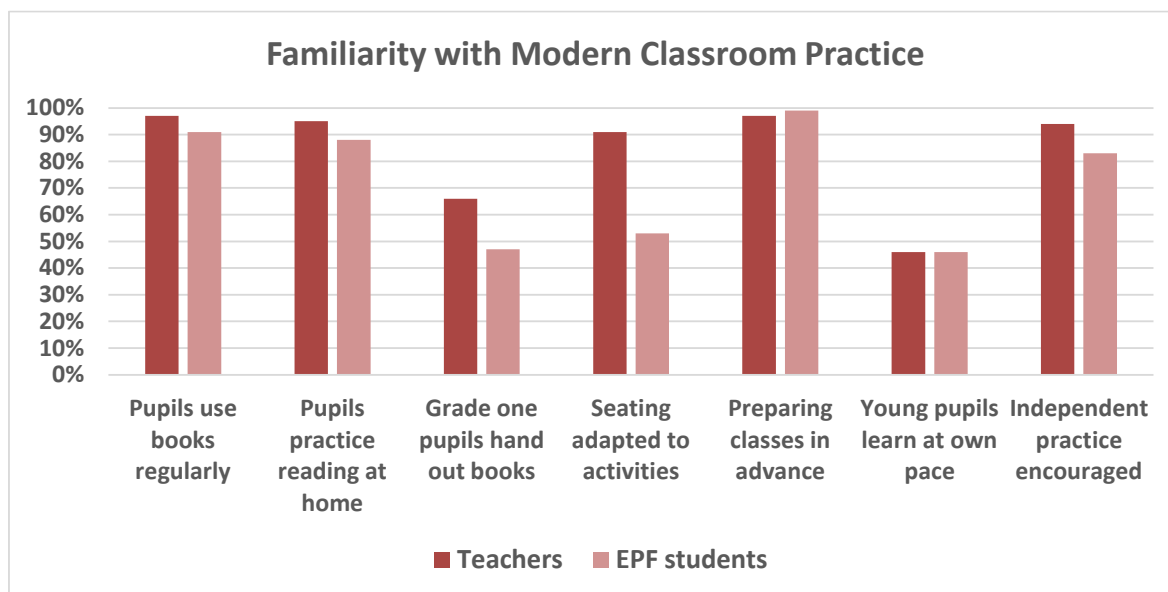


Figure 9: Final evaluation: teachers' and EPF students' awareness of modern classroom practice

### ***Literacy levels and lesson preparation***

Teachers were asked which languages they taught in: 79% reported that they teach in Portuguese, 32% teach in Xichangana, and 4% teach in Xirhonga.<sup>27</sup> When teachers of Portuguese were asked how often they read books or other materials in this language to prepare their lessons, 94% of teachers replied “every day” and 4% responded “about once a week.” Only two respondents reported a lower frequency. Teachers of Xichangana reported a similar frequency: 91% said that they read books or other materials in this language “every day” and 9% “about once a week.” Of the few teachers who report teaching in Xirhonga, six of them reported reading in this language “every day” and one of them “about once a week.” These are compared in figure 10 below.<sup>28</sup>

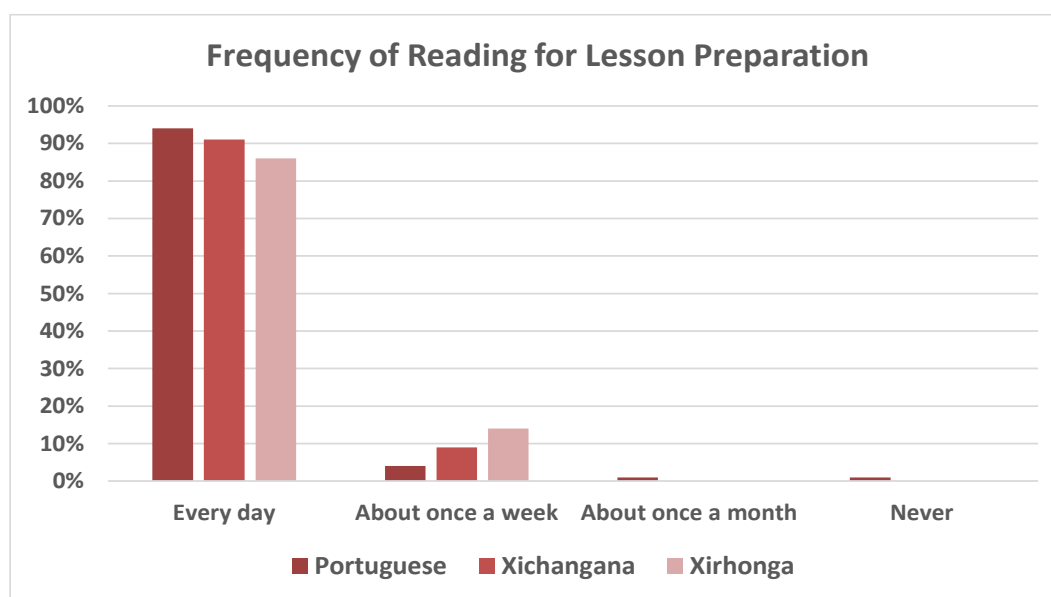


Figure 10: Teachers’ reporting of reading for lesson preparation

Asked how often they read for pleasure or general information, 67% of teachers reported that they do so every day, 33% “about once a week,” and only one respondent said that they never do. Around 90% of those who read regularly for pleasure do so in Portuguese, 22% in Xichangana, and 5% in Xirhonga. Five respondents (3%) also report reading in other languages.

All teachers who responded to the final evaluation survey were asked to assess their own reading and comprehension skills in Portuguese. 54% said that they could read it fluently and understand everything, and 45% that they could read fluently but had difficulty understanding some words. Three teachers (2%, all in the

<sup>27</sup> Some teachers reported teaching in more than one language.

<sup>28</sup> When considering these results, and any others referencing lesson planning or teaching practice, it must be remembered that the final survey was conducted after schools had been closed for approximately nine months due to Covid-19. Responses therefore may reflect teachers’ memory, rather than current practice at the time of the final evaluation, and there may be some over-reporting, although it is of course possible that teachers have continued to read regularly in the language of instruction throughout the school closure.



Portuguese-only group) said that they read Portuguese rarely or never, and had great difficulties in comprehension. When asked to assess their own reading and comprehension skills in Xichangana and Xirhonga, 23% of respondents said that they could read these languages fluently and understand everything and 49% said that they could read them fluently but had difficulty understanding some words. 22% said that they read them but had difficulties comprehending many of the words, and 7% reported that they rarely or never read in Xichangana or Xirhonga, and had great difficulties in comprehension.

When asked about a variety of literacy instruction materials distributed by the project to teachers, the following responses were obtained:

- *Guide of Methodological Suggestions*: 98% of teachers claim to use this; 81% claim to use it every day; 18% claim to use it around once a week; 1% said that they used it around once a month.
- Letter- syllable- and word-cards: 92% of teachers claim to use these in their teaching; 66% of teachers claim to use them every day; 34% of teachers claim to use them at least once a week;
- “Teacher read alouds” (stories for teachers to read aloud in class): 96% of teachers claim to use these in their teaching; 60% of teachers claim to do so every day; 40% claim to use them around once a week;
- Reading books for pupils: 100% of teachers claim to use these in their teaching; 94% of teachers claim to use them every day; 6% of teachers claim to use them at least once a week.

These responses appear in figure 11 below. This may be compared with the responses to the same question obtained at midterm and baseline in figures 12, 13 and 14 below, which show a strong progression from baseline, through midterm to end point (the previously stated caveats apply).

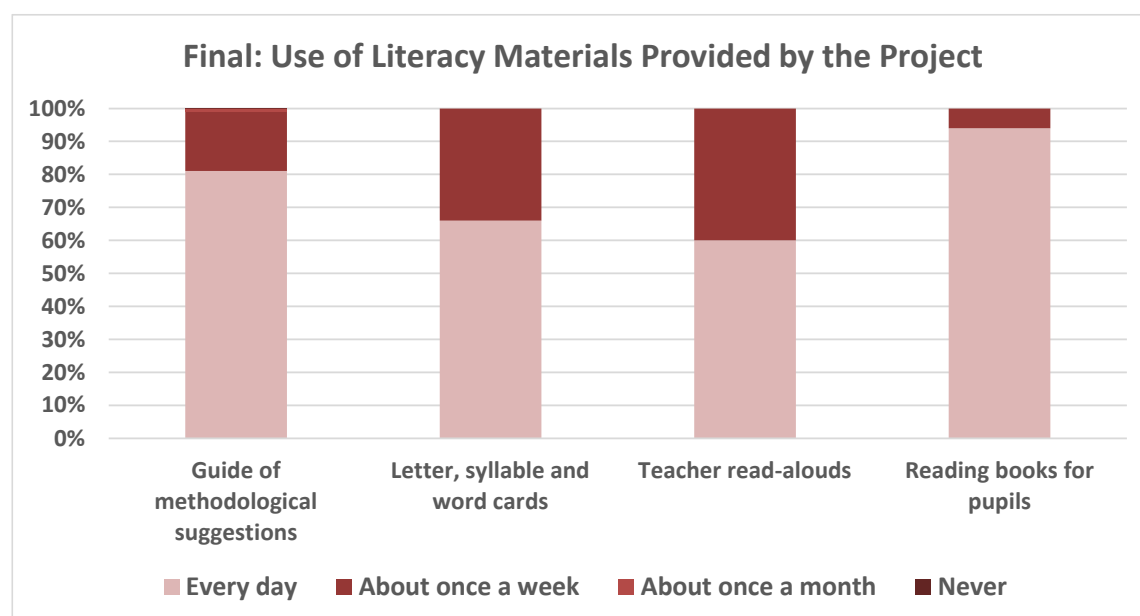


Figure 11: Use of literacy materials provided by the project (final evaluation)

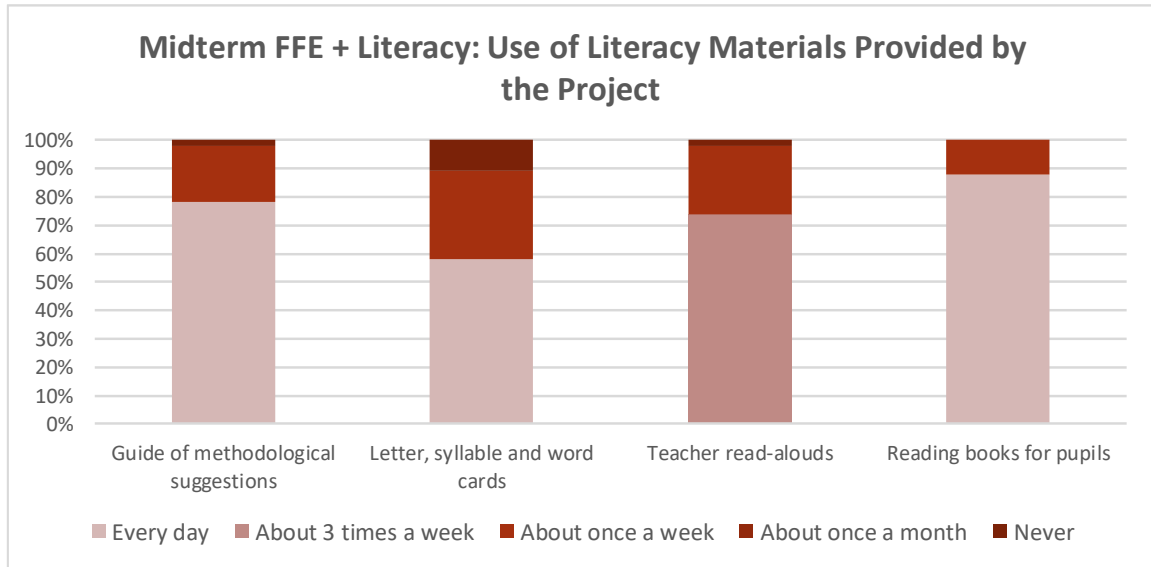


Figure 12: Use of literacy materials provided by the project (FFE + literacy at midterm)

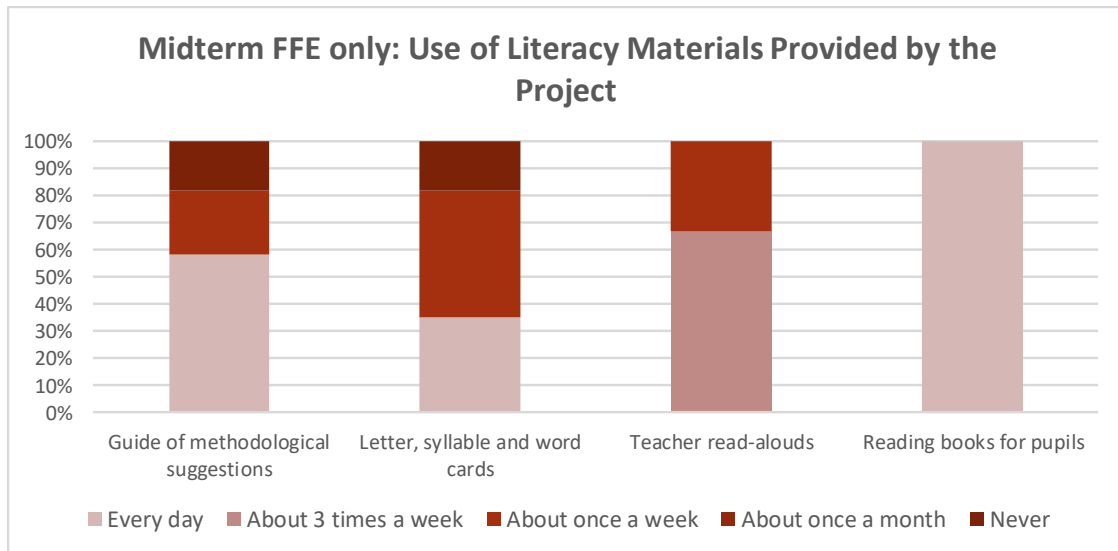


Figure 13: Use of literacy materials provided by the project (FFE-only at midterm)

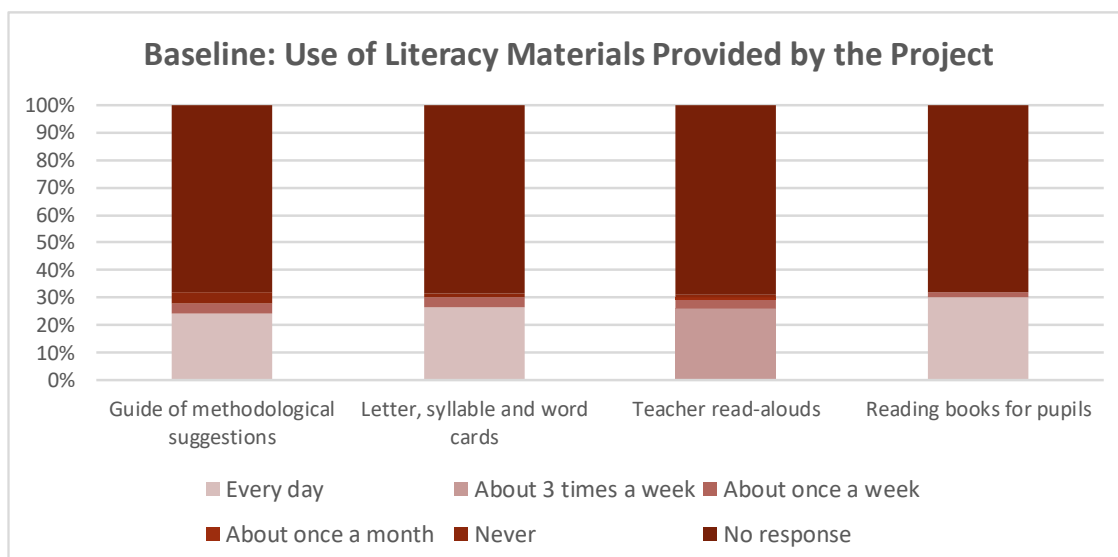


Figure 14: Use of literacy materials provided by the project (FFE + literacy and FFE-only at baseline)

For details, see Technical Appendix, pp 211-247, 259-279.

### ***Teachers' assessment of students' reading***

Teachers were asked how much time their students spent during the week on individual reading during class time: 41% reported that the students had around fifteen minutes per day, and 32% that the students had about five minutes per day. 23% said that the students had about fifteen minutes per week, and 4% said that their students had only around five minutes per week for individual reading. Figure 15 compares their responses with those obtained at midterm and baseline (the baseline survey had a relatively high percentage of non-responses to this question). It appears that, as of the final evaluation, more teachers than previously are making time for their students to read individually on a daily basis, or at least understanding this is a desirable response (although previously expressed caveats regarding comparisons apply, given the different sample of teachers surveyed at end point).

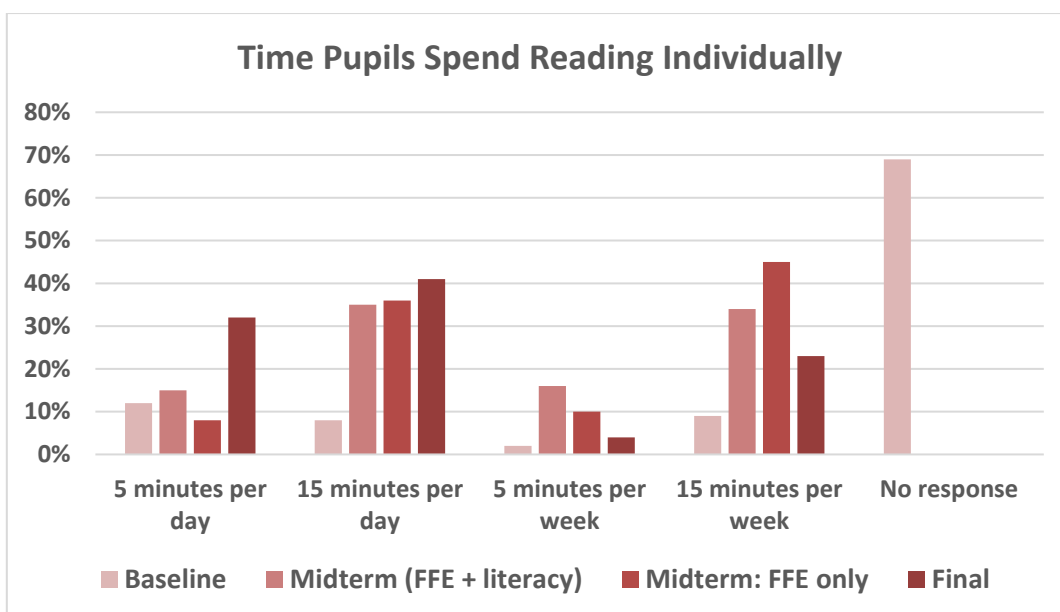


Figure 15: Time Allotted for Pupils' Individual Reading (baseline to final evaluation)

Teachers were asked how they monitor pupils' progress in reading and how they record this, through a series of multiple-choice options; they were asked to choose all which applied. Their responses are presented in figures 16 and 17 respectively, along with those from midterm and baseline when, unfortunately, there was a high percentage of non-responses (previous caveats apply). For details, see Technical Appendix, pp 279-291.

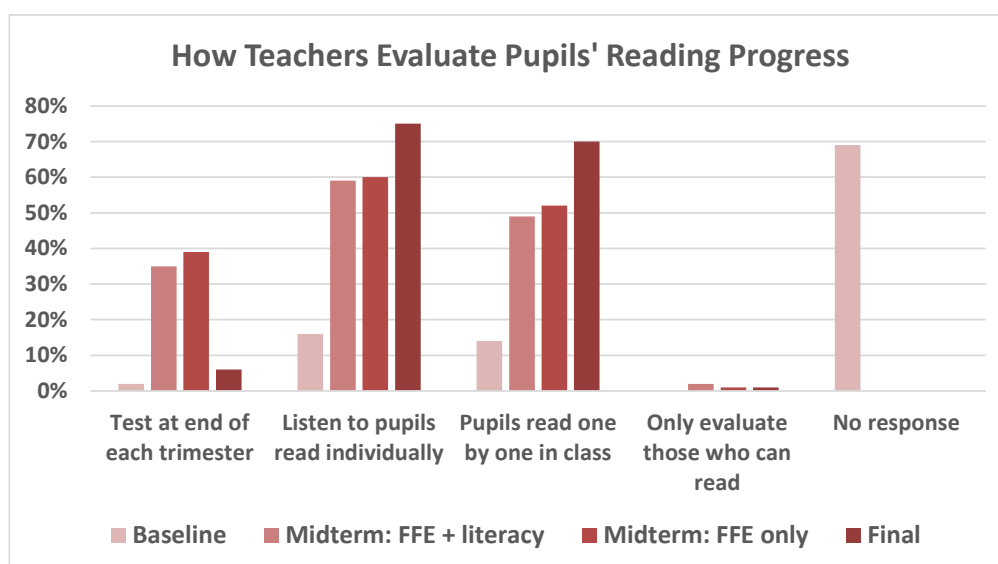


Figure 16: How teachers evaluate students' reading progress, baseline through final

Teachers' responses at end point demonstrate a positive development towards best practice since baseline: by the final evaluation the majority of teachers claim to listen to individual students reading, both individually and

one by one in class, rather than evaluating them by an end-of-trimester test. Even if teachers are providing what they consider to be the desirable response, rather than reporting on their actual practice, these are encouraging results which suggest teachers are more aware of the desirable or “best practice” response.

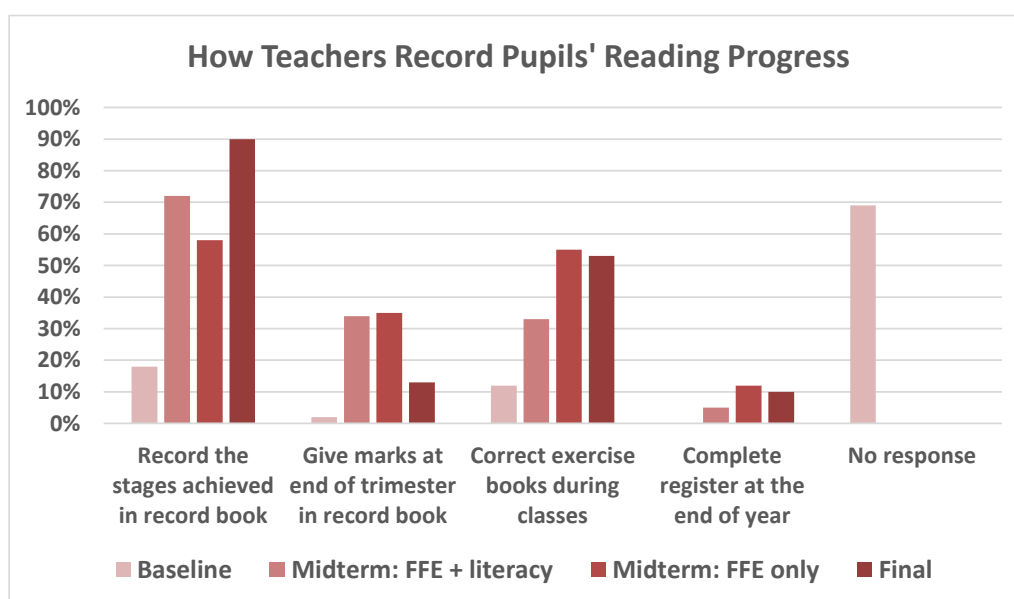


Figure 17: How teachers record students' reading progress, baseline through final

Teachers' responses at end point demonstrate a positive development towards continuous assessment and ongoing recording of students' progress and away from end-of-trimester-testing since baseline. Once again, even if teachers are providing what they consider to be the desirable response, rather than reporting on their actual practice, these results suggest teachers are aware of “best practice,” as presented by the literacy coaches during their supervisions.

Unfortunately, it was not possible to conduct observation of teaching for the final evaluation, as at the midterm evaluation; it is therefore not possible to assess progress in teachers' performance since midterm on the basis of independently collected data. All data relating to teachers' performance comes from surveys of teachers themselves, school directors and parents.

#### ***Other types of teacher training and support visits***

Training of teachers was not restricted to literacy training. 89% of teachers reported that they had benefitted from some form of training within the scope of the project (85% at midterm). Of these, 42% said that they had received training related to school feeding, 30% had received training in storeroom management, 61% received

training in nutrition and health, and 58% received literacy training.<sup>29</sup> A few (3%) reported receiving other kinds of training. The different types of training received were well evaluated by teachers. All of the teachers who received training related to school feeding considered it to be “good” or “excellent,” 98% of the teachers who received training in storeroom management considered it to be “good” or “excellent,” 97% rated the training in nutrition and health as “good” or “excellent,” and 98% of those who received literacy training considered it to be “good” or “excellent”.

91% of the teachers who responded to the final survey reported having received professional support visits from project staff (compared with 72% of teachers from FFE + literacy schools and 64% from FFE-only schools at midterm).<sup>30</sup> Of these, 47% reported having received support related to running after-school learning clubs, 49% support to produce teaching and learning materials, 42% received pedagogical support (lesson planning, etc.), 41% received support to organize school feeding, 31% support with teaching in local languages, 22% received visits to support maintenance of infrastructure, and 51% received support with food health and hygiene rules. Between 94% and 97% of those who received support visits relating to clubs, to producing teaching and learning materials, pedagogical support (lesson planning, etc.), support to organizing school feeding, support with food health and hygiene rules or teaching in local languages rated this support as “good” or “excellent.” Teachers were more ambivalent about the visits to support maintenance of infrastructure: 86% thought these were “good” or “excellent,” 11% thought they were “sufficient” and one respondent felt that they were of little help. For details, see Technical Appendix, pp 138-161.

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<sup>29</sup> A subsequent section of the teachers’ survey included a similar question, in which teachers were asked specifically whether they had benefitted from literacy training under the auspices of the school feeding project. 77% percent of teachers replied affirmatively, which seems to be at odds with the figure of 58% reported here.

<sup>30</sup> At midterm, teachers’ responses to these and other questions were disaggregated according to whether respondents were from “FFE + Literacy schools” (project schools benefiting from the literacy intervention in addition to other project activities) or “FFE only” schools (project schools benefiting from other project activities but not from the literacy intervention).

### Initial teacher education in teacher training colleges (EPFs)

**Indicator 6 (Output): Number of teachers/educators/teaching assistants trained or certified (EPFs) as a result of USDA assistance. Final target (including target for 2021): 5,355**  
**Final results (September 2020): 9,222**  
**Final target 172% achieved**

**Percentage of a student-teachers who improve their Portuguese language literacy skills during pre-service training. Final target: 80%**  
**Final results (September 2020): 75%**  
**Final target 94% achieved**

**Number of teachers in training as a result of USDA assistance. Final target (includes target for 2021): 5,163**  
**Final results (September 2020): 13,292**  
**Final target 257% achieved**

The eleven teacher training colleges run by ADPP in partnership with the GoM make a significant contribution to the training of teachers in Mozambique, the quantitative and qualitative dimensions of which have been underlined in previous evaluations of the FFE project. At the time of the final evaluation, 9,222 teachers had graduated from the EPFs with USDA assistance, more than double the final target.

#### *Experiences of training*

The final evaluation included a survey of EPF students, gathering information about their experience of the training and levels of satisfaction. 157 trainee teachers currently studying at one of the 11 EPFs responded to the survey. All of the EPF trainees who were surveyed report that they enjoy studying in the EPF “very much,” and all consider the training they are receiving to be of very good quality. Asked whether the training they received in the EPF was good preparation for the reality of teaching in Mozambique, nearly all (99%) considered that it prepared them very well.

The survey asked whether trainees felt that they were being well prepared to teach children with disabilities or special educational needs (SEN); 92% felt that they were being fairly well-prepared, 7% somewhat, and only one respondent felt that they were not. When trainees were asked whether the trainers had good knowledge of the subjects that they were teaching, 91% responded “yes, very much,” 9% responded “yes somewhat/yes most of them,” and only one trainee responded “no.” 96% considered that the trainers were very committed to their work and training; 4% replied that they were somewhat committed, or that most of them were. 91% described the trainers as very motivated, and 9% as somewhat motivated, or that most of them were.

When asked whether they were satisfied with the training methods used at the EPF, 96% said “yes, very,” and 4% “yes, somewhat.” 99% feel themselves to be “very” included in the classes, and only two of the respondents said that they did not feel included.

The majority of responses from EPF students suggest that student-centred, active, enquiry-based learning methods tend to be used.

Respondents to the EPF trainee survey were shown a series of statements and asked which best described the lessons conducted. Only two trainees considered that “the trainer speaks all the time and writes notes on the blackboard,” 94% reported that “the trainer introduces the theme of the lesson and allows the whole class to debate the subject,” and 5% said that “a trainee has prepared the subject and the class discusses it in groups then presents their conclusions to the whole class.”

Trainees were asked whether the lessons included debates to allow the students to form their own conclusions, individually or collectively, about the subjects being presented. Around 71% reported that this happened “frequently” and 30% “sometimes.” Asked whether the lessons included group work, 31% said “always,” 65% “sometimes,” and 4% that they did not.

Survey respondents were shown a series of statements and asked which best described learning at the EPF. Only two replied that “I only learn with my trainer,” and 4% said that “I learn with my classmates.” The majority, 95%, said that “the lessons are organized so that we learn both from our trainers and with the other students.”

EPF trainees were asked whether they had any experience of “playing the role of presenter/teaching your classmates.” 74% said that this was a regular experience for themselves and other trainees, 25% that it happened, but not often, and only one trainee said that they had no such experience.

Asked whether they were satisfied with life at the boarding house, 81% said they were very satisfied, 19% somewhat satisfied, and only one respondent replied that they were not satisfied. Trainees were asked whether there was anything that they would like to change about life in the EPF and the training received there: this was a fairly even split, with 45% reporting that there were changes they would like to make, and 55% that there were not. Where students reported they would like to see changes, many of these concerned the EPF environment and facilities or the meals served. For details, see Technical Appendix, pp 562-578.

### ***Motivations and aspirations***

The survey of EPF student teachers revealed a high level of motivation amongst residents regarding the prospect of becoming a teacher. Asked why they had come to study at the EPF, all of the trainees said that they wanted to become teachers, and the EPF offered the best preparation for teaching. Only three respondents (2%) also stated that “I want to be a teacher and did not manage to get a place at an IFP (state-run teacher training



college),” and two that “I wanted to go to university but didn’t manage to get good enough results.” Around 6% stated that their parents had wanted them to train at the EPF.

Survey respondents were asked which of a number of statements best described their choice to become teachers. 74% responded that they had always wanted to be teachers and that it was the profession they had always dreamed of. 17% said that they wanted to become teachers and possibly become school directors or education managers in the future. 8% said that, although they weren’t originally interested in becoming teachers, they had become more excited about teaching since joining the EPF. Just one respondent said that they didn’t want to be a teacher and intended to change career when able to. Figure 18 illustrates these responses.

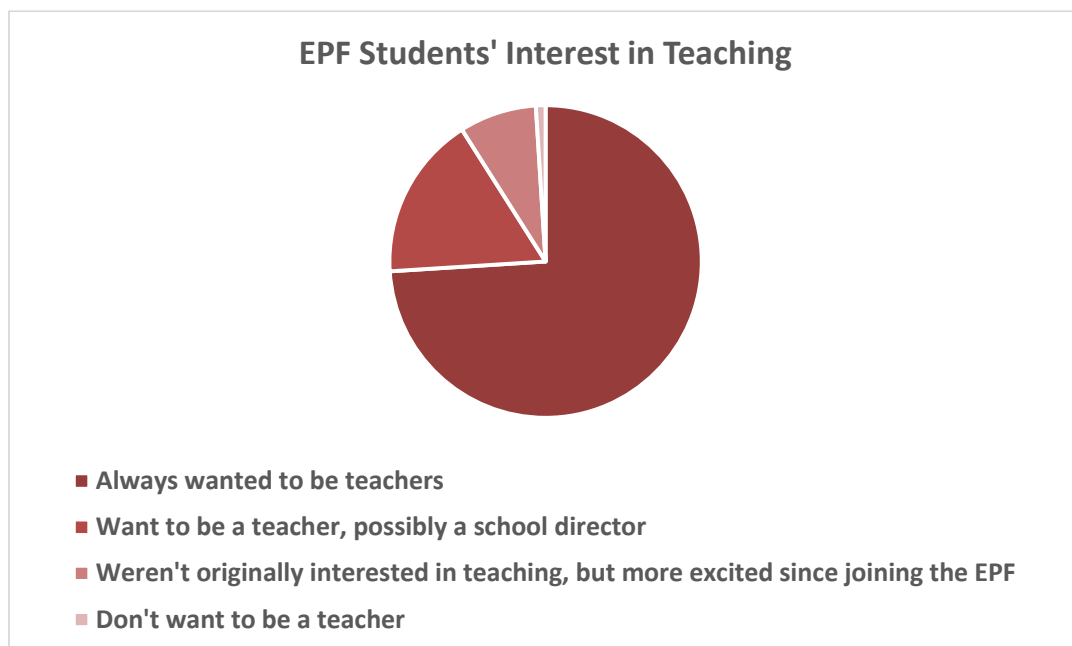


Figure 18: EPF students describe their choice to become teachers

Asked how long they thought they would stay in teaching after graduating from the EPF, 44% responded they wanted to be teachers throughout their whole professional lives, and 40% that they wanted to be teachers or to work in some area of education throughout their whole professional lives. 4% said that they thought they would be teachers for many years, but maybe not for their whole professional lives, and 13% said that they intended to stay in teaching until they were able to improve their academic qualifications. Figure 19 shows these responses.

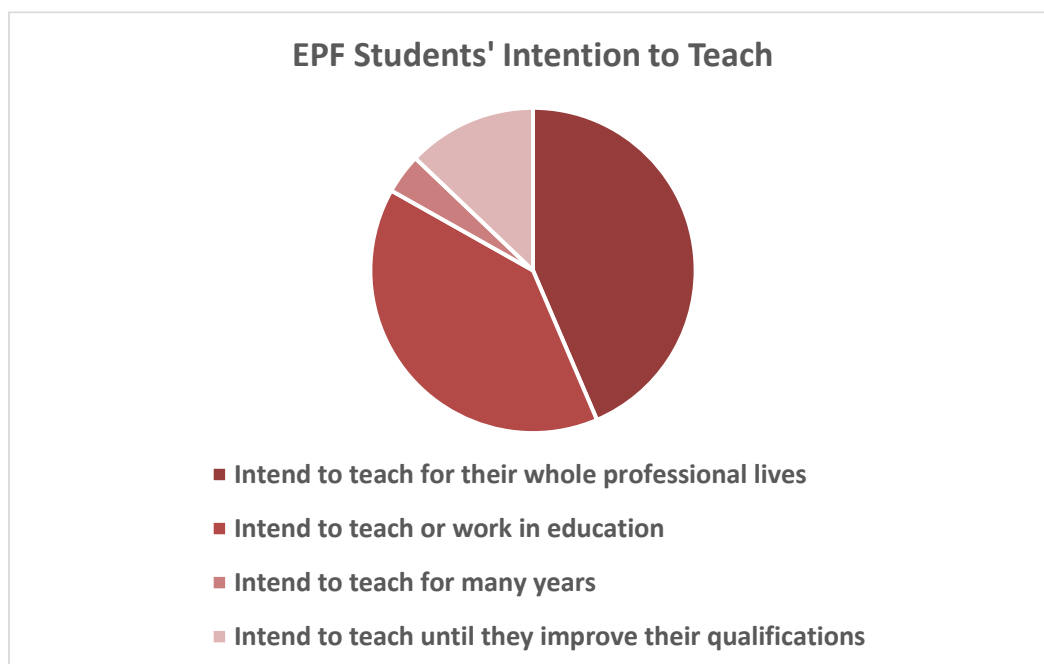


Figure 19: How long EPF students intend to remain in teaching after graduation

97% said that they considered themselves “very” motivated students, with the remainder describing themselves as “somewhat” motivated. Asked whether they considered other students who had graduated from the EPFs to be motivated, 91% said “yes, very,” 5% “yes, somewhat,” and 4% said that they did not know any teachers who had graduated from the EPF. For details, see Technical Appendix, pp 579-587.

#### ***Views of the teaching role***

The survey responses revealed that most EPF trainees consider the teaching role to be linked to community development and service rather than narrowly focused on the education of children. EPF trainees were asked whether they considered that their studies at the EPF prepared them to undertake community development within the community where they would be based once they were working as a teacher: 85% said that they felt “very” prepared to undertake community development as a result of their studies, 14% “somewhat” prepared and one respondent said that they did not feel adequately prepared. Asked whether they felt that the EPF had a strong relationship with the local community, 80% said “yes, very much,” 17% “yes, to some extent,” and around 4% said that it did not.

Respondents were given a series of phrases and asked which ones they felt best described the role of a teacher. 59% agreed with “educator of children,” 78% with “educator of the whole community,” 14% said that teachers were “agents of the government,” 31% that they were “agents of change,” 52% said teachers could be described as “agents of community development,” 44% as “a source of good advice for the community,” and 27% that

they were “their pupils’ confidant.” Figure 20 presents these responses. For details, see Technical Appendix, pp 588-591.

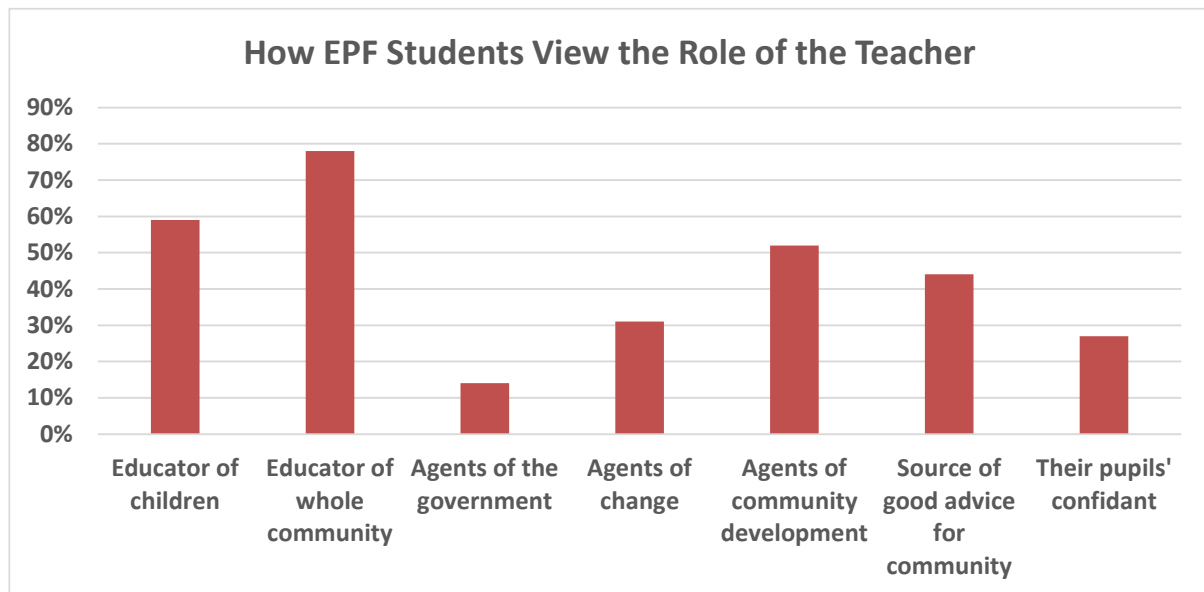


Figure 20: EPF students describe the role of a teacher

#### ***Literacy levels of EPF students***

93% of the trainees surveyed reported that they had received special classes in Portuguese Language teaching methodology. Of these, 66% considered the classes to be excellent and 32% said that they were good, with three respondents (2%) reporting that they were of reasonable quality. When asked which language they had learned to teach in and asked to choose all which applied, 98% replied Portuguese; 13% of the students mentioned a different language. Asked to assess their own reading and comprehension skills in Portuguese, 50% said that they could read fluently and understand everything and 50% that they could read fluently but had difficulty understanding some words. Only one student replied that they rarely or never read in Portuguese. These are compared with the responses of primary school pupils’ parents and in-service teachers in figure 21.<sup>31</sup>

<sup>31</sup> The survey for teachers & EPF students did not include an option for ‘unable to read in Portuguese’.

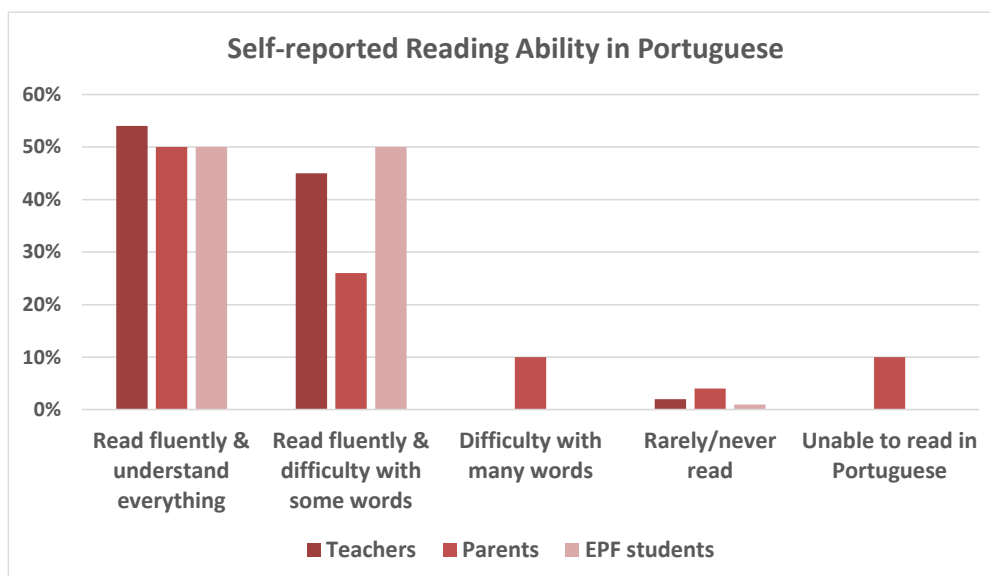


Figure 21: Teachers, parents, and EPF students report their own reading ability in Portuguese

Asked to assess their own reading and comprehension skills in the other languages, 39% said that they could read fluently and understand everything and 59% that they could read fluently but had difficulty understanding some words.<sup>32</sup> Around 2% said that they had difficulty understanding many words, and one student reported that they rarely or never read in the other languages. These are compared with the responses of parents and teachers in figure 22.<sup>33</sup> Although these are self-reported, and therefore subjective, assessments by respondents of their own reading ability, it is somewhat surprising that almost as many parents and EPF students as teachers consider themselves as able to “read fluently and understand everything” in Portuguese. The self-assessments of reading ability in other languages are even more surprising, and suggest social desirability bias may have conditioned some responses.

<sup>32</sup> This question was intended to refer to the alternative languages of instruction (the languages in which students had learned to teach). However, it appears from the responses that these do not all apply to languages of instruction.

<sup>33</sup> The survey for teachers & EPF students did not include an option for ‘unable to read in X language.’

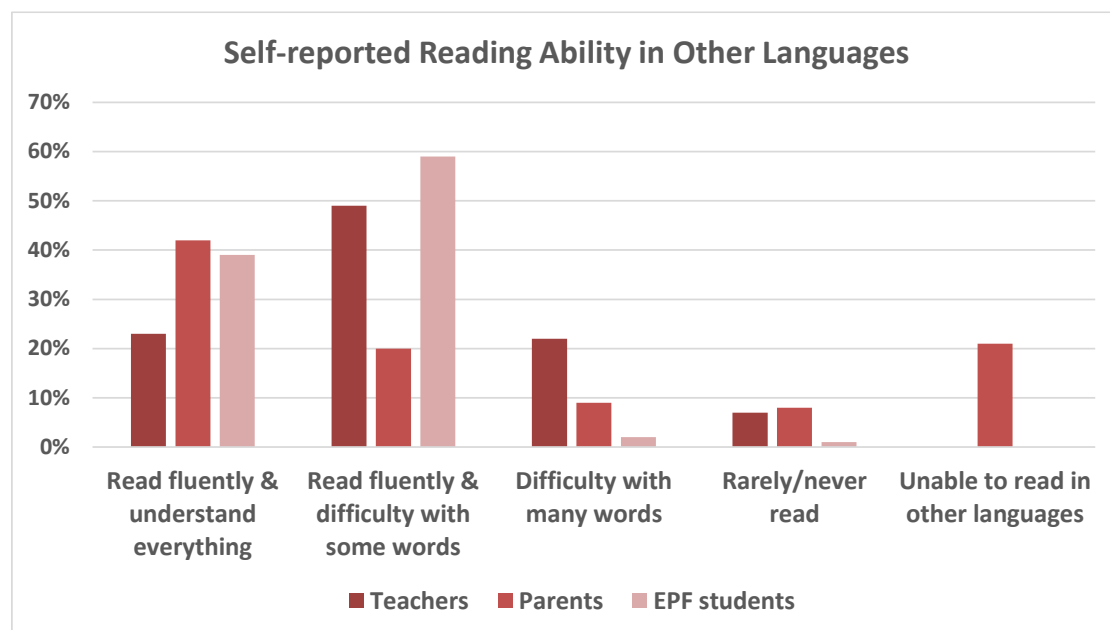


Figure 22: Teachers, parents, and EPF students report their own reading ability in other languages<sup>34</sup>

78% of students said that they had received extra support classes in spoken and written Portuguese during their studies at the EPF. 40% of the students rated these support classes as “excellent” and 52% said that they were “good,” with 8% describing them as “reasonable.” For details, see Technical Appendix, pp 601-610.

### ***Familiarity with modern teaching practice***

EPF students were shown a series of paired statements relating to primary education and asked which they agreed with, in order to test their familiarity with modern classroom practice and approaches to literacy education (this task was also included in the teacher survey).<sup>35</sup> The responses demonstrate that, on the whole, EPF students are aware of modern best practices in early grade literacy: in 4 out of 7 cases they overwhelmingly choose the best practice response; in 3 out of 7 cases their responses are more evenly distributed. The results are shown in table 13 below, with the options that correspond to modern classroom practice shaded (for details, see Technical Appendix, pp 611-621):

<sup>34</sup> Cambridge Education point out that the number of parents who report they are unable to read in Xichanga or Xirhonga is consistent with the very recent adaptation of these languages into written text.

<sup>35</sup> For comparison of these with the responses of in-service teachers, see pages 52-53.

Answer A	Responses	Answer B	Responses
It is important to allow pupils to use books regularly	91%	Books should be used occasionally so as to preserve them for the future	9%
Pupils cannot practice reading at home because the majority of parents cannot read	12%	Pupils should practice reading at home, even if their parents cannot read	88%
Grade one pupils are too young to be responsible for handing out books	53%	Grade one pupils can learn to hand out books	47%
Pupils should be seated in rows facing the front so they can take part in the class	47%	The way pupils are seated should be adapted to suit different activities	53%
Preparing classes in advance is necessary for good classroom management	99%	Preparing classes in advance does not help much with classroom management	<1%
Young pupils learn best when reading is done from the blackboard	54%	Young pupils learn to read best when they are holding a book and can learn at their own pace	46%
Independent practice is not useful for young pupils because they make mistakes	17%	Being able to make mistakes during independent practice is an important part of learning	83%

Table 13: Familiarity with modern classroom practice and approaches to reading: EPF trainees' responses

It should also be pointed out here that due to the Covid-19 school closures, the majority of EPF students taking part in the survey had only had two or three months of ordinary training in the EPF and around five months of online training. None of them had yet started teaching practice in primary schools. It is striking that the trainee teachers displayed overall good awareness of modern best practice even without the benefit of classroom experience.

### Remedial Portuguese Support

Remedial Portuguese support is provided in all the EPFs to address the low level of Portuguese language skills of some trainee teachers on arrival. In line with the recommendation of previous evaluations, the efficacy of this remedial intervention has been monitored, with the EPFs gathering data on the added value provided by the EPF remedial Portuguese program, using a standardized diagnostic instrument in all EPFs as a pre- and post-test. The instrument was developed by Portuguese language trainers from several of the EPFs, with support from two experts in evaluation and Portuguese language assessment respectively.

This information was collected at the beginning and end of the 2019 training year in seven of the eight EPFs which deliver the one-year teacher training program: EPF Gaza, Inhambane, Nhamatanda, Tete, Macuse,

Nametil and Nacala. EPF Niassa did not implement the post-test, for reasons which are unclear, and is therefore not included in this overview.

Table 14 below summarizes the results of the pre-and post-tests in the seven EPFs for which 2019 data is available. The average marks on the pre-test and post-test for each EPF are compared in figure 23.

EPF	Average mark out of 144 - pre-test	Average mark out of 144 - post-test	Difference between pre- and post-test	% average increase in score by EPF	% of students whose scores increased more than 10%
EPF Gaza	83.9	120.5	36.5	43.5%	100%
EPF Inhambane	73.9	83.9	10.0	13.5%	60.9%
EPF Nhamatanda	60.8	80.9	20.1	33.0%	70.4%
EPF Tete	57.1	64.4	7.2	12.7%	66.7%
EPF Macuse	66.7	70.0	3.3	5.0%	45.8%
EPF Nametil	95.5	103.3	7.8	8.1%	50.0%
EPF Nacala	83.8	85.1	1.4	1.6%	13.0%
<b>Average</b>	<b>74.5</b>	<b>86.9</b>	<b>12.3</b>	<b>16.5%</b>	<b>58.1%</b>

Table 14: Results of Portuguese language pre- and post-tests in 7 EPFs 2019

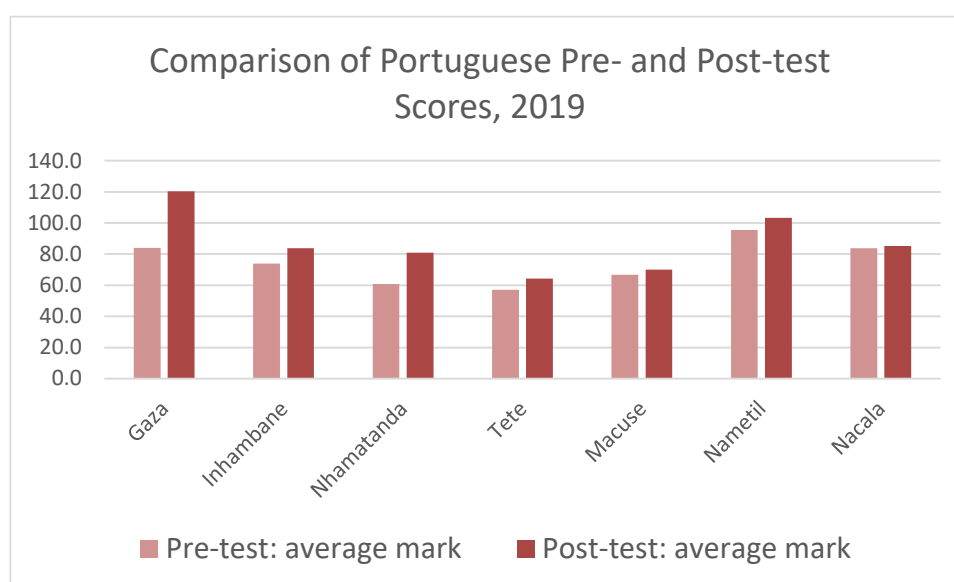


Figure 23: Comparison of the Portuguese language pre- and post-test scores in seven EPFs, 2019

All seven of the EPFs for which data is available show an improvement in the post-test scores when compared with the pre-tests. 75% of students overall showed some degree of improvement. In five of the seven EPFs, at least half of the students were able to improve their scores by more than 10%. EPFs Gaza and Nhamatanda showed the greatest overall improvement, with scores improving by an average of 44% and 33% respectively following the remedial Portuguese training.

Figures 24 and 25 below compare the increase in post-test scores between 2018 and 2019.<sup>36</sup>

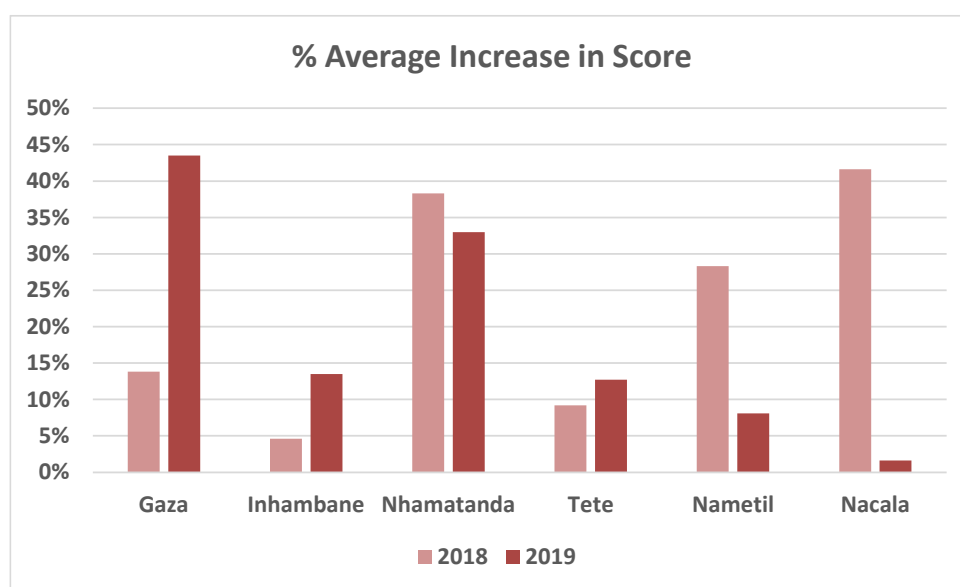


Figure 24: Average improvement in Portuguese language post-tests by EPF, 2018 and 2019

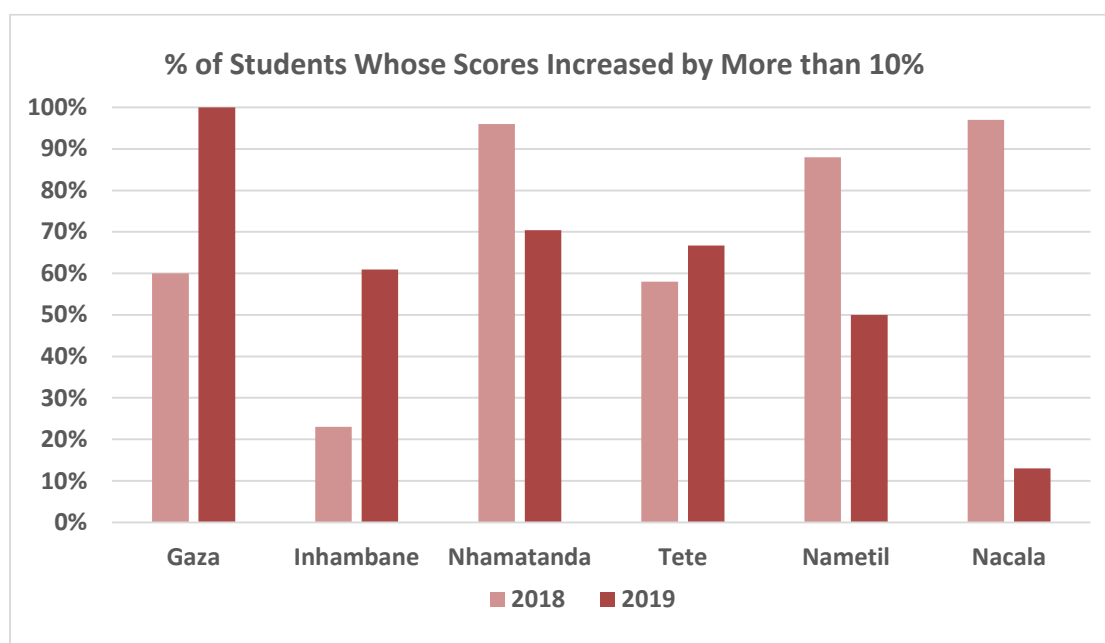


Figure 25: Improvement in Portuguese language test scores by more than 10%, 2018 and 2019

<sup>36</sup> 2018 data was reported in the FFE2 midterm evaluation report. 2018 data is not available for EPF Macuse and so it is not included in this comparison.



Comparison of these shows that:

- Across these six EPFs, in 2019, 60% of students' scores improved by more than 10% between the beginning and the end of the academic year. In 2018 this was the case for 70% of students;
- On average, the scores of trainee teachers improved by 19% between the pre- and post-tests in 2019 (23% in 2018);
- Despite the overall upward trend between pre-test and post-test scores, there is considerable variation across EPFs, with Gaza showing a marked improvement in 2019 and Nacala and Nametil achieving lower improvement rates than previously.

Although continuing to make progress between pre- and post-test (between joining the EPF and graduating), students showed slightly less progress overall between pre- and post-test in 2019 than the previous year, particularly in Nhamatanda, Nametil and Nacala. In 2019, around 12% of the students had scores which actually decreased by more than 10% from the pre-test to the post-test. 2019 was a year of significant upheaval in Mozambique, with two cyclones, including Cyclone Idai which devastated Nhamatanda, leading to the evacuation of the EPF, Cyclone Kenneth, which hit Pemba, and civil unrest in the north of the country. EPF Nametil also reported staffing issues: one of the two trainers teaching Portuguese retired and was replaced with a less experienced trainer, while the second had a prolonged period of sick leave. This context may have contributed to the dip in improvement compared with the previous year. In spite of this, three of the six EPFs compared above show greater improvement in 2019 compared with 2018, and the overall trend shows significant improvement in the post-tests. Overall, these results demonstrate that the EPF teacher training consistently provides significant added value in Portuguese language competence. EPF Gaza is particularly noteworthy in that all students increased their scores by more than 10% in 2019, and this EPF also demonstrated the highest average increase in scores in this year (44%). It is strongly recommended that M&E of the Portuguese language training continues in all EPFs with use of the diagnostic tests, or, if preferred, a comparable rigorously devised test. Although this presentation focusses on added value provided by the year's remedial Portuguese teaching, there are considerable differences between EPFs in terms of both pre- and post-test results, with EPF Tete and EPF Macuse achieving average scores of 50% or lower at post-test after a year's remedial teaching (although both progressed from low pre-test values). An assessment of the practices and approaches employed by the high-performing EPFs would also enable good practice to be shared across all 11 teacher education colleges.

### **Profiles of EPF trainers**

The baseline and midterm reports presented information on the overall profiles of EPF trainers and on supply and demand for specialized trainers, which the EPFs had identified as useful for their planning and operations. For the purposes of the final evaluation, the EPF directors were asked to complete the same questionnaires to

provide updated information based on the same indicators. This information is presented below. Data from EPF Cabo Delgado was not available at midterm due to the evacuation following Hurricane Kenneth; therefore, comparisons between midterm and final evaluation data disregard the figures from that EPF.

The eleven EPFs have between 11 and 27 trainers, with a mean of 18. The ratio of female to male trainers is 22% (see figure 26 below). There has been little change in this area since baseline; given the relatively low turnover in teacher trainers, and the gender characteristics of the pool of available trainers, this is unsurprising. Going forward, efforts should be made to recruit more suitably qualified female trainers, and a target date set to achieve gender parity.

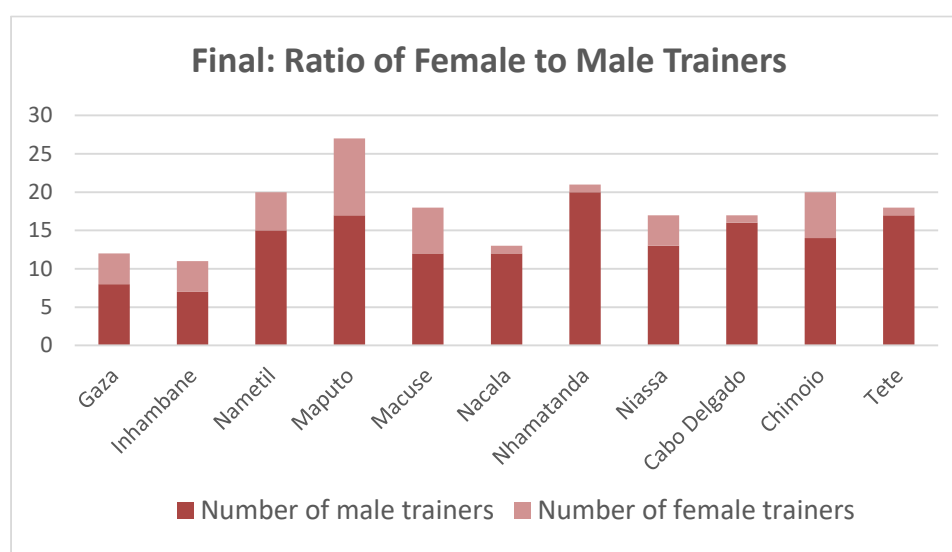


Figure 26: Ratio of Female to Male Trainers by EPF

As of the final evaluation, data provided by the EPFs show that 92% of EPF trainers hold a *Licenciatura* as their highest qualification and 5% hold a Master's degree. Only 3% of trainers now have a lower qualification than the *Licenciatura*; of these, four hold a *Bacharelato* and two the "Medium" level. This suggests that attempts to ensure all trainers upgrade their level of qualification to at least *Licenciatura* are slowly making headway (see figure 27 below).<sup>37</sup>

<sup>37</sup> As explained in previous evaluation reports, the *Licenciatura* is the equivalent of a European or US Bachelor's Honours degree; a *Bacharelato* is approximately equivalent to an Associate Degree, following two or three years of higher education, and has been phased out in recent years in favour of the four-year *Licenciatura* in alignment with other countries. "Medium level" is the teacher training qualification earned after graduating from 12<sup>th</sup> grade of secondary school; "Basic level" is the teacher training qualification earned after graduating from 10<sup>th</sup> grade of secondary school. In principle, in order to train teachers in Mozambique, trainers are now generally required to possess at minimum the level of *Licenciatura*, although this requirement has not always been consistently applied.

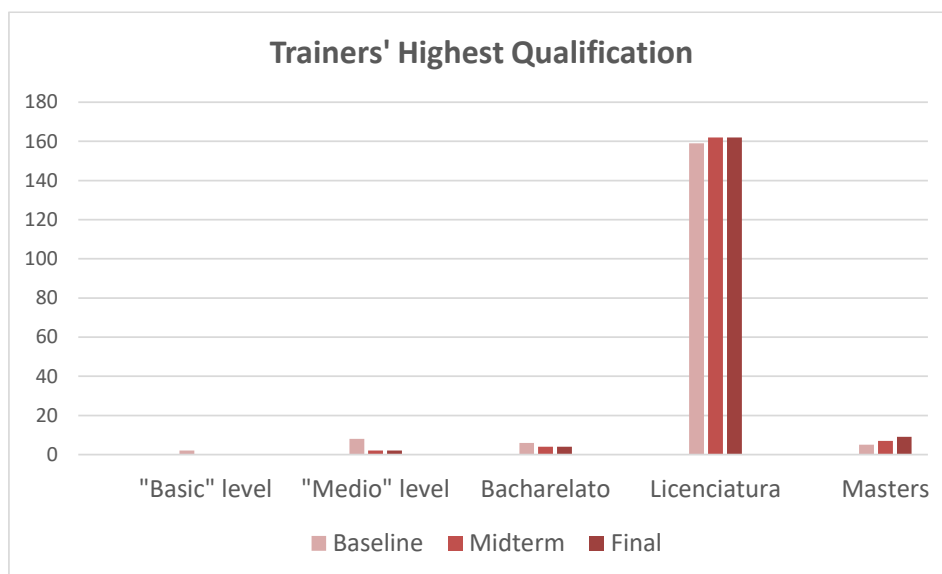


Figure 27: Highest Qualification Held by Teacher Trainers<sup>38</sup>

According to the data provided by the EPFs, 29% of the trainers have a qualification in Education, Science of Education or School Management; 30% in the areas of the arts, languages or humanities and 38% in the areas of science, social sciences, mathematics or physical education. 26% are graduates of One World University (ISET/OWU), 46% were trained at the Pedagogical University, and 24% at another university, generally either *Universidade Eduardo Mondlane* or the Catholic University. The number of less qualified trainers, whose highest qualification was earned at institutions such as the state-run teacher training colleges or the EPFs, is only 2%. All except one of the trainers have received psycho-pedagogical training.

28% of the EPF trainers have had two or fewer years' experience teaching at primary level; 15% have had between 3 and 5 years; 24% between 6 and 10 years, and 32% have had more than 10 years. In terms of the trainers' experience of training student teachers within an EPF setting, 15% have had two or fewer years' experience training student teachers, 15% between 3 and 5 years, 41% between 6 and 10 years, and 28% more than 10 years (see figures 28 and 29).

<sup>38</sup> Data from EPF Cabo Delgado was not available at midterm and so figures from baseline and final evaluation for this EPF have not been included in the totals.

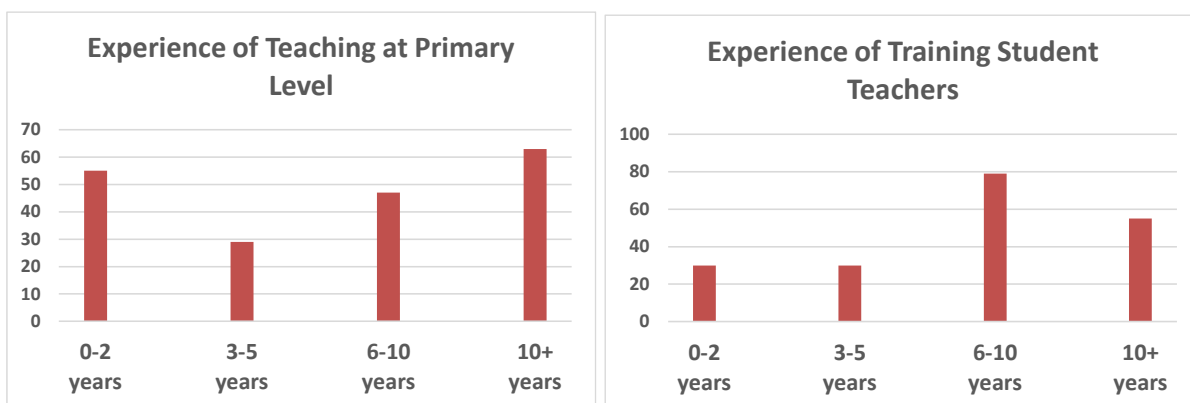


Figure 28 and 29: Experience of EPF Teacher Trainers at Final Evaluation

At the midterm evaluation it was noted that there had been considerable progress with regard to the administrative categories of the EPF trainers; happily, the final evaluation shows that this upward trend has continued. The percentage classified (and therefore paid) appropriately as teacher trainers (*Instructor Técnico Pedagógico* - ITP) has risen to 48% (compared with 35% at midterm and only 15% at baseline). 46% are now classified in the category ITP-N1; three trainers are in the category ITP-N2 and one in the category ITP-N3. This is a welcome development, although there is still considerable progress to be made. 46% of teacher trainers are still classed in category DN1, the highest category of “*docente*” (teacher) (compared with 57% at midterm and 66% at baseline). The percentage of trainers classified in the lower DN categories of DN2, DN3, and DN4 is now 5%, compared with 8% at midterm and 19% at baseline. Figure 30 below compares the progress from baseline to final evaluation.<sup>39</sup>

<sup>39</sup> As data from EPF Cabo Delgado was not available at the midterm evaluation, the number of trainers in each category has been presented as a percentage of the total responding at each time point, rather than as raw numbers.

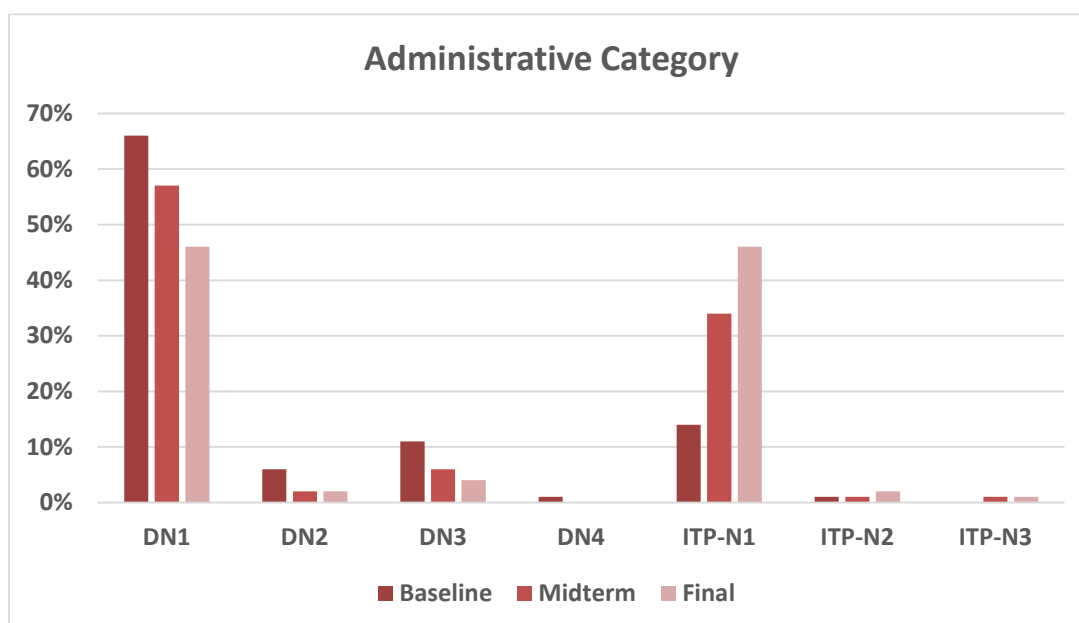


Figure 30: Administrative categories of EPF trainers

### Specialized subjects: trainer supply and demand

A comparison of the needs for specialized teacher trainers and the numbers of trainers employed per subject reveals a situation not greatly changed since baseline. Although the majority of positions are filled in many subjects, such as Psycho-pedagogy (23/25 posts filled), Portuguese language teaching methods (17/19 posts filled), Expression Techniques and Language (8/10 posts filled), School management and Organization (11/12 posts filled), Social Sciences teaching methods (16/17 posts filled) and Bantu languages and bilingual education (12/13 posts filled), there are considerable numbers of vacant posts in certain other subjects.<sup>40</sup> There are a large number of unfilled posts in Research methods/ICTs (2/13 posts filled), Visual education teaching methods (5/11 posts filled), Building, Maintenance and School Production (3/8 posts filled), Crafts teaching methods (2/8 posts filled), Music teaching methods (5/11 posts filled) and Moral and Civic Education (2/9 posts filled) (see figure 31 below). As stated in previous reports, although the evaluation does not reveal why there should be such a gap between supply and demand in these subject areas, the situation is similar in other countries and sectors where labor market forces have led to a shortage of specialized teachers.<sup>41</sup>

<sup>40</sup> Literacy education takes place within the Portuguese language and Bantu language teaching methodology modules.

<sup>41</sup> Three of the EPFs (Maputo, Chimoio, and Cabo Delgado) run a three-year programme which does not include four of these specialised subject areas: Building, Maintenance and School Production; Expression Techniques and Language; Moral and Civic Education; and Crafts Teaching Methods. These have therefore not been included in the totals. The three-year programme does include the subject 'Visual Education and Crafts Teaching Methods'; this has been counted under the subject heading of Visual Education Teaching Methods above.



Figure 31: Specialized subjects: EPF trainer supply and demand at final evaluation

Finally, the percentage of EPF trainers with at least five years' experience of primary teaching is 64% (see figure 32 below). This remains unchanged from midterm. There is marked variation between the EPFs in this regard, with EPFs Maputo, Nacala, Nametil and Cabo Delgado having the best ratios.<sup>42</sup>

<sup>42</sup> This is significant in terms of conformity with the MINEDH requirement for teacher trainers in government teacher training institutions. As detailed in previous evaluations, Article 53 of the regulation regarding the required profile of teacher trainers, introduced in 2007 by the then Ministry of Education and Culture, states that the following people can apply for posts of instructor in one of the state-run teacher training colleges:

- Instructors and teachers who have a higher education qualification in the disciplinary areas required to teach the curriculum and who have a minimum experience of 5 years of basic level primary teaching;
- Professionals with a "medium" level qualification, who have undergone specific training and have the recognised professional competence and relevant professional experience of 7 years minimum.

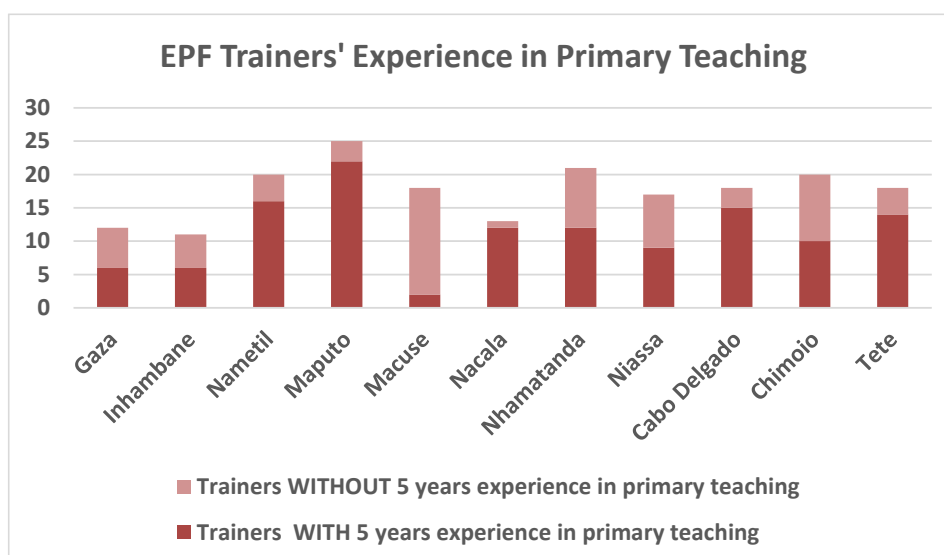


Figure 32: EPF Trainers' Experience in Primary Teaching at Final Evaluation

#### EPF directors' and trainers' view of the EPF system

Whereas during previous evaluations, the external evaluator had visited several EPFs, observed teaching, observed trainees conducting teaching practice in schools and interacted with a wide range of EPF leaders, trainers and students, this was not possible at end point for the reasons discussed. For the final evaluation, in addition to the survey of EPF students, distance interviews were conducted with a sample of four EPF directors and one focus group was conducted with trainers from EPF Maputo.<sup>43</sup> These qualitative data gathering activities revealed a high level of belief in and commitment to the EPF teacher training model. EPF directors believe that their students learn how to become good teachers and how to work in rural areas. They learn how to integrate in the communities they work in through, for example, organizing sporting activities, farming and nutrition education activities:

<sup>43</sup> It was therefore not possible to follow up on all the recommendations made at midterm. However, the evaluators were pleased to note indications that a number of these are being followed: the students survey revealed widespread use of active, student-centred teaching methods; pre- and post-testing of students in knowledge and use of Portuguese language has continued to be implemented in the majority of EPFs; there is evidence in both the students survey and the qualitative data of strong links between theory and practice in nutrition education, with students and staff reporting a high level of involvement in food planning, production and preparation processes and awareness of nutrition education issues both within the EPF and the wider community. It is hoped that the midterm recommendations regarding the need to upgrade infrastructure and equipment, including the accommodation for teaching staff at EPF Gaza and the need for trainers to have access to additional IT equipment and to regular, good quality CPD will also be followed when resources permit.

***They are trained to be aware that they will not only be teaching in the big cities or district headquarters, but will work in rural areas and therefore must also learn how to be a good teacher in a rural setting.***

EPF directors reported that students learn to contribute to the social and cultural aspects of community activities, receiving hands-on training within the local communities, through events such as theatrical performances, festivals of games, and open days.

All directors interviewed reported that the reinforced graduate network allows the EPFs to stay in touch with their graduates and benefit from continuous professional development.

Significant challenges have been encountered by several EPFs over the past two years. EPF Bilibiza has had to be relocated due to the armed conflict in Cabo Delgado. EPF Nhamatanda had to be evacuated in 2019 due to Cyclone Idai (for more information see the midterm evaluation report). Recent conflicts in Manhica province have not affected EPF Chimoio, which is quite far from the city center, except in so far as EPF students and staff need to go through the conflict area when traveling to and from the EPF; the leadership and trainers warn them to be extremely cautious.

When asked about other challenges encountered since the midterm evaluation, respondents listed a number of areas. Most of these concern choices which have had to be made regarding the use of limited resources:

- Additional vehicles would be useful, since transport can be a challenge when the only car breaks down;
- EPF gardens would benefit from having better water systems; this would also allow their expansion;
- More inclusive materials are needed, for example for students with visual or auditory impairment, including braille and sign language materials and sign language dictionaries;
- A better library is needed, along with access to more resources;
- Trainers reported the need for more laptops and information technology (IT) equipment for use by trainers, particularly now that distance learning is used more frequently due to Covid-19.

Respondents considered it would have been beneficial to have more contact between the FFE project and the EPFs, with more visits and joint activities.

Summarizing the impact of the FFE project on the EPFs, one director explained:

***One of the most important lessons had to do with bilingual teaching, literacy and nutrition education. Indeed, in addition to benefiting us as a school, it has started to benefit our families, and that is very good and healthy.***

One trainer welcomed the project:



***particularly the literacy component, because we have learned a lot and it is very good for the students. We would like this to continue because we have a lot of issues with reading and writing here in Mozambique.***

### **Nutrition education within the EPFs**

Each EPF has a Nutrition Education focal point, trained to transmit knowledge of nutrition to the students, both as part of their teacher education curriculum and within the practical activities within the EPF. The expectation is that EPF graduates are able to include nutrition education in their teaching once they begin teaching in primary schools. Since the EPFs began participating in the nutrition education program, EPFs have created or extended their vegetable gardens; the EPF community has improved their knowledge of food production, including how to use a school garden to improve diet, making the most of the seasonal climatic cycle to produce food, and animal husbandry (production of chickens and ducks); and the EPF menu has improved (for example, through the consumption of chicken and eggs). EPF students apply the knowledge learned by taking part in preparing the menu for the whole college and growing crops in the EPF garden. EPF directors report that the students' diet has improved as a result, including preparing food using less fat and salt, which has resulted in improvements in their overall health. The improved knowledge of nutrition has extended to the surrounding community, with EPF students supporting the creation of small vegetable gardens in the community. EPF directors reported that the EPF nutrition education was much more detailed and in-depth than the corresponding program in state-run Teacher Training Colleges (TTCs), where nutrition is studied more superficially. With regard to nutrition education there is a high level of collaboration between the EPF and the local government members, who always participate in nutrition education training. One EPF director reported that, as part of the school management and school nutrition curriculum, EPF students conduct research in the community on nutrition practices and participate in taking care of kitchens and farms.

***The program brought us added value because we trained the primary school teachers in schools where our students did their teaching practice. We also trained our own trainers and students. We have a vegetable garden, which produces different types of produce, with the fundamental aim of creating varied meals - a rainbow of different colors on a plate.***

The final survey asked EPF trainees which tasks they participated in within the EPF boarding house in relation to food and nutrition. 36% said that they participated in menu planning, 17% in the purchase of food for the EPF community, 63% participated in food preparation, 76% reported participating in gardening to produce food for the EPF community, and 32% said that they helped raise livestock (for example chickens) for consumption. Asked whether they considered the meals served at the EPF to be balanced and nutritious, 73% responded "yes, very," 22% responded "yes, somewhat," and 5% said that they did not. For details, see Technical Appendix, pp 598-600.

### Covid-19 in EPFs

For details of how Covid-19 affected the EPFs and of the EPF response to Covid-19, please see page 138.

### Skills and Knowledge of School Administrators (1.1.5)

<b>Indicator 3 (Outcome): Number of school administrators and officials in target schools who demonstrate use of new techniques or tools as a result of USDA assistance. Final target: 210</b> <b>Final results (September 2020): 222</b> <b>Final target 106% achieved</b>
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<b>Indicator 4 (Output): Number of school administrators and officials trained or certified as a result of USDA assistance. Final target: 264</b> <b>Final results (September 2020): 426</b> <b>Final target 161% achieved</b>
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Analysis of project records shows that the final target for training school administrators and officials in management and administration of the school feeding program has been surpassed by a wide margin.

The midterm school survey included inspection visits of the infrastructure to verify its state of maintenance and cleanliness; results of these inspections were used to calculate the number of school administrators and officials in target schools who demonstrate use of new techniques and tools, considering clean kitchens and storerooms as a proxy indicator demonstrating leadership and application of the techniques and tools acquired during training. In order to estimate a final result, in the absence of data from actual observation, the proportion of school directors who reported that the storeroom was cleaned daily (73%) and the proportion of school directors who reported that the kitchen was cleaned daily (91%) at the time of the final evaluation were averaged to establish an estimation that 82% of school directors demonstrate application of the techniques and tools taught during training. When applied to the total of 271 school directors leading project schools, this gives an estimated figure of 222. For details, see Technical Appendix, pp 344-349.

## Attentiveness (1.2)

**(Outcome): Percentage of teachers who report increased attentiveness of students in the classroom. (Special study indicator). Final target: N/A**  
**Final results (September 2020): -6%<sup>44</sup>**

**(Outcome): Percentage of students<sup>45</sup> in project schools who report increased attentiveness in the classroom. (Special study indicator). Final target: N/A**  
**Final results (September 2020): 11%**

The project's ToC considers attentiveness in the classroom as an important link in the causal chain whereby reducing short-term hunger is assumed to lead to increased attentiveness in the classroom, leading to fewer problems in learning. Although they do not appear in the project's contractual indicators, since the beginning of the FFE program evaluations have collected data on these indicators as part of a "special study," given the importance of this link in the causal chain as described by the project's ToC.

As in previous evaluations, KII and FGD respondents reported that students were more attentive in class since the onset of school feeding. Students were asked at baseline and midterm whether they had problems paying attention in the classroom: at baseline, 38% of pupils in project schools said that they did. A similar number (42%) reported attention problems at midterm. Although it was not possible to collect survey responses from pupils at the final evaluation, parents were asked whether their children had attention problems in the classroom. 73% of parents reported that their children "never" had problems paying attention, 18% that they "sometimes" had problems, and only 3% that they "frequently" had attention problems. 6% of parents said that they didn't know. Asked whether the children ever had difficulties in learning, 69% of parents reported that this was "never" the case, 25% that they "sometimes" had difficulties, and 2% that they "often" had difficulties in learning. 4% of parents who responded said that they didn't know. It is unfortunate that it was not possible to gather the students' own assessment of their level of attentiveness at end point, since their parents' assessments provide only a very approximate proxy for these.

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<sup>44</sup> At baseline, 88% of teachers had reported their pupils had attention problems "often" or "sometimes"; this rose to 94% at end point. It should be noted these were not the same teachers. Furthermore, teachers surveyed at the final evaluation have a greater level of awareness of the project's ambition to reduce concentration problems and associated learning difficulties caused by short-term hunger than at baseline, due to in-service training received as part of the project, and their later responses may reflect this awareness. See discussion in the text, page 84.

<sup>45</sup> Parents' reporting is used here as it was not possible to interview students at end point. 38% of students reported having attention problems at baseline. This estimation is based on the difference between 62% of students not reporting attention problems at baseline and 73% of parents reporting their children never experience attention problems in the classroom at end point. There are considerable problems with comparing students' and parents' responses in this way and this estimated result should be treated with caution.

When parents were asked whether they had noticed any differences in their children’s behavior after the introduction of the school feeding project, in terms of concentration on learning and school attendance, 73% reported that they had noticed some differences, including finding their children more eager to go to school, more alert and better able to learn. 25% had not, and the remainder were unable to comment as their children were not in school before the introduction of the project.

Teachers were also asked about students’ attentiveness in the classroom. When asked whether their pupils ever had problems paying attention during class, 4% of teachers responded “often,” 90% said “sometimes,” and 6% said that this was “never” the case. At baseline, 88% of teachers had reported their pupils had attention problems “often” or “sometimes.” The final evaluation responses are compared with responses at baseline and midterm in figure 33 below.

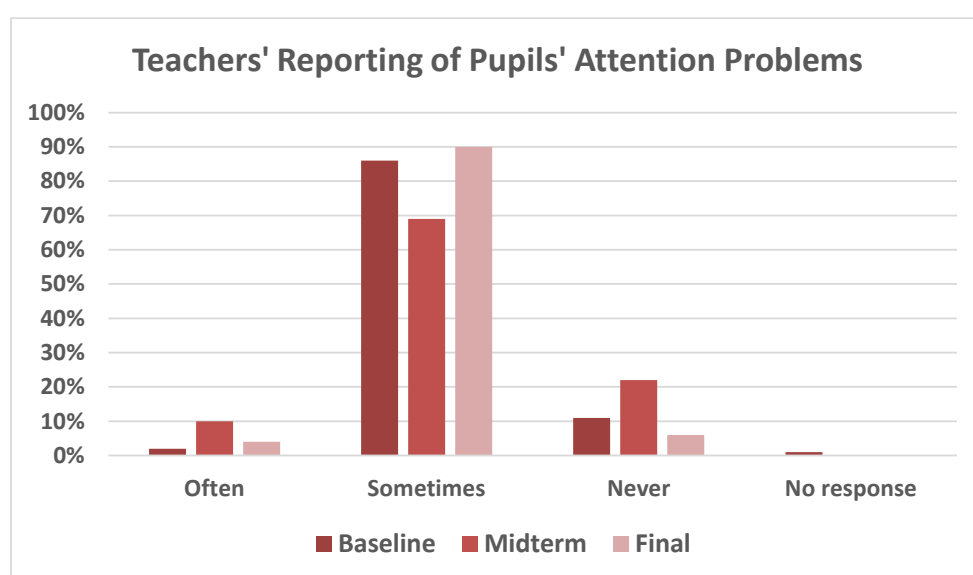


Figure 33: Teachers report whether their students ever have attention problems

When teachers were asked whether their students had difficulties learning, 6% of teachers said “frequently,” 86% responded “sometimes,” and 9% said that their students “never” had difficulties in learning. These are compared with responses at baseline and midterm in figure 34 below. At end point, slightly fewer teachers report students “often” have problems learning than at midterm, more “sometimes” and fewer “never.” Once again, it should be borne in mind that the teachers surveyed at end point were not those who had responded at baseline and midterm, and that they were responding after almost an entire school year without teaching. It is therefore impossible to draw any firm conclusions on the basis of this data.

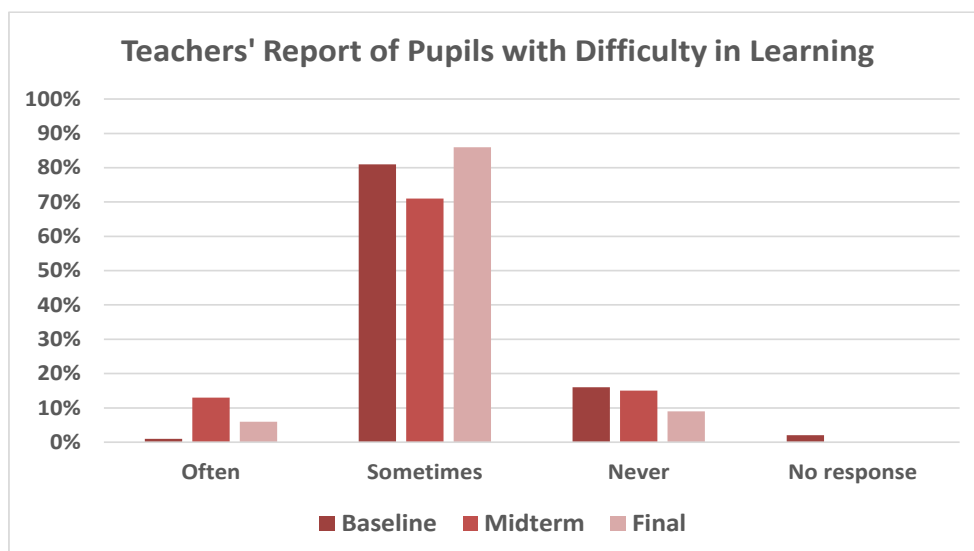


Figure 34: Teachers report whether their students ever have difficulty learning

Asked whether they had observed differences in student behaviour in terms of concentration on learning since the introduction of the school feeding project, 75% of teachers reported that they had observed differences and 3% said that they had not. Differences cited included improved punctuality, improved attendance, improved physical appearance, improved learning, increased concentration and better motivation. Around 22% of teachers were unable to answer, as they had not been present in schools prior to the introduction of the project. These are compared with the parents' responses to the same question in figure 35. For details, see Technical Appendix, pp 163-167, 462-465.

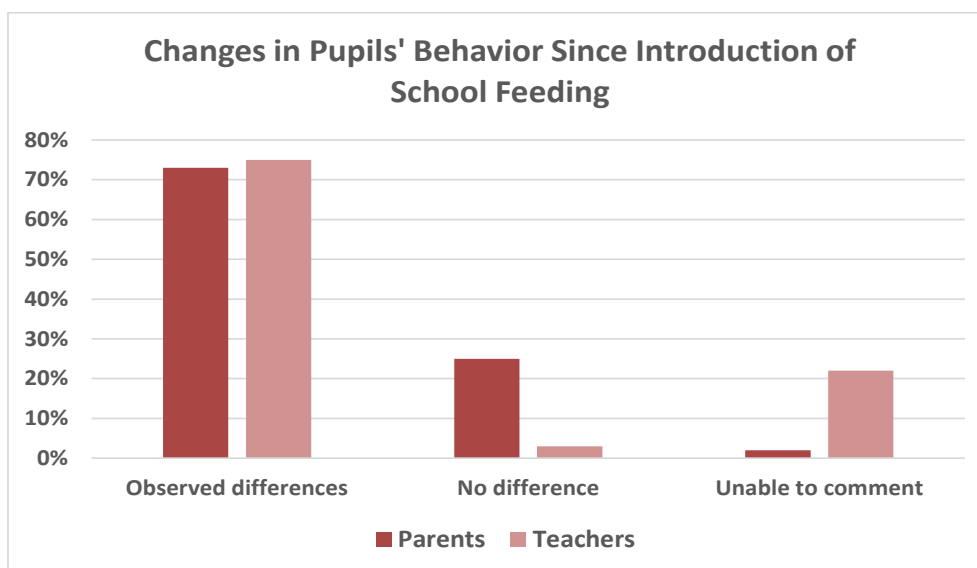


Figure 35: Parents and teachers report whether they have observed differences in pupils' behavior since the introduction of school feeding

These responses, where parents and teachers are asked to look back and assess changes over the period of the project, offer a rather more optimistic picture of positive change than the comparison of the previous responses over three time points.

It is unfortunate that it was not possible to collect data from the pupils themselves at the final evaluation, as was done at baseline and midterm; the parents' responses are informative in their own right but do not provide adequate grounds for comparison with the earlier time points. Likewise, it is difficult to draw clear conclusions from the teachers' responses. Although these were gathered at all three time points, they cannot be considered strictly comparable as the survey reflects responses from different groups of teachers between the baseline and final evaluations. Teachers surveyed at the final evaluation have a greater level of awareness of the project's ambition to reduce concentration problems and associated learning difficulties caused by short-term hunger than at baseline, due to in-service training received as part of the project, and their later responses may reflect this awareness. It is also worth pointing out that it is not only in Mozambique that teachers of primary school students experience their students having difficulties paying attention at times; primary teachers in countries where few children come to school hungry also encounter similar challenges. Furthermore, the final survey was conducted approximately nine months after Covid-related school closures, hence the teachers were reporting impressions based on memory of pupils in the classroom rather than on present experience. The data presented here, therefore, must be viewed as an attempt to capture a complex indicator with many contributing variables and interpreted with caution and in association with other data sources such as the qualitative information gathered from multiple respondents and, indeed, the EGRA data.

### Short-term hunger (1.2.1)

**(Outcome): Percentage of teachers who report reduced short-term hunger of students in the classroom. Final target: N/A**  
**Final results (September 2020): -11%<sup>46</sup>**

**(Outcome): Percentage of students in project schools who report reduced short-term hunger in the classroom. Final target: N/A**  
**Final results (September 2020): 49%<sup>47</sup>**

<sup>46</sup> 87% of teachers reported their students "sometimes" or "often" appeared hungry at school at end point, compared with 76% at baseline. This result should be treated with caution, not least because project training means that teachers at end point are more aware of the signs of short-term hunger in pupils. Furthermore, this was contradicted by the parents' responses. See discussion on page 86.

<sup>47</sup> 11% of parents reported their children "sometimes" or "often" appeared hungry during the school day at end point, compared with 60% of students who reported "sometimes" feeling hungry at school at baseline. Prudence is required since these data sources are not strictly comparable.

During one of the rare focus group discussions with volunteer cooks, the relationship between short-term hunger and learning was clearly expressed by one participant:

***When they arrive here at school hungry, without having eaten anything, they don't understand, they don't grasp the contents of the lesson the teacher is teaching and explaining.***

At baseline and midterm evaluations, students were asked whether they sometimes felt hungry in the classroom. At baseline, 60% of pupils in intervention schools said that this was the case. By midterm this had dropped to 42%. Unfortunately, it was not possible to survey the students at the final evaluation, however parents were asked whether their children appeared to be hungry during the school day. 89% of parents reported that their children “never” appeared to be hungry, with 9% saying that they “sometimes” appeared hungry and around 2% “frequently.” These results are summarized in figure 36 below. They appear to show a dramatic drop in student hunger in the intervention group between baseline and final evaluations, although previously expressed caveats should be noted.

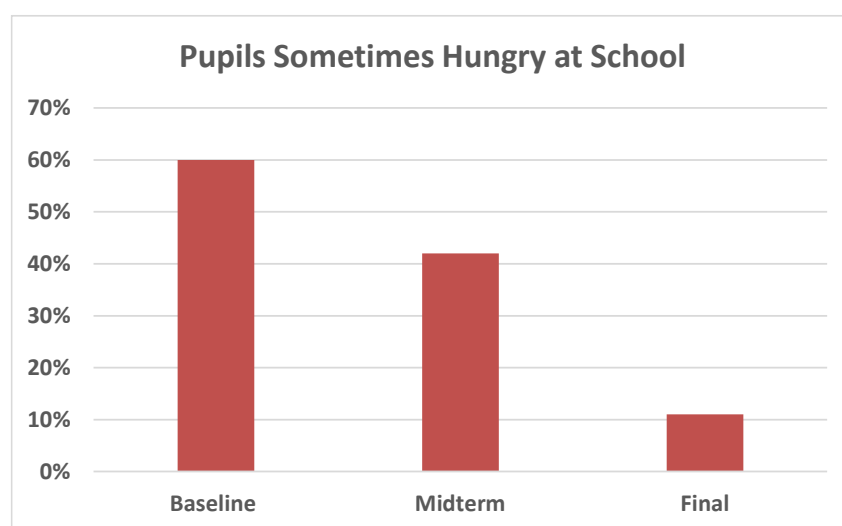


Figure 36: Reports (by students and parents) of students feeling hungry during the school day

At the final evaluation, teachers were also asked whether their students ever appeared to be hungry during the school day. Their responses were very different from those of the parents. 17% of teachers said that this was “frequently” the case, 70% “sometimes,” and 14% reported that their students “never” appeared to be hungry. Teachers reported that signs of hunger amongst their pupils include looking tired or sleeping, dilated pupils, appearing demotivated, lacking energy, lacking concentration and poor participation in the class. Figure 37 compares these with responses at baseline and midterm. For details, see Technical Appendix, pp 162-163, 461.

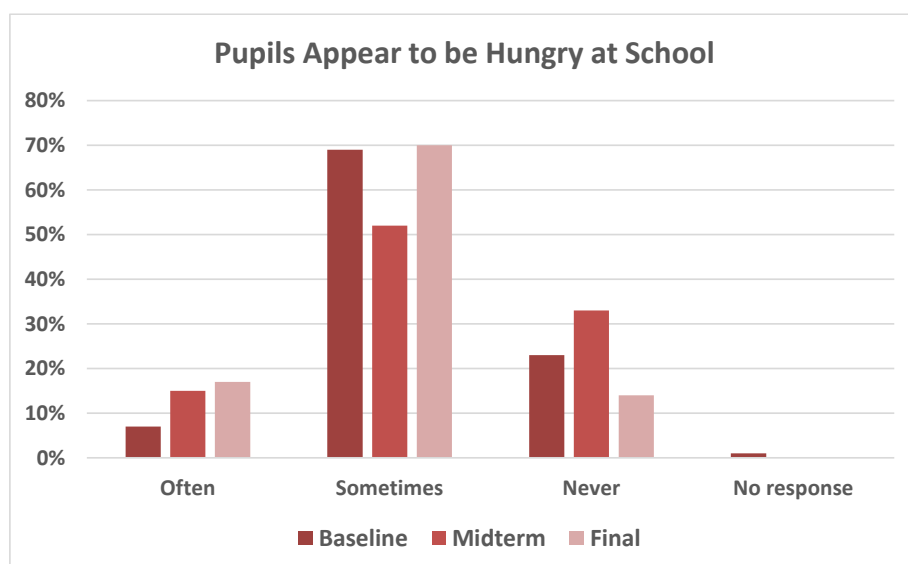


Figure 37: Teachers report whether pupils ever appear hungry at school

As with the information on attentiveness, it is difficult to draw conclusions from the information from teachers presented here. Although a high percentage of teachers at the final evaluation report that their pupils “sometimes” appear to be hungry during the school day, exposure to project training means that teachers are likely to be far more aware of short-term hunger and its effects than previously. Also, the question does not make clear whether it refers to students appearing hungry before or after receiving food at school (it is conceivable that a question making the distinction between how students appeared before eating and after eating would have received different responses). Furthermore, as mentioned above, the lengthy period of Covid-related school closure means that teachers had to respond from memory rather than current experience. For all these reasons, this data needs to be considered together with the other sources of information (parents’ survey responses, KII and FGD data) which appear to show overall a considerable decrease in students’ hunger during the school day.



### Access to food (school feeding) (1.2.1.1)

**Indicator 15 (Output):** Number of daily school meals (breakfast, snack, lunch) provided to school-age children as a result of USDA assistance. Final target: 48,100,000

Final results (September 2020): 43,524,765<sup>48</sup>

Final target 90% achieved<sup>49</sup>

**Indicator 16 (Output):** Number of school-age children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance. Final target: 74,000; (new: 2,000; continuing: 72,000; female: 26,260; male: 37,740)

Final results (September 2020): 90,278 (new: 2,178; continuing: 88,100; female: 44,159; male: 46,119)

Target 122% achieved (new: 109%; continuing: 122%; female: 168%; male: 122%)

**Indicator 17 (Output):** Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance Final target: 74,000; (new: 2,000; continuing: 72,000; female: 26,260; male: 37,740)

Final results (September 2020): 90,278 (new: 2,178; continuing: 88,100; female: 44,159; male: 46,119)

Target 122% achieved (new: 109%; continuing: 122%; female: 168%; male: 122%)

**Quantity of take home rations provided (in metric tons) as a result of USDA assistance** Final target: 588.35

Final results (September 2020): 588.35

Final target 100% achieved

**Number of school-age children receiving take-home rations as a result of USDA assistance** Final target: 89,921 (female: 44,061; male: 45,860)

Final results (September 2020): 89,921 (female: 44,061; male: 45,860)

Final target 100% achieved (female: 100%; male: 100%)

*We feel very happy and the children too because .../...when they come to school they know that, as well as studying and learning, they will also eat and go home without feeling hungry, and well fed (volunteer cook).*

Analysis of project records showed the number of meals provided by the project to be very close to the target (97% as of September 2020). Since schools had been closed for most of 2020 and Corn Soy Blend-Plus (CSB+) distributed in the form of take-home rations for much of that period, this is an achievement (it is also helped by the fact that the numbers of children benefiting from school feeding are slightly above the target).

<sup>48</sup> This figure is the last number reported of meals provided in schools prior to closure.

<sup>49</sup> Results are reported against final targets. The target for September 2020 had been 97% achieved as of the end of September. It was not possible to meet 100% of this indicator target due to Covid-19 school closures and the cessation of school feeding. However, please see the indicators for CSB+ distributed as take-home rations.

The final evaluation survey for parents of students in project schools included questions about the school meals provided by the project. 94% of the parents responding to the survey said that they thought the project's organization of school lunches had been "excellent" or "good." Teachers also had positive opinions about the organization of the school lunches: 55% reported that it was "excellent" and 45% that it was "good." Around 62%, however, thought that there were aspects that could be improved. A wide variety of examples was cited, many referring to provision of incentives for participating teachers and cooks, the motivation and competence of the volunteer cooks and the equipment provided.

57% of the parents reported that the family's diet at home had changed after the introduction of the school lunch. A greater number (82%) reported that the number of meals served to children at home had changed after the introduction of the school lunch, with 98% saying that children ate less at home than previously.

All schools received a complete set of utensils needed for school feeding, however when the school survey, completed by a relatively small proportion of the school directors approached, was conducted, the following results were reported. 64% of schools responded that the existing school utensils were sufficient for preparing and distributing the food. 36% replied that there were insufficient utensils. Of the schools that mentioned a lack of utensils, 30% reported a lack of pans, 55% insufficient number of bowls, 65% a lack of spoons, 65% a lack of cups, 45% a lack of basins, 70% insufficient buckets, 45% insufficient jars, and 15% a lack of scales. 20% reported a lack of other implements.

For details, see Technical Appendix, pp 124-126, 368-370, 452-454, 479-482.

### Student attendance (1.3)

**Indicator 1 (Outcome): Number of students regularly (80%) attending USDA supported classrooms/schools. Final target: 59,200 (female: 29,008; male: 30,192)<sup>50</sup>**  
**Final results (September 2020): 87,453 (female: 44,165; male: 43,288) [if 80% used: 69,962 (female: 35,332; male: 34,630)]**  
**Final target 148% achieved (female: 152%; male: 143%) [if 80% used: 118% achieved (female: 122%; male: 115%)]**

Analysis of project monitoring data demonstrates that final targets for school attendance have been surpassed. At the time of the final evaluation, schools had been closed for nine months; these figures are based on the

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<sup>50</sup>The targets for this indicator as set out in the contractual Attachment E in Amendment #5 are based on 80% of the target for students benefiting from school feeding; however, results are reported by the project based on 100% of the results of students benefiting from school feeding, which makes the target appear to have been surpassed by more than is actually the case. It was recommended in the midterm evaluation report that the targets and measurement of this indicator should be amended from 80% of students attending school to the numbers of student who achieve 80% school attendance, to allow the project to report on this indicator as intended.

project's own reporting system which uses the biannual report reporting the highest number of meals distributed (in this case report 8, in September 2019). There are two points to be borne in mind here, already pointed out in previous evaluation reports:

- i) Although the indicator of 80% attendance is taken by the project to mean 80% of the numbers of students receiving food, the intention of the MGD indicator refers to the number of students who attend school at least 80% of the time. For this reason, calculations based on 80% of the project numbers are included in square brackets in the box above.
- ii) Previous evaluations have not been able to establish attendance data and have had to use the proxy indicator of school feeding data used by the project, due in part to the reluctance of teachers to fill in an extra register (as discussed in previous evaluations).

It is still the case that it is not possible to verify independently the claims by project stakeholders that school attendance has improved since the introduction of school feeding, however qualitative data collected for the final evaluation provides support for claims that the project has had a positive impact on student attendance:

*The children are lively, knowing that when they get to school they will receive food: they're much more willing to come and never think of missing school, never think of staying away* (district education official).

<p><b>Number of after-school learning clubs active in project schools. Final target: 600</b>  <b>Final results (September 2020): 802</b>  <b>Final target 134% achieved</b></p>
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<p><b>Number of school children participating in clubs. Final target: 11,300</b>  <b>Final results (September 2020): 13,201</b>  <b>Final target 117% achieved</b></p>
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Support to extra-curricular learning clubs is intended to promote increased school attendance and student attainment. After-school clubs are led by teachers and volunteers. Of the schools that responded to the final evaluation survey, 54 (all but one) reported having one or more learning clubs. Although a relatively small number of school directors responded to this survey, compared with the response at midterm, the high percentage of schools with learning clubs is corroborated by the teachers, of whom 93% reported that one or more extracurricular learning clubs had been created at their schools. Of the schools with clubs, the most frequently reported number was three clubs (41% of the schools). 22% reported having one or two clubs, and 37% said that they had more than three learning clubs. Of those schools which report having clubs, all reported having reading clubs, 96% reported having mathematics clubs, 37% have school garden clubs, and 39% have social science clubs.

28% of the teachers reported that all of their students participated regularly in the club(s), 39% said that most students participated regularly, 27% that some of their students participated regularly, and only 4% that participation was “irregular.” Around 3% of teachers said that they didn’t know. A large majority (98%) thought that student participation in the clubs improved their classroom performance. Improvements cited included being more active, participating better in class and being more interested in learning, in addition to clubs helping with individual areas of learning, such as reading or mathematics. One school head reported:

***We speak about learning clubs in numeracy or literacy, where the pupil learns in the school garden and in some other lessons. Children can learn a lot of things in that moment. We also have opportunities for children to learn to read and write in Portuguese outside of normal lessons, in the extra time we organize.***

All but one of the schools with learning clubs surveyed report seeing “some differences” in the children who participate in the clubs. 49% report that they are more active in regular classes, 87% report improved student performance, and 55% report improvements in the pupils’ communication and expression. For details, see Technical Appendix, pp 126-129, 394-397, 420.

KIIs with project staff, school leaders and government officials reveal that after-school clubs have helped students’ learning. It was necessary to make teachers, as well as students, aware of the benefits of school clubs. Once they understood the rationale for after-school learning clubs, they were more supportive. The project tried to take account of teachers’ feedback in improving how school clubs functioned. Project staff reported that school clubs had benefited from advice and collaboration from the provincial monitoring team and from the district education services. Likewise, they report some level of ownership of the clubs, including students taking part in school club activities, with the eldest or the brightest students assuming leadership. The project organized quarterly meetings for volunteer club monitors to voice their concerns and complaints and to seek for common solutions to these.

Project staff emphasized the integrated approach to education promoted by after-school learning clubs:

***Learning isn’t limited to the classroom ... we need to cultivate the spirit of learning in every area of our lives because that’s what life is about.***

Project staff said that they were in the process of implementing the recommendations from the midterm evaluation report, including more rigorous reporting systems to gather evidence of club membership and activities, when the Covid-19 pandemic began. Due to the closure of schools, many project activities were unable to take place, and a program of revitalizing after-school clubs with new registration procedures had to be cut short.

### School infrastructure (1.3.3)

**Indicator 7 (Output): Number of kitchens, storerooms and firewood-saving stoves maintained as a result of USDA assistance. Final target: 792 (kitchens: 264; storerooms: 264; firewood-saving stoves: 264)**

**Final results (September 2020): 1,852 maintenance activities (kitchens: 516; storerooms: 825; firewood-saving stoves: 511)<sup>51</sup>**

**Final target 234% achieved (kitchens: 195%; storerooms: 313%; firewood-saving stoves: 194%)**

Analysis of project records at the final evaluation reveals that the targets for maintaining the school infrastructure provided by the project (in terms of the number of interventions to maintain kitchens, storerooms and firewood-saving stoves) have been surpassed, with more than twice the final target met as of September 2020. It should be borne in mind that these numbers refer to maintenance interventions performed (for example door and stove repairs and maintenance of ventilation systems), not to the number of installations maintained (the project has a total of 270 kitchens, 268 storerooms and 271 firewood-saving stoves).

The evaluation also sought to understand how infrastructure was being maintained at school level. The midterm school survey included inspection visits of the infrastructure to verify its state of maintenance and cleanliness. It was not possible to conduct these visits as part of the final evaluation; however, questions about maintenance and cleanliness routines were asked of the school directors as part of the remote survey. In these final evaluation surveys, 73% of schools reported that the storeroom was cleaned daily, 24% weekly, and 4% twice a week.

The storeroom is cleaned by volunteer cooks in 42% of schools, by pupils in 25% of schools, by the teacher who is the storeroom supervisor in 76% of schools and school council members in 7% of schools. 5% reported that other people clean the storeroom (it was possible to give several responses).

Final evaluation surveys recorded 91% of schools reporting that the kitchen was cleaned daily, 5% weekly, and 4% twice a week.

In 80% of schools, volunteer cooks are amongst those who clean the kitchens; in 35% of schools, pupils contribute to cleaning the kitchen, the teacher who is storeroom supervisor contributes in 27% of schools and a member of the school council in 11% of schools. 7% of schools report that other people contribute to cleaning the kitchen.

38% of schools report having a maintenance plan at the time of the final evaluation. Of these, 78% say their maintenance plan is followed. In schools which have a maintenance plan, the plan is known to school council members in 87% of schools, to school leaders in 9%, to project staff not linked to the school in 13%, to the

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<sup>51</sup> These numbers refer to maintenance interventions performed.

director in 17%, the pedagogical director in 13% and other people in 9%, demonstrating the key role played by school councils in maintaining the school feeding infrastructure. The midterm evaluation had recommended more widespread use of maintenance plans in schools. Given the relatively low response to the final survey, it is difficult to ascertain whether they were more widely adopted between midterm and end point.

For details, see Technical Appendix, pp 344-353.

### Enrolment (1.3.4)

**Indicator 8 (Outcome): Number of students enrolled in school receiving USDA assistance. Final target: 74,000 (female: 36,260; male: 37,740)**  
**Final results (September 2020): 90,278 (female: 44,159; male: 46,119)**  
**Final target 122% achieved (female: 122% achieved; male: 122% achieved)**

The project ToC considers enrolment in project schools as a prerequisite to attendance and, therefore, to improved learning. Analysis of records provided by the project, based on data from SDEJT and DPEDH, reveals that the targets for enrolment of students have been surpassed. As in previous evaluations, interview and focus group informants overwhelmingly claimed that enrolment had increased, and dropouts decreased as a result of the projects' activities, particularly school feeding. As one informant explained:

***School feeding is very important because it means the child stays in school.../... it motivates the pupil. When the pupil knows that at 9.30 there will be food, they are not going to miss school.***

During the final evaluation, as in previous evaluations, enrollment and dropout data gathered by the DPEDH was analyzed to establish whether this provided independent support for these claims. Figures 38 and 39 below show the primary school dropout rates in the four project districts based on the DPEDH data from 2012 to 2019 (over the course of the FFE project). These appear to show an overall decline in the dropout rates in the project districts of Manhica, Magude, Matutuine and Moamba, particularly in EP2. In EP1, the percentages of dropouts across project districts fell from 9.1% in 2012, the year before the project commenced, to 5.1% in 2019, the last year for which data were available. In EP2, the percentage for these districts fell from 11.8% in 2012 to 5.1% in 2019. DPEDH data establishes dropout rates in terms of the difference between numbers of students enrolled at the beginning of the school year and those still present in schools at the year end. Unfortunately, as at the midterm evaluation, some uncertainty remains as to the quality of the information provided by the DPEDH; however an overall trend of reduction in dropouts is clearly visible.<sup>52</sup>

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<sup>52</sup> Although the DPEDH did make the requested information available to the evaluation team, a number of discrepancies were observed in the data; most notably, several dropout rates appearing as negative percentages, with a higher number of students recorded at year's end than at enrolment. When this was raised

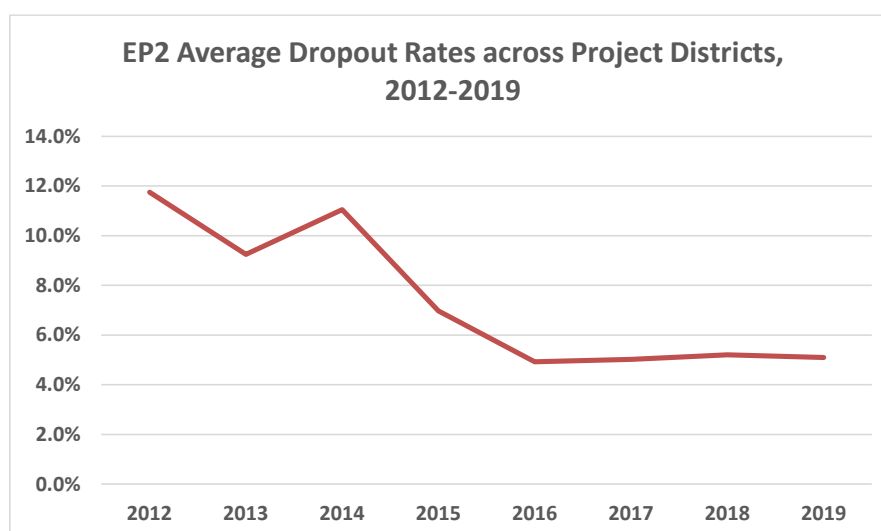
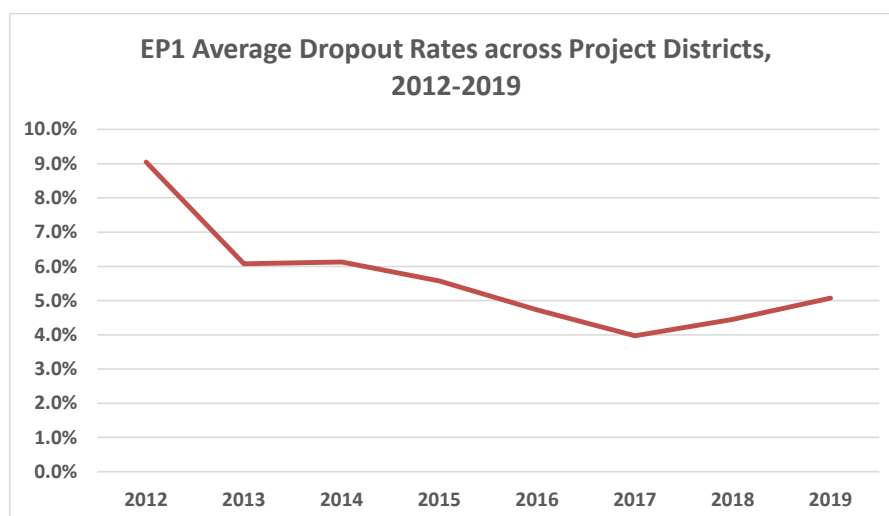


Figure 38 and 39: Primary school dropout rates in project districts recorded by the DPEDH, 2012 to 2019

The percentage of dropout rates in the non-project districts of Maputo Province, Matola, Boane and Namaacha,<sup>53</sup> on the other hand, remained relatively stable over the same timespan: in EP1, this was recorded

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with DPEDH they explained that this was due to students transferring to teacher training or technical vocational schools after 3 March, when they reviewed rates of enrolment and dropout. The fact that these transfer students were not disaggregated means that a comparison of the enrolment numbers at enrolment and at the end of the year would not reveal an accurate dropout rate. Furthermore, this does not seem a plausible explanation for the few negative figures that were recorded for the primary school totals.

<sup>53</sup> The data for Marracuene showed several negative dropout rates; it was therefore considered discrepant and is not included in this analysis.

as 5.1% in 2012 and in 2019, and in EP2 the dropout rate fell from 4.4% in 2012 to 3.7% in 2019. See figures 40 and 41 below.

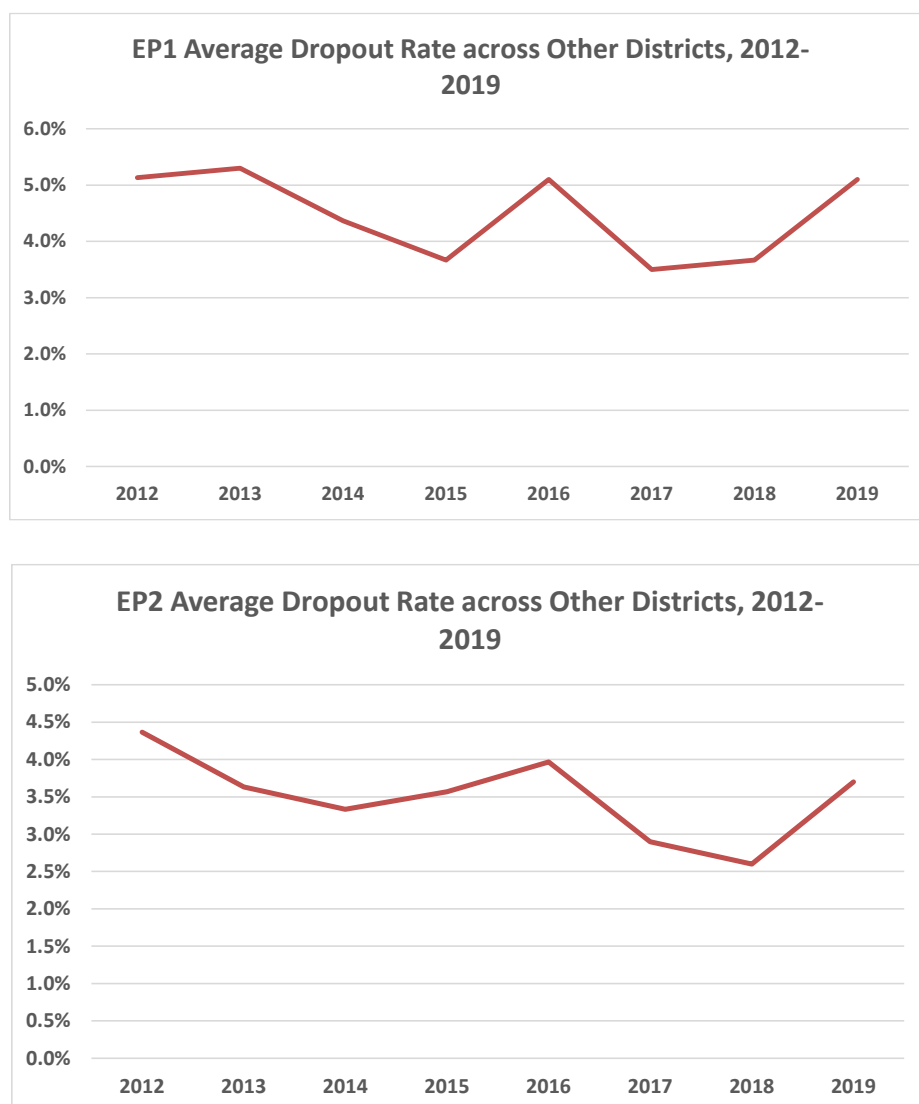


Figure 40 and 41: Primary school dropout rates recorded by the DPEDH in non-project districts, 2012 to 2019

Figures 42 through 45 below compare the dropout rates recorded in project districts, disaggregated by district, with those recorded in other districts of Maputo province. Compared with the other districts, the project districts show an overall downward trend in Matutuine, Manhiça and Moamba (EP1) and in all project districts for EP2 whereas the rates for EP1 actually rise over the period in question in Magude. Despite annual variation, the overall pattern in all three non-project districts does not evolve over the same timeframe. Bearing in mind the caveats previously stated, this provides support for the claim that the project has led to a reduction in dropouts.



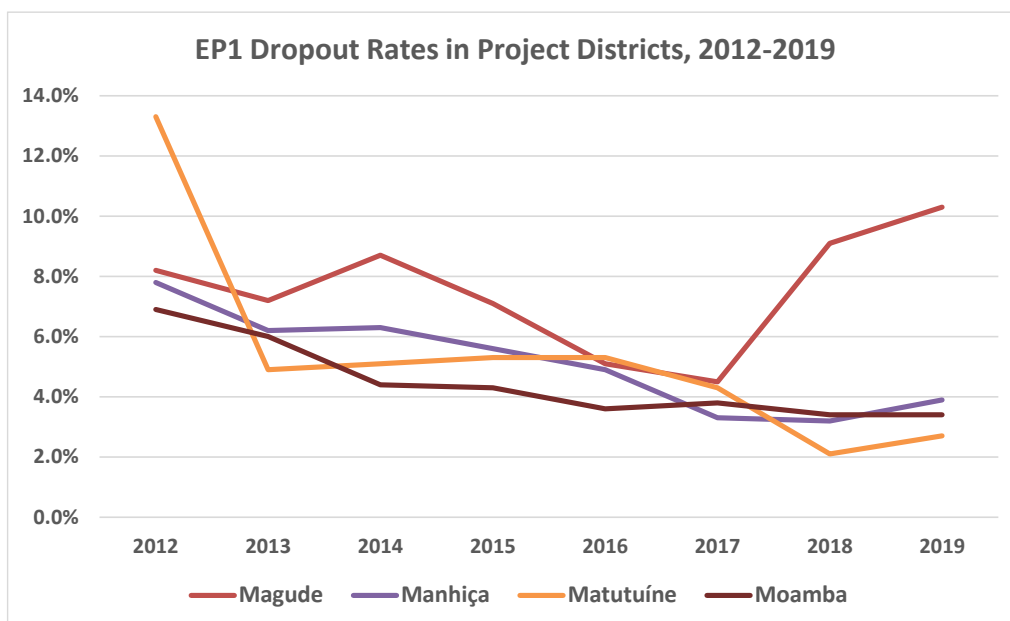


Figure 42: EP1 dropout rates by district (project schools), 2012 to 2019

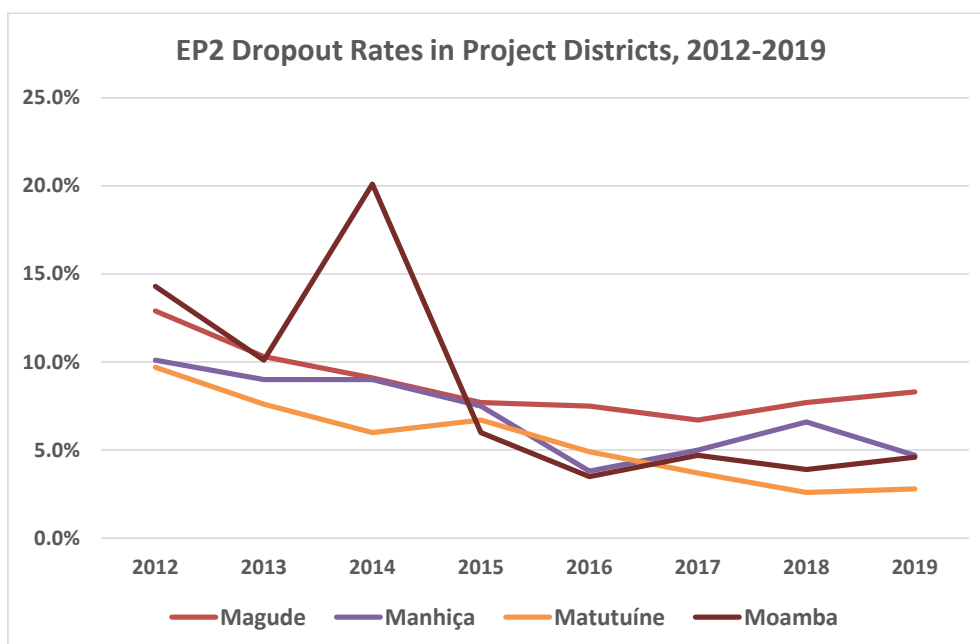


Figure 43: EP2 dropout rates by district (project schools), 2012 to 2019

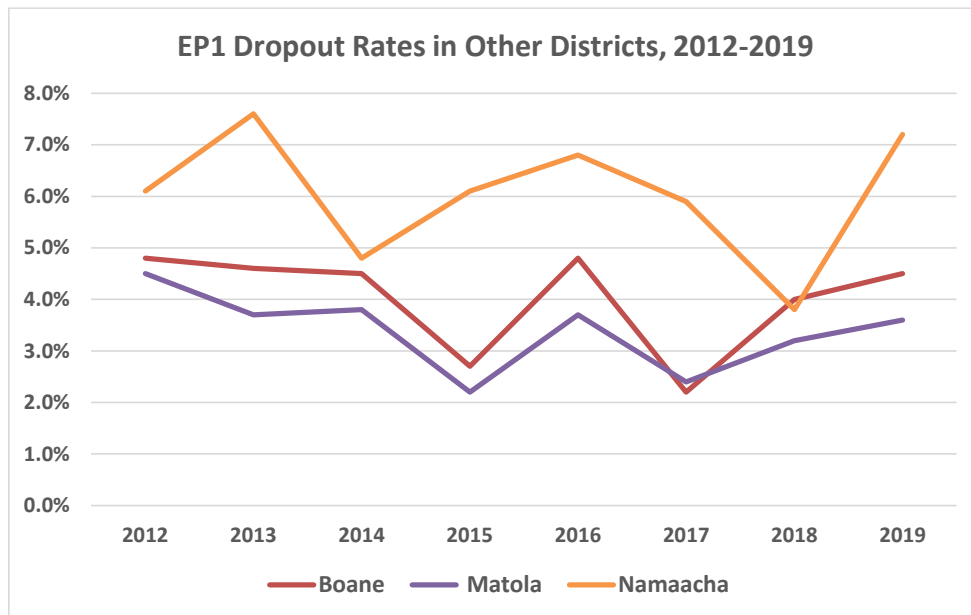


Figure 44: EP1 dropout rates by district (non-project schools), 2012 to 2019

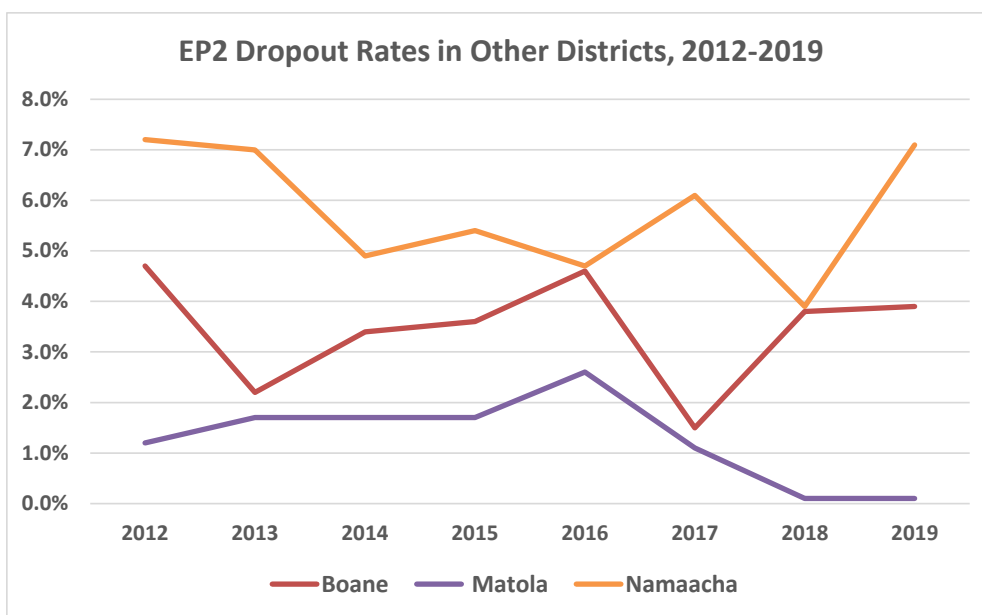


Figure 45: EP2 dropout rates by district (non-project schools), 2012 to 2019

### Capacity of government institutions (1.4.1)

This indicator appears with different MGD numbers under both SO1 and SO2. For discussion of capacity of government institutions, please refer to the section Capacity of government institutions (2.7.1) on page 122 below.

### Government support (1.4.3)

**Indicator 11 (Outcome): Value of new public and private sector investments leveraged as a result of USDA assistance. Final target: \$80,000**  
**Final results (September 2020): \$401,292.00**  
**Final target 502% achieved**

At the time of the final evaluation, the project reports two investments leveraged through public-private partnerships, \$69,292 through CCS-Help code and \$332,000 through ONGAWA (see details in the following section).

### Engagement of Local Organizations and Community output (1.4.4)

**Indicator 9 (Output): Number of Parent-Teacher Associations (PTAs) or similar “school” governance structures supported as a result of USDA assistance. Final target: 264**  
**Final results (September 2020): 271**  
**Final target 103% achieved**

**Indicator 10 (Output): Number of public-private partnerships formed as a result of USDA assistance. Final target: 2**  
**Final results (September 2020): 2**  
**Final target 100% achieved**

This indicator appears with different MGD numbers under both SO1 and SO2. Section 2.7.4 of this report on page 123 addresses other aspects of engagement of local organizations and community output under SO2.

All schools have a school feeding committee (SFC) responsible for the administration of the project at school level. Previous evaluation reports have examined the level of implication of these SFCs and concluded they are overall extremely engaged in and have a high level of ownership of the project at school level. The final evaluation of the project interviewed two SFCs, observing Covid-19-safe practices, and included a survey of parents that sought, in part, to gather their opinions about the project, shedding light on their attitudes as well as ownership and engagement of the project.

When asked whether they thought that students' families should participate in the preparation of school lunches, 28% said that they felt families should help in the collection of firewood, in exchange for incentives; 52% said that they should help collect firewood without any incentives. 24% said that they felt families should assist in the provision of water for the school lunches, in exchange for incentives; 37% said they should do so without any incentives. 34% said that families should participate in making the soy porridge in exchange for incentives; 45% that they should do this without receiving incentives. 25% said that families should participate in the school gardens in exchange for incentives, while 33% said that families should help in the school gardens without incentives. Fewer than 2% parents said that families should not participate at all. This shows a willingness on the part of many parents to participate in the preparation of school lunches without incentives. However, it reveals a persistent belief amongst a significant minority of parents that incentives are needed to compensate families for the loss of time or income involved in contributing to school feeding activities. This is the first time a quantitative survey of parents has been conducted within the scope of a project evaluation. These findings echo the qualitative findings of previous reports. The results are shown in figure 46 below. For details, see Technical Appendix, pp 456-459.

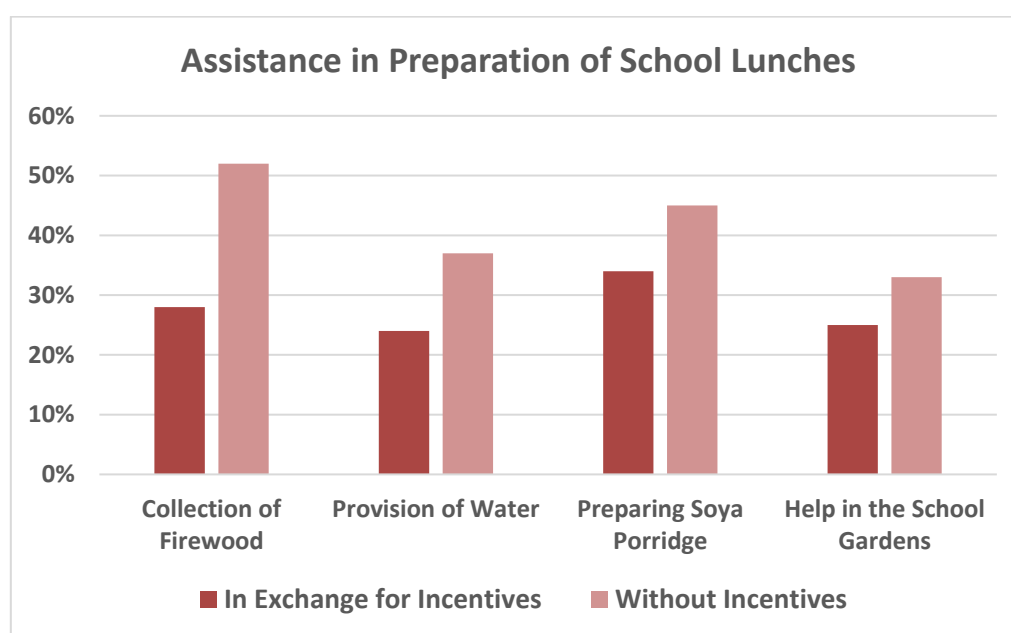


Figure 46: Percentage of parents who think parents/families should participate in preparation of school lunches

Since the midterm evaluation, the project formed two public-private partnerships with USDA assistance, one with CCS-Help Code in Moamba and another with ONGAWA in Manhiça. At Ngolhosa primary school in Moamba, CCS-Help Code constructed and equipped four classrooms; in Manhiça ONGAWA constructed blocks of latrines in 33 schools, following the UNICEF ratio of 40 girls per latrine and 50 boys per latrine, and also constructed and

rehabilitated water systems. These constitute public-private partnerships, as the SDEJT assisted the project to identify organizations which could leverage the USDA investment.

## **Use of Health, Nutrition and Dietary Practices (SO2)**

The project's second large strategic objective (SO2) concerns the use of health, nutrition and dietary practices. In addition to being an important objective in its own right, within the change pathway envisaged by the project ToC, SO2 feeds directly into SO1, since improved health, nutrition and diet are expected to contribute to improved student attendance and therefore, ultimately, improved literacy of school-aged children.

### **Strategic Objective 2: Notable Achievements**

The project delivered training in good hygiene practice, including training nearly 13,000 volunteer cooks in health and hygiene. 85% of students demonstrate acceptable knowledge of health and hygiene practices; food preparers at target schools have been trained in hand washing, safe food preparation and storage practices. In total, over 25,000 individuals have been trained in child health and nutrition.

Parents, students, teachers, and trainee teachers report having received training from the project in a variety of topics related to nutrition and hygiene, and claim to have shared the information widely within the community. Survey respondents overwhelmingly felt that the nutrition training had created positive changes in their lives. The impact of the program is reflected by an increased focus on nutrition and school feeding by the MINEDH, including the creation of the Department of Nutrition and School Health, and by the fact that primary teachers in project schools are incorporating nutrition content into their lessons.

School gardens have been encouraged and supported since the inception of the project, with 60 school gardens developed and maintained to the benefit of around 20,000 school children. Eight large-scale Home Grown School Feeding Gardens (HGSFGs) provide more diversified food to students and their families and have become particularly significant during the Covid-19 pandemic. Project agricultural technicians report that the HGSFGs provide the surrounding communities with a healthier diet and the potential to create jobs and increased cash flow. They report that communities have learned significantly since the midterm evaluation, applying newly-learned farming techniques and environmentally sustainable approaches to their own small-scale agricultural production.

Project records reveal that all of the project schools are using an improved water source, resulting in almost 90,000 school children benefitting from clean water sources. This has had a transformative effect on communities. School water committees are responsible for management and regular maintenance and cleaning of the water infrastructure, an important step towards autonomy and sustainability after the project's end.

Sanitation facilities have been constructed and maintained, leading to more than 88,000 school children benefitting from access to latrines and hand washing facilities. Students have received deworming medications, with door-to-door distribution of the medication at the time of the Covid-19 pandemic: as one informant explained, ‘School closures posed a challenge but, as a matter of public health, we had to reinvent ourselves.’

Distribution of laundry and dish soap to volunteers continued, with soap being distributed to over 8,000 volunteers as of the final evaluation. This relatively small incentive provided significant returns in volunteer motivation and commitment.

369 government officials received training in nutrition and close to 2,500 local leaders and school council members attended school feeding project management training. This was widely held to be useful by those receiving it, and it is hoped that such training will enable the continuing of certain project activities after the project’s closure.

## Knowledge of Health and Hygiene Practice (2.1)

**(Outcome): Percentage of students that demonstrate acceptable knowledge of health and hygiene practices. Final target: 50%**  
**Final results (September 2020): 85%**  
**Final target 170% achieved**

**Number of volunteer cooks receiving health and hygiene training. Final target: 8,468**  
**Final results (September 2020): 12,977**  
**Final target 153% achieved**

**Number of people trained in good hygiene practices. Final target: 8,400**  
**Final results (September 2020): 23,141**  
**Final target 275% achieved**

Analysis of the project records demonstrates that the targets for training in good hygiene practice, including training volunteer cooks in health and hygiene, have been surpassed. Likewise, 93% of project schools that responded to the final evaluation survey reported that the volunteer cooks responsible for school feeding within that school had received training in good hygiene practices and nutrition from project staff during the previous year.

During two rare focus group with volunteer cooks, conducted using Covid-19 safe methods, they explained that they had learned that kitchens should be clean when cooking, that they should also be clean and should wear a headscarf and long sleeves. They had been taught how to wash their hands and the plates and reported having observed children being taught how to wash their hands. They reported a certain discrepancy between this training and the facilities available and that a covered area to prepare the food and to wash dishes would be better, since the simple tin roof and cement floor of the kitchen area meant that the volunteer cooks were exposed to the elements and dust frequently got into the food.

Likewise, during a unique focus group with a SFC, also conducted using Covid-19 safe methods, the committee members reported having been taught to wash their hands with water and soap, and how to cook and eat a variety of foods (the hygiene and nutrition training was combined). They reported that all members of the committee had been trained, with 36 individuals in their school community receiving training:

***We were taught how to wash our hands with soap, we put water in a bucket and got the children to also wash their hands, but not in the same place, before they received their dish of soy.***

At baseline and midterm evaluations, pupils were asked a series of questions to assess their knowledge of good health and hygiene practices. Since at the final evaluation it was not possible to interview pupils, parents and teachers were asked at the final survey whether they had observed any differences in the hygiene practices of their children since the introduction of the project, for example an increase in hand-washing after going to the bathroom and before eating. 79% of parents said that they had observed some differences. 20% said that they had not, and a small number were unable to comment as their children had not been in school before the introduction of the project. Around 31% reported that they also noticed other differences in their children after the introduction of the project. A large majority (98%) of parents reported that their children applied their learning about health and hygiene at home.

Of the teachers surveyed, 75% reported that they had noticed changes in the students' hygiene practices since the project's introduction, 4% had not, and 21% were unable to comment as they had not been present in schools prior to the introduction of the project. Differences noted included students washing hands before eating and after using the latrine, having better general hygiene and overall presentation, including cleaner school uniforms, and students participating in cleaning the school. Figure 47 compares these figures with the percentage of parents who observed differences in the students' hygiene practices.

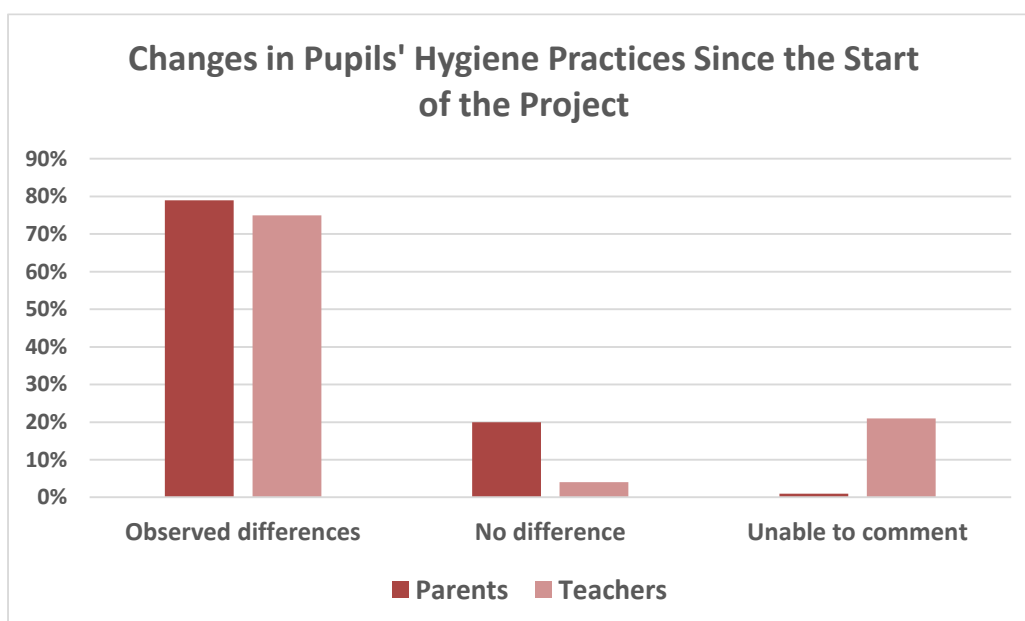


Figure 47: Parents and teachers report changes in pupils' hygiene practices after introduction of school feeding

63% of teachers said that they had also noticed other differences since the introduction of the project, 15% had not noticed other differences, and 22% were unable to comment as they had not been present in schools prior to the introduction of the project. Teachers cited improved punctuality, motivation and participation, amongst other differences noted.

For details, see Technical Appendix, pp 168-170, 389, 465-467, 477-478.

## Knowledge of Safe Food Preparation and Storage Practices (2.2)

**Indicator 20 (Output): Number of food preparers at target schools trained in hand washing, safe food preparation and storage practices. Final target: 10,560 (female: 10,032; male: 528)<sup>54</sup>**  
**Final results (September 2020): 13,008 (female: 12,732; male: 245)**  
**Final target 123% achieved (female 127%; male: 46%)**

Analysis of the project records demonstrate that the targets for training volunteer cooks in handwashing and safe preparation and storage of food have been surpassed. 93% of respondents to the school survey also reported that the volunteer cooks responsible for school feeding within that school had received training in

<sup>54</sup> Despite the formulation of the indicator, the numbers reported here refer to individual training activities, as opposed to individuals trained: in reality, several individuals received training and follow-up training on a number of occasions.



handwashing and safe food preparation and storage from project staff during the previous year (compared with 89% at baseline and 82% at midterm). For details, see Technical Appendix, pp 389.

During a rare focus group discussion, a volunteer cook explained that she had appreciated the training in food preparation and serving:

*it was good because that was how we learned how to do it, to cook the soy and look after the children.*

## Knowledge of Nutrition (2.3)

<b>Indicator 19 (Outcome): Number of people trained in child health and nutrition as a result of USDA assistance. Final target: 10,300 (female: 7,519; male: 2,781)</b> <b>Final results (September 2020): 25,451 (female: 18,544; male: 6,907)</b> <b>Final target 247% achieved (female 247%; male: 248%)</b>
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The nutrition education program was implemented by a dedicated team, managed and supported by WISHH and based in the project headquarters, from the onset of the project until 2019. The nutrition education component was progressively phased out in 2019, with the project team supporting the nutrition education activities during 2020, as part of the plan to promote sustainability.

### ***Beneficiaries and dissemination of nutrition training***

Analysis of project records reveals that FFE2 targets for training individuals in child health and nutrition have been greatly surpassed.

93% of project schools that responded to the final evaluation survey reported that the volunteer cooks responsible for school feeding within that school had received training in nutrition from project staff during the previous year.

Around 41% of the parents surveyed at the final evaluation also claimed to have received training in nutrition and hygiene from the project. Of the parents who received the training, 92% of parents reported receiving training in hygiene, 38% in food groups, 57% in food hygiene and storage, 74% in handwashing, and 39% in a balanced diet. Parents were asked with whom they had shared the information learned during this training. 60% reported having shared it with their children, 67% with other family members, and 46% with members of the community. Only around 4% said that they had not shared the information with anyone. 78% of the parents who received the training felt that it had created changes in their lives.

Although it was not possible to interview students at end point, around 76% of the parents surveyed reported that their children had received training in nutrition and hygiene from the project at school. 93% of these received training in hygiene, 33% in food groups, 37% in food hygiene and storage, 75% in handwashing, and

28% in a balanced diet. Parents were asked with whom their children had shared the information. 19% reported that their children had shared this information with their siblings, 58% had shared it with their parents, 10% with other members of their family, and 9% with members of the community. Only 3% said that their children had not shared the information with anyone. 77% of the parents whose children received the nutrition training felt that it had created changes in their children's lives.

EPF students were asked a similar series of questions pertaining to nutrition and hygiene at the final evaluation. 89% of the EPF students said that they received specific training in nutrition and hygiene from the EPF. 81% said that this included training in hygiene, 65% received training in food groups, 83% in food hygiene and storage, 70% in handwashing, and 67% in a balanced diet. Asked with whom they had shared or intended to share this information, 72% reported that they would share it with their students (once they began to teach), 56% with parents and guardians, 57% shared it with their families, 43% with the School Council (once they began to teach), and 58% with the community. 11% reported having shared the information with other people not mentioned on the survey. 94% said that they felt the nutrition training had created changes in their lives.

77% of the teachers who responded to the survey of primary school teachers said that they had received nutrition training as part of the project (compared with 71% at midterm and 81% at baseline). 78% of those who received the training said that this included training in hygiene, 90% received training in food groups, 79% in food hygiene and storage, 78% in handwashing, and 69% in a balanced diet. These are compared to the figures at midterm and baseline in figure 48 below. All reveal relatively high levels of training received (or recalled), although the focus between evaluations varied to some extent.

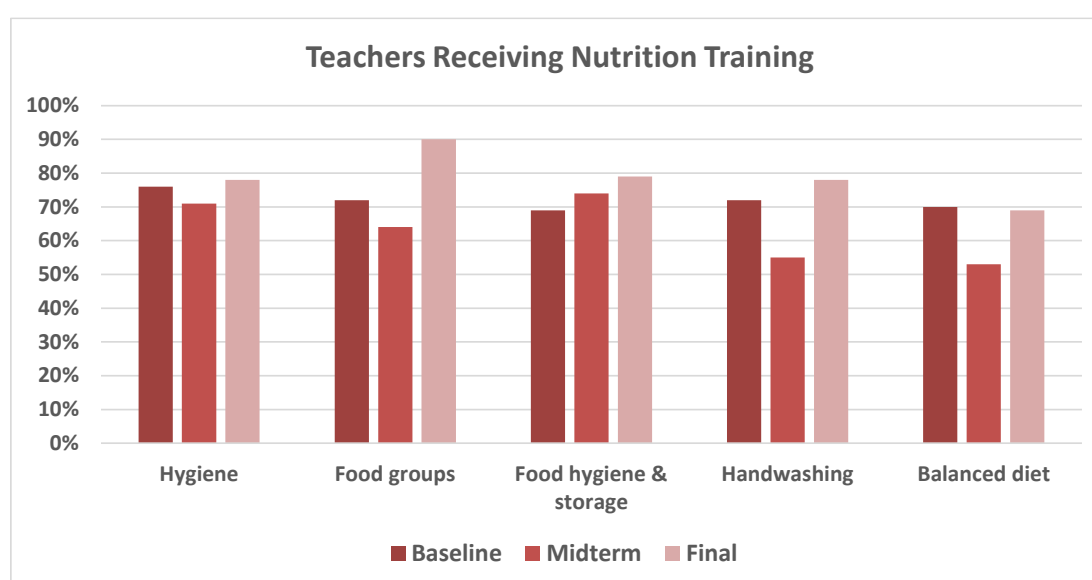


Figure 48: Teachers Reporting Types of Nutrition Training Received as Part of the Project

Asked with whom they had shared the information learned during nutrition training, 96% of the teachers reported that they had shared it with students, 68% with parents and guardians, 67% shared it with their families, 45% with the school council, and 48% with the community. 6% reported having shared the information with other people not mentioned on the survey. These figures suggest progress in sharing the information received more widely (or at least the aspiration to do so!). These are compared to the same figures at midterm and baseline below in figure 49.

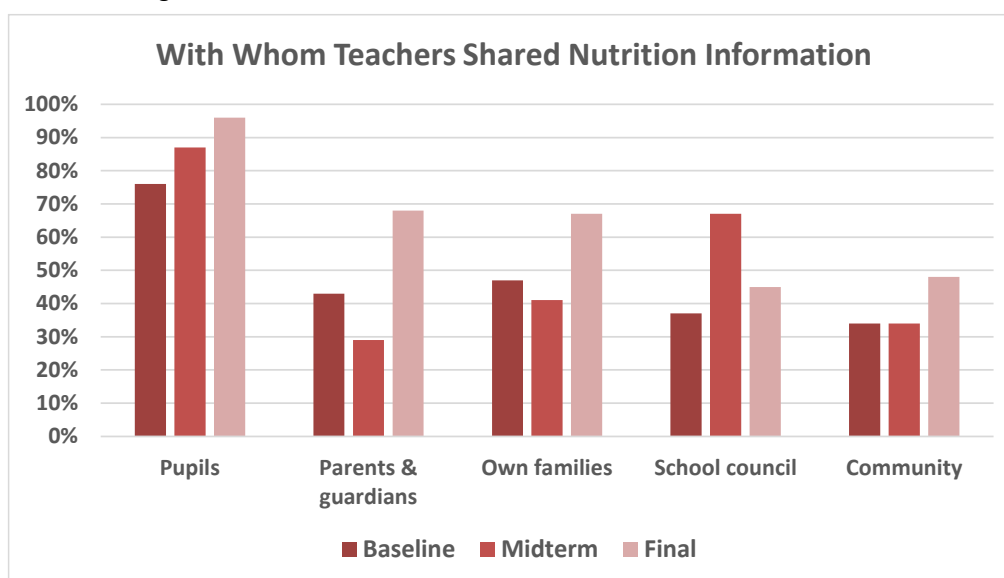


Figure 49: Teachers' Reporting of Sharing Nutrition Education

When asked how the teachers who received training in nutrition disseminated the information, 98% of school directors surveyed reported that teachers in their school shared the information directly with other teachers, 98% that they organized meetings between teachers to include nutrition materials in their lesson plans, 100% said that they included the subject of nutrition in their students' classes, 96% distributed nutrition information at students' graduation ceremonies, and 100% said that they had organized a session of health awareness and cleaning in the school.

All but one of the school directors responding to the final school survey reported having received nutrition materials from the project: 89% reported receiving nutrition posters; 76% of schools received pamphlets; 78% said they had received school feeding manuals. In the school survey all of the schools that received nutrition materials reported that these were being used: 94% reported teachers using them in the classroom; 91% that they were displayed on the wall of the kitchen, storeroom or teachers' room; and 44% reported distributing them to pupils.

For details, see Technical Appendix, pp 170-171, 173-176, 387-393, 467-479, 592-597.

### ***Impact of nutrition training***

In responding to the survey of teachers, all but one of the teachers said that they felt the nutrition training had created changes in their lives. When asked to give more details of these changes, 86% of the teachers chose the option: “The way I cook/prepare meals is healthier now that I understand the principles of a balanced diet,” 76% that since the training “I know how to keep food safely,” 62% that their diet had improved, 62% that their family’s diet had improved, 43% said that their health had improved, and 47% that the health of their family members had improved.

Similarly, all but one of the teachers who responded also said that they felt the nutrition training had created changes in the lives of their students. 86% said that their students’ personal hygiene had improved, 34% that the students’ diet had improved, 54% reported that their students were able to explain the principles of nutrition, and 60% said that their students looked healthier. For details, see Technical Appendix, pp 176-181.

Teachers and EPF students who responded to the surveys were asked to name two examples of each of the four main food groups which had been taught within the nutrition education program: base foods, protein-rich foods, foods rich in vitamins/minerals and energy/calorie-rich foods. Teachers performed better on this task than EPF students. The majority of teachers were able to correctly name two examples of each food group, with between 85% and 90% able to name two examples of base foods and foods rich in vitamins/minerals (see figure 51 below). The majority of EPF students were able to name two examples of protein-rich foods and foods rich in vitamins/minerals; they did less well with base foods and energy/calorie-rich foods (see figure 50 below). Overall, the teachers demonstrated more familiarity with the food groups as taught within the nutrition education program.

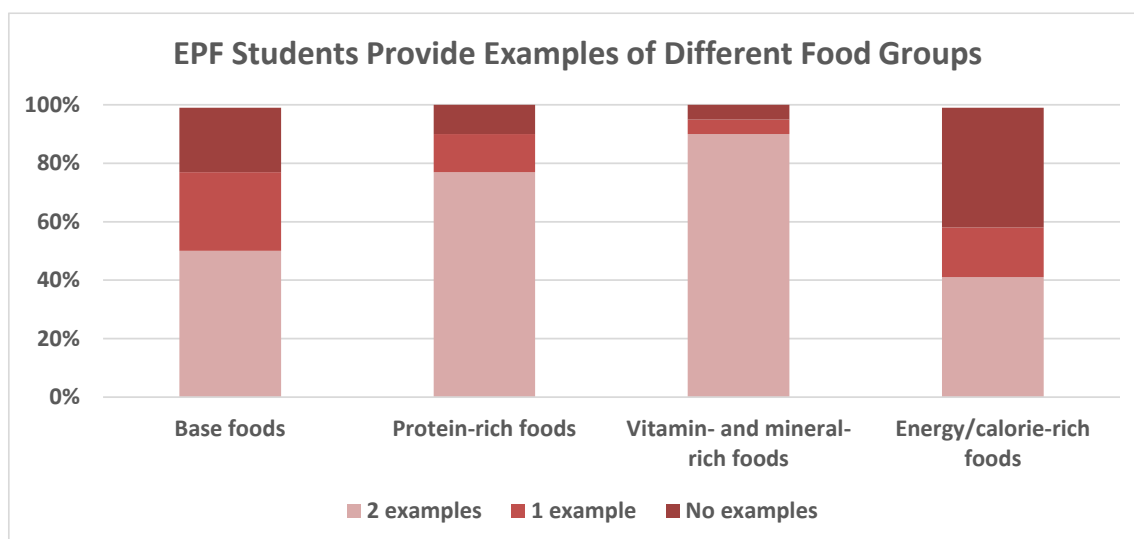


Figure 50: Percent of EPF students able to provide 0, 1, or 2 examples from each food group

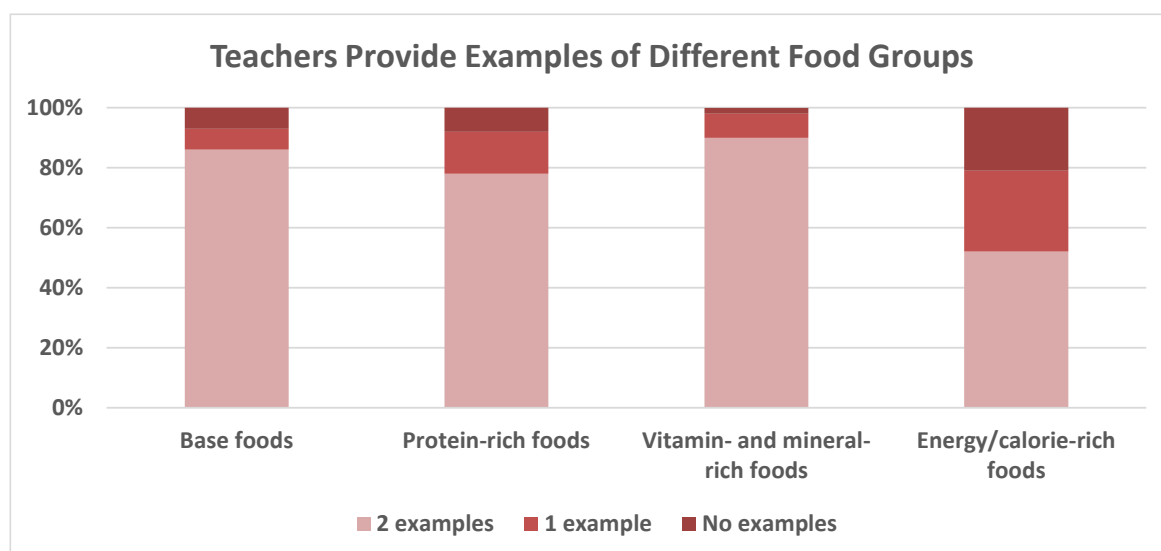


Figure 51: Percent of teachers able to provide 0, 1, or 2 examples from each food group

Although the nutrition education program ended in 2019, members of the nutrition education team were interviewed for the purposes of the final evaluation. Asked to look back and assess the impact of the program's almost 7 years, a year after its closure, they considered that the program had contributed to placing nutrition on the agenda, with institutional and individual stakeholders from senior government to rural communities all aware of the importance of nutrition. This is reflected by the creation of the department of Nutrition and School Health in the MINEDH, on the one hand, and by the fact that primary teachers in project schools are incorporating nutrition content into their lessons, on the other. The former nutrition education team believe that community members now know how to eat a balanced diet using what is available.

Lessons learned from the program include the importance of involving national and provincial government from the beginning in the development of nutrition education materials, so as to promote ownership of these materials.

The final evaluation revealed that, in the time between the midterm evaluation and the closure of the nutrition education program, the nutrition education team had implemented the recommendations of the midterm evaluation, conducting exit workshops in EPFs and for project schools to ensure the training undertaken and materials produced would be well used after the close of the program. Responsibility for nutrition education was transferred to the core FFE team, with a number of professionals specializing in the area and overall nutrition education leadership undertaken by the staff member responsible for after-school clubs, who was trained for this task, with the intention that nutrition education should be incorporated into after-school activities. Government officials at national, provincial and district level were sensitized and trained in nutrition education. A large number of the communications materials which had been positively reviewed by the midterm evaluation were distributed to schools and EPFs, so that they should have a supply of these, at least for the

immediate future. The midterm evaluation had also recommended that nutrition education should be made more practical, using very concrete real-life examples, and less theoretical. Unfortunately, during the remote final evaluation data gathering it was not possible to assess through observation or other direct methods to what extent this recommendation was implemented. During a rare focus group with volunteer cooks, conducted using Covid-19 safe methods, including social distancing, the volunteers reported that they had learned that a healthy diet must include different types of food, including starch, protein and fruit. They reported feeding xima, mapata, manioc and pumpkin leaves to their children, all locally available forms of nutritious plant-based foods. When asked, they affirmed that all children (boys and girls of all age groups) are served the same amount of food. A group of volunteer cooks in a different district also declared that they had learned about better nutrition and the need for a balanced diet from the project, and that they should eat foods such as beans, peas, fish and flours. They stated that since food is often in short supply, there is no concept of “unhealthy foods.” The same group of volunteer cooks explained that they planted manioc, corn, sweet potato, cabbage, tomato and onion at home to feed their families. They also stated that they did not always have food available at home to feed their family. When they were taking part in preparing the CSB+ for the school feeding they received a small incentive which they used to feed their own families; since the Covid-19 crisis, this source of revenue has dried up and there is not always enough to feed everyone.

**Percentage of school-age children receiving a minimum acceptable diet. Final target: 39% (female: 39%; male: 39%)**  
**Final results (September 2020): 95% (female: 95%; male: 95%)<sup>55</sup>**  
**Final target 244% achieved (female 244%; male: 244%)**

It was not possible to collect data directly from students during the final evaluation. For this reason, the midterm finding that 95% of students were receiving an acceptable diet is considered here. This had been calculated at midterm based on students’ own reporting of what they had eaten the day before, which was coded according to the number of food groups represented. This method is likely to have led to over-reporting of the percentage of students receiving an acceptable diet at midterm. It had been hoped to modify the methods used and the questions asked of students at end point. In the event this was not possible. It was not felt to be feasible to obtain this information from the survey of parents. However, parents were asked about changes to their family’s nutrition since the onset of the pandemic, which revealed a significant minority of families experiencing real deprivation (see page 135 for more information).

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<sup>55</sup> Since it was not possible to interview students at end point, this result is taken from the midterm evaluation.

## School Gardens

**Number of school gardens further developed and maintained. Final target: 60**  
**Final results (September 2020): 60**  
**Final target 100% achieved**

**Number of school children benefiting from school gardens. Final target: 20,000**  
**Final results (September 2020): 19,998**  
**Final target 100% achieved**

Local production of food is both part of the plan for sustainability of school feeding and an important element of students' education. As such, since the beginning of the project, school gardens have been encouraged and supported. In addition to the 60 school gardens officially supported by the project plan, other project schools have school gardens. These should not be confused with the eight Home Grown School Feeding Gardens (HGSFGs or *machambas grandes*) implemented by the project in phase two, which function on a much larger scale (see below, page 113).

### **Food production and water sources**

Of the schools that reported having either a school garden or a HGSFG, 58% report growing food once a year, 29% twice a year, 8% all year around, and 4% report only growing food during the rainy season. The productive area varies: 8% of schools reported having between 1 and 2 hectares, 38% have between 0.25 and one hectare and 50% have less than 0.25 hectares. One school reported having a garden of more than 5 hectares.

The school survey included questions about the types and quantities of food grown. The responses are summarized in table 15 below. Eleven of the schools with gardens report growing legumes, nineteen report growing vegetables, seventeen report tubers and root crops, two report growing oil seeds, six report growing cereals and nine report fruit trees, with two reporting that other crops are grown. The quantities of food produced are noteworthy, with a handful of schools reporting yields of over 100 kilograms in several of these categories.

	Schools report growing (%)	Mean quantity (kg)	Schools producing 1-50 kg (%)	Schools producing 51-100 kg (%)	Schools producing over 100 kg (%)
Legumes	46%	117 kg	64%	9%	27%
Vegetables	79%	140 kg	58%	16%	26%
Tubers / roots	71%	358 kg	41%	12%	47%
Oil seeds	8%	42 kg	50%	50%	0%
Cereals	25%	598 kg	33%	17%	50%
Fruit trees	38%	103 kg	67%	11%	22%

Table 15: Food produced by school gardens at final evaluation

Produce grown in some of the gardens regularly contributes to school feeding. 46% of schools reported being able to show evidence of how the food produced was consumed; 54% report they have no evidence. Where evidence exists, it may be in the form of a school record book (18%), a document provided by the SDEJT (36%), or it may be registered in the CSB+ distribution report (18%). Seven schools (64%) report using another form of record-keeping.

Only two of the twenty-four schools with gardens report having obtained a DUAT, the administrative document authorizing them to cultivate the land.

8% of the gardens are irrigated using river water, 13% using rainwater, 58% using water from a water fountain and 21% from another type of water source, such as a manual pump or tap water (see figure 52). Many of these water sources were provided by the project.

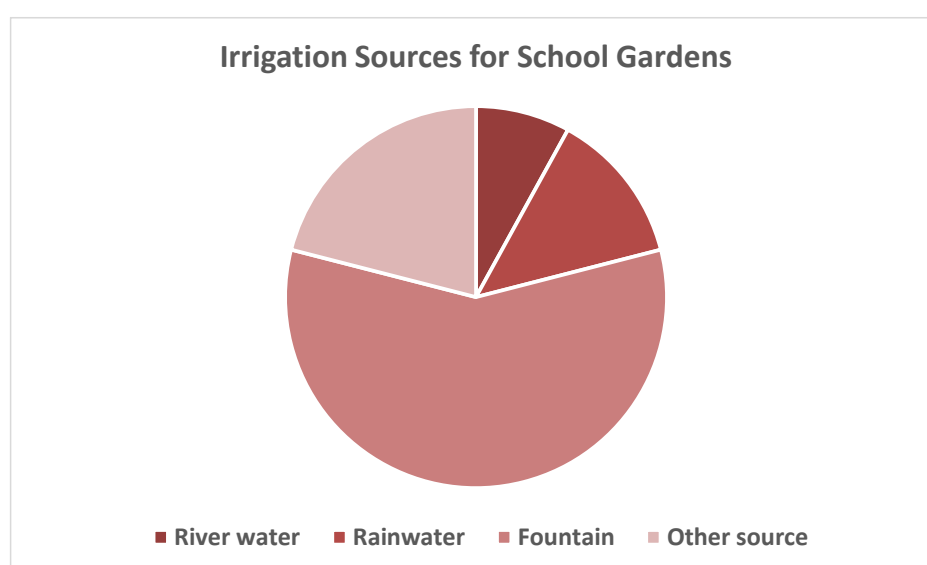


Figure 52: Schools with gardens report on water sources

In 17 schools (71% of cases) this water source is available all year round, in the other seven it is seasonal. Of the schools where water is only available in some seasons, 4 manage to grow food all year round, while 3 only cultivate food while water is available. 46% of the school gardens are fenced.

For details, see Technical Appendix, pp 371-385.

### ***Community involvement and perception of school gardens***

Most of the schools reported at least some community involvement in the school gardens: according to the survey of school directors, in 8% of cases the community helps regularly (at least once weekly) with preparation of the ground and production of food, and in 75% of cases the community helps several times per year when there are large-scale activities. One school reported no community involvement, and three schools said that the



community had a different level of involvement. In comparison, the survey of parents asked whether families participated in the activities of the HGSFGs and school gardens: 43% responded that they participated “a lot,” 37% “a little” and 20% not at all. These are shown in figures 53 and 54 below. Although a smaller number of responses were received from the school survey, it is nevertheless evident that both groups have quite different opinions about the level of community engagement in the school gardens.

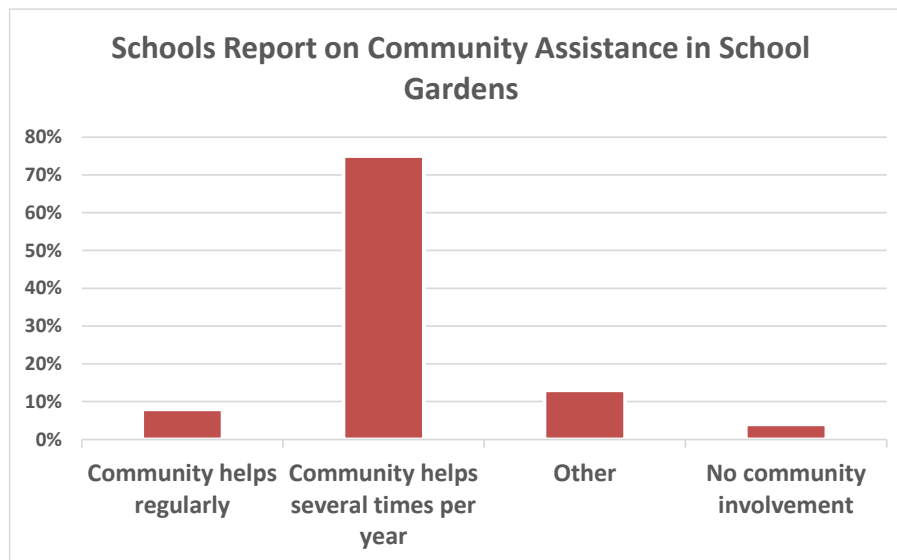


Figure 53: School directors report the level of community involvement in school gardens

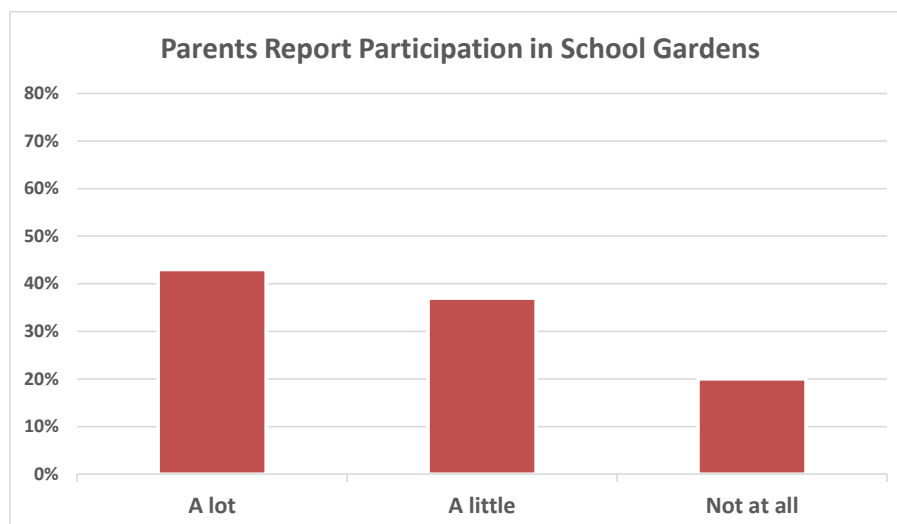


Figure 54: Parents report their level of involvement in school gardens

When parents were asked whether the school garden or HGSFG was of benefit for their children, 66% responded “yes, a lot,” and 20% “yes, a little.” 14% of parents felt that the gardens offered no particular benefit to their children. These responses are illustrated in figure 55. For details, see Technical Appendix, pp 386, 483-486.

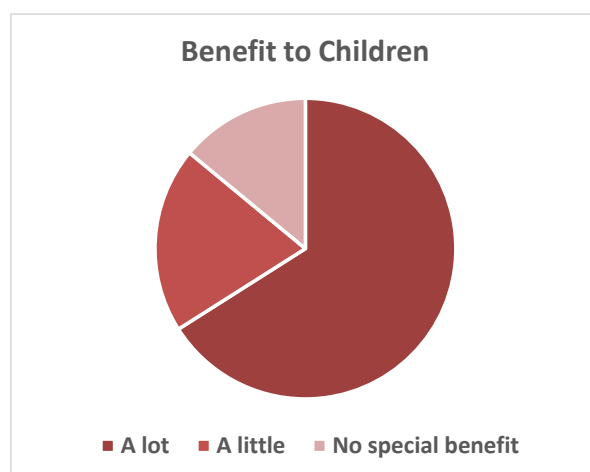


Figure 55: Parents report the benefit of school gardens to their children

Challenges in maintaining ordinary school gardens have included parents and other community members harvesting crops in school gardens without permission, and insufficient water levels to sustain school gardens.

#### Home-Grown School Feeding Gardens

**Number of Home-Grown School Feeding Gardens established. Final target: 8**

**Final results (September 2020): 8**

**Final target 100% achieved**

**Number of school children benefitting from Home-Grown School Feeding Gardens. Final target: 6,600**

**Final results (September 2020): 5,280**

**Final target 80% achieved**

The eight HGSFGs are supporting the communities in which they are located, providing more diversified food to students and their families. This has become particularly significant during the Covid-19 pandemic. The communities have learned significantly from the agricultural technicians based at each HGSFG, gaining knowledge and understanding of innovative and more efficient agricultural practices, how to select more appropriate or hardy crops to grow, how to plan production to take account of growing periods and drought periods, etc. HGSFGs were equipped by the project with greenhouses and with solar panels and solar electro pumps to ensure a continuous supply of electricity and water.

All four agricultural technicians were interviewed for the purposes of the evaluation. They report that, since the introduction of the HGSFGs, the surrounding communities now have a healthier diet and the gardens have brought the potential to create jobs and increased cash flow within their communities. Several species are providing very acceptable yields (including tomatoes, cabbage, onion, beetroot and bananas). The technicians

report the communities where they work have learned significantly since the midterm evaluation, and are also applying the farming techniques acquired to their own small-scale agricultural production. These include learning how to create seedbeds, plant and transplant seedlings, fertilization, spraying and use of organic matter. The technicians have transmitted more environmentally sustainable approaches, including conservation farming and agroecology, and explained that some of the techniques traditionally used by the communities, such as stubble burning, have negative environmental impact and should not be used. One technician reported having shown the community how to use a polyculture approach, using different irrigation systems, including irrigation by gravity, and that, in such contexts, a tomato plant can grow several meters tall. He reported that now inhabitants of other localities have heard of the quality of their produce and come to buy it directly from the HGSFG:

***The harvest is benefitting the surrounding community: even those from Salamanga and Belavista come to buy here because they heard the production is good. For me this means the project has brought a great improvement.***

Since increasing their skills levels, the communities where HGSFGs are located are able to produce far more food more efficiently than at the beginning of the project. Likewise, the HGSFG leadership committees, which have been established in each HGSFG to manage and support each garden, have had to learn to plan production according to a seasonal calendar, to market and sell crops, manage the allocation of produce between school feeding, other local consumption and sale outside the community, and engage in transparent financial management of the funds provided by the project and generated by sales of produce. The technicians reported that, at first, they encountered a lack of cooperation from school directors, teachers and community members who saw them as “only” technicians and therefore of low social status, because they worked alongside the community on the land.<sup>56</sup> With time, these individuals came to recognize and value the skill and commitment of the technicians and to respect them and respond to their advice and mobilization:

***The communities are afraid or think they can't do what others have done, but when someone introduces themselves and explains what is actually happening, in the end they bring more people in who weren't doing anything before.***

One of the most significant challenges was to mobilize parents and community members to work in the HGSFGs and to instill a culture of teamwork. Here, the experience of the different HGSFGs has been quite varied, with examples of excellent coordination and teamwork, including creating a calendar to plan and coordinate parents'

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<sup>56</sup> This attitude reflects a hierarchical social structure and attitudes to social class often encountered in Mozambique; during previous evaluations, FFE staff informants have commented that their “working shoulder-to-shoulder with the poor” approach to community development takes time to be understood and recognized, due to the lack of respect for manual work within the culture. Once these individuals are taken seriously, their impact and credibility are all the more important.

input. Cooperation between the DPEDH, SDEJT, local Economic Activities Services (SDAE), school directors and teachers at the schools, the community and the project staff is reported to be functional and effective in these cases. In other cases, the evaluation revealed conflicts of interest between local leaders (*régulos*) and other officials and a lack of support from SDAE technicians. In some cases, there is tension between the HGSFG committee and the School Council over management of the HGSFG and distribution of the food produced.

In some HGSFGs, a real culture of ownership has developed amongst parents, who have taken responsibility for what they have come to see as a community asset and worked hard to ensure the HGSFG continues to produce food for their children and the wider community. This culture has been reinforced since seeing the results of the improved agricultural methods and the quality and quantity of food produced, and further since the onset of the Covid-19 pandemic and the interruption of school feeding, which is focusing parents' minds on the opportunity provided by the HGSFGs.

In other cases, the technicians report parents have resisted calls to become involved, pleading limited time and energy and other demands on them and the need to grow their own subsistence crops to feed their families. It was reported that there had been some friction amongst volunteers in the schools with HGSFGs, due to a lack of clarity about how crops were used or sold, leading to some parents withdrawing their labor and discontinuing their work within the HGSFG. Other challenges encountered include stealing of gas and crops from the greenhouses. When this occurred, informants report a positive collaboration between the school, the police, the community, and project leaders to resolve such incidents.

In some cases, it was challenging to ensure a continuous water supply to some HGSFGs, particularly when the weather was cloudy and there was insufficient sun to power the solar electro pumps. Some of the HGSFGs have suffered from insufficient water supplies at various times of year since their inception. Before choosing the locations of HGSFGs, water flow tests were performed to determine the viability. Despite this precaution, it was necessary to relocate one HGSFG from the school initially chosen to host it, due to the loss of a viable water supply there. The garden was reestablished in a different location, and became viable, despite the delay caused by this late start.

The HGSFGs were considered to be an important contribution to the sustainability of school feeding after the close of the project, particularly where adequate water supplies and greenhouses are available. It is clear that ownership and support from local government officials, particularly SDAE technicians, will be critical to sustainability. The technicians have trained a local HGSFG supervisor to take their place once the project ends. The HGSFG technicians point out that the more environmentally-friendly and ecologically sustainable methods used and taught are also critical to sustainability of another kind, as they are vital to keeping the soil and environment healthy and able to continue to feed the community in the long term. Another key to sustainability is clearly having functional transparent governance mechanisms, with effective leadership and clear rules about

who contributes to and benefits from the production. The HGSFG committee, which should include the HGSFG supervisor, is perceived to be key in this respect.

Overall, at present, the HGSFGs are evidently making a significant contribution to the diversification and sustainability of school feeding, at least in the school where they are based and which they support. Once the support from the project finishes, they will need to be self-sustaining. This will be a considerable challenge, one which is certainly not impossible to meet, but which will require considerable leadership and good management in order to succeed.

## **Access to Clean Water and Sanitation Services (2.4)**

This section presents activities of the water component, then reports on sanitation activities. Water activities are addressed by a dedicated water team, consisting of a coordinator and four water technicians, one based in each project district. Sanitation activities come under the responsibility of the construction component.

### **Access to Clean Water**

<b>Indicator 22 (Output): Number of schools using an improved water source. Final target: 264</b> <b>Final results (September 2020): 270</b> <b>Final target 102% achieved</b>
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<b>Number of school children benefitting from clean water sources. Final target: 54,000</b> <b>Final results (September 2020): 89,954</b> <b>Final target 167% achieved</b>
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<b>Number of water tanks secured. Final target: 330</b> <b>Final results (September 2020): 330</b> <b>Final target 100% achieved</b>
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Recognizing that water is a critical resource and input for school feeding, as well as for the health, hygiene and wellbeing of students, teachers and the community, the project has endeavored to provide a source of clean safe water in each school.

At the close of the project, the manager of the water component affirms that all project schools now have access to clean water. He stresses the benefits to communities brought by having access to safe water and that many areas have flourished since achieving water access, with “deserts transformed into cities.”

### ***Functioning of water systems***

As indicated in previous evaluations, due to the method of reporting water activities, the fact that the project targets have been surpassed does not mean that all schools have a functioning water system at all times.

Of the school directors that responded to the final evaluation school survey, 73% report having have some sort of system to supply water: piped mains water, electric water pumps, manual water pumps and/or rainwater harvesting; 27% do not. This finding stands in contrast to the project data and the water component manager's report that all schools now had a functioning water system.<sup>57</sup> Of those that reported having a water system, 65% reported the system functioned "every day this year," 8% that it functioned "most of the time," 5% that it functions "from time to time," and 13% that it "doesn't work." See figure 56 below.

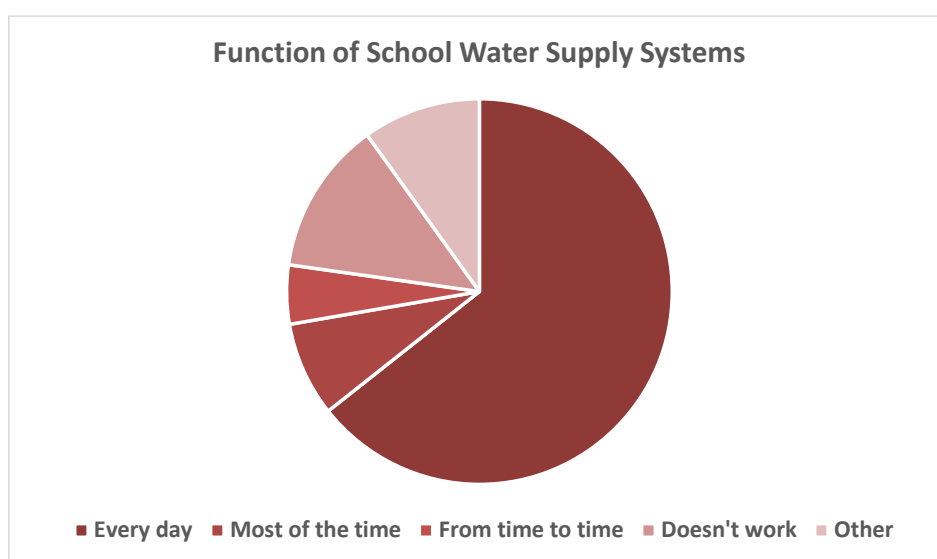


Figure 56: Schools report on the function of their water systems

68% of these schools reported having a plan for the routine maintenance and cleaning of their water system (57% at midterm and 58% at baseline, although caution must be used in comparing these due to the smaller sample size at final evaluation). This plan was known variously to the school council (81%), school leaders (11%), project staff not connected to the school (22%), the school director (30%), the pedagogical director (15%) and/or other people (15%).

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<sup>57</sup> This may be explained (in part) by the process for reporting against the water indicator, which counts interventions to provide improved water sources, whereas the indicator is formulated in terms of "number of schools using an improved water source". Previous evaluations have pointed out this discrepancy. It is also clear that some systems are seasonal (rainwater harvesting) and some were not functioning at the time of the survey.

Those who actually performed the maintenance included: school council members (39%), members of the neighboring community through the school council (64%), school leaders (7%), project staff not connected with the school (18%), pupils from the school (14%), and/or others (7%).

When asked how often the water system was cleaned, all of the schools that responded to the final evaluation survey answered: “from time to time.” At baseline and midterm, a significant number of schools had claimed to clean the system daily or weekly. These responses suggest that cleaning the water system has become a less regular activity over time: it is hoped it will continue to be performed regularly, since this is a key to maintaining a clean water source and therefore to sustainability. For details, see Technical Appendix, pp 354-359, 362-364.

Access to safe water is able to transform a school or community, allowing access to drinking water, to water for cooking (including preparing soy porridge), and for maintaining personal hygiene and washing clothes and utensils. The undoubted achievement of transforming so many communities in this way needs to be set against the reports revealed by the final evaluation that several schools continue not to have a source of safe water, or to only have water during the rainy season, thanks to rainwater harvesting. The formulation of the indicator is likely to hide this fact. The evaluation team recommends the FAS consider revising the guidance on reporting on the relevant MGD indicator to reflect this. This is not to detract from the enormous efforts made by the project to bring water to schools using an array of different methods, or the transformative effect of these water sources on communities.

### ***Water committees***

The creation of a water committee attached to each school or community supported by the project is an important step towards autonomy and sustainability. The water committee is responsible for liaising with the project water team for management and regular maintenance and cleaning of the water infrastructure and facilitating repairs or non-routine maintenance as needed.

96% of schools reported having a water committee or designated people responsible for looking after the water system. This represents a marked increase from baseline and midterm (69% and 68% respectively) and a positive evolution towards sustainability. The composition of the water committee included the teacher in charge of school feeding (38%), all the teachers from the school (31%), the school director (36%), the pedagogical director (7%) and/or other people (14%). For details, see Technical Appendix, pp 359-361.

A single focus group with a water committee, conducted using Covid-19 safe methods, for the purposes of the final evaluation, revealed that the water committee is responsible for protecting the water fountains, ensuring people do not play on them and closing them at night to avoid vandalism. They teach children and other community members about the project, especially the water program. They periodically charge 10 meticaís (\$0.13 US) per family for use of the water fountain, which goes towards a maintenance fund. The committee is chosen during a community meeting and includes both men and women and representatives of all social levels

within the community. Meetings are held regularly to discuss their task and accountability and ways to improve their functioning of the water committee. The committee reported a good collaboration and communication between the water committee, the school and the wider community. They report working hard to maintain and repair the water fountains provided by the project because, in the past, water was scarce in the community and individuals had to walk a long way to fetch water.

The committee received training from the project on how to maintain the water infrastructure (in this case, water fountains), and that the water fountains do not belong to the adults but have been provided for the benefit of the children. The committee members teach volunteers how to keep the area around the fountains clean and not to let small children use them (so as to avoid breaking the handles). The water committee members reported having received three training sessions, the most recent one in 2019.

Challenges mentioned included the fact that sometimes it is not possible to repair a water fountain, that funds are not always sufficient to repair the infrastructure, and should be correctly managed. As far as sustainability is concerned, the water committee members report that they are confident they will be able to ensure water is still available to their community after the end of the project, although they fear school feeding will not be sustainable.

### **Access to Sanitation Services**

**Indicator 23 (Output): Number of schools with improved sanitation facilities. Final target: 264**  
**Final results (September 2020): 268**  
**Final target 102% achieved**

**Number of hand washing facilities rehabilitated. Final target: 171**  
**Final results (September 2020): 185**  
**Final target 108% achieved**

**Number of latrines and hand washing facilities constructed. Final target: 94**  
**Final results (September 2020): 145**  
**Final target 154% achieved**

**Number of educational facilities (i.e. school buildings, classrooms and latrines) rehabilitated/constructed as a result of USDA assistance. Final target: 833 (kitchens 264; storerooms 264; latrines 305 [94 constructed + 211 renovated])**  
**Final results (September 2020): 1,264 (kitchens 293; storerooms 586; latrines 385 [145 constructed + 240 renovated])**  
**Final target 152% achieved (kitchens: 111% achieved; storerooms: 222% achieved; latrines: 126% achieved)**



**Number of educational facilities (i.e. school buildings, classrooms and latrines) rehabilitated/constructed as a result of USDA assistance (latrines). Final target (includes target for 2021): latrines 94 constructed + 211 renovated = 305**  
**Final results (September 2020): 385 [145 constructed and 240 renovated]**  
**Target 126% achieved**

**Number of school children benefiting from latrines and hand washing facilities. Final target: 48,000**  
**Final results (September 2020): 88,587**  
**Final target 185% achieved**

Analysis of project records reveals that the targets for rehabilitation and construction of handwashing facilities and of latrines have both been surpassed.

The midterm evaluation highlighted the need to identify latrines likely to become full imminently and work with schools to either empty them where possible or to cover them over and replace them, working with school councils to ensure they are capable of continuing to plan and conduct this maintenance after the close of the project. Interviews with project staff indicate that this recommendation has been followed.

*We took advantage of this period when the children were not in class to ... /... empty the latrine pits, some of which were half full, some full and .../... make sure the latrines were in good condition for when lessons begin again. And we also used the time to maintain the handwashing systems: we had had several requests to move taps and maintain the systems.* (Building component manager)

## **Access to preventative health interventions (2.5)**

**Indicator 24 (Output): Number of students receiving deworming medication(s). Final target: 74,000**  
**Final results (September 2020): 148,237**  
**Final target 200% achieved**

**Number of cooks tested for TB. Final target: 5,280**  
**Final results (September 2020): 8,402**  
**Final target 159% achieved**

Since its inception, the project has provided logistical support to the local health services to provide de-worming tablets to all pupils once annually, as this is considered a key part of SO2, within the ToC.

The project provided logistical support to local health services to provide de-worming tablets to all pupils once annually, in the form of a contribution to the fuel used by the distribution teams. Analysis of project records at the final evaluation shows that the number of students receiving the medication was actually double the final target. This was partly due to the fact that the Covid-19 situation necessitated door-to-door distribution of the

medication at the time of the most recent report. The number of children receiving the medication is therefore particularly high, as it includes year 5 children; SDSMAS (district health services) records did not separate these out.

One SDSMAS official explained:

***School closures posed a challenge but, as a matter of public health, we had to reinvent ourselves. We had to do mini-door-to-door campaigns.***

An SDSMAS official from another district welcomed the support to deworming provided by the project:

***this partner always supported school-aged activities. With their help, we were always able to implement the envisaged activities.***

Local health services and project coordinators are to be congratulated on their ongoing efforts to safeguard pupils' health, particularly during the difficult circumstances of the pandemic.

The testing of volunteer cooks for TB was introduced during the second phase of the project in order to protect students from transmission of the disease. The final target for this activity has been exceeded.

## **Access to requisite food preparation and storage tools and equipment (2.6)**

<b>Number of community volunteers receiving laundry soap. Final target: 5,280</b> <b>Final results (September 2020): 8,183</b> <b>Final target 155% achieved</b>
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<b>Number of schools receiving dish washing soap. Final target: 264</b> <b>Final results (September 2020): 271</b> <b>Final target 103% achieved</b>
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Distribution of laundry soap to volunteers was introduced in FFE2, following a recommendation made by evaluations of FFE1, as volunteers requested soap to help them keep their uniforms clean and saw this as a mark of dignity and professionalism. Likewise, dish soap was distributed during FFE2, after volunteer cooks requested dish washing soap to improve cleanliness and hygiene processes, in line with the training they were receiving. Analysis of project records shows that the targets for both activities have been surpassed. The distribution of laundry soap, in particular, has continued apace since midterm, with soap being distributed to a further nearly 3,000 volunteers by the final evaluation. The midterm report noted that this relatively small incentive was seen by volunteer cooks as a recognition of their status and contribution to the important task of school feeding, and

provided great returns in motivation and commitment; this observation is confirmed by qualitative data collected at end point.

### **Capacity of government institutions (2.7.1)**

<b>Number of government officials trained in nutrition. Final target: 100</b> <b>Final results (September 2020): 369</b> <b>Final target 369% achieved</b>
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<b>Number of participants in school feeding conferences (district, provincial and national). Final target (includes target for 2021): 220</b> <b>Final results (September 2020): 1,469</b> <b>Final target 668% achieved</b>
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<b>Number of seminars and meetings conducted at the local, regional and national level. Final target (includes target for 2021): 5</b> <b>Final results (September 2020): 20</b> <b>Final target 400% achieved</b>
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Capacity building of government officials at national, provincial and district levels to continue to provide school feeding after the project's closure has been an ongoing objective over the life of the project. Analysis of project records reveal the targets associated with this objective have been significantly surpassed. KIs with government officials during the final evaluations reveal positive assessment of the training received.

***The ongoing training of managers in the administration and management of school feeding at school level is helping significantly. There is a series of packages in the context of the implementation of this program, which provide the managers at different levels with the technical capacity to meet the various requirements. I mean there are basic principles which all the managers retain, about how to manage the different components of a school feeding program.*** (MinEDH official)

Although the project has also held a large number of meetings and conferences to allow actors involved in school feeding in Mozambique to meet and exchange experiences, there had in recent times been a regular platform for organizations supporting the PRONAE or otherwise involved in school feeding to meet, exchange information and collaborate: this gap was regretted by several of the organizations concerned. During the final evaluation data collection, a multi-sectoral, multi-agency meeting of the main organizations involved in school feeding in Mozambique, including the MinEDH, was held at the instigation of FFE, with the intention that this should become a permanent regular coalition to promote more cooperation within the sector.

## Engagement of Local Organizations and Community output (2.7.4)

**Number of local leaders and school council members attending school feeding project management training. Final target: 2,000 (female: 500; male: 1,500)**  
**Final results (September 2020): 2,498 (female: 753; male: 1,523)**  
**Final target 125% achieved (female: 151% achieved; male: 102% achieved)**

Training of community leaders, school council members and SFC members is a key to ownership and sustainability of school feeding and other activities after the close of the project. Analysis of project records shows the target for training these groups has been surpassed.

KIIs and FGDs confirmed wide-ranging training of school feeding committee members and other community members had taken place and been found by participants to be useful.

## Crosscutting themes

Previous evaluations have reported on several crosscutting themes relating to the overall operations, strategy and vision of the project: human resources, capacity, collaboration and ownership; transport; administrative and financial systems and procedures; monitoring and evaluation; and sustainability and relevance to the local and national school feeding policy and program environment. These are briefly reviewed in the following section, to ascertain the situation at the end of the project and to what extent recommendations of previous evaluations have been implemented.

### Human resources, capacity, collaboration and ownership

The final evaluation revealed that many of the improvements identified at midterm have been sustained: staff have continued to be promoted to positions of more responsibility and given opportunities for professional development within these. For example, the team of four district coordinators has been renewed since midterm, with former “professionals” (FFE field officers) being appointed to these positions. In as far as it was possible to judge from the remote evaluation, these individuals appeared competent, well-informed and able to meet their responsibilities within the project. Most of the team of “professionals” has been working on the project since its inception, denoting a high level of continuity and retention, although at end point the team was smaller and individuals had specialized in particular areas. They expressed feeling more recognized and appreciated by the project leadership than at midterm and reported having learnt a wide range of professional skills through working on the project:

***When I first came to the project, there was a lot I did not know. For example, scanning a document, using a computer or dealing with the community. Because of the series of trainings the project offered me, I am able to do something, and this will be useful for me in the future.*** (FFE professional)

Since the reduction of the team of “professionals,” the remaining team members appeared committed and motivated; they continued to express the difficulty of making their salaries stretch to meet their needs, but showed an understanding of the difficult circumstances and considered that, in the context of the pandemic, they were much more fortunate than many of those they worked with. They expressed appreciation that their working conditions and access to work equipment had improved.

There has been low turnover of project staff since the midterm evaluation, so gender ratios are unchanged; the leadership expressed an awareness of the need to address this issue in future projects.

The data gathered from volunteers and from parents indicates strong commitment to the project and to the concept of volunteering without necessarily receiving payment of incentives, although this remains a culturally engrained expectation. A FAS representative stated: “The community is totally engaged,” in addition to reporting a high level of government commitment and coordination between agencies.

Volunteer cooks reported that they had volunteered for the role and were chosen by the school to be part of a team. They reported that it is still challenging to get cooks to participate: on some days, there were only two cooks to prepare the CSB+. They explained that when someone cannot go in to prepare the CSB+ they send warning. They claimed to be happy with the role and to be motivated, given that their children were benefiting and the system was well coordinated so they knew what needed to be done:

***We were happy because the children weren’t suffering; they were loved by us. We all came here from Monday to Friday and each group knew what they had to do; they wouldn’t wait for anyone to tell them what to do. There was a group in the morning and another during the afternoon. Every day the children would go back home well fed and happy.***

One group of volunteer cooks, all of whom had also applied for the role and been chosen by the school, had received a small financial incentive (10mt per month), contributed by the community, to perform the task of preparing the CSB+. <sup>58</sup> They reported being happy to perform the role, to cook for their children and earn a small amount of money in return. They reported good coordination between the SFC, the volunteers and other parents and the project staff, explaining that everyone worked well together, and any “hiccups” were dealt with promptly in a meeting.

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<sup>58</sup> It is not the project’s policy to pay volunteer cooks, however communities are free to do so where they wish.

A number of informants, when asked what could have been done better with hindsight, cited the issue of definition of roles and responsibilities within the FFE team and said that, at least at the beginning, these could have been more clearly assigned, using job descriptions and clear areas of responsibility for specific activities and outcomes. They described a certain amount of “making it up as they went along” but that this situation improved as the project became embedded and the team became better integrated and structured and more mature. Respondents were unanimous in praising the quality of communication, cooperation and coordination between the project leadership and staff with partners at all levels of government, communities, other organizations and education sector employees.

Overall, many of the midterm recommendations had either been implemented (such as providing more professional support and development opportunities for staff and restructuring the team of “professionals” to allow a smaller team to receive slightly improved salaries in exchange for more specialized responsibility) or considered (such as improving gender equity). The final evaluation revealed a mature project team whose members have worked together and with their collaborators (beneficiaries and government) for several years, and have found their place and developed profound collaborations and relationships of mutual trust and respect. There has undoubtedly been significant capacity development amongst the project team, government partners and community partners.

### **Transport**

The final evaluation suggested that at least some of the problems revealed at midterm had been resolved or reduced, based on KIIs and FGDs with project leadership and staff. The team reported having acquired additional vehicles and having introduced a regular maintenance program for motorbikes. Project staff reported fewer difficulties in accessing transport when this was needed. Due to the remote nature of the final evaluation, the evaluation team did not have contact with project drivers, so did not follow up with them.

### **Administrative and financial systems and procedures**

The final evaluation revealed that systems and procedures had continued to improve since midterm, thanks to a stable, competent administrative and financial team. Project informants described systems – including, for example, the types of evidence necessary to apply for funds – which, while they had taken some time to be developed and understood by the entire staff, were now used systematically. The move towards decentralization of administrative and financial systems has continued since midterm, with more procedures being processed at the district level. The project is regularly audited by a well-known firm of auditors.

Since the Covid-19 pandemic, it has been harder to travel between the districts, so some flexibility has had to be used with regards to, for example, the need to produce evidence in support of requests for funds, where the paper evidence cannot easily be produced.

Representatives of FAS declared that the semi-annual reports received from the project showed that they met or exceeded all their targets and their assessment of the project's performance and rigor was "spectacular." They had "not one negative" to report in terms of compliance with US government regulations. They reported that their Compliance Office reviews all the financial reports and the Program Management Administration Branch examines semi-annual financial reports, and they have "never found anything unusual or egregious." They explained it is quite unusual to have such clean compliance reports within such projects. They stated that Planet Aid had been very responsive over a case where some of the commodity had been damaged during transit so the matter was dealt with easily.

Another FAS representative described the project as competent and able to function without external support: "They don't just call me. They..../... can work on [their] own."

### **Monitoring and Evaluation (M&E)**

Previous reports have highlighted the instability of the M&E function within the project, due to high turnover of M&E management and staff and a lack of institutional memory, overall vision and continuity in M&E processes and procedures. The situation encountered at the time of the final evaluation is greatly improved, with a highly competent and committed M&E Coordinator leading a significantly larger team of better-trained staff, both at central and district levels. Systems and procedures have also improved: there is less reliance on paper evidence and more use of electronic systems, including an integrated database. M&E staff, both at the project HQ and in each district, have received training in monitoring and use of monitoring software and databases, and are clearer about their roles; these improvements have built on the move, reported and welcomed in the midterm evaluation, to decentralize many M&E activities to the district level. Rigorous systems for checking and recording evidence mean there is less confusion as to project results, with numbers only being reported once the evidence has been reviewed and approved. This improved clarity of systems has percolated down to the different components who now have dedicated M&E procedures and tools and are now clearer about their own responsibilities as far as reporting and providing monitoring information in a timely manner is concerned, and about the benefits to their components of having up-to-date, accurate information to work from. M&E is now seen as an integrated function, rather than an add-on, with leadership and staff making efforts to ensure the smooth and timely transmission of data and expecting to be able to learn from this to improve systems and the implementation of activities. The M&E Coordinator pointed out that having an M&E manual from the outset of the project, setting out how to report data, who reports to whom and which evidence should be attached in what format, would have greatly improved these systems and processes. It is clear, however, that a considerable and positive learning process has taken place and that the M&E capacity of both the project and of the M&E staff has been significantly improved: this is all sustainable learning which will continue to benefit Mozambique for years to come.

Even more encouraging, there are signs that, rather than data being collected merely for reasons of accountability and governance, the regular collection, collation and analysis of monitoring data has been able to feed into ongoing improvements in project activities. In relation to the ongoing monitoring of the literacy intervention by conducting regular EGRAs, the evaluators learned:

***After the EGRA results are collected and analyzed [the literacy M&E officer] drafts a report and presents it to the literacy team and the monitoring team and, with these reports, she recommends what should be done to enhance the reading, writing and dictation of children. The literacy team takes on these recommendations and starts working with the children.***

M&E staff in the district offices reported that, although at first it could be difficult to convince school leaders and teachers to provide monitoring information (the question of school attendance records is still mentioned as a bone of contention between the project and teachers) and there are still frequent delays in schools submitting monitoring information to the district M&E officers, over time those with different roles within the system have understood the need to submit the necessary information to the project M&E team.

District M&E staff report being motivated and coming to work at weekends where necessary to finish work. They report having grown professionally within the role and having learned new skills and work methods, including systematically noting what data have been received and from whom and being able to follow up to request additional data as necessary; they have, for example, worked with the HGSFG staff on how to collect, record and transmit monitoring information. Some of the district M&E data clerks suggested that it would be helpful if they could spend more time in the field observing how activities are being implemented, rather than merely collating quantitative information about the numbers of activities achieved. Their interviews make it clear they are aware of the wider picture of program activities and their impact, citing, for example, the benefits of school children learning in school gardens knowledge which they then take home to apply in their family's *machamba* and a shift in the culture amongst both project staff and district education staff who have learned more of the value of education through the literacy program. This "bigger picture" view of M&E within the project was summed up thus by one member of the M&E team:

***In the monitoring team, we look at all of the activities, but what is most important is the response to indicators. However, the activities themselves produce other items.../... so much is done to achieve what we want, which is our indicator. The other points might not be part of the report, but they are the path we take to get to where we are now.***



The evaluation revealed that the recommendations of the midterm report with regard to M&E systems have been addressed with some success.<sup>59</sup>

### **Sustainability and relevance to the local and national school feeding policy and program environment**

Sustainability had been a major theme of the midterm evaluation. The project has made a point of trying to use and model sustainable solutions through its work, whether in the use of organic agricultural methods or the careful use of resources: one informant gave the example of painting posters on walls for communication purposes, rather than printing flyers. The theme of sustainability is, of course, even more critical at end point. The Covid-19 pandemic has created a major disruption of the project's withdrawal plan, within which the final nine months were intended to ensure a well-structured handover to government and community actors. The FFE leadership team expressed the view that, with hindsight, planning for this handover should have begun during the first phase of the project, with FFE1 used to engage government on a strategic sustainability plan from the outset:

***Of course, the lesson learned was that we should have made the most out of FFK1, when it ended. When FFK2 came along in 2016, we should by then have had a Project-Government joint implementation plan, backed by a sustainability plan.***

In the face of the GoM's struggle to mobilize the funds and commitment to extend the PRONAE to become a national school feeding program, the FFE position has been to lobby for the PRONAE to become law in the form of a national Law on School Feeding, with a dedicated budget line for school feeding, and to mobilize the other organizations working in school feeding, including the MinEDH, to create a permanent coalition of the different agencies working in the sector (see page 122 above). The current financial and political crisis in Mozambique does not offer a promising context for a government-funded school feeding program. A FAS representative told the evaluators that, in terms of sustainability, "Planet Aid and ADPP have done a lot to ensure a transition to School Feeding Committees and the Government. However, the government will need money to continue."

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<sup>59</sup> The midterm report recommended:

- All data collected and digitized should be used in some way; the project should stop collecting and processing information which is not being used.
- Review indicators and how these are measured to ensure they accurately capture the information intended.
- As a priority, ensure the new database is up and running as quickly as possible.
- Ensure M&E staff have a vision and understanding of the whole M&E process (why information is being collected, what it will be used for and how); component managers and staff have a wider vision of the M&E of their activities (where they are in relation to project indicators and targets) and can use this information to plan and prioritize their operational tasks; project leadership team have an overall vision of the project's real-time situation in relation to indicators and targets.

At the level of project beneficiaries, parents were asked which activities they think will be able to continue once the project finishes and its support is withdrawn. 61% said that cultivation of vegetables in the school gardens and HGSFGs will be able to continue. 60% thought that the daily preparation of school lunches will be able to continue. 36% said that participation in the water committees will continue, and 45% that maintenance of the water systems will continue. Finally, around 59% said that maintenance of the school infrastructure (kitchens, storerooms, latrines and hand-washing systems) will be able to continue after the project ends.

Creating school garden associations and water committees has been central to planning for sustainability. It is clear, however, that although significant capacity has been created and lasting resources developed, leading to a significant long-term impact within the literacy and nutrition education programs and the EPFs, and the HGSFGs, school gardens and the provision of water systems within schools will make major contributions to future school feeding efforts, they are not in themselves sufficient to allow school feeding to continue without the financial resources and the commodity provided by the project. Some respondents estimated that certain schools could perhaps produce enough food to allow feeding two or three days a week. However, this is not sufficient to sustain the dynamic started by the project.

Volunteer cooks and SFC informants expressed real anxiety about the project coming to an end and how this would impact on their children's education and the whole family's nutritional status. They explained that receiving food at school was one of the main motivations for attending and expressed the anxiety that their children would drop out once food was no longer served there, fearing that if they were hungry in school they wouldn't be able to learn and would likely stop attending. They were pessimistic about school feeding continuing without external support, explaining that the parents do not have enough money to pay for school meals. They explained that children do not eat at home before going to school, since they know that they will receive food there: even if offered food, they refuse it, saying that they will eat the soy porridge at school:

***We're not worried when they leave the house without eating, because we know they will eat at school. Even when we do want to make some food for them, they say they don't want it and say they will eat soy at school.***

## **Impact of Covid-19 on FFE2 project and assessment of the project's response to Covid-19**

Since the beginning of the State of Emergency in March, when schools were closed, the project has made considerable efforts to continue its activities in support of children and local communities. These efforts include preparing broadcast lessons for TV and radio (of which more below), distributing CSB+ to children in the form of take-home rations, distribution of vegetables from HGSFGs and some smaller school gardens to ensure that families living in extreme poverty had access to food during the pandemic, and the transition of EPF training to a distance-learning format where possible (also discussed in detail below). These were carefully conducted so as to be in line with Covid-19 safety measures; for example, with support from the project HGSFG committees introduced measures to prevent transmission of Covid-19. During school closures, children and families were asked not to come to the HGSFGs, and strict protocols were put in place to avoid transmission between volunteers working there (creation of smaller working teams, who observe a distance of 2 meters when working; wearing of masks and only speaking to others when wearing a mask; washing hands regularly and before and after working, using buckets of water and soap made available for the purpose). Megaphones and wall murals were also used to spread information about Covid-19 and raise awareness within communities.

The timing of the final survey provided an excellent opportunity to gather information pertaining to the pandemic and its effects, and so all of the final evaluation surveys included a series of questions about Covid-19. These sought to assess the impact of the pandemic, gather information on emergency response measures and their effectiveness in maintaining continuity across the project's areas of oversight and support, and also to assess the level of awareness of the different respondent groups in respect of preventative measures, symptoms, and so on. This information is outside the scope of the project indicators. It is presented as context for the above report, as well as providing a unique window into the experiences of project beneficiaries and the adapting of project work during the emergency period. The questions pertaining to the pandemic were formulated by the project itself to aid in the collection of information that might prove useful to government and other organizations working in the region.

### **Impact of school closures on children's education**

The final survey asked respondents how the school closures had affected children's education, using a list of multiple-choice options. 91% of parents reported that their children's education had been interrupted. 19% said that the children no longer received food at school. 26% reported other social consequences as a result of not attending school. 29% said that the children suffered from a lack of contact with the teachers, and 15% that they suffered from a lack of contact with their peers. 9% mentioned the school closures having an effect in other ways.

School directors responding to the school survey and teachers responding to the teacher survey were asked the same questions. The responses of all three groups are compared in figure 57.

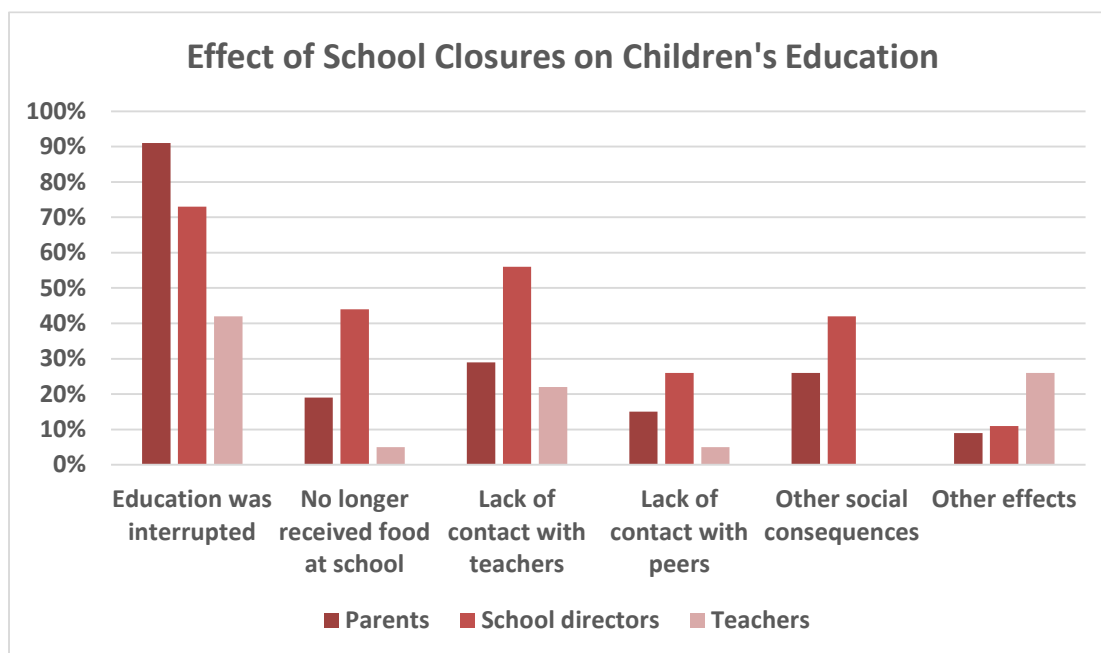


Figure 57: Effects of Covid-19 School Closures on Children's Education

When asked what measures were taken to combat these challenges, survey respondents reported a range of measures. Asked whether schools were able to maintain contact with children during the emergency period, 77% of parents replied that schools had maintained contact with all of the children, 9% that they had maintained contact with some of the children, and 14% that they had not maintained contact. The teachers who responded to the final survey reported different figures: 14% reported that they had been able to maintain contact with all of their students during the Covid-19 emergency period. 61% said that they had been able to maintain contact with some students, and 25% said that they were not able to maintain contact. These are compared in figure 58. It is possible that some of the discrepancy here can be accounted for by parents referring to the FFE broadcast lessons over radio and TV, on which there is more information below. It also reflects the fact that parents who participated in the survey were those who had stayed in contact with the schools.<sup>60</sup>

<sup>60</sup> This reflects a regrettable but unavoidable methodological weakness in the sampling of parents: those parents with whom it was possible to establish contact in order for them to complete the survey were disproportionately those who had remained in contact with the school community during the closure due to Covid-19. For more discussion see the presentation of the surveys in the methodology section (page 24-25).

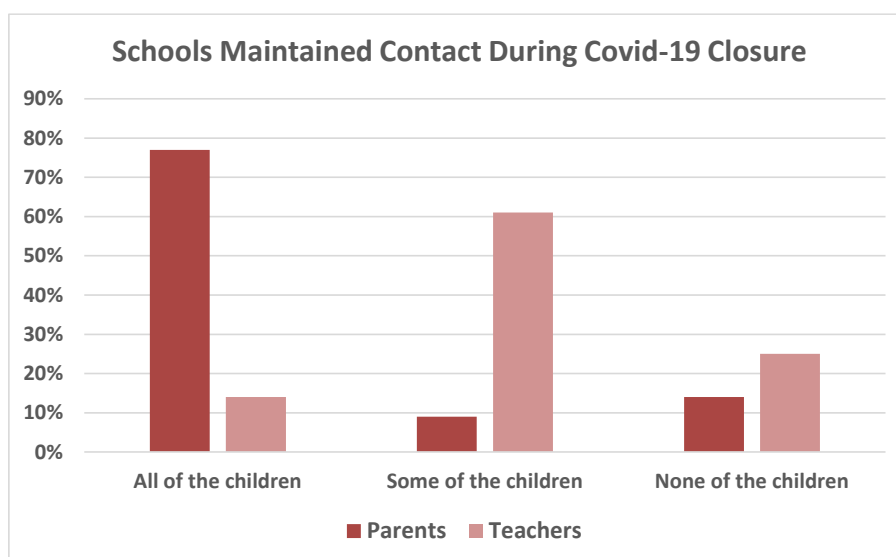


Figure 58: Parents and teachers report whether schools maintained contact with children during closure

Of the schools that maintained contact with at least some of the children, 34% of parents and 25% of teachers said that teachers made phone calls to students' parents and guardians to help them with certain teaching subjects. 87% of parents and 95% of teachers said that teachers had produced and distributed worksheets. Likewise, 20% of the school directors said that teachers had contact with students over the telephone, 80% reported sending work home to students, and 29% reported taking other steps, such as contacting parents and guardians, making contact through the district secretary, or making home visits. These are shown in figure 59.

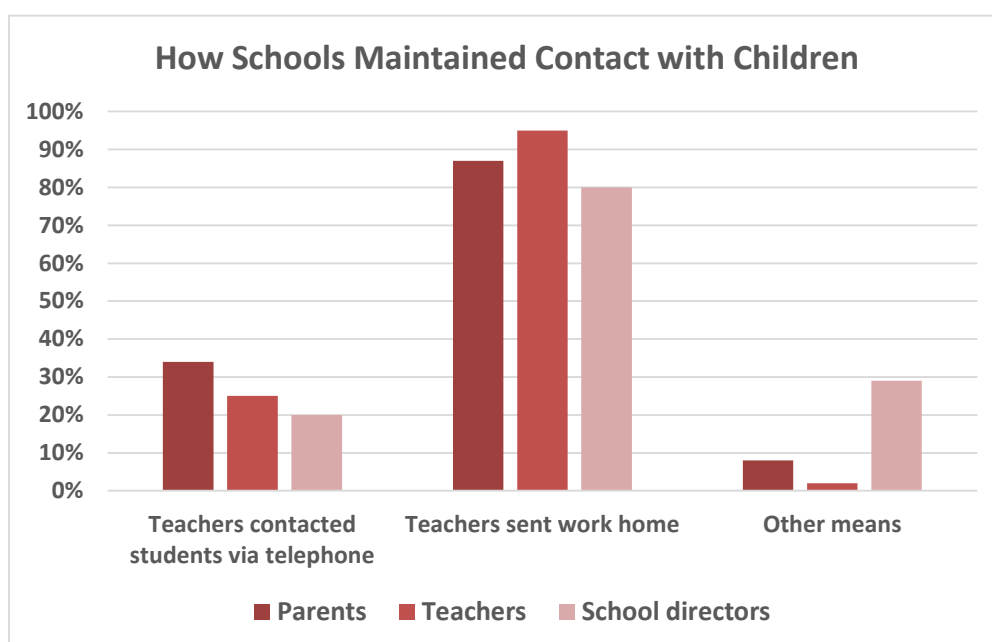


Figure 59: Survey respondents report how schools maintained contact with pupils during school closure

When asked what means of communication the teacher or school had used to continue interacting with the children, 41% of parents (38% of teachers) reported that they had used telephone or WhatsApp, 53% of parents (85% of teachers) reported meetings at school or in the community, and 10% of parents (3% of teachers) mentioned home visits. 17% of parents reported that other methods had been used.

Asked what improvements could be made in the measures taken to combat Covid-19 and improve the continuity of classes, 75% of school directors cited creating sanitary conditions and 69% said that reducing the number of students per class would help. 29% reported other measures that could be taken.

For details, see Technical Appendix, pp 313-317, 338-339, 398-399, 403-404, 509-513, 545-546.

### ***Broadcast lessons***

When schools were closed in March 2020 by the Covid-19 pandemic, the literacy program produced a series of classes in local languages to be broadcast by radio and television, and asked parents to spend 20 to 30 minutes daily helping their children to study. During this time, the usual activities, such as support provided to teachers by the reading coaches and monitoring by provincial monitoring teams could not take place. In order to try to ascertain how well the broadcast lessons were being received and how well they were functioning, the literacy team made daily phone calls to contacts in the communities with schools supported by the literacy program.

The final survey for parents and teachers asked a range of questions about these broadcast lessons to assess their reach and perceived usefulness. 52% of parents surveyed said that they have a radio at home, and 43% have a television. 54% of the parents and 76% of the teachers said that they were aware of the broadcast lessons produced by the FFE project. Of those that were aware of the broadcasts, 62% of parents reported that their children's teacher or school had recommended that they listen to these lessons, whereas 91% of the teachers said that they had encouraged their students to follow the broadcasts. 62% of teachers reported that they had provided support to their students in following these lessons, however only 30% of parents said that the teacher or school had provided such support to the students.<sup>61</sup>

57% of parents said that someone at home had been able to support the children to understand the lesson material in the radio or TV broadcasts, and 42% that no one had been able to. During a focus group discussion, community members explained that, since the pandemic began and they and their children have been house-bound, the extra work provided by the school has not been helpful since there is nobody to correct it. 32% of the teachers thought that their students had access at home to the necessary support to understand the material

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<sup>61</sup> The apparent discrepancies in responses between parents and teachers to this and other questions may be due to the sampling of parents and teachers; the sample of parents was much larger and came from a larger number of schools than the sample of teachers. It is also not possible to know for certain whether parents were referring to only the FFE broadcasts, or those by the government or other agencies.

in the broadcast lessons, 43% thought their students did not have such support at home, and 25% said they didn't know. Figure 60 shows these responses.

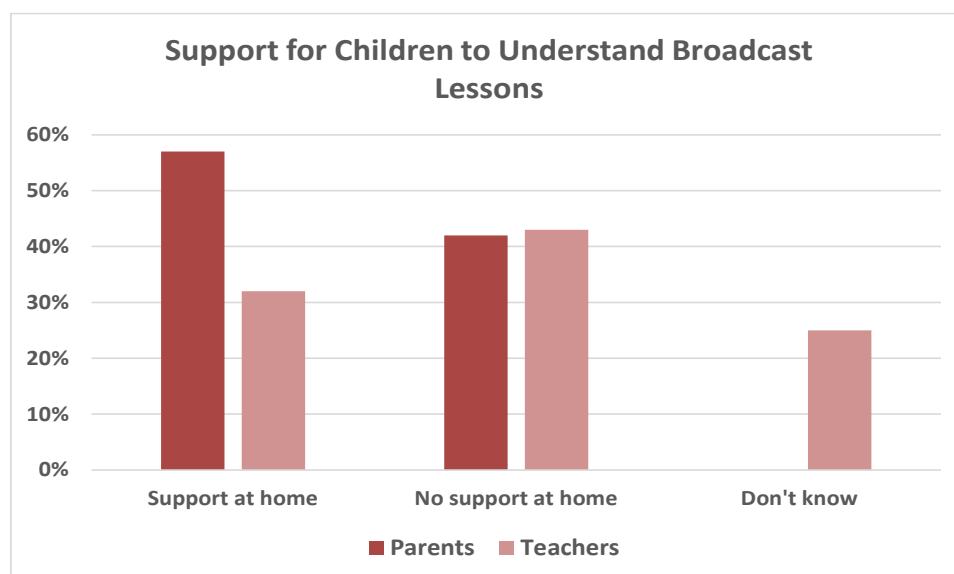


Figure 60: Parents and teachers report whether children had support at home to follow the broadcast lessons

Parents and teachers had different opinions about how closely the children had followed the broadcast lessons. 47% of the parents (6% of the teachers) said that the children had always listened to the lessons, and 20% of parents (60% of teachers) said that the children had listened to some of them. 32% of parents (15% of teachers) reported that the children had not listened to any. Only one of the parents, and 19% of teachers, said that they didn't know. These are compared in figure 61.

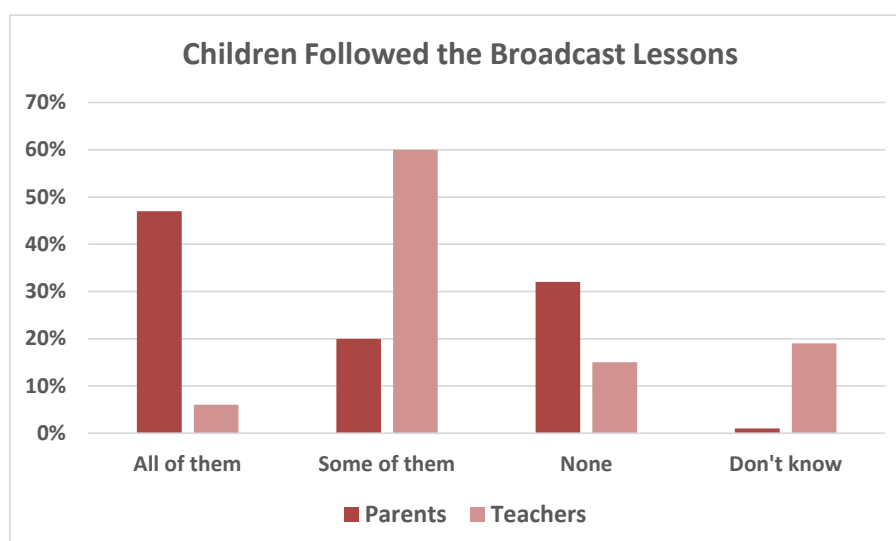


Figure 61: Parents & teachers' reporting of whether children followed the TV and radio lessons at home

When asked their opinion as to the quality of these radio and TV lessons, 27% of parents said that they were excellent, 46% that they were good, 24% that they were of reasonable quality, and around 4% said that they were of poor quality. 10% of teachers said they were excellent, 52% that they were good, 37% thought them to be of reasonable quality, and two respondents thought that they were poor. Figure 62 compares these responses.

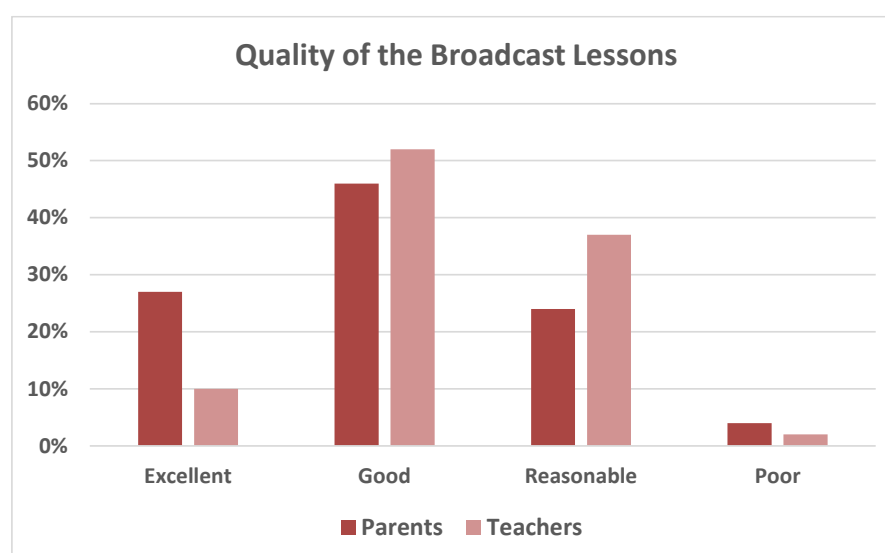


Figure 62: Parents and teachers' opinions of the FFE broadcast lessons

For details, see Technical Appendix, pp 317-323, 514-521.

### Impact of Covid-19 on hunger and food supply

The survey for parents included a series of questions designed to assess the impact of Covid-19 school closures on hunger and food supply (as explained above, this information is beyond the scope of the project). Asked whether their children had ever had to go without food all day during the school closures, although the majority of parents said they had not, 17% of parents (91 of the respondents) reported that they had. During a FGD, community members reported eating only twice a day since the pandemic began and have had to resort to begging and looking for firewood and leaves to make food. Parents were presented with a series of statements related to hunger and asked whether someone in their family had done any of these things in the past seven days. The results are presented in figures 63 through 66 below; the vertical axis represents the number of parents who replied affirmatively. As can be seen in these figures, although the majority of parents reported not having had to take these steps (their responses are not included in the tables), a concerning number of parents were forced to resort to a variety of measures to deal with food shortages and limited access to food as a result of Covid-19.



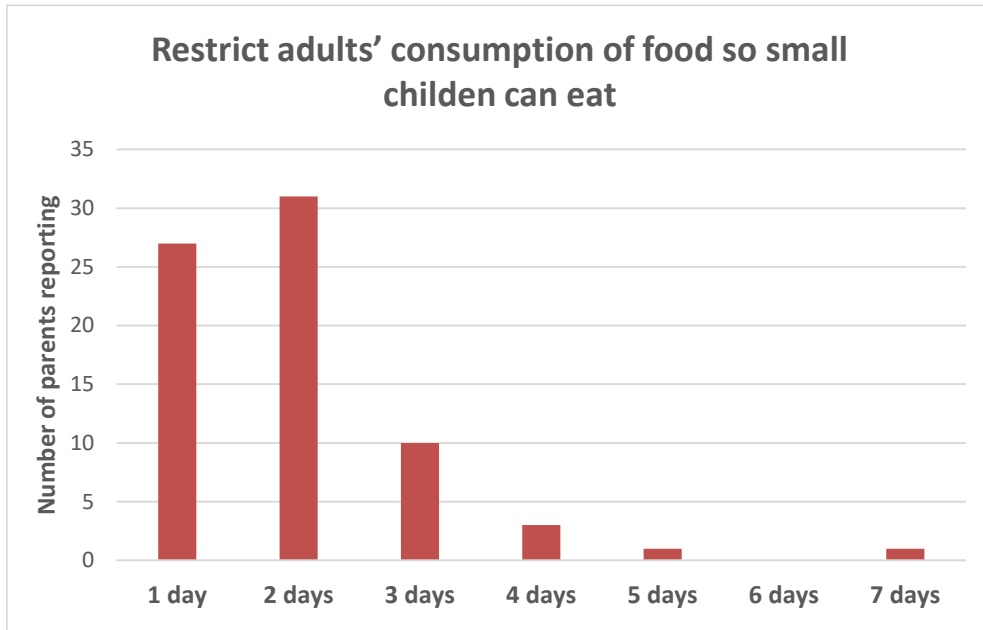


Figure 63: Number of days within the previous week that parents restricted adults' consumption of food



Figure 64: Number of days within the last week that parents reduced the number of meals consumed



Figure 65: Number of days within the last week that parents had to borrow food or accept help



Figure 66: Number of days within the last week that parents had to limit the amount of food served

The survey also asked parents and teachers how movement restrictions put in place due to Covid-19 had affected their livelihood. 27% of the parents (20% of the teachers) reported that it had impact on their ability to grow food, 26% of parents (34% of teachers) that it had impact on their ability to sell produce, 4% of parents (10% of teachers) that it had impact on their ability to look after livestock/practice animal husbandry, and 29%

of parents (74% of teachers) that it had impact on their daily salaried employment. 47% of parents and 10% of teachers reported that the restrictions had an effect in other ways. These are shown in figure 67 below.<sup>62</sup>

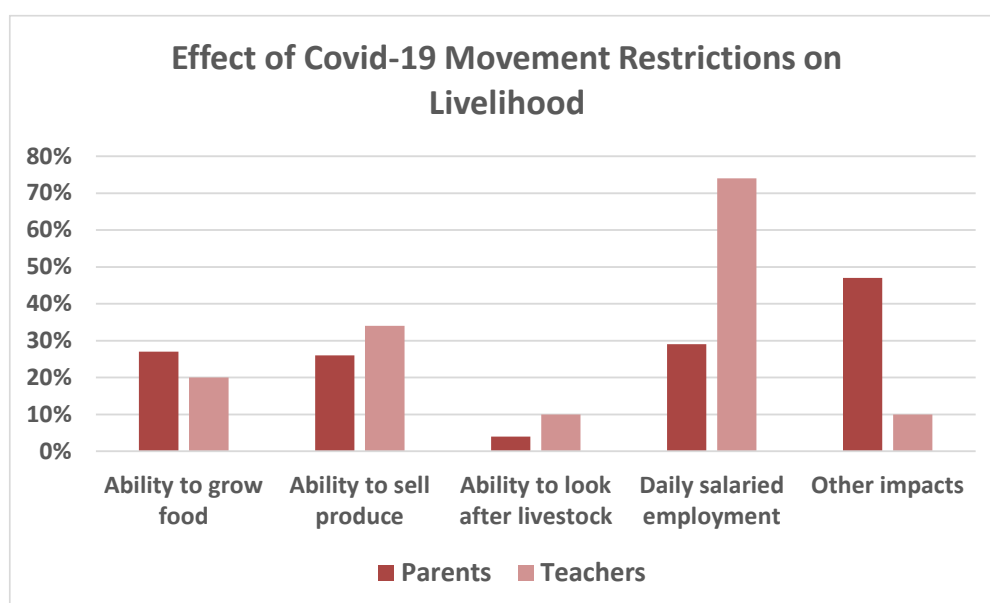


Figure 67: Parents and teachers report the effects of Covid-19 movement restrictions on livelihood

For details, see Technical Appendix, pp 336-337, 522-529, 542-544.

### EPF students' experience of measures put in place during EPF closures

EPF directors reported that, since reopening, Covid-19 continues to have a significant impact on the ability to function as usual. Sanitary precautions are in place: students' temperatures are taken before entering the EPF; cars are sprayed, facemasks are mandatory; there are stations with soap and sanitizer for students and staff to disinfect their hands and feet; meals are eaten respecting social distancing, with each student having their own cutlery and crockery; sleeping arrangements have also been modified. One EPF director reported that, after reopening, 8 students tested positive, which led to the closure of the school. The students were put into self-isolation, and given reading activities to pursue; the school was deep cleaned.

In response to the Covid-19 crisis, the teaching training program was modified and the school year extended, with an adjustment to the schedule for payment of fees, which was spread over a longer timeframe. WhatsApp and Google classroom were used to continue teaching online; EPF directors reported that those students who

<sup>62</sup> Whereas it is not surprising that more teachers report impact on their salaried employment than parents (most of whom are subsistence farmers), it is noteworthy that the teachers also report disruption to food production and sales, suggesting they also engage in food production to supplement their salaries.

did not have direct internet access received the information later; some students stopped studying during the closure. Distance learning does not allow such dynamic teaching as face-to face.

Since the EPFs reopened, it is still not possible to undertake teaching practice in schools, since these are still closed; instead micro-teaching is organized between groups of students to simulate classroom practice.

One positive aspect of the response to Covid-19 has been the individual and institutional learning regarding how to conduct distance education: this has involved a steep learning curve, in order to transfer teacher training online so quickly.

EPF students surveyed were asked about the impact of Covid-19 on their training and how the EPF administration managed the crisis. Most of the trainees (96%) reported returning to their parents' home while the EPFs were closed due to Covid-19; two said that they stayed with other family members, one remained at the EPF, and three individuals went to other places. Asked whether they had managed to keep in contact with their trainers, 76% responded 'yes, all of them,' 14% 'yes, with some,' and 10% said that they did not keep in contact. Of those whose trainers did manage to maintain contact, 47% said that their trainers had called them by telephone or via WhatsApp, 41% that they had received messages by SMS or WhatsApp, 34% said that they had been sent work via email, and 82% reported that their trainers had organised classes using digital platforms. Figures 68 and 69 below detail this.

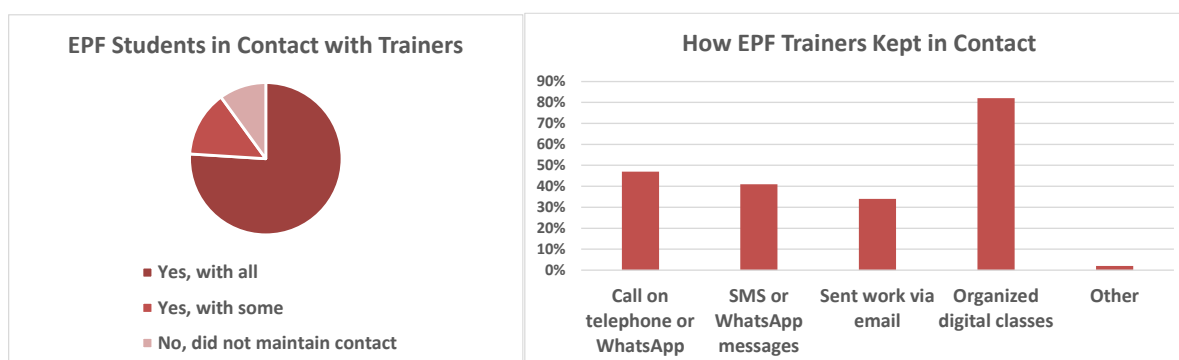


Figure 68 and 69: EPF students report whether and how their trainers kept in contact during Covid-19 closure

Where the respondent indicated that their trainer had been in touch using one of these methods, they were asked how frequently this contact took place. The percentage of EPF students who indicated each method are presented in figures 70 through 73 below.

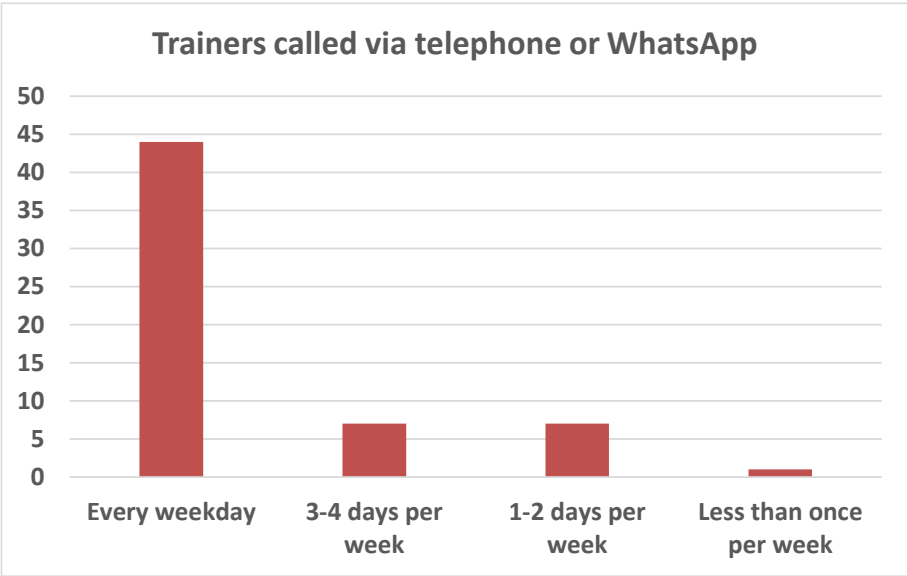


Figure 70: Frequency of EPF trainer contact during COVID-19: SMS or WhatsApp calls

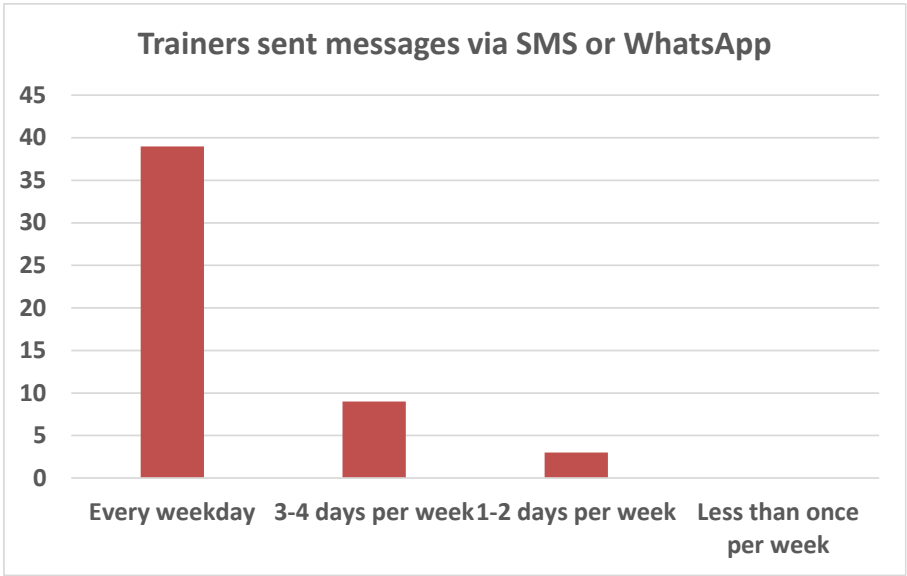


Figure 71: Frequency of EPF trainer contact during COVID-19: SMS or WhatsApp messages

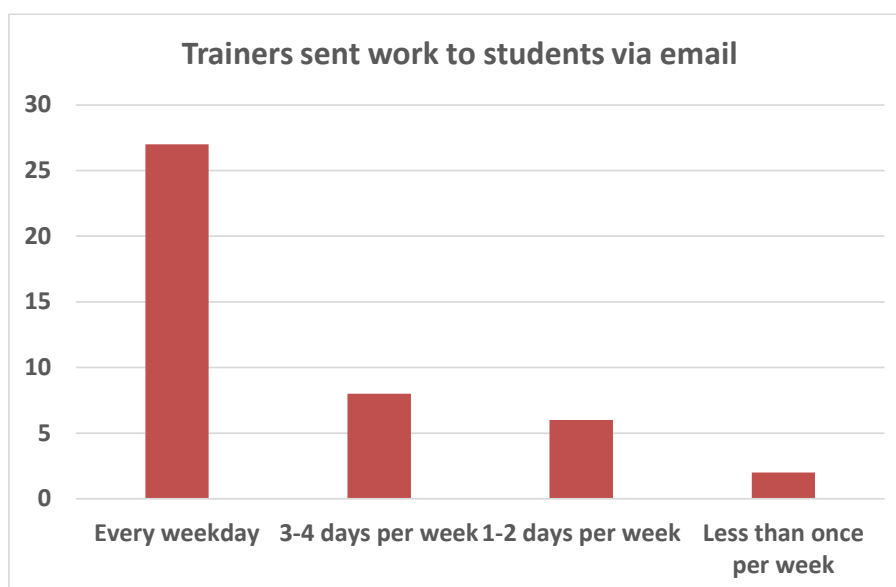


Figure 72: Frequency of EPF trainer contact during COVID-19: Email

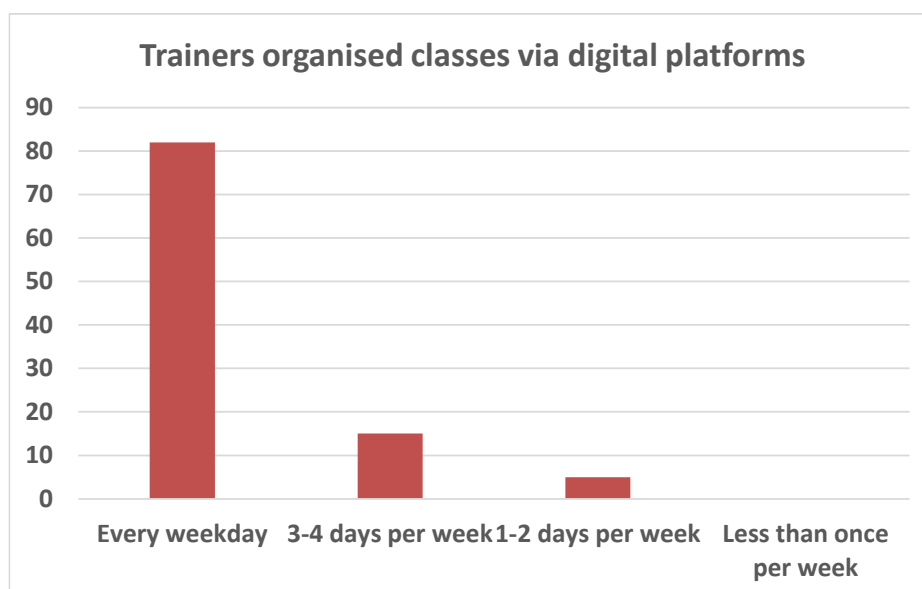


Figure 73: Frequency of EPF trainer contact during COVID-19: Online classes

As can be seen in the above tables, the majority of EPF trainers who maintained contact during the Covid-19 closures did so every weekday, testifying to the efficacy of the EPF response to Covid-19 overall, dedication of the EPF directors and trainers and their commitment to continue their students' training in the face of logistical difficulty.

92% of the trainees reported that they had had lessons through distance learning with a trainer and their classmates. Around 42% said that they had individual distance contact with their EPF trainers. 47% of the

trainees reported that the distance learning was “very” beneficial for them, and a further 50% said that it was “a little” beneficial. Only 3% felt that it was not at all beneficial. Asked for their opinion about the quality of the distance learning, 19% said that it was excellent and 31% that it was good. 48% considered it to be of reasonable quality, and three respondents (2% of the total) thought that it was poor.

Around 60% of the EPF students reported having received learning materials to support their distance learning. 46% of these thought the materials to be of excellent quality, and 43% thought they were good. 10% rated them to be reasonable, and only one respondent thought the materials were of poor quality.

EPF students reported using different methods to access the distance learning. The majority, around 68%, used smartphones. 19% reported using a cell phone that was not a smartphone. 9% said that they used their own laptops or tablets, and two respondents (1%) said that they used someone else’s laptop or tablet. Another two respondents said that they used other methods. 47% reported using cellular signal to access the distance learning and 48% used internet or WiFi. 5% accessed it using other methods. The trainees were asked whether they had any problems connecting to the distance learning platforms: 46% said that they were able to get online whenever they wanted to, 44% that they were able to get online most of the time, and 31% that they could often get online. One student said that they were never able to get online. 11% reported that they had to move to another place to be able to get online. Regarding the quality of the connection, 16% said that the connection was of excellent quality, 32% that the connection was usually good, 4% that the connection was often very poor, and three students (2%) said that the connection was never good enough.

At the time of the survey, all but one of the trainees reported that they had already returned to the EPF. All who returned reported that they felt safe there, and all felt that sufficient measures had been taken to limit the transmission of Covid-19 within the EPF.

Asked what the impact of Covid-19 had been on their teacher training, most of the students felt that their teacher training had been compromised: 42% thought that it had been significantly compromised and 44% that it had been somewhat compromised. 9% thought that it had had minimal impact on their teacher training, and just 6% that it did not affect their teacher training.

EPF students were shown a series of statements and asked which of them they agreed with, in order to gauge their feelings about leaving the EPF during Covid-19 closures. The responses are shown in table 16 below.

How trainees felt about having to leave the EPF during the state of emergency	Agreed	Disagreed
I was sorry to leave the EPF during Covid-19 because of the loss of contact with my trainer and other students	46%	54%
I was sorry to leave the EPF during Covid-19 because I did not have access to the same resources, such as books, learning materials, computers, etc	42%	58%

It was inconvenient to have to leave the EPF but I managed to make up some of the lost time by studying on my own	35%	66%
It was inconvenient to have to leave the EPF but I managed to make up some of the lost time thanks to the distance education provided by the EPF	47%	53%
I was happy to leave the EPF and spend time at home/somewhere else	1%	99%

Table 16: EPF trainees report how they felt about leaving the EPF during the Covid-19 emergency

When asked whether they were satisfied with the measures taken to support the trainees during the EPF closures, 55% declared themselves “very” satisfied and 17% said that they were “fairly satisfied.” 16% said that they felt neither satisfied nor dissatisfied. 11% said that they were “fairly dissatisfied” and two respondents (1%) said that they felt very dissatisfied. The trainees were also asked about their satisfaction level with regard to the financial arrangements implemented by the EPFs after closure (delays in payment dates for fees): 42% said that they were “very” satisfied and 27% that they were “fairly satisfied.” 22% said that they felt neither satisfied nor dissatisfied. 6% said that they were “fairly dissatisfied” and 3% said that they felt very dissatisfied.

For details, see Technical Appendix, pp 622-660.

### Covid-19 awareness

All of the final surveys included a series of questions designed to measure general awareness of Covid-19, including its symptoms and preventative measures. All of the respondents to the parents’ survey had heard about the pandemic. When asked about their source of information, 29% said that they had heard about it from a family member, 62% from a member of the community, 17% from a member of the project team, and 65% from mass media such as TV or radio. 11% of the parents reported having been made aware from other sources. Similarly, all of the teachers surveyed confirmed that they were aware of the Covid-19 pandemic. 39% said that they had been made aware by a family member, 41% by a member of their community, 23% by a member of the project team, and 98% had heard about it through mass communication such as radio or TV. Around 5% also reported having been made aware through other means. Figure 74 below compares these.



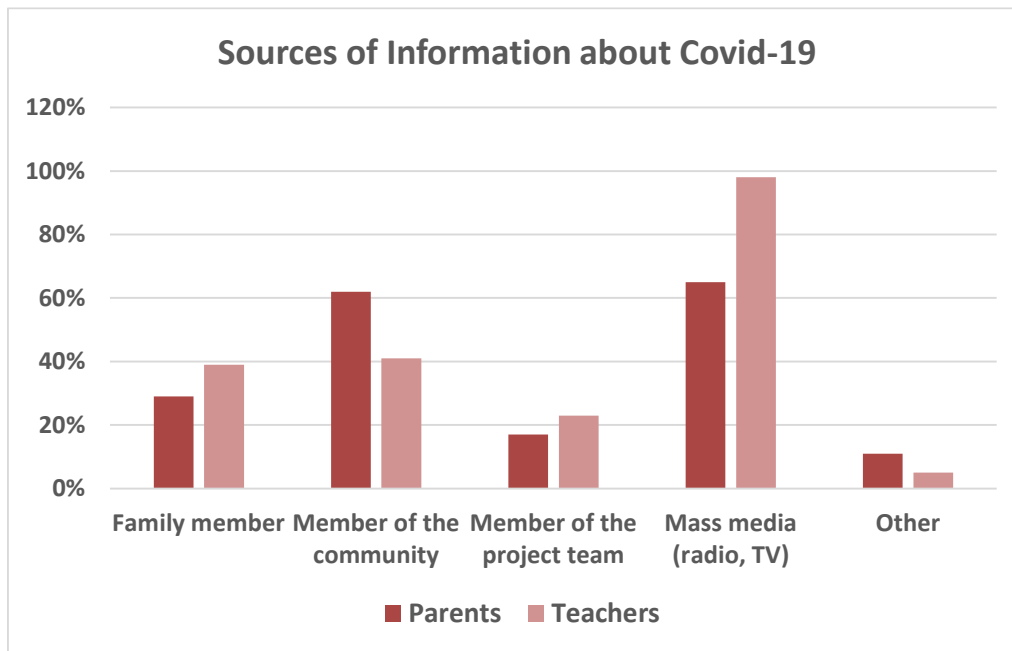


Figure 74: Parents and teachers report where they learned about Covid-19

Parents were asked what they knew about the Covid-19 pandemic: 74% reported that they were aware of how to keep safe/avoid becoming infected, 59% reported awareness of the symptoms, 52% said they were aware of how the disease is transmitted, 46% were aware of how to practice self-care, and 10% reported being aware of government action around the pandemic. When EPF students were asked the same question, 81% said they were aware of how to keep safe, 78% reported awareness of the symptoms, 76% said they were aware of how the disease is transmitted, 53% were aware of how to practice self-care, and 22% reported being aware of government action around the pandemic. Of the teachers, 87% were aware of how to keep safe, 89% reported awareness of the symptoms, 89% said they were aware of how the disease is transmitted, 63% were aware of how to practice self-care, and 43% reported being aware of government action around the pandemic. Figure 75 compares these across the three groups, of which teachers appear to be the best-informed, at least as far as these self-declared responses are concerned (respondents were asked whether they knew this information, not to demonstrate knowledge of the information, so may have overstated their level of knowledge). It is possible that teachers overestimated their own levels of awareness, given the cultural expectation that teachers should possess knowledge and understanding.

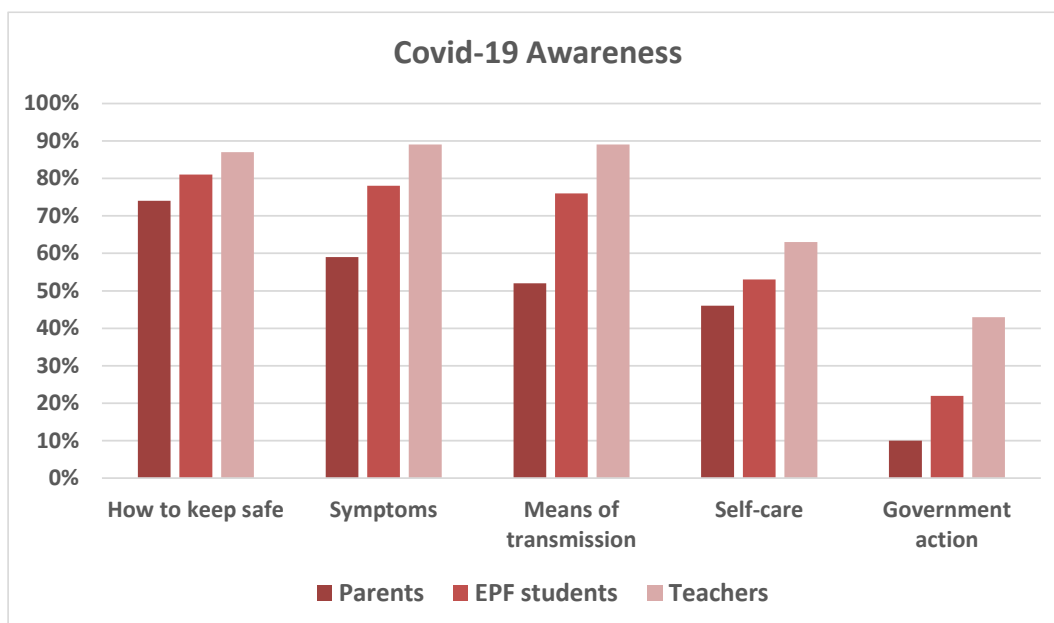


Figure 75: Awareness of Covid-19

In order to ascertain respondents' awareness of Covid-19 symptoms, parents, teachers and EPF students were asked to state which of a list of symptoms could occur with Covid-19. Given that all the symptoms listed are associated with some cases of Covid-19, choosing more symptoms indicates greater awareness. Teachers appear most informed followed by EPF students, then parents. Figure 76 compares these responses across the three groups.

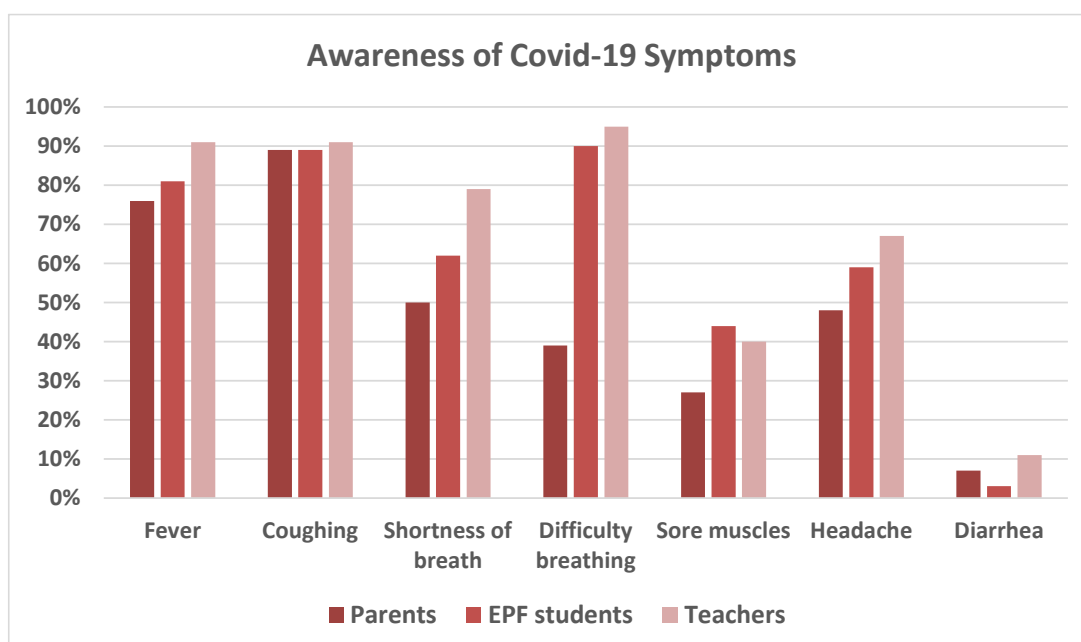


Figure 76: Awareness of Covid-19 Symptoms

Survey respondents were asked which preventative measures they were using to protect against Covid-19. The results are shown in table 17. In general, both EPF students and teachers report higher use of preventative measures (96% to 100% than do parents, although parents also report a relatively high level of observance (between 75% and 98%).

Preventative Measures	Parents	EPF students	Teachers
Wash hands regularly using soap and water for at least 20 seconds	98%	96%	98%
Avoid touching your eyes, nose and mouth with your hands	85%	100%	99%
Cover your mouth and nose when coughing or sneezing and then wash your hands	95%	100%	99%
Avoid close contact with any sick person, especially with the flu or a cold (fever, coughing, sneezing)	89%	99%	99%
Clean and disinfect frequently touched objects and surfaces	81%	99%	100%
Stay home if you are sick, except to seek medical help	87%	94%	97%
Avoid shaking hands with others	98%	99%	100%
Avoid large meetings (church meetings, community meetings, etc.)	75%	99%	100%
Other methods	49%	81%	N/A

Table 17: Groups report their use of preventative measures against Covid-19

All groups were asked if there was anything further that they wanted to know about the pandemic out of a number of options. Figure 77 shows these responses.

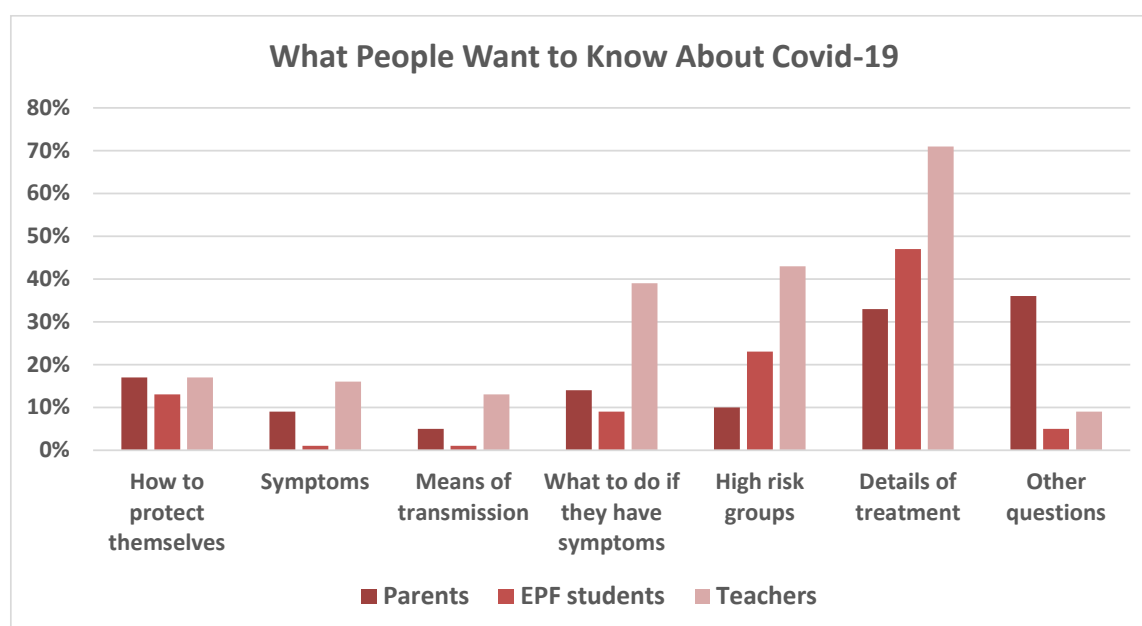


Figure 77: What survey respondents want to know about Covid-19

Finally, all groups were asked whether they thought people in Mozambique knew enough about the Covid-19 pandemic: 79% of parents felt that they did, 11% that they did not, and 10% said that they were unsure. 75% of

EPF students thought that they did, and 25% that they did not. Teachers were the most pessimistic group in this respect: 47% thought that the people of Mozambique had sufficient knowledge of the pandemic, and 53% that they did not. See figure 78 below. For details of all responses, see Technical Appendix, pp 324-335, 529-542, 661-669.

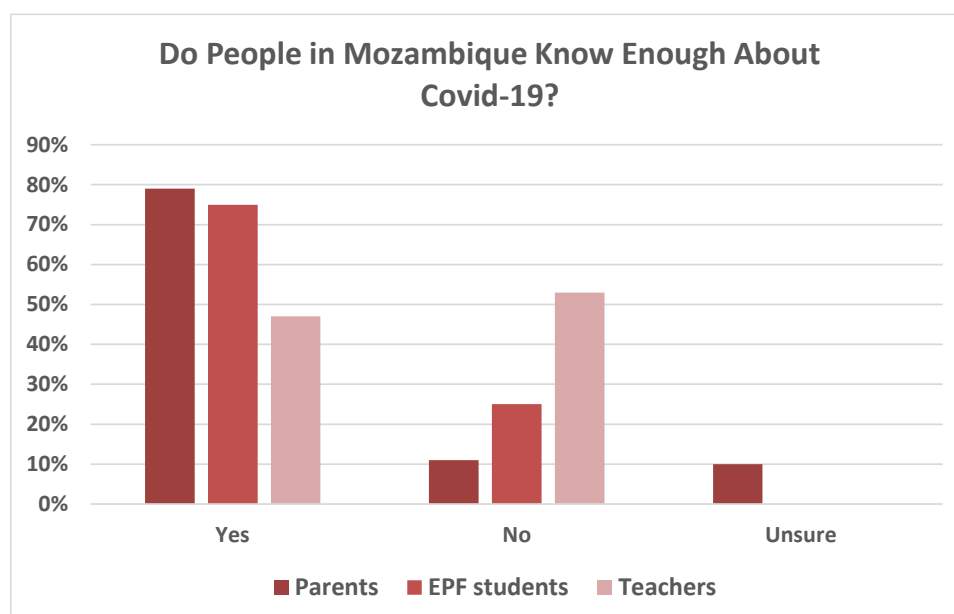


Figure 78: Groups report whether they think people in Mozambique are sufficiently well-informed

The project has undoubtedly been responsive and proactive in responding to the pandemic, with distribution of take-home rations, use of the HGSFGs to feed the surrounding communities, production and broadcasting of distance classes for primary students, not to mention the large-scale and impressive provision of online teacher training by the EPFs. Over and above the interruption of most education, school feeding and other activities caused by school closures, perhaps the most pernicious effect of the pandemic has been its delaying of the withdrawal plan, intended to progressively prepare communities and government to take over management and implementation of the various activities after the formal closure of the project. The closure of schools in March, at exactly the moment when, with nine months left to run, this handover plan needed to be implemented is a regrettable blow to the ambitions to achieve a progressive withdrawal and handover, in as sustainable a manner as possible. This observation is not to detract from recognizing and saluting the dynamic and practical response to the pandemic identified by the evaluation.

### Remote Evaluation: challenges, delays and lessons learned

This section considers some of the challenges and lessons learned from the use of novel methodologies to conduct the evaluation in the context of the Covid-19 pandemic. The remote data gathering methods used are

innovative and have not been used extensively in Mozambique. It is anticipated that the Covid-19 pandemic will change the way much international research and evaluation work is conducted. For this reason, some lessons learned from the data gathering process are presented here in the hope that they may assist other teams. These include a summary prepared by Apolowil of advice to other organizations gathering data remotely in Mozambique.

From the time the consortium was informed we had won the bid on 5 May 2020 and throughout the entire period of conducting the evaluation, the evaluation process has known challenges and delays due to Covid-19. The consortium members were only able to begin formal interaction with the FFE2 project and data gathering activities after contracts were signed during the second half of July. Initially, while it was not clear whether schools would reopen and whether it would be possible to conduct conventional fieldwork the team was planning for two alternative scenarios, keeping the options open as long as possible: one a traditional data gathering which would have completed the cohort study begun at baseline; the second a mainly remote evaluation. The decision was taken on 3 August to pursue the remote evaluation (for more details of the factors behind this decision, please see the evaluation Inception Report, dated 31 July 2020).

Throughout the entire period, all members of the UK team and Planet Aid have been working from home, some juggling work with other responsibilities resulting from the Covid-19 situation. They have communicated remotely (using WhatsApp, Skype and Zoom) with the evaluation team in Mozambique and Zimbabwe and the FFE project team in Mozambique. Calibio Matine, the national evaluation coordinator, often played the role of mediating communications between Simone Doctors, the FFE team on the ground and the team from Apolowil. With schools closed and the FFE staff working using Covid-19 safe methods, it took far longer than usual to receive information from the decentralised project locations. This was particularly challenging when compiling the lists of survey participants and contact details from them; the FFE team went to great efforts to assemble contact details for the teachers, head teachers and parents requested by the evaluation team, despite the fact that, with schools closed, this was a delicate task. Contact details for the EPF students were compiled through ADPP's network of EPFs, with considerable assistance from ADPP's EPF focal point; this was a far easier process, thanks to the access to technologies and functional communications processes within the EPF network. However all these activities took far longer than they would normally have.

When it came to conducting remote surveys, challenges were caused by poor network connectivity; repeated power outages- which meant that some respondents were not able to charge their mobile phones; and a lack of familiarity with digital platforms amongst respondents. None of these challenges came as surprises to the team who have all worked extensively in Mozambique over many years. Perhaps the main drawback of remote data collection is that it was not able to reach the most remote and often the most disadvantaged project stakeholders, situated in areas where connectivity and access to digital technologies are most problematic. This should be borne in mind in assessing the evaluation results. The main action the evaluation team was able to

take to counter this was to administer the parents/community survey using research assistants, so that participants who had mobile phones, but not smart phones, could participate in Changana or Xirhonga rather than Portuguese; however, this still did not allow inclusion of the most remote participants, likely to be the most excluded and disadvantaged.

Both the evaluation team and the project leadership and staff have worked extremely hard at each stage of the evaluation, to overcome the challenges, but delays have been caused by not being able to communicate in the usual ways. The fact that it has been possible to conduct the evaluation at all is a testimony to the exemplary commitment and hard work of all those concerned.

One significant learning point from the experience of remote data gathering was the relatively low response rate amongst participants, and the resulting need to significantly over-sample. Due to the evaluation plan, which followed on from the baseline and midterm evaluations, with the end point considered as the final follow up, there was no scope to expand on the school/school director sample, which resulted in a low level of response, apparently due to a combination of connectivity challenges, limited access to smart phones and limited technological competency<sup>63</sup>. Given this reality, over-sampling is necessary in order to obtain a given number of responses.

On the basis of the experience of conducting the remote surveys, Apolowil has compiled advice to other organisations undertaking remote data gathering using ODK or similar platforms in Mozambique or other countries with similar communications infrastructure and levels of mobile penetration and technological awareness (see Box 1 below).

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<sup>63</sup> Observing the relatively low response rate amongst school directors, Apolowil called each director several times to ascertain why they had not responded. Some explained they did not have sufficient network to upload the survey. Others claimed to have uploaded it, although the survey was not received by Apolowil. In order to investigate further, at the request of the international evaluation coordinator, representatives of Apolowil arranged to go to three schools in Manhiça district to meet with school directors who had not been able to upload the survey, to try and ascertain the nature of the obstacle. Observing Covid-19 safety precautions, they met the individuals and examined the survey on their phones. They observed that the survey had not actually been uploaded, although the individuals concerned were convinced they had uploaded it. This suggests that a significant proportion of the non-responses may be attributable to lack of technological competence on the part of the respondents.

### **Box 1: Advice regarding remote data collection during COVID using a platform such as ODK**

1. Piloting survey instruments allows challenges to be anticipated and possible solutions adopted before data collection is carried out. Sufficient time is needed to reflect on and incorporate the feedback from pre-testing before conducting the actual survey.
2. Working in two different languages requires thorough coordination among survey stakeholders. Coordination helps to smoothen communication and ensure all questions are understood during and after scripting.
3. Remote facilitation of interviews across different survey areas presents communication challenges. Proper and timely communication with respondents is necessary when using interviewee-administered questionnaires. Assuming that all respondents have the same level of understanding of data collection tools and questions can give misleading results.
4. Timely mobilization of respondents plays a key role in remote data collection, as does ensuring that all respondents get the same message. Some school directors refused to take part in the survey because they had not received communication from the project. Building trust when interacting with respondents is of paramount importance. Research assistants need to be patient and polite in explaining the purpose of the survey to the respondents, to improve uptake.
5. The role of incentives is crucial when conducting remote interviews in Mozambique, where many respondents have modest incomes. Incentives are a key factor in many respondents deciding to undertake interviews. During the data collection period incentives (in the form of mobile phone credit) were paid after the respondent uploaded the interview. This presented challenges as some respondents claimed to have uploaded their interview, but this was never received. Delivering incentives before the interview can also be problematic if the respondents are not trustworthy.
6. Interviewer-administered interviews are the best option when dealing with respondents in remote areas. Sufficient time is required to train the research assistants to understand the data collection tools. Using local languages understood by the respondents helps to produce quality data. Assuming that all respondents understand and can converse in Portuguese can pose serious problems in collecting relevant data.
7. Keeping records of all contacts is key to obtaining results. The best option is to have a database of all respondents which can be tracked, to see respondents who have been reached and completed the interviews as well as those requiring follow ups. This requires a competent team of research assistants and a coordinator whose job is to update the database and communicate with the team, to avoid duplication of efforts.
8. Telephone interviews require constant supervision and monitoring of research assistants. In this process we encountered a case where one research assistant faked interviews but with the help of the CAPI programmer it was easy to track the time of the interviews. It is necessary for a coordinator to make follow up calls to ensure that interviews can be confirmed as having taken place. The interview team should work together at a central venue, in a COvid-19 safe environment, with some level of control on the data collection process. Working together at a central venue ensures the team receives enough supervision and support.
9. For remote data collection to be successful there is need for respondents to be mobilized on time, using accurate phone numbers. This helps to design the sampling framework and test the telephone numbers before the actual survey. Respondents can also be sensitized about the survey using phone calls, ensuring that all targeted respondents will be available for the interviews.
10. In conclusion in the context of Mozambique, interviewer administered surveys yield better results for remote data collection. This works best in areas with good network connectivity and requires time for mobilization.

*Source: Apolowil*

## Conclusion

This is the final of a series of evaluations conducted by several members of the evaluation team over the course of the eight years of the FFE project. The team has had the opportunity to watch the project grow in stature and the staff evolve individually and as a team, over this time, from tentative beginnings where everything was to be created, to the efficient, professional operation it presented at end point. This has been a remarkable journey of working with government, communities and schools to create the infrastructure, systems and capacity to provide school food to 90,000 pupils, including a significant local food production component, in association with the development and rollout of two innovative programs: one to promote literacy in local languages, the other to deliver nutrition education. This would be a significant achievement in any context; in the challenging environment of Mozambique, it is all the more remarkable. In the judgement of the evaluation team, it is thanks to Planet Aid and ADPP's community development approach, which builds community capacity on the ground through "working shoulder to shoulder with the poor" that these achievements have been possible. Over the course of several evaluations, the evaluation team have observed the FFE project staff and leadership in the schools and communities where the project is based interacting and working with individuals there. Numerous informants commented on the fact that FFE staff spend time on the ground rather than in their offices and considered this to be a key to the project's ability to engage schools and communities in project activities. This, combined with energetic leadership, a determination to get things done, and progressive development of effective systems and procedures led to one USDA/FAS representative telling the evaluation team: "The FFK project is one of the best, if not the best, I've ever seen in twenty years."

Most of the project's planned activities have been implemented as intended, even in the face of considerable obstacles, including but not limited to the current pandemic. The project's energetic, proactive approach can be seen, for example, in its response to the pandemic, with distribution of take-home rations, use of the HGSFGs to feed the surrounding communities, production and broadcasting of distance lessons for primary students, and the provision of online teacher training by the EPFs. The vast majority of final targets have been comfortably exceeded; in the few cases where final targets have not been met, they have been very nearly achieved. Indeed, a number of final targets had already been achieved at midterm, which no doubt partly accounts for the high performance of the project on many indicators even during Covid-19 school closures. The exception is in the area of attentiveness and reduced short-term hunger in the classroom, where more teachers at final reported pupils having attention problems and showing signs of short-term hunger than at baseline; a variety of factors are likely to be at play here, from increased awareness on the part of teachers to the impossibility of obtaining data from the students themselves at the final evaluation. The evaluators believe that these rare negative results, which diverge so strongly from the positive picture told by the findings overall, are likely to be an aberration: an artefact of probably unreliable data gathered at baseline, compounded by the disruptions to the evaluation methodology caused by the pandemic.



Despite Covid-19 restrictions on data collection rendering it difficult to compare outcomes between midterm and final in many instances, the final report clearly shows the difference made by project interventions: students are reading better; trainee teachers show improved literacy levels in Portuguese; in-service teachers are more informed of active, student-centered learning approaches; community volunteers in the HGSFGs are able to produce large amounts of food to the benefit of schools and communities; school water committees are confident in their ability to maintain existing water systems. It remains to be seen whether these positive changes can be sustained. One of the most unfortunate effects of the pandemic has been its interruption of the project's withdrawal plan, intended to progressively prepare communities and government to take over management and implementation of the various activities after the formal closure of the project. As the FFE project run so successfully by Planet Aid closes, it is vital that the next implementers of McGovern-Dole in Maputo Province should continue to work towards the goal of sustainability. FFE2 made significant progress towards sustainability, in terms of building human capital, knowledge and systems. Advocacy and collaboration with other agencies have led to school feeding finding a place on the GoM's agenda, with progress made towards a law introducing school feeding as a statutory right for Mozambican children. However there remains a significant missing piece in the quest for sustainability, which is the question of resources to fund the base food, whether through purchasing on the open market, local production or a combination of these. It is vital for the GoM to be able to mobilize the necessary resources to deliver school feeding for Mozambican children throughout the nation. The evaluation team ends this report with a call to the GoM to use the next period of McGovern-Dole funding to ensure that, at the end of the next funding period, Mozambique has put in place the material and human resources to ensure Mozambican primary school children are eating food grown by Mozambican farmers. It is also our hope that the practice of teaching literacy in local languages will grow from strength to strength and become a key to Mozambican students achieving the meaningful learning they need to become successful adults and citizens. The evaluation team congratulates the FFE project on its achievements and wishes the GoM every success in pursuing and building on these.

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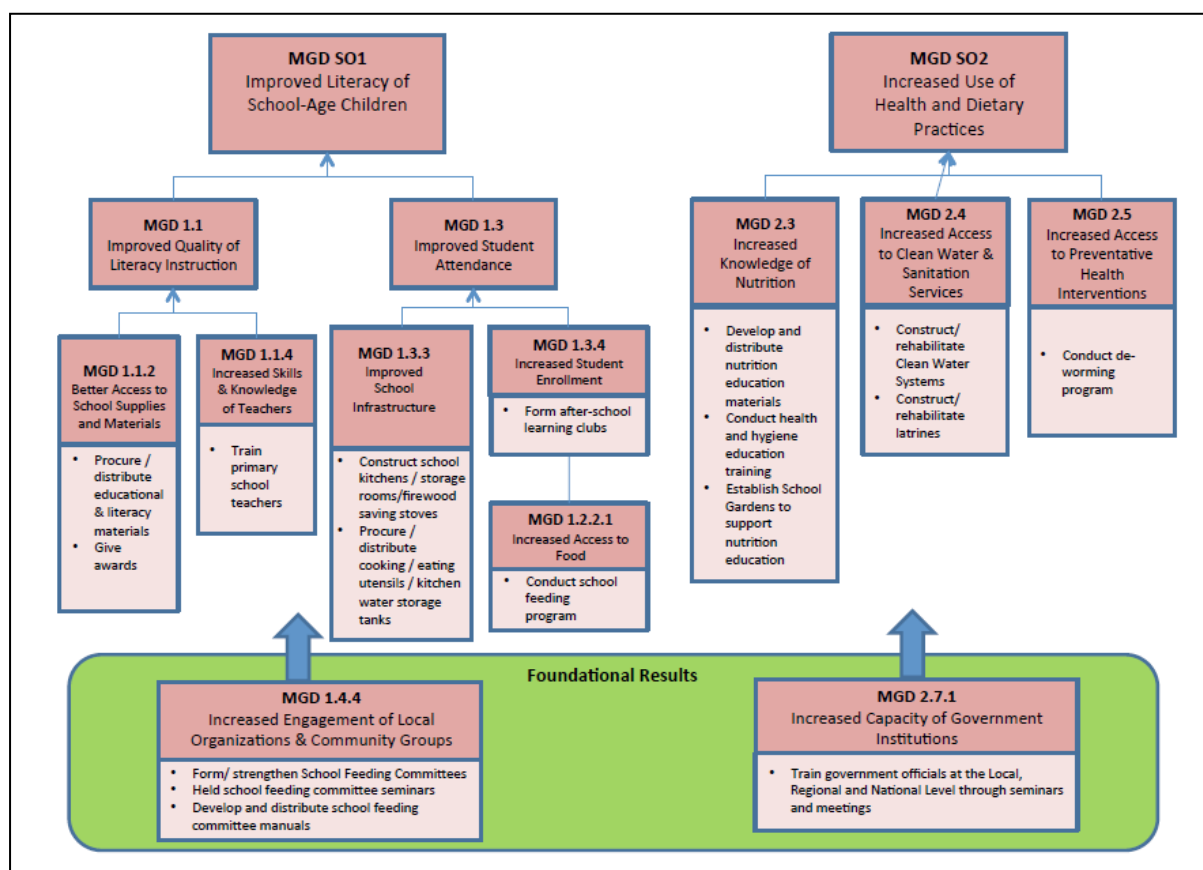
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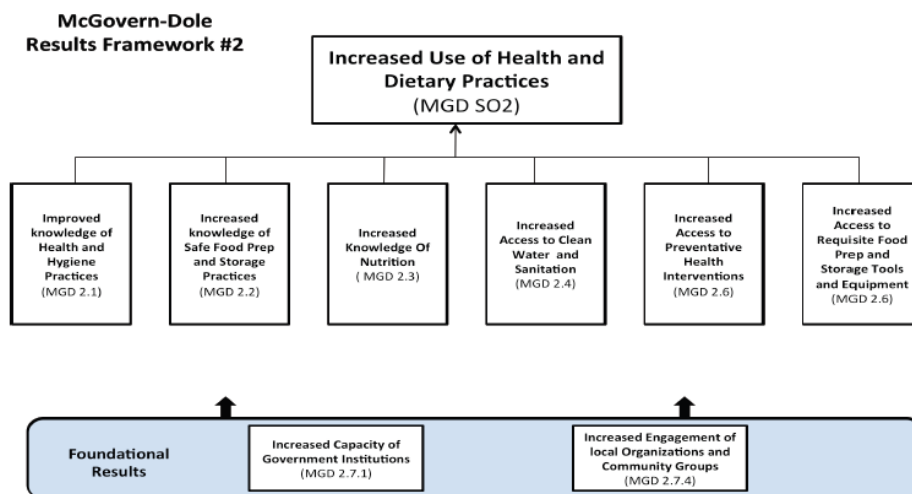
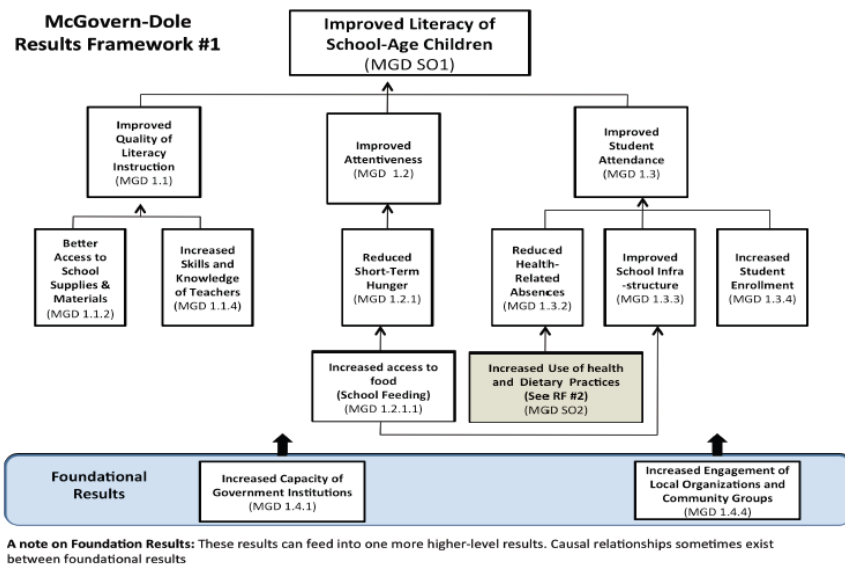
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## Annexes

### Annex 1: Results Framework of the Food for Education Project in Mozambique, capturing the ToC upon which the project is based



## Annex 2: McGovern-Dole Results Frameworks



## Annex 3: EGRA Subtask Findings

### *Phonological awareness*

Pupils were presented with a series of ten rows of three photos of everyday objects. For each row, they responded to a stimulus word pronounced by the enumerator by indicating the object whose name begins with the same initial consonant sound.

- a) **Year 1: All students:** The mean score for all year one students was 8 out of 10. The lowest score was 3 (2.5% of the students) and the highest was 10 (30.2% of the students).
  - a. **Year 1, contrast 1: Portuguese as language of testing vs bilingual language of testing:** Students tested in local languages achieved a slightly higher mean score (8.3; range 4 to 10) compared to those tested in Portuguese (7.7; range 3 to 10). Students tested in local languages were more likely to achieve a perfect score (32% compared with 28.1% of the students tested in Portuguese).
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students whose home language was the same as the language of testing was 8 (range 3 to 10); for students whose home language was different from the language of testing it was 7.9 (range 3 to 10). Students tested in their home language were more likely to achieve a perfect score (30.9% compared with 27.7% of those tested in a language different to that spoken at home).
- b) **Year 2: All students:** The mean score for all year two students was 9.2 out of 10. The lowest score was 6 (2.5% of the students) and the highest was 10 (55.3% of the students).
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** The mean score for the students tested in Portuguese was 9.1 (range 6 to 10); for the students tested in local languages it was 9.2 (range 6 to 10). Of the students tested in local languages, 58.3% achieved a perfect score compared with 52.1% of those tested in Portuguese.
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students whose home language was the same as the language of testing was 9.2 (range 6 to 10); for students whose home language was different from the language of testing it was 9 (range 6 to 10). Students tested in their home language were more likely to achieve a perfect score (57.1% compared with 50% of those tested in a language different to that spoken at home).

The complete results are presented in the Technical Appendix, pp 1-6, 38-44.

### **Concepts of print**

Within this subtask, pupils were asked to perform ten activities as evidence of their familiarity with printed materials.

- c) **Year 1: All students:** The mean score for all year one students was 8.3 out of 10. The lowest score was 5 (4.2% of the students) and the highest was 10 (23.2% of the students).
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a slightly higher mean score (8.5; range 5 to 10) compared to those tested in Portuguese (8.1; range 5 to 10). Students tested in local languages were more likely to achieve a perfect score (27.1% compared with 19.1% of the students tested in Portuguese).
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students whose home language was the same as the language of testing was 8.4 (range 5 to 10); for students whose home language was different from the language of testing it was 8 (range 5 to 10). Students tested in their home language were around twice as likely to achieve a perfect score (26.2% compared with 13.3% of those tested in a language different to that spoken at home).
- d) **Year 2: All students:** The mean score for all year two students was 9 out of 10. The lowest score was 6 (5.3% of the students) and the highest was 10 (44% of the students).
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** The mean score for both groups of students was 9 (range 6 to 10).
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students whose home language was the same as the language of testing was 9.1 (range 6 to 10); for students whose home language was different from the language of testing it was 8.7 (range 6 to 10). Students tested in their home language were much more likely to achieve a perfect score (49% compared with 29.6% of those tested in a language different to that spoken at home).

The complete results are presented in the Technical Appendix, pp 6-11, 44-50.

### **Letter sound recognition**

Pupils were asked to produce sounds of 100 upper- or lower-case letters, presented in ten rows of ten, producing as many as possible within 60 seconds.

- a) **Year 1: All students:** The mean score for all year one students was 16.2 out of 100 (range 0 to 42).
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in Portuguese achieved a slightly higher mean score (17; range 0 to 42) compared to those tested in local languages (15.4; range 0 to 42).

- b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students whose home language was the same as the language of testing was 16.8 (range 0 to 42); for students whose home language was different from the language of testing it was 14.2 (range 0 to 37).
- b) **Year 2: All students:** The mean score for all year two students was 20.2 (range 0 to 53).
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** The mean score for the students tested in Portuguese was 22.3 (range 0 to 53); for the students tested in local languages it was 18.3 (range 0 to 51).
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students whose home language was the same as the language of testing was 20.3 (range 0 to 53); for students whose home language was different from the language of testing it was 19.7 (range 0 to 52).

The complete results are presented in the Technical Appendix, pp 12-14, 50-53.

### ***Reading syllables***

Pupils were asked to read 50 syllables constituting plausible vowel-consonant combinations of the languages of testing, reading as many as possible within 60 seconds.

- a) **Year 1: All students:** The mean score for all year one students was 9.8 syllables out of 50 (range 0 to 38).
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a slightly higher mean score (11; range 0 to 38) compared to those tested in Portuguese (8.5; range 0 to 38).
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean number of syllables read for students whose home language was the same as the language of testing was 10.6 (range 0 to 38). For students whose home language was different from the language of testing it was 7.2 (range 0 to 32).
- b) **Year 2: All students:** The mean score for all year two students was 15.7 syllables per minute (range 0 to 52).
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in Portuguese achieved a slightly higher mean score (17.2; range 0 to 50) compared to those tested in local languages (14.4; range 0 to 52).
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean number of syllables read for students whose home language was the same as the language of testing was 16.1 (range from 0 to 52). For students

whose home language was different from the language of testing it was 14.5 (range between 0 and 50).

The complete results are presented in the Technical Appendix, pp 15-17, 53-56.

### ***Reading words***

Pupils were asked to read a series of 30 progressively more difficult words aloud within a one-minute time limit<sup>64</sup>.

- a) **Year 1: All students:** The mean number of words per minute (WPM) for all year one students was 5 out of 30 (range 0 to 22).
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a higher mean number of words (6.3; range 0 to 22) compared to those tested in Portuguese (3.7; range 0 to 22).
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean number of words read per minute for students whose home language was the same as the language of testing was 5.4 (range from 0 to 22). For students whose home language was different from the language of testing it was 3.7 (range between 0 and 19).
- b) **Year 2: All students:** The mean number of WPM for all year two students was 9.2 (range from 0 to 33).
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** The mean number of words read for the students tested in Portuguese was 9.1 (range 0 to 33); for the students tested in local languages it was 9.2 (range 0 to 28).
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean number of words for students whose home language was the same as the language of testing was 9.7 (range 0 to 33); for students whose home language was different from the language of testing it was 7.5 (range 0 to 33).

The complete results are presented in the Technical Appendix, pp 18-20, 56-59.

### ***Reading fluency (WPM)***

Pupils were asked to read a short text (the length of the local language texts is equivalent to the Portuguese text but has fewer words due to the morphological structure of those languages). The task was timed and the number of words read correctly within one minute recorded to give a fluency rating. The results below relate to reading fluency (WPM).

- a) **Year 1: All students:** The mean score for all year one students was 6 WPM (range 0 to 24 WPM).

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<sup>64</sup> This subtask was not timed at midterm but was on this occasion.



- a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** The mean number of words read for the students tested in Portuguese was 6.4 (range between 0 and 23); for the students tested in local languages it was 5.6 (range from 0 to 24).
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean number of words read per minute for students whose home language was the same as the language of testing was 6.2 (range from 0 to 24); for students whose home language was different from the language of testing it was 5.4 (range between 0 and 23).
- b) **Year 2: All students:** The mean score for all year one students was 15.9 WPM (range 0 to 58 WPM).
- a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** The mean number of words read per minute for the students tested in Portuguese was 18.3 (range between 0 and 58); for the students tested in local languages it was 13.9 (range 0 to 49).
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean number of words read per minute for students whose home language was the same as the language of testing was 16.6 (range between 0 and 54); for students whose home language was different from the language of testing it was 14 (range 0 to 58).
- c) **Year 3: All students:** The mean number of words read per minute for all year three students was 35.3 (range 0 to 93).
- a. **Year 3, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in Portuguese read an average of 40 WPM (range 0 to 93), compared to those tested in local languages (29.5; range 1 to 70).
  - b. **Year 3, contrast 2: Home language same as language of testing vs different home language and language of testing:** Students whose home language was the same as the language of testing read an average of 34.2 WPM (range from 1 to 88). For students whose home language was different from the language of testing the mean was 37.1% WPM (range 0 to 93).

The complete results are presented in the Technical Appendix, pp 21-23, 59-62, 77-79.

### ***Comparative reading fluency***

In order to compare the performance of students tested in Xichangana and Xirhonga with those tested in Portuguese, overall fluency scores were divided by the number of words in the text.

- a) **Year 1: All students:** The mean percentage of the text read in one minute for all year one students was 32.4% (range 0% to 140%<sup>65</sup>).
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a higher reading fluency score (36%; range 0 to 140%) compared to those tested in Portuguese (28.8%; range 0 to 104%).
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** Students whose home language was the same as the language of testing had a mean reading fluency score of 34.5% (range from 0 to 133%). For students whose home language was different from the language of testing it was 25.5% (range from 0 to 140%).
- b) **Year 2: All students:** The mean percentage of the text read in one minute for all year two students was 33.9% (range 0% to 124%).
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a slightly higher reading fluency score (35.1%; range 0 to 124%) compared to those tested in Portuguese (32.6%; range 0 to 117%).
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** Students whose home language was the same as the language of testing had a mean reading fluency score of 37.2% (range 0 to 124%). For students whose home language was different from the language of testing it was 24.2% (range 0 to 101%).
- c) **Year 3: All students:** The mean percentage of the text read in one minute for all year three students was 46.8% (range 0% to 127%).
  - a. **Year 3, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a higher reading fluency score (53.2%; range 1% to 127%) compared to those tested in Portuguese (41.6%; range 0 to 97%).
  - b. **Year 3, contrast 2: Home language same as language of testing vs different home language and language of testing:** Students whose home language was the same as the language of testing had a mean reading fluency score of 51.3% (range from 1% to 127%). For students whose home language was different from the language of testing the mean was 38.9% (range 0 to 97%).

The complete results are presented in the Technical Appendix, pp 24-26, 62-65, 80-82.

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<sup>65</sup> Because the subtask was timed, the scores for “mean percentage of the text read in one minute” exceed 100% where the students were recorded as completing the task in less than one minute. The evaluation team was informed that some enumerators had to enter the results after the fact, in the absence of the learners, due to technical difficulties. This may explain some of these surprisingly high percentages (since the times entered may have been estimates).

### ***Comprehension of reading***

To assess whether pupils understood what they had read, they were asked several comprehension questions corresponding to the point in the text they had reached when reading. Year 1 students were asked up to 3 comprehension questions, year 2 students were asked up to 4 questions, and year 3 students were asked up to 5 questions.

- a) **Year 1: All students:** The mean score for all year one students was 1, with scores overall ranging between 0 (31.1% of the students) and 3 (8.9% of the students).
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a mean score of 1 (range 0 to 3); those tested in Portuguese, 1.1 (range 0 to 3). It is noteworthy that the students tested in local languages were more likely to be able to answer at least one of the comprehension questions: of these students, 78.8% were able to answer between 1 and 3 questions while 21.2% were unable to answer any questions. Of the students tested in Portuguese, 59.4% were able to answer between 1 and 3 questions, while 40.6% could not answer any comprehension questions.
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for both groups of students was 1 (range 0 to 3 for both groups). Of the students who were tested in the language they spoke at home, 70.9% were able to answer between 1 and 3 questions and 29.1% could not answer any questions. Of the students tested in a language other than the one they spoke at home, 62.5% were able to answer between 1 and 3 questions and 37.5% were not able to answer any of the comprehension questions.
- b) **Year 2: All students:** The mean score for all year two students was 1.4, with scores overall ranging between 0 (30.5% of the students) and 4 (4% of the students).
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** The mean score for both groups of students was 1.4 (range 0 to 4 for both groups). Again, the students tested in local languages were more likely to be able to answer at least one of the comprehension questions: of these students, 78.3% were able to answer between 1 and 4 questions while just 21.7% were unable to answer any questions. Of the students tested in Portuguese, 59.8% were able to answer between 1 and 4 questions, while 40.2% could not answer any comprehension questions.
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students tested in the language they spoke at home was 1.5 (range 0 to 4); for students tested in a different language it was 1 (range 0 to 4). Of the students tested in the language they spoke at home, 75.2% were able to answer between 1 and 4 questions and 24.8% could not answer any questions. Of the students tested

in a language other than the one they spoke at home, 51.2% were able to answer between 1 and 4 questions and 48.8% were not able to answer any of the questions.

- c) **Year 3: All students:** The mean score for all year three students was 2.5, with scores overall ranging between 1 (17.9% of the students) and 4 (17.9% of the students).
  - a. **Year 3, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** The mean score for students tested in Portuguese was 2.5 (range 1 to 4); for students tested in local languages, 2.4 (range 1 to 4).
  - b. **Year 3, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students tested in the language they spoke at home was 2.5 (range 1 to 4); for students tested in a different language it was 2.4 (range 1 to 4).

The complete results are presented in the Technical Appendix, pp 27-30, 65-69, 82-86.

All pupils were asked to perform a series of short writing tasks: writing their first name, writing their family name, and writing five discrete words as a dictation exercise.

#### ***Writing first name correctly***

- a) **Year 1: All students:** 59% of all year one students were able to write their first name correctly.
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** 61% of the students tested in Portuguese were able to write their first name correctly compared with 57% of the students tested in local languages.
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** 58.9% of the students whose home language was the same as the language of testing were able to write their first name correctly. For students whose home language was different from the language of testing it was 59.2%.
- b) **Year 2: All students:** 80.2% of all year two students were able to write their first name correctly.
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** 73.7% of the students tested in Portuguese were able to write their first name correctly compared with 86.1% of the students tested in local languages.
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** 86.4% of the students whose home language was the same as the language of testing were able to write their first name correctly. For students whose home language was different from the language of testing it was 62.3%.
- c) **Year 3: All students:** 85.9% of all year three students were able to write their first name correctly.

- a. **Year 3, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** 83.3% of the students tested in Portuguese were able to write their first name correctly compared with 89% of the students tested in local languages.
- b. **Year 3, contrast 2: Home language same as language of testing vs different home language and language of testing:** 87% of the students whose home language was the same as the language of testing were able to write their first name correctly. For students whose home language was different from the language of testing it was 83.8%.

The complete results are presented in the Technical Appendix, pp 31-33, 70-72, 87-89.

#### ***Writing family name correctly***

- a) **Year 1: All students:** 24.5% of all year one students were able to write their family name correctly.
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** 24% of the students tested in Portuguese were able to write their family name correctly, compared with 25% of the students tested in local languages.
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** 25.8% of the students whose home language was the same as the language of testing were able to write their family name correctly. For students whose home language was different from the language of testing it was 20.4%.
- b) **Year 2: All students:** 55.1% of all year two students were able to write their family name correctly.
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** 54.5% of the students tested in Portuguese were able to write their family name correctly compared with 55.6% of the students tested in local languages.
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** 59.7% of the students whose home language was the same as the language of testing were able to write their family name correctly. For students whose home language was different from the language of testing it was 41.5%.
- c) **Year 3: All students:** 73.7% of all year three students were able to write their family name correctly.
  - a. **Year 3, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** 68.4% of the students tested in Portuguese were able to write their family name correctly compared with 80.2% of the students tested in local languages.
  - b. **Year 3, contrast 2: Home language same as language of testing vs different home language and language of testing:** 79.4% of the students whose home language was the same as the language of testing were able to write their family name correctly. For students whose home language was different from the language of testing it was 63.5%.

The complete results are presented in the Technical Appendix, pp 31-33, 70-72, 87-89.

### ***Writing dictation: individual words***

Pupils were asked to write five individual words as a dictation exercise and assigned a score based on the number of words written correctly.

- a) **Year 1: All students:** The mean number of words written correctly for all year one students was 1.8 out of 5. The lowest score was 0 (52% of the students) and the highest was 5 (17% of the students).
  - a. **Year 1, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a slightly higher mean score (2.0; range 0 to 5) compared to those tested in Portuguese (1.5; range 0 to 5). Students tested in local languages were more likely to be able to write at least one of the words dictated: of this group, 55% were able to write between 1 and 5 words correctly and 45% were unable to write any words. Of students tested in Portuguese, 41% were able to write between 1 and 5 words, and 59% were unable to write any.
  - b. **Year 1, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students whose home language was the same as the language of testing was 1.9 (range 0 to 5); for students whose home language was different from the language of testing it was 1.4 (range 0 to 5). Students tested in their home language were more likely to be able to write at least one of the words dictated: of this group, 51% were able to write between 1 and 5 words correctly and 49% were unable to write any words. Of students tested in a language other than that spoken at home, 38.8% were able to write between 1 and 5 words, and 61.2% were unable to write any.
- b) **Year 2: All students:** The mean number of words written correctly for all year two students was 2.4 out of 5. The lowest score was 0 (38.2% of the students) and the highest was 5 (25.6% of the students).
  - a. **Year 2, contrast 1: Portuguese as language of testing vs Bilingual language of testing:** Students tested in local languages achieved a slightly higher mean score (2.6; range 0 to 5) compared to those tested in Portuguese (2.1; range 0 to 5). Students tested in local languages were more likely to be able to write at least one of the words dictated: of this group, 65.7% were able to write between 1 and 5 words correctly and 34.3% were unable to write any words. Of students tested in Portuguese, 57.6% were able to write between 1 and 5 words, and 42.4% were unable to write any.
  - b. **Year 2, contrast 2: Home language same as language of testing vs different home language and language of testing:** The mean score for students whose home language was the same as the language of testing was 2.6 (range 0 to 5); for students whose home language was different from the language of testing it was 1.6 (range 0 to 5). Students tested in their home language were more likely to be able to write at least one of the words dictated: of this group, 67.5% were able to write between 1 and 5 words correctly and 32.5% were unable to write any

words. Of students tested in a language other than that spoken at home, 45.3% were able to write between 1 and 5 words, and 54.7% were unable to write any.

c) **Year 3: All students:** The mean number of words written correctly for all year three students was 3.2 out of 5 (range 0 to 5).

a. **Year 3, contrast 1: Portuguese as language of testing vs Bilingual language of testing:**

Students tested in local languages achieved a higher mean score (3.6; range 0 to 5) compared to those tested in Portuguese (2.9; range 0 to 5). Students tested in local languages were more likely to be able to write at least one of the words dictated: of this group, 91.2% were able to write between 1 and 5 words correctly and 8.8% were unable to write any words. Of students tested in Portuguese, 74.5% were able to write between 1 and 5 words, and 25.5% were unable to write any.

b. **Year 3, contrast 2: Home language same as language of testing vs different home language**

**and language of testing:** The mean score for students whose home language was the same as the language of testing was 3.5 (range 0 to 5); for students whose home language was different from the language of testing it was 2.7 (range 0 to 5). Students tested in their home language were more likely to be able to write at least one of the words dictated: of this group, 88.5% were able to write between 1 and 5 words correctly and 11.5% were unable to write any words. Of students tested in a language other than that spoken at home, 70.3% were able to write between 1 and 5 words, and 29.7% were unable to write any.

The complete results are presented in the Technical Appendix, pp 34-37, 73-76, 90-93.

#### Annex 4: Detailed presentation of EGRA benchmarks

In order to be able to compare the results of the 3<sup>a</sup> classe full-EGRA and the mini-EGRA in terms of reading-fluency and text comprehension, as well as the results of the full-EGRA across years of schooling and language of testing, it was necessary to define evaluation specific benchmarks. After examining the characteristics of the 12 short texts included in the EGRA assessments, the evaluation team designed six different benchmarks based on pupils being able to read enough words of a text to answer a number of comprehension questions of subtask ST8. These benchmarks aim to account for the effect of the morphology of the assessment languages in the length of the different short texts, as well as differences in complexity between the texts included in the EGRA for 3<sup>a</sup> classe and the ones included in the mini-EGRA.

We started by determining, for each of the 12 short texts, how many words a pupil had to read in order to answer the comprehension questions of the EGRA. Those are described in tables xA to xE below:

Table xA: Number of words of words a pupil has to read in order to answer the first comprehension question of ST8

Year/ Language	Xichangana	Portuguese	Xirhonga
1 <sup>a</sup> classe	3	5	3
2 <sup>a</sup> classe	7	19	6
3 <sup>a</sup> classe	*	4	*

\*. It was only possible to answer the first and second questions simultaneously as they referred to the same paragraph of the short text.

Table xB: Number of words of words a pupil has to read in order to answer the first two comprehension questions of ST8

Year/ Language	Xichangana	Portuguese	Xirhonga
1 <sup>a</sup> classe	11	12	7
2 <sup>a</sup> classe	20	23	12
3 <sup>a</sup> classe	15	20	15

Table xC: Number of words of words a pupil has to read in order to answer the first three comprehension questions of ST8

Year/ Language	Xichangana	Portuguese	Xirhonga
1 <sup>a</sup> classe	15	22	15
2 <sup>a</sup> classe	30	48	20
3 <sup>a</sup> classe	33	38	41
3 <sup>a</sup> classe (mini-EGRA)	36	37	38



Table xD: Number of words of words a pupil has to read in order to answer the first four comprehension questions of ST8

Year/ Language	Xichangana	Portuguese	Xirhonga
2 <sup>a</sup> classe	37	57	38
3 <sup>a</sup> classe	*	62	*

\*. It was only possible to answer the fourth and fifth questions simultaneously as they referred to the full text.

Table xE: Number of words of words a pupil has to read in order to answer five comprehension questions of ST8

Year/ Language	Xichangana	Portuguese	Xirhonga
3 <sup>a</sup> classe	55	90	55

We designed the first three benchmarks in order to compare the results of the full and the mini-EGRA. The first two, benchmarks A and B, include elements of both fluency and text comprehension and are defined as:

- **Benchmark A:** The pupil read enough words to be able to answer the first three questions of ST8 and was able to do answer them correctly.
- **Benchmark B:** The pupil attempted to read enough words to be able to answer the first three questions of ST8 and was able to do answer them correctly.

The third benchmark, benchmark C, focus only on the text comprehension element of ST8. It is only defined for the pupils who attempted to read enough words as to be able to answer the first three questions:

- **Benchmark C:** The pupil answered three questions correctly.

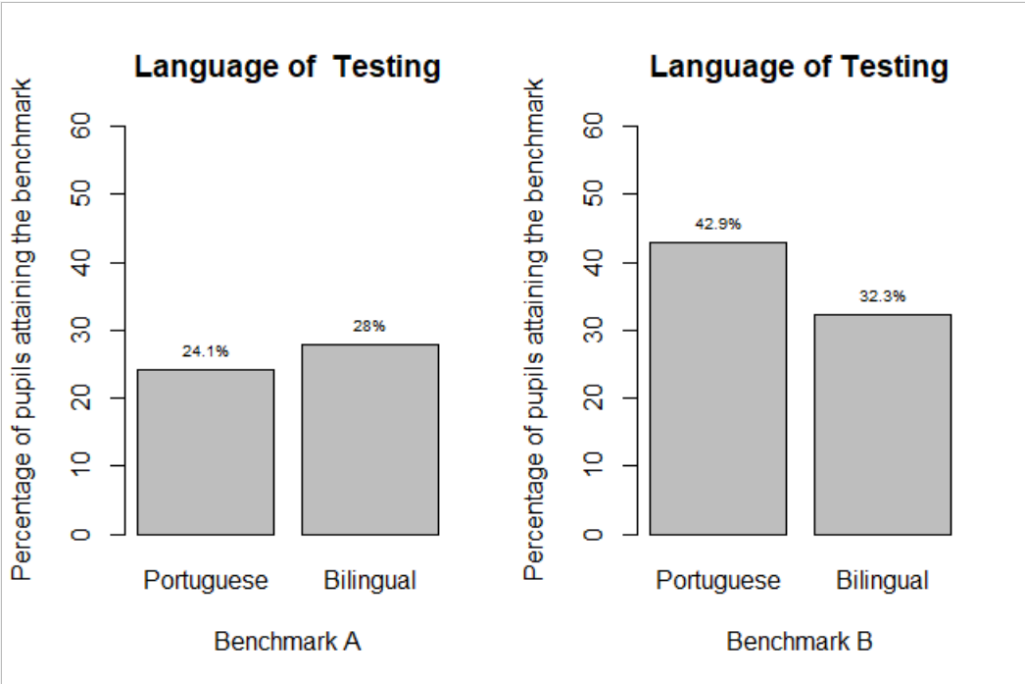
And the two final benchmarks apply to the full cohort of pupils being assessed by the full-EGRA:

- **Benchmark D:** The pupil managed to answer correctly the questions corresponding to the number of words they were able to read in sequence from the beginning of the text (i.e. until a word was skipped or read incorrectly).
- **Benchmark E:** The pupil managed to answer correctly the questions corresponding to the number of words they attempted to read.

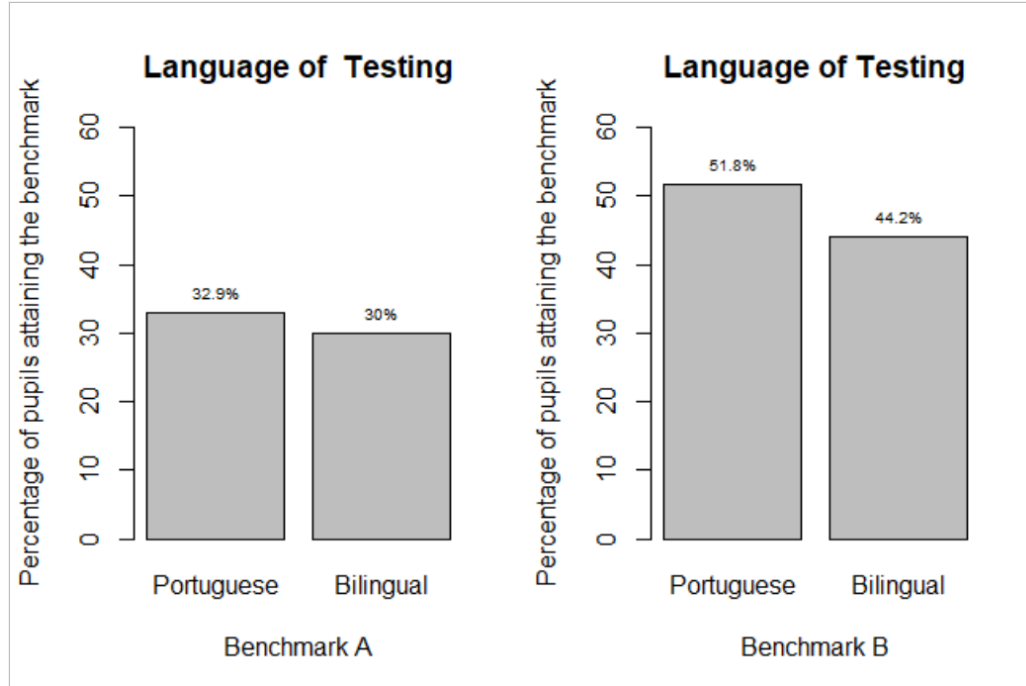
## Benchmarks A and B

25.9% of the 3<sup>a</sup> class pupils who sat the full-EGRA attained benchmark A, and 38.1% attained benchmark B. For the pupils who sat the mini-EGRA, the corresponding figures are higher at 31.2% and 47.3%, respectively. For each EGRA assessment, the distributions of the percentages of pupils who attained the benchmarks in terms of language of testing (Portuguese vs Bilingual and testing in Home Language vs testing in an Additional Language) can be found on the graphs below:

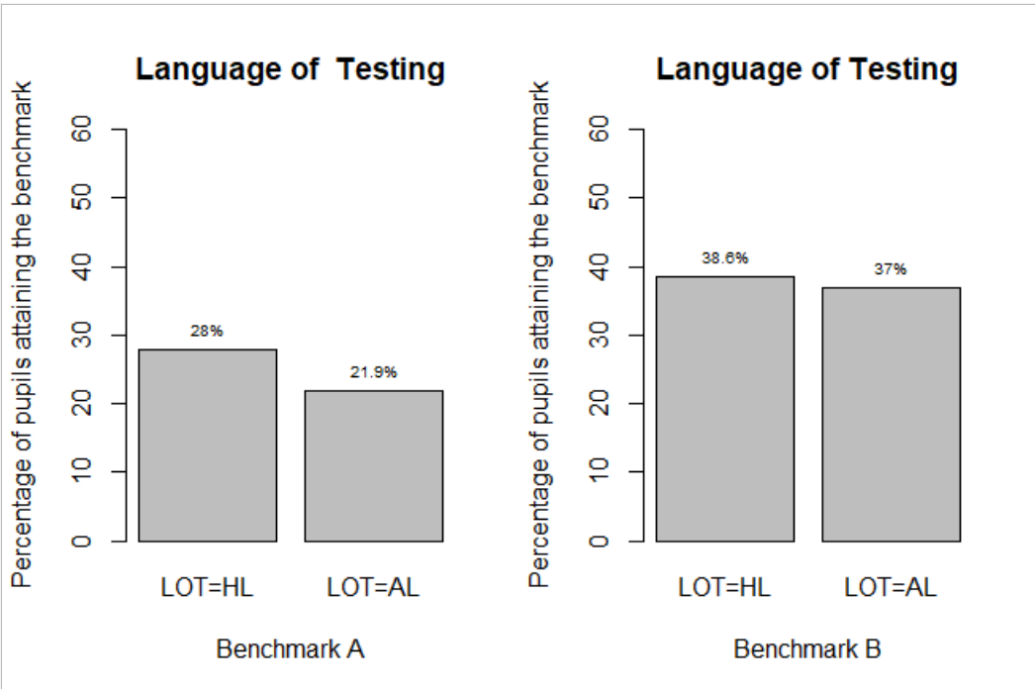
Graph xA: Percentage of pupils attaining the benchmarks by language of testing (Portuguese vs Bilingual) - 3ª classe EGRA



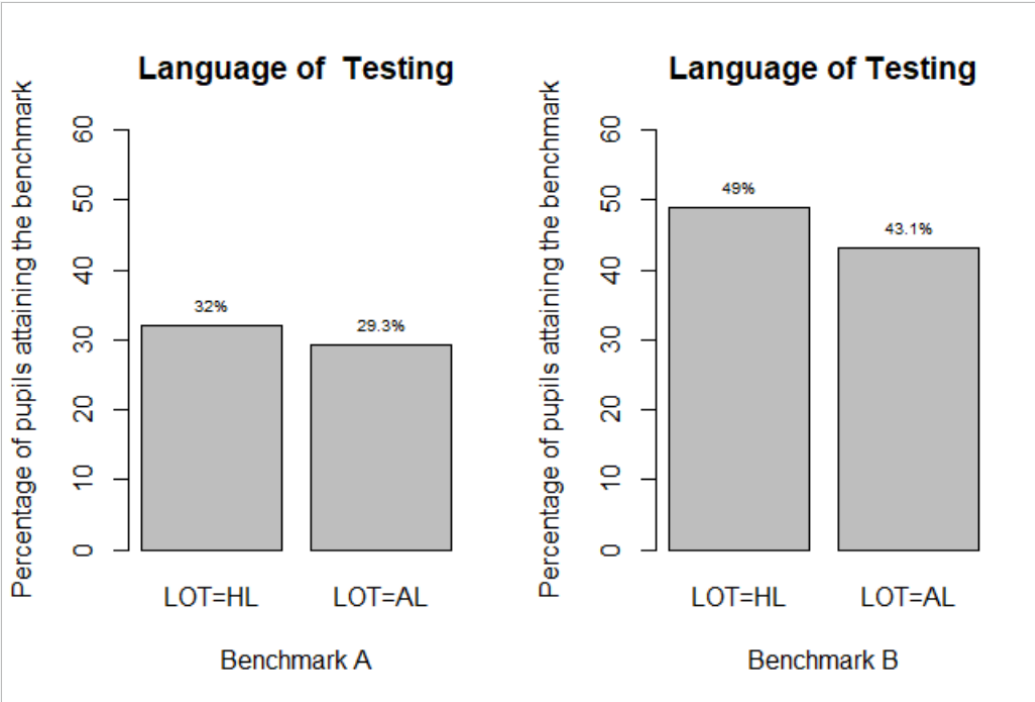
Graph xB: Percentage of pupils attaining the benchmarks by language of testing (Portuguese vs Bilingual) - mini-EGRA



Graph xC: Percentage of pupils attaining the benchmarks by language of testing (Home language as language of testing vs Additional language as language of testing) - 3<sup>a</sup> classe EGRA



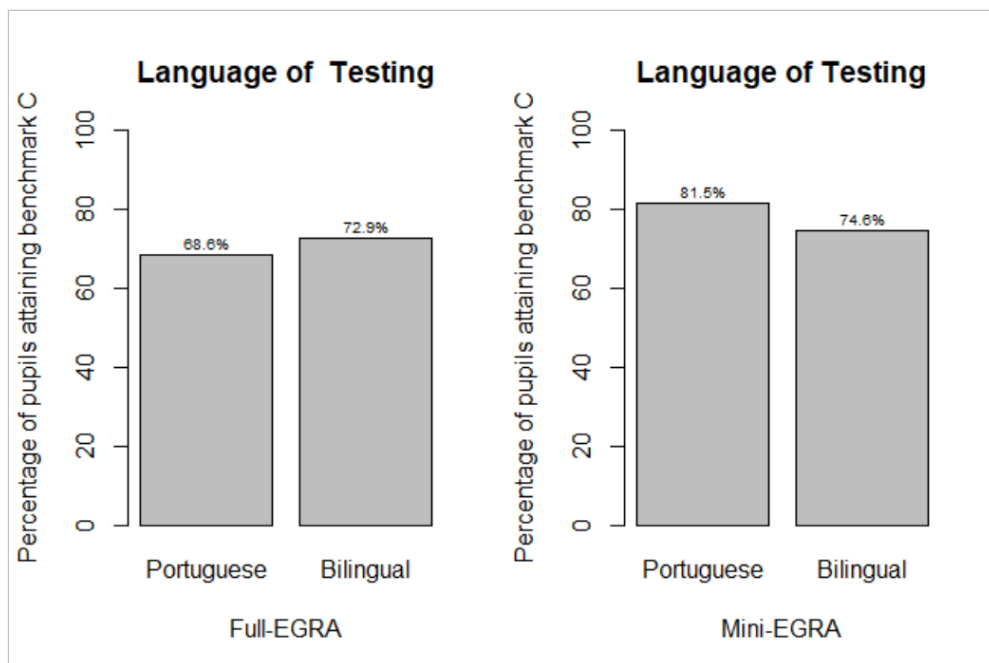
Graph xD: Percentage of pupils attaining the benchmarks by language of testing (Home language as language of testing vs Additional language as language of testing) – mini-EGRA



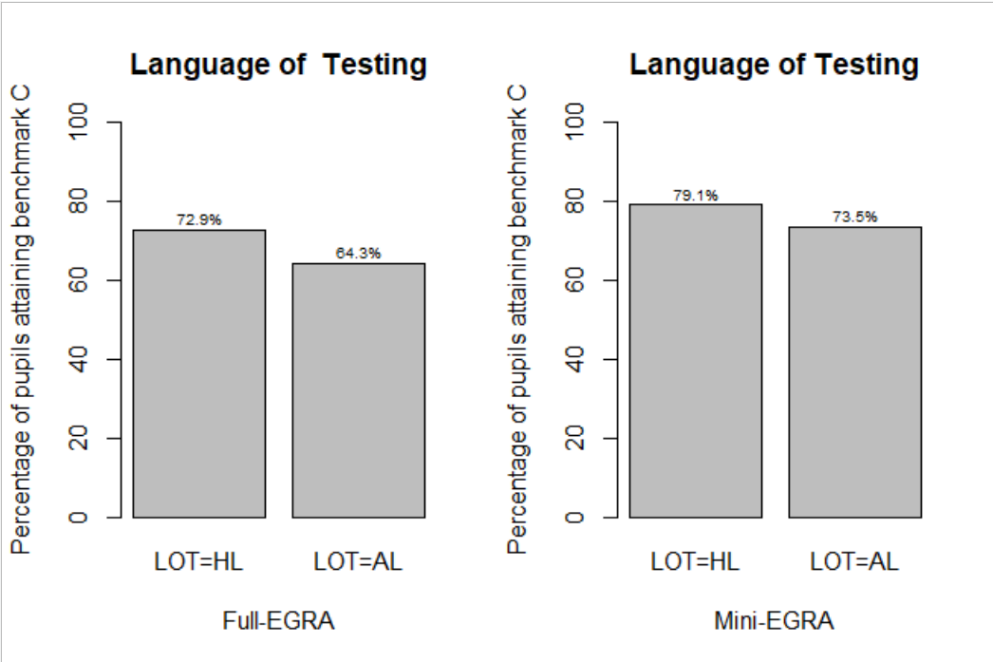
## Benchmark C

Amongst the pupils who sat the 3<sup>a</sup> classe full-EGRA and attempted to read enough words as to be able to answer the first three questions of ST8, 69.6% met the benchmark C criterion. Amongst the corresponding mini-EGRA subsample of pupils, 77.6% of the pupils attained the same result. The distributions of the percentages of pupils who attained benchmark C in terms of language of testing (Portuguese vs Bilingual and testing in Home Language vs testing in an Additional Language) and years of schooling can be seen on the graphs below:

Graph xE: Percentage of pupils attaining the benchmarks by language of testing (Portuguese vs Bilingual)



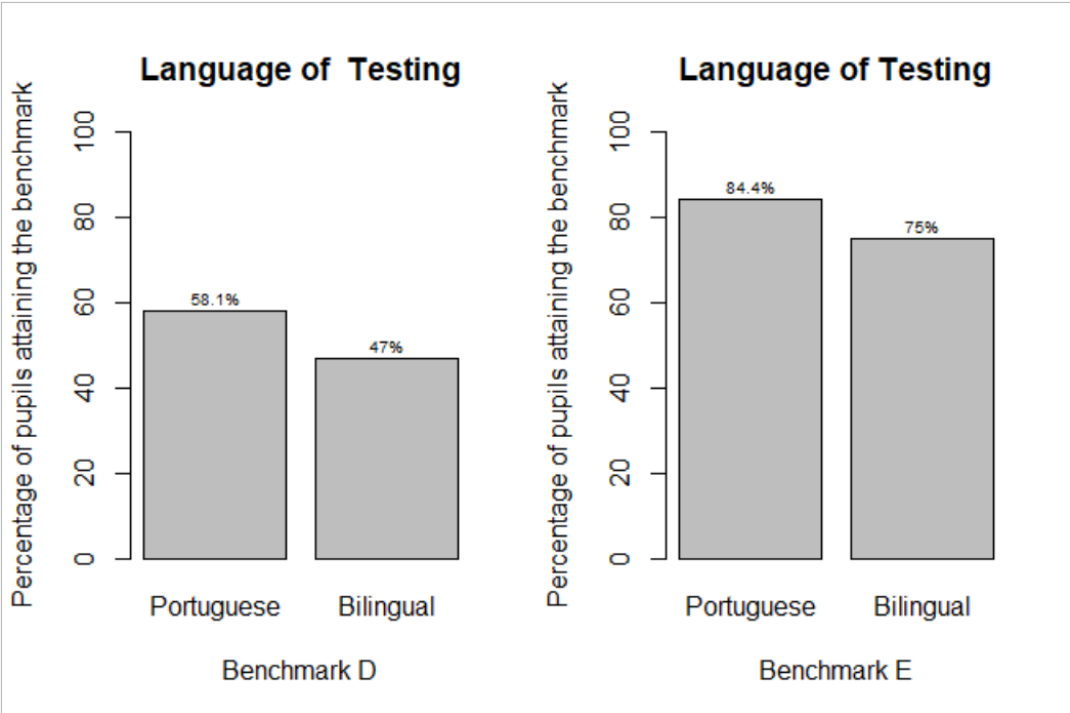
Graph xF: Percentage of pupils attaining the benchmarks by language of testing (Home language as language of testing vs Additional language as language of testing)



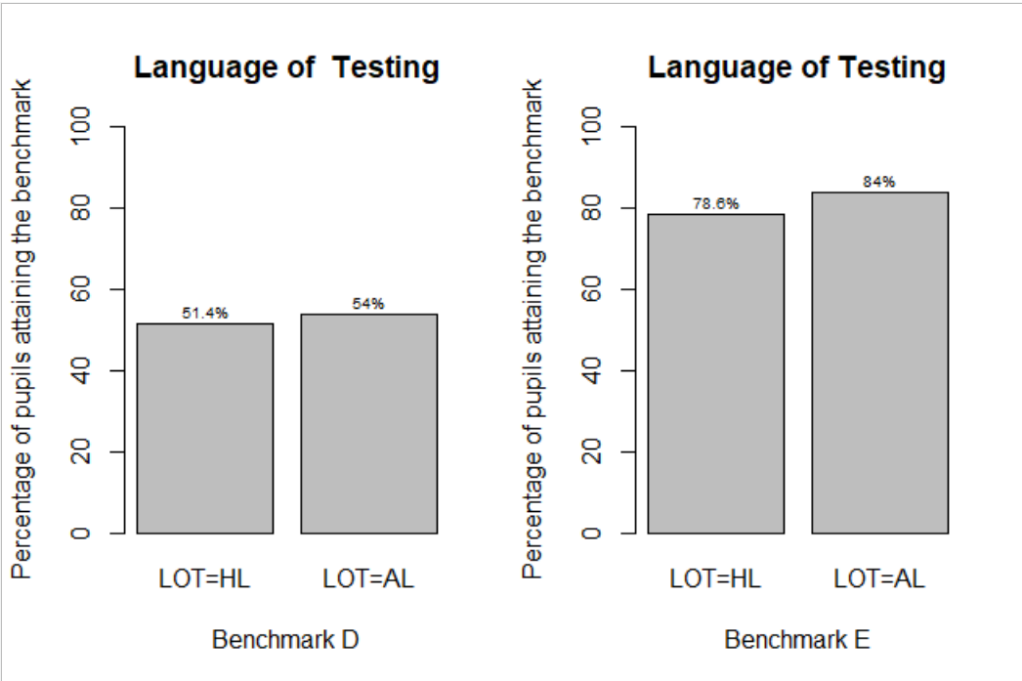
**Benchmarks D and E**

52.2% of the pupils who completed a full-EGRA assessment attained benchmark D, and 80.1% attained the less stringent Benchmark E. The distributions of the percentages of pupils who attained the two benchmarks in terms of language of testing (Portuguese vs Bilingual and testing in Home Language vs testing in an Additional Language) and years of schooling can be found on the graphs below:

Graph xG: Percentage of pupils attaining the benchmarks by language of testing (Portuguese vs Bilingual)



Graph xH: Percentage of pupils attaining the benchmarks by language of testing (Home language as language of testing vs Additional language as language of testing)



Graph xl: Percentage of pupils attaining the benchmarks by Years of Schooling

