PROGRAMA NACIONAL DE ALIMENTAÇÃO ESCOLAR

Programa Nacional de Alimentação Escolar

Save the Children

World Vision MOÇAMBIQUE

USDA

Alimentação Escolar Através de Produtos Locais LPSF

Juntos Educando a Criança

World Vision Mozambique

Final Evaluation Report

MOZAMBIQUE LOCAL AND REGIONAL FOOD AIDPROCUREMENT PROGRAM

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By

ICED

The International Centre for Evaluation and Development

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ACRONYMS

CIP	International Centre of Potatoes
CoP	Chief of Party
DIP	Detailed Implementation Plan
ECT2	Education Children Together Phase 2
FFE	Food for Education
ITSH	Internal Transportation, Storage & Handling
KPI	Key Performance Indicator
LPSF	Locally Procured School Feeding
LRP	Local and Regional Procurement
MASA	Ministry of Agriculture and Food Security
MINEDH	Ministry of Education
MISAU	Ministry of Health
M&E	Monitoring and Evaluation
MZM	Mozambique Currency
PDM	Post Distribution Monitoring
PMP	Performance Monitoring Plan
PRONAE	National School feeding program of the Government of Mozambique
SPC	School Procurement Committee
ToT	Trainer of Trainers
USD	United States Dollar

USDA	United States Department of Agriculture
WV	World Vision

1. EXECUTIVE SUMMARY

World Vision International implemented the Local and Regional Food Aid Procurement Program (LRP), a school feeding program in the two northern districts of Nampula Province, Muecate and Nacaroa. The aim of the program is to contribute to improve the nutrition of the students through the provision of meals made of locally procured nutritious food products which have been carefully selected efficiently bought stored cooked and served.

The objective of the program are as follows:

1. Improved effectiveness and sustainability of school feeding through local procurement.
2. Strengthened Farmer groups ability to provide high quality commodities and connect then to school feeding program.
3. Increased capacity of schools and the government to procure local commodities to supply school feeding programs long term.
4. Improved nutrition of students by utilizing various good quality culturally appropriate foods.

ICED conducted a final evaluation study which included program implementation process analysis, a survey to students and teachers and focus group discussions to all stakeholders involved in the management of the products, and provision of the meals, as well as an assessment of the markets in order to compare program results achieved with the baseline/targets set at the start of activity implementation.

The evaluation is intended to analyse the project implementation process, identify project achievements and help identify key challenges that need to be taken into consideration in order to support any follow up interventions by of World Vision or the Government of Mozambique.

The main findings of the study are summarized as follows:

1 LRP performed strongly against the evaluation criteria, indicating that the program was well designed, executed and managed to lead to strong outcomes for the students and the farmers and other stakeholders

2 Based on a review of core program objectives and analysis of their alignment with World Vision and the goal of USDA's ongoing McGovern-Dole ECT2 school feeding programme in the country through providing students locally grown and procured food commodities and to improve student nutrition, the evaluation found that LRP was relevant

3 Stakeholders confirmed that LRP is working on the right set of impact objectives to improve the nutrition of students and also to improve the effectiveness and efficiency of the local commodities to supply school feeding programs

4 LRP was highly effective in achieving its targets; the program was able to achieve most of its output targets on an aggregate level

5 There has been a considerable improvement from the baseline to the end-line in terms of the variety of food provided to students at school

6 About 40.2% of the students interviewed had two meals per day, lunch and dinner accordingly and 37 .1% of the students interviewed had three meals per day
7 Most of the teachers (99%) interviewed benefit from the meals offered at school where they work
8 The procurement committees were responsible for managing the food supplies provided by World Vision. In both districts 60% of the procurement committees surveyed had knowledge in procurement before joining the project
9 Most of the cooks had received training from the ECT2 main program before joining the World Vision LRP sub-program. 40 % of them received cooking training, 50 % received training in nutrition, and 48% of the cooks received training in Hygiene practices
10 Out of the 24 farmers associations interviewed 54% in Muecate and 72.7% in Nacaroa were officially registered
11 92% and 90% of the Associations have declared to have received training in Agronomy skills both in Nacaroa and Muecate
12 45.8% of the Farmers associations affirmed that they use mainly the association storage facilities
13 There was a great improvement on student's health from the beginning of the project to the end. Only 13.7% of the students interviewed in both districts have reported to fall sick once a month as compare with the 28% of students that reported to fall sick once a month in the beginning of the project.
14 LRP was implemented efficiently, with teachers, students, farmers and the government officials giving high ratings for the level of technical and financial support received during the program period.

The results from the main indicators as compare to the baseline are presented below

Outcomes	Outcome indicators Assessed	Baseline		Final Evaluation	
		Control	**Treatment**	**Control**	**Treatment**
Improved effectiveness and sustainability of school feeding through local procurement	Percentage of farmer groups with partnerships with schools	55.3	44.6	29%	70%
Strengthen farmer groups' ability to provide high quality commodities and connect them to school feeding programme	Average volume of commodities sold by farmers (Kgs)	0	95	0	500
	Average value of commodities sold by farmers before project (MTn)	0	2250	N/A	N/A

Increased agricultural productivity of farmer groups	Percentage of farmers with training in agricultural productivity	34	38	N/A	91.4%
	Percentage of farmers trained in business skills	38	61.5		91,7%
	Percentage of farmer group leaders trained in produce storage and handling	10	31	N/A	70.5%
Increased capacity of farmer groups to fulfil procurement contracts	Percentage of farmers engaged in food supply contracts	0	8.5	N/A	58.3%
	Percentage of farmer group leaders with training in procurement contracting	40	59.2	N/A	72.7%
Increased capacity of schools and the government to procure local commodities to supply school feeding programmes in the long term	Percentage of schools involved in procurement of local commodities for school feeding	N/A	43.5	N/A	64%
	Percentage of government officials involved in local commodities procurement for school feeding	NA	NA	NA	NA
Increased skills and knowledge of school management in food quality control and stock control	Percentage of school management committee members with knowledge in food quality and stock control	0	37.5	N/A	30
Increased skills and knowledge of school management in forward contracts	Percentage of school management committee members with training in forward contracts	0	37.5	0	84.2
Improved nutrition of students by utilizing various, good quality and culturally appropriate foods	Average number of daily meals consumed by households – children	2	2	2	2
Improved access to nutritious foods	Percentage of children consuming at least 3–7 food groups	55.8	44	78%	89%

Increased skills and knowledge on nutritious food preparation	Percentage of cooks trained in nutritious food preparation	49	33	36%	10%

In the following report, the individual section presents the quantitative and qualitative data, which support the listed observations

1. BACKGROUND

In 2017, World Vision received a two-year grant covering 8 May 2017 to 28 February 2019 from the United States Department of Agriculture (USDA) to implement the Local and Regional Food Aid Procurement Program (LRP) in Mozambique. The goal was to improve student nutrition and the efficacy and sustainability of USDA's ongoing McGovern-Dole ECT2 school feeding programme in the country through providing students with locally grown and procured food commodities. The Locally Procured School Feeding (LRP) project aims to obtain dry beans, groundnuts and orange-flesh sweet potato (OFSP), plus iodized salt, from local suppliers to provide to 43 schools in the Muecate and Nacaroa districts. Procuring foods locally will strengthen the local market supply as well as suppliers' capacity to provide high quality food to schools. This approach is in line with the government's school feeding policy and will complement its efforts in addressing nutritional deficiencies, especially vitamin A and iron deficiencies among children.

To provide the food, World Vision worked with local suppliers to procure approximately 120 mt of beans, 253 mt of groundnuts and 42 mt of salt. The project worked with local farmer groups already connected to the selected schools to procure 230 mt of OFSP through a forward contracting mechanism. These farmer groups received training to improve the yield and quality of their commodities and their business skills. The overall objective was to improve the effectiveness and sustainability of the school feeding programme through local procurement of food. The main intermediate results were to strengthen farmer groups' ability to provide high quality, nutritious commodities and connect them to school feeding programmes; increase the capacity of schools and the government to procure local commodities to supply the school feeding programmes in the long term and improve the nutrition of students by utilizing various good quality and culturally appropriate foods.

World Vision commissioned this final evaluation study on the LRP project to assess the project implementation process, identifying the project achievements and any challenges faced. The evaluation will also attempt to contribute to the organizational learning by identifying lessons learnt and emerging good practices. Program goal as outlined in the TOR is the effectiveness and sustainability of school feeding through local procurement. This goal will be achieved through the following results:

- Strengthening farmers' groups ability to provide high quality nutritious food commodities and connect them to school programs
- Increase the capacity of schools and the government to procure local commodities to supply school feeding programs in the long term
- Improve nutrition of students by utilizing various good quality and culturally appropriate food

1.1. MOZAMBIQUE'S SOCIOECONOMIC SITUATION

Mozambique is a low income, food deficit country, which in 2017 was ranked 180 out of 188 countries in the human development index rank, and 96th out of 117th countries in the global hunger index. According to the government of Mozambique 2017, the country has a large and growing population of 28 million. Currently INE projects 29.5 million people in the country. The country has not been able to reach the OMS recommended level of consumption of kilocalories per day which is 2400 kcal. With a GHI score of 28.8, Mozambique has a serious level of hunger. The country has demonstrated significant commitment to improve the health status of the population, and government spending on health services has increased. However, according to the European Union Mozambique Nutrition Dashboard 2018 the prevalence of stunting, which is associated with chronic malnutrition, is at 37% and has improved from 46% in 2013.

Although most of the agricultural production takes place in the northern and central provinces, the northern provinces are more severely affected by chronic food insecurity and, thus, stunting. In Nampula the chronic malnutrition level is 55%, anaemia affects 72.6% of the children under 5 years of age, and vitamin A supplementation was done in 78.4% of children under 5 years of age.

The country has registered good progress towards Sustainable Development Goal 1 on ending poverty in all its forms but needs to make more progress towards the targets of Sustainable Development Goal 2, which focuses on access to food, food insecurity, chronic malnutrition and smallholder productivity. To achieve those results the following challenges need to be addressed:

- Government institutions suffer from insufficient programme implementation capacity, shortage of qualified staff, and resource limitations, all of which affect nutrition and food security programmes, particularly at the provincial and district levels.
- The national emergency preparedness and response capacities are insufficient to address the frequent climate shocks, despite the progress made over recent years.
- The multisectoral coordination between the government and partners on food security and nutrition is fragmented, preventing consistency in programming and limiting consideration of regional differences;
- Access to markets and sustainable food systems is limited, constraining the commercialization of the food produced by smallholder farmers.

1.2. THE STUDY AREA

In 2018 Mozambique had 20,658 primary schools which includes 12,737 EP1 schools (grade 1-5) and 7921 EP2 schools (grades 6-7)[1]. There were 5,453,150 pupils enrolled in

[1] Annual survey general education public schools –2018 MINED

EP1 and 954,542 in EP2[2]. The national ratio of teacher to students was 1:55[3]. The average national literacy rate in 2019 was 45% (UNESCO.)

The study covered two districts in Nampula province, i.e. Muecate and Nacaroa. Muecate district has an area of 4,154 km^2 and a population of 107,614, and Nacaroa, whose area is 2,749 km^2, has a population of 119,893 (INE, 2013). [4] The two districts have a total of 160 schools and the World Vision Educating Children Together (ECT) programme serves all of these schools.. In 2017 Muecate had 83 schools out of which 36 were EP1 schools and 47 were EPCs (complete primary schools) with a total of 32,409 students in 569 classes. In 2017 Nacaroa had 77 schools, out of which 38 were EP1 schools and 39 were EPCs.[5] However, the LRP targeted only 43 schools in the two districts during its implementation from May 2017 to July 2019.

The 43 target schools were served by 46 farmer associations in the study area, 24 in Muecate and 22 in Nacaroa. The associations had about 1,100 farmers, and average 5–10 members. They produced a variety of five or more products.

Muecate district had 21,593 small and medium-size farms occupying an area of 30,676 m^2 and constituting 3% of the farms in the province (INE, 2013). Nacaroa had 23,877 small and medium-size farms cultivating an area of 30,681 m^2 or 3% of the cultivated area in the province

1.3. THE NATIONAL SCHOOL FEEDING PROJECT

The Government of Mozambique in 2010 entered into a tripartite agreement with the Brazilian Cooperation Agency and the World Food Programme to develop the National School Feeding Programme (PRONAE). This programme now benefits from the support of other partners and is being implemented in two phases. The pilot's project phase 1 targeted primary schools in Cahora Bassa and Changara in Tete province. Pilot 2 is targeting the provinces of Gaza, Manica, Tete and Nampula.

World Vision is one of the stakeholders in PRONAE. It has been implementing a programme to substantially improve students' nutrition and the efficacy and sustainability of the ongoing McGovern-Dole ECT2 school feeding programme in Mozambique through providing the schools with locally grown and procured food commodities. World Vision's Locally Procured School Feeding (LPR) project procures dry beans, groundnuts and OFSP, plus iodized salt, from local suppliers to supply the schools in Muecate and Nacaroa districts of Nampula. The aim is to achieve the objective of improved effectiveness and sustainability of school feeding through local procurement. The following are the expected intermediate results:

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[2] Enrolment by level of education -Day and night shifts – 2018 MINED

[3] Unesco 2018

[4] INE Estatisticas do Distrito 2013

[5] Information from World Vision

- Strengthen farmer groups' ability to provide high quality, nutritious commodities and connect them to school feeding programmes;
- Increase capacity of schools and the government to procure local commodities to supply school feeding programmes in the long term;
- Improve nutrition of students by utilizing various good quality and culturally appropriate foods.

2. PURPOSE OF THE SURVEY

The overall goal of the final evaluation of the LRP project is to assess the results and the achievement of the project objectives according to the logical framework. The evaluation also seeks to analyse the project implementation process, identify project achievements and the challenges faced.

2.1. METHODOLOGY

As per the TOR the end of the LRP project evaluation will be an ex-post performance evaluation to compare baseline indicator levels with end of project levels.

The Final evaluation was an ex-post performance evaluation. The consultant adopted the same design used for the LRP baseline. This enabled the consultant to compare end line with baseline indicators.

The study employed mixed methods research approach which entails the collection, collation and analysis of quantitative and qualitative data. Evaluation research has shown the potential of this approach in further enhancing the credibility of evaluation findings as it provides a fuller picture of the phenomena under investigation that would not otherwise be visible from a single-method approach. The approach enriches the validity of the evaluation results through data triangulation.

The qualitative data collection approach was used to complement the quantitative data and provided granular information which allowed for nuances such as social analysis of gender and age groups specific deficiencies and related needs and other relevant issues that emerged from the analysis of the quantitative data.

It was also used to improve understanding about the economic, environmental, social and institutional patterns that supported or constrained the possible economic and social impact of an intervention.

The methodology was divided into four stages consisting of Desk review, Survey, Indepth Semi-structured Interviews and Focus Group Discussions (FGDs). As a first step, the consultant review the project document, project reports and other literature on school feeding project and food insecurity.

A survey questionnaire was used to gather data for students and teachers. The consultant also used Indepht Semi-structure Interview to collect and analyze data from Government officials, Transporters, Wholesalers and commodity supplies. Aside these, FGDs were also used to collect and analyze data form Farmer Association, School Management Committee, School Procurement Committess and Cooks.

The evaluation was guided by four core evaluation criteria. These are Relevance, Effectiveness, Efficiency, and Sustainability.

Each criterion was evaluated and rated. The ratings were then aggregated to produce the overall performance assessment rating.

2.2. SAMPLING STRATEGY AND SAMPLE SIZE

The study adopted the sampling strategy used for the baseline survey. In view of this, the study used both probability and non-probability sampling methods. Probability sample method was used to randomly select both the control and the treatment schools, the students, teachers and school administrative staff for the study. The simple random sampling strategy involved assessing the universe by listing all the 160 schools in the treatment and the control areas, then number of students, teachers and PTAs and sampling them.

Since there were 43 schools in the treatment area and 117 in the control area, a simple a simple random sample method was used to select a number of schools within the treatment group and also in the control group. Based on the selected sample schools, the consultant selected randomly students from each school, teachers from each of the school, volunteer cooks and officials from both sampled treatment and control schools and interviewed.

Purposive sampling techniques was used to select the key informants such as district and provincial government officials from the Ministry of Education, Agriculture and Health for the study. This enabled the consultant to select respondents who had in-depth knowledge about the project for interview.

Based on the population of the study (160 schools), ICED used a simple random sampling approach to select a sample size of 50 schools, a statistically acceptable sample size, based on the following assumptions:

- Total Number of Schools = 160
- Number of schools selected = 50
- 20 Schools of the treatment group
- 30 Schools of the control group

- **Table 1: Schools selected in Muecate district**

ETC2 Control Schools	LRP Treatment schools
Nchancha	Namina

Nantica	Nacotho
Tipane	Minicane
Nacopa	Mucocola
Mucone	Chipacane
Nanvuca	Mutuala
Nametil	Carimela
Nalikue	Ampuaia
Imala	25 de Setembro
Terrene	Namicoio
Sapala	
Lapa	
Mathe	
Mucorro	
Minheuene	

Within each selected school, the students and teachers were randomly selected for the survey. the participants for the FGDs were also randomly selected within each farmer group. Focus group discussions was used to collect qualitative data which supported the quantitative data collection exercise. In addition to focus group discussions with the FBOs, the consultant also undertook interviews with key informants including community heads, assembly people and one or two elders in the communities.

In each school, the consultant selected the following:

- 15 students
- 3 teachers
- 3 cooks, and
- 3 school management officials

The consultant also included the farmer organizations that participated in the baseline in the study. These were basicaly the ones located near the schools and that colaborate with the schools in the two districts. In each association, 10 farmers wereselected to participate in focus groups discussions.

2.3 THE CHOSEN INDICATORS

Based on the categorization of the indicators in the LRP performance monitoring plan and the indicators covered for the baseline, the consultant selected adapted the following indicators for the study.

- Percentage of farmer groups with partnerships with schools
- Average value of commodities sold by farmers before the project (Mtn)

- Percentage of farmers with training in agricultural productivity
- Percentage of farmers trained in business skills
- Percentage of farmer group leaders trained in produce storage and handling
- Percentage of farmers engaged in food supply contracts
- Percentage of farmers groups trained in procurement contract
- Percentage of schools involved in procurement of local commodities for school feeding
- Percentage of government officials involved in local commodities procurement for school feeding
- Percentage of school management committees' members with training in forward contracts
- Percentage of school management committees' members with knowledge in food quality and stock control
- Average number of daily meals consumed by households' children
- Percentage of children consuming at least 3- 7 food groups
- Percentage of cooks trained in nutritious food preparation.

The comparison table of the above indicators are presented as a table in the Key findings section of the report

2.4 FIELDWORK AND DATA COLLECTION

ICED prepared and pre-tested the data collection tools, trained the enumerator, and coordinated the survey in the two districts. The team conducted a three-day training session for the 14 enumerators. The training focused on the design of the baseline survey, the sampling strategy and the data collection instruments for the study. The training ended with a pilot survey in one of the treatment communities in Muecate district where the enumerators interviewed teachers, principals, students, members of the school feeding project committee (cooks, heads of logistics and procurement committees), farmers who supply orange-fleshed sweet potato (OFSP) to the project. Finally, the enumerators visited the local market where they assessed the supply of and interviewed vendors selling products whose consumption was promoted by the project.

Gender balance was taken into consideration in the selection of interviewees and interviewers, to comply with local cultural practices. Thus, female enumerators interacted primarily with female respondents except for situations where the level of understanding of interviewees made gender aspects less sensitive. That was the case with teachers.

The field work was undertaken in two phases. During the first phase, Focus Group Discussions were conducted with cooks, school procurement committees, market committees and other

stakeholders. During that time the survey was conducted among students and teachers, and FGDs were held with school management committees. The number of interviews and FGDs in many cases was lower than the sample size determined due to the following reasons.

- Not all schools were linked to a farmer group;
- Not all schools had a market nearby;
- Only LRP schools had procurement committees, although not all of them were operational;
- Not all schools had grades 1 to 7; some had only grades 1 to 5.

2.5 QUALITY CONTROL

ICED implemented robust data quality control measures to maintain data quality throughout data collection, management and analysis. First, the use of the Computer-Assisted Personal Interviewing (CAPI) platform eliminated errors associated with data entry and conditional skips were minimized, hence ensuring enhanced data quality. The use of CAPI also eliminated the need for a manual data entry process, which is associated with entry errors that may compromise data quality.

In order to ensure that the draft survey instruments were of the highest quality, the paper questionnaire and CAPI setup were subjected to rigorous reviews before training. The instruments were thoroughly revised after training to inculcate suggestions and corrections made during field training. The consultant made available dedicated servers for effective data transfer from the field to the research team. This provided a highly secured data storage and aided the monitoring of real time data which ensured that errors occurring on the field are promptly corrected.

The research team comprised a dexterous and dedicated field and data management team who engaged in data monitoring and ensured that data collected conforms to quality standards. Effective field monitoring by the research team and CAPI team will helped to deal with field challenges and ensured field procedures were strictly followed by the field teams. The teams also monitored community interactions of the field personnel and ensured they conformed to the cultural norms and ethics in the respective research communities. The team also ensured that effective community entry procedures were followed. This engendered good public relations between the field teams and the communities during field work. We will also ensured that the field personnel conducted themselves professionally throughout the survey period. On data management, there was real time monitoring of data received on the server to check for inconsistencies and outliers. At the start of the actual fieldwork, data from the first two days were quickly reviewed by the research team and consistency checks were undertaken and communicated to the field supervisors for clarifications and corrections of errors occurring on the field. This ensured that field staff conform to quality standards. This routine was followed throughout the survey period.

In addition, there were constant and random back-checking which made sure that the quality of the data was not compromised in any way. As a quality check measure, a minimum 10-15 percent of all interviews conducted by each interviewer were back-checked by the team leader or field supervisor. This involved returning to a respondent who had already been interviewed to be re-interviewed on key points of the questionnaires.

2.6 DATA ANALYSIS AND REPORTING

After the quantitative and qualitative data had been collected and cleaned for each district ICED conducted a comprehensive analysis of the data and reporting with reference to the evaluation criteria such as;

1. The relevance,
2. The effectiveness and the efficiency,
3. The outcome and the impact,
4. The sustainability of the project.

The Evaluation assessed the following:

- Level of knowledge and capacity of the population that has benefited from the trainers of the project
- Quality of food consumption of the students
- Type of food purchased/consumed by the beneficiaries
- Type of food produced by the beneficiaries
- Production methods used by the farmers
- Distribution channels of agriculture produce

The report also found out that there is not need to analysis the report between control and treatment since there is not proper records of groups and association linkage to schools. The evaluation teams were not able to make distinction between farmers association in both the control and the treatment districts and the intiail anlysis did not yield any significant difference. The program was not plan as a rigerous experimental evaluation program.

3 KEY FINDINGS

The key findings of the evaluation are presented in this section. It summarizes the findings of the evaluation according to the four core evaluation criteria used for the study namely, Relevance, Effectiveness, Efficiency, and Sustainability of the project. It provides contextual information on the project components that worked and those that did not, as well as lessons learned from the implementation of the project. The finding did not distinguish the result between control and treatment since it was found out that the program has not kept the records

and listing of association and groups link to the treatment and the control group. Attempts that were made even to analysis data between the treatment and control on data collected showed no significant difference to be presented in this report. The finding presented in this report, therefore, will be "Before and after" analysis and findings. A summary table of the key indicators are presented in the section below.

3.1 SUMMARY OF PROJECT-LEVEL RESULT

The evaluation assessed the LRP to determine its performance across four evaluation criteria, including relevance of the project; effectiveness in achieving target organizational objectives; efficiency in maximizing resources and partnership; and sustainability in building systems and structures to achieve the school feeding impact. **The results of the study showed that the LRP performed strongly against all but one of the evaluation criteria. It received strong stakeholder ratings across the relevance, effectiveness and efficiency criteria and fair ratings on sustainability.** The evaluation found that LRP was addressing the critical needs of pupils and farmers, building on existing projects in the agriculture sector, and has improved the livelihoods of farmers. This gives an indication that the project was well designed, executed and managed.

3.2 MOZAMBIQUE LRP OUTCOME INDICATORS TABLE

Outcomes	Outcome indicators Assessed	Baseline		Final Evaluation	
		Control	**Treatment**	**Control**	**Treatment**
Improved effectiveness and sustainability of school feeding through local procurement	Percentage of farmer groups with partnerships with schools	55.3	44.6	29%	70%
Strengthen farmer groups' ability to provide high quality commodities and connect them to school feeding programme	Average volume of commodities sold by farmers (Kgs)	0	95	0	500
	Average value of commodities sold by farmers before project (MTn)	0	2250	N/A	N/A
Increased agricultural productivity of farmer groups	Percentage of farmers with training in agricultural productivity	34	38	N/A	91.4%
	Percentage of farmers trained in business skills	38	61.5		91,7%
	Percentage of farmer group leaders trained in produce storage and handling	10	31	N/A	70.5%

Increased capacity of farmer groups to fulfil procurement contracts	Percentage of farmers engaged in food supply contracts	0	8.5	N/A	58.3%
	Percentage of farmer group leaders with training in procurement contracting	40	59.2	N/A	72.7%
Increased capacity of schools and the government to procure local commodities to supply school feeding programmes in the long term	Percentage of schools involved in procurement of local commodities for school feeding	N/A	43.5	N/A	64%
	Percentage of government officials involved in local commodities procurement for school feeding	NA	NA	NA	NA
Increased skills and knowledge of school management in food quality control and stock control	Percentage of school management committee members with knowledge in food quality and stock control	0	37.5	N/A	30
Increased skills and knowledge of school management in forward contracts	Percentage of school management committee members with training in forward contracts	0	37.5	0	84.2
Improved nutrition of students by utilizing various, good quality and culturally appropriate foods	Average number of daily meals consumed by households – children	2	2	2	2
Improved access to nutritious foods	Percentage of children consuming at least 3–7 food groups	55.8	44	78%	89%
Increased skills and knowledge on nutritious food preparation	Percentage of cooks trained in nutritious food preparation	49	33	36%	10%

3.3 ASSESSMENT OF LRP'S RELEVANCE

The study assessed the relevance dimension of the project to ascertain how it aligns with the overall objectives of the USDA project, whether its objectives met the needs of the market, and whether its theory of change and intended activities were relevant to USDA project's objectives.

A review of the core objectives of the project vis-à-vis analysis of the goals of the World Vision International and that of the USDA's McGovern-Dole ECT2 school feeding project in Mozambique indicated that the LRP was relevant. The objective of the LRP was found to align with that of the World Vision and USDA's McGovern-Dole ECT2 school feeding project.

The implementation of the LRP has contributed in addressing the critical needs of schools and the government to effectively and efficiently procure local commodities to supply school feeding projects, promote the sustainability of school feeding, strengthen farmer groups' ability to provide high-quality nutritious commodities and improve the nutrition of pupils in the target districts of Muecate and Nacarôa.

The project was also in alignment with the core objectives of the larger ongoing McGovern-Dole ECT2 school feeding project in Mozambique through the procurement of local and regionally produced foods strategy.

Moreover, the core objectives of the project were seen to be relevant to and in line with the government's school feeding policy and complement its efforts in addressing nutritional deficiencies, especially vitamin A and iron deficiencies among children, and strengthen farmer groups' ability to provide high-quality nutritious commodities.

The stakeholders confirmed that LRP was working on the right set of impact objectives to improve the nutrition of pupils. The stakeholders perceived LRP's key impact areas (farmer groups with partnerships with schools, increased in commodities sold by farmers, farmers with training in agricultural productivity, farmers trained in business skills, farmer group leaders trained in produce storage and handling, and farmers engaged in food supply contracts) to be fairly to highly relevant for promoting increased local commodities to supply school feeding project.

3.4 ASSESSMENT OF LRP'S EFFECTIVENESS

The effectiveness of LRP was assessed with the view to analyze how LRP performed against output and outcome indicators. This was done through the analysis of quantitative school and farmer survey results and the semi-annual Progress Report of WVI. This section focuses on LRP's achievement at the aggregate project level.

LRP was highly effective in achieving its targets; the project was able to achieve most of its output targets on an aggregate level. The portfolio-wide review of the WVI semi-annual progress report demonstrated the project performance strongly against targets. Based on the analysis of the most recent semi-annual report, the output achievement was generally strong

across indicators. The report showed that "out of a total of 20 performance indicators being used to monitor progress of work towards intended cumulative final results; the project had over-achieved or achieved the targets on 12 indicators, 3 targets are over 80 percent achieved with the remaining 5 below 50 percent achievement as at the end of the original award period"

The evaluation team assessments in the in the two districts confirm the following output targets at the aggregate level

3.4.1 PERCENTAGE OF SCHOOLS INVOLVED IN PROCUREMENT OF LOCAL COMMODITIES FOR SCHOOL FEEDING

In the two study districts of Muecate and Nacarôa, 64% of the schools were involved in the procurement of commodities for the school feeding project. The Survey showed that the number of students participating in the project had increased from 92.4 percent to 99 percent in Muecate and from 93 percent to 99 percent in Nacaroa from the baseline to the end line survey as indicated in Figure 1.

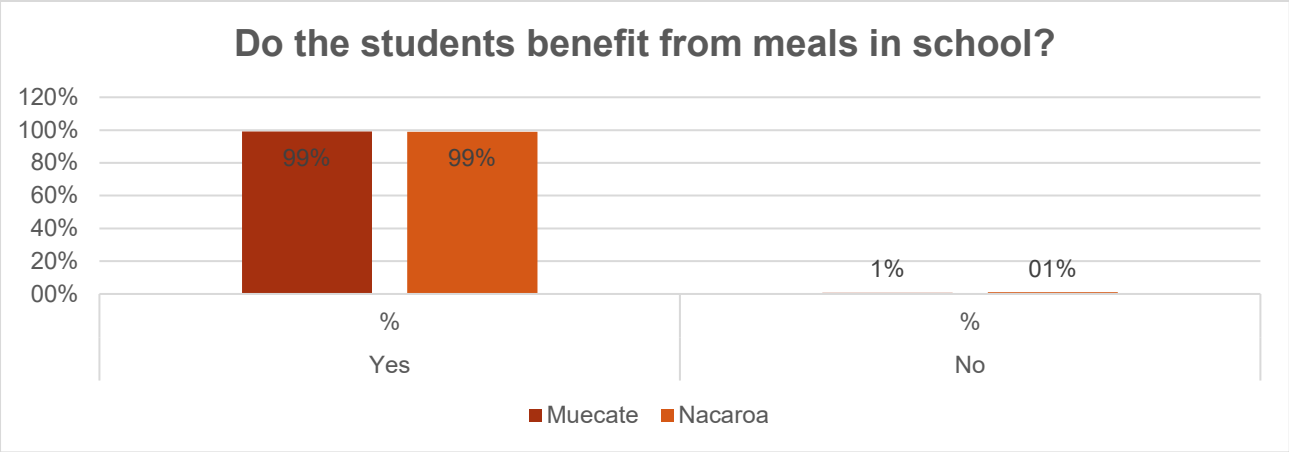

Figure 1 Percentage of students benefiting from meals in schools

3.4.2 PERCENTAGE OF CHILDREN CONSUMING AT LEAST 3- 7 FOOD GROUPS

There has been a considerable improvement from the baseline to the end line in terms of the variety of food provided to students at school. Almost all the students in the two districts (99.7 %) reported that they ate CSB and Beans in both districts. This is against the baseline with 90% of the students reported to have the meals served at school. The study indicated the 55.8 percent of the students in schools at Muecate schools ate salty food and 61.4 percent of students in the community reported to eat peanuts (30.7%) and sweet potato-based food (30.7%) as highlighted in Table 1.

District	Food Provided to students at school					
	FUBA	Beans	Peanuts	OFSP	Salt	Total
Total	99.7%	99.7%	29.1%	29.1%	46.0%	652
Muecate	99.7%	99.7%	30.7%	30.7%	55.8%	378
Nacaroa	99.6%	99.6%	27.0%	27.0%	32.5%	274

Table 2: Food provided to students at school

The results of the evaluation showed that majority (93%) of the students in the two districts liked the food served in their schools under the LRP as depicted in Figure 2. This is in line with the baseline, were 90% of the students reported the same.

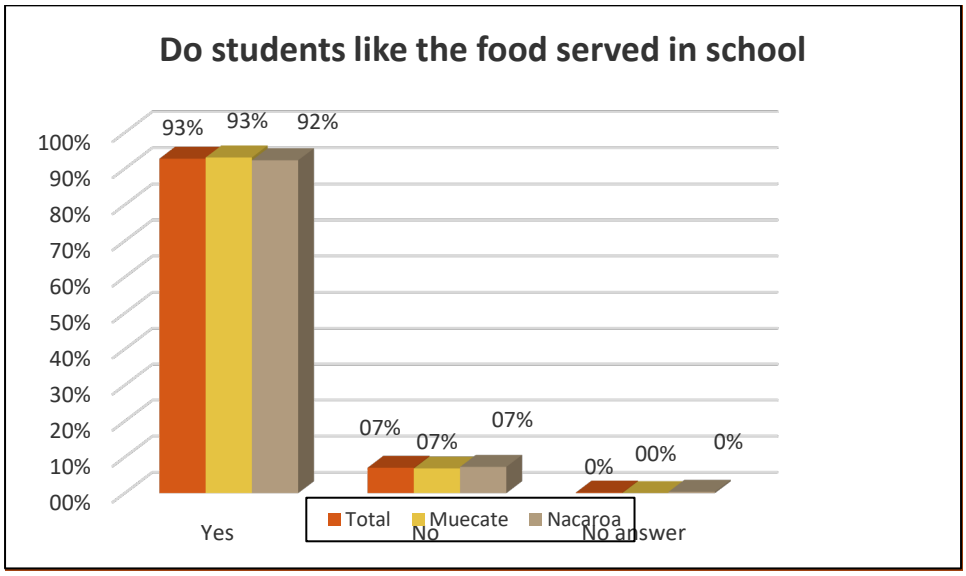

Figure 2: Percentage of students who like the food served in school

The evaluation tried to capture reasons why the students liked the food served under the LRP. It was found out that 61 percent of the students liked the quantity of the food served and 82 percent liked the taste of the food served. However only 36% of the students however indicated that the food was served on time as presented in Figure 3. This pattern is aligned with the baseline data which indicates that more than 70 % of the students liked the taste of the food. The reason for liking the food had to to do with the quantity of food served and only 20% of the students indicated that the food was served on time.

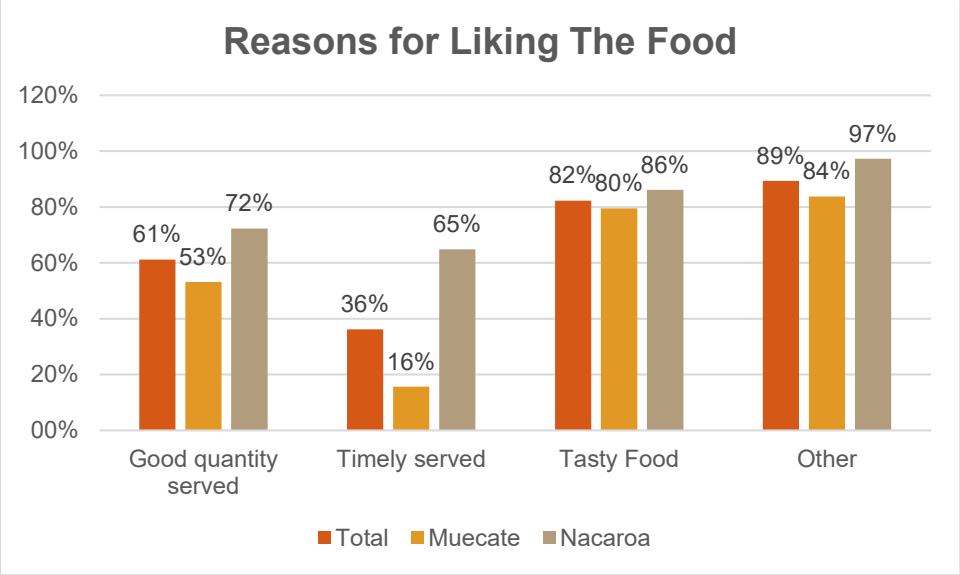

Figure 3: Reasons for liking the food served in school

3.4.3 AVERAGE NUMBER OF DAILY MEALS CONSUMED BY HOUSEHOLDS' CHILDREN

About 40.2 percent of the students interviewed were served lunch and dinner each day, whilst 37 .1 percent of the students interviewed had three meals per day. This trend was consistent with the baseline where 38 percent of the students had 3 meals per day.

The disaggregated data showed that in 49.3 percent of the students interviewed Muecate had two meals per day (lunch and dinner) and another 39.1 percent had three meals per day, while in the baseline 59 percent reported to have 2 meals per day and 31 percent of the students reported to have 3 meals per day. . In Nacaroa, 34.3 percent of the students were served three meals per day and only 27.6 percent of the students received 2 meals per day (lunch and dinner) is highlighted in Figure 4. In the baseline in Nacaroa district 41.7 percent of students suerveyed indicated that they had two meals per day while 45% of the students indicated that they have three meals per day.

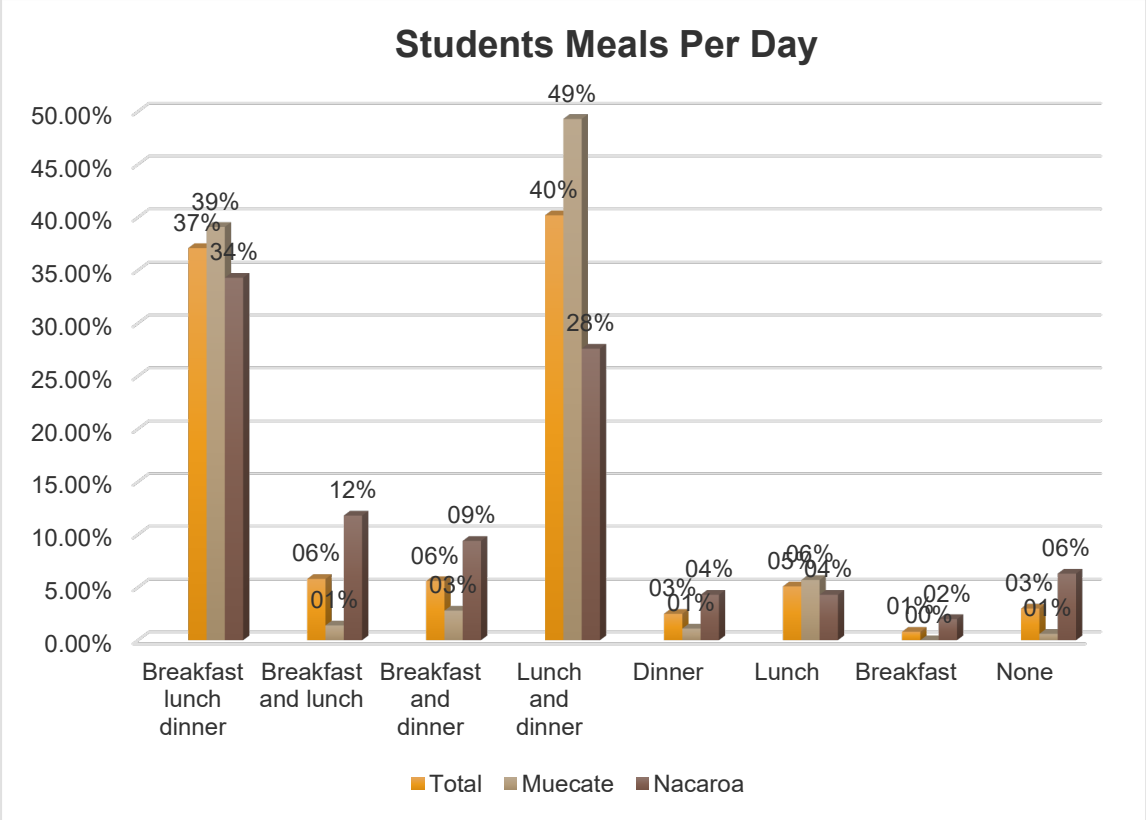

Figure 4: Meals per day for students

3.4.4 STUDENTS CONSUMPTION OF ALL FOOD GROUPS

Table 2 shows that almost all the students consumed all food groups. At least 84.8 percent of the respondents consumed food from all the food groups. It was however observed that the food group comprising maize, sorghum, cassava and rice was the one most consumed with 99.2 percent of the students affirming it. The food group comprising peanut oil coconut and sugar cane was reported to be the least consumed as it was consumed by with 84.8 percent of the students. In the baseline 98 percent of the students surveyed indicated that they ate maize sorghum cassava and rice, 95.5 percent of students indicated d that they ate beans, meat, fish, and eggs, 53.8 percent indicated that they ate OFSP, fruits, and vegetables, and 73.5 percent of the students surveyd indicated to eat peanut, oil, coconut, and sugar cane. There has been a great improvement in the consumption of food group 3 (OFSO fruits and vegetables).

District	Maize, sorgum Cassava and Rice	Beans, meat, fish and eggs	OFSP fruits vegetables	Peanut Oil Coconut sugar cane	Total
Total	99.2%	87.7%	87.2%	84.8%	658
Muecate	99.7%	92.1%	90.6%	90.0%	381
Nacaroa	98.6%	81.6%	82.7%	77.6%	277

Table 3: Types of food consumed by schools

3.4.5 PERCENTAGE OF TEACHERS BENEFITING FROM THE LRP PROJECT

A total of 96 teacher were interviewed during the study. This was made up of 51 teachers from Muecate and 45 teachers from Nacoroa. The results of the study showed that 59 percent and 87 percent of the teachers interviewed in Muecate and Nacaroa respectively were males as indicated in Figure 5.

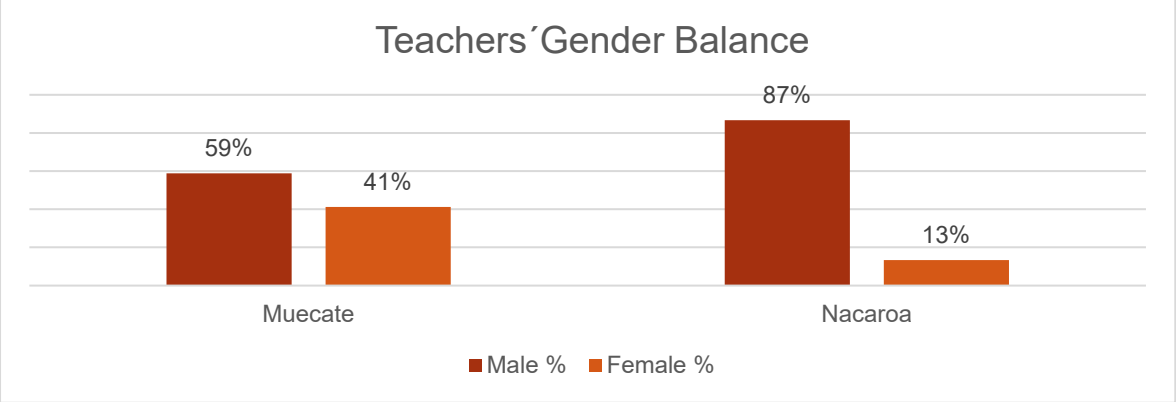

Figure 5: Percentage of Male and Female Teachers

Almost all the 96 teachers (99%) interviewed benefit from the meals offered at the school where they teach, while for the baseline 95 percent of teachers reported the same. All teachers (100%) in Muecate LRP schools reported to eat the same food as the students. In Nacaroa, 91 percent of the teachers of LRP schools also reported to eat the same food that students eat, as presented in Table 3.

Do you eat the same food as the students				
District		Yes	No	Total
	Total	99.0%	1.0%	51
	Muecate	98.0%	2.0%	45
	Nacaroa	100.0%	0.0%	96

Table 4: Teachings eating the same food as students

In response to a question on why the teachers liked the food served in their school, the teachers mentioned the taste of the food (80.4%), the quantity served (66.3%) and the time the food was served as what they liked most about the food as presented in Table 4. This correlates with the findings of the baseline survey when 90 percent of teachers surveyed reported that they like the taste of the food 60 percent mentioned that they like the quantity of the food served.

Why do you Like the food served in school					
District	Good Quantity served	Served on time	Tasty	Other	Total
Total	**66.3%**	**46.7%**	**80.4%**	**18.4%**	**92**
Muecate	63.3%	30.6%	87.8%	23.3%	49
Nacaroa	69.8%	65.1%	72.1%	20.7%	43

Table 5: Reasons teachers like the food served in schools

3.4.6 PERCENTAGE OF SCHOOL MANAGEMENT COMMITTEES' MEMBERS WITH KNOWLEDGE IN FOOD QUALITY AND STOCK CONTROL

It was observed that the procurement committees were responsible for managing the food supplies provided by World Vision. The study found that 60 percent of the procurement committee members in the two study districts had knowledge in procurement before joining the project as indicated in Figure 6. Nonetheless, the procurement committee members were trained in procurement management before they joined joining the project as affirmed by 78.6 percent of the committees interviewed (see Figure 7). For the baseline 40 percent of the surveyed procurement committee members mentioned to have knowledge in procurement before joining the project.

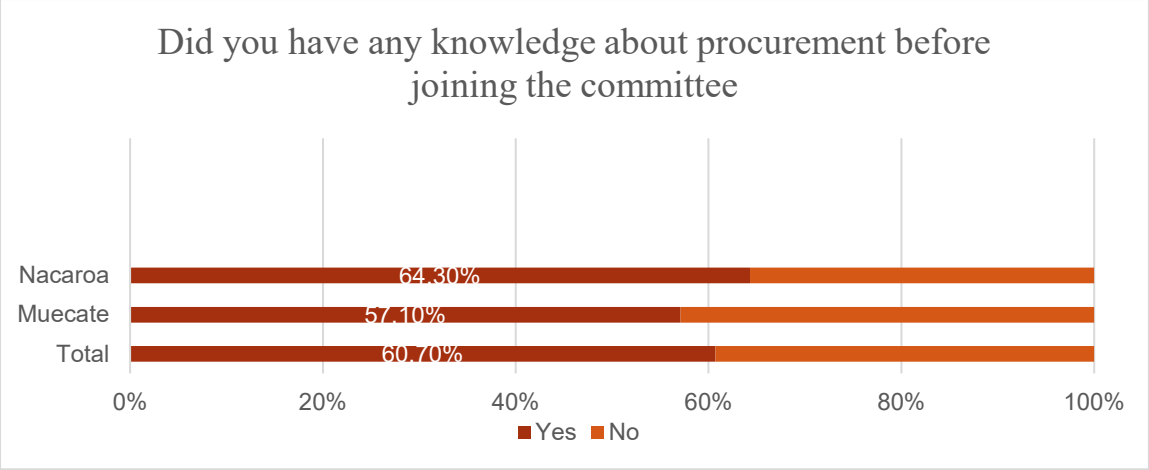

Figure 6: Knowledge about procurement before joining committee

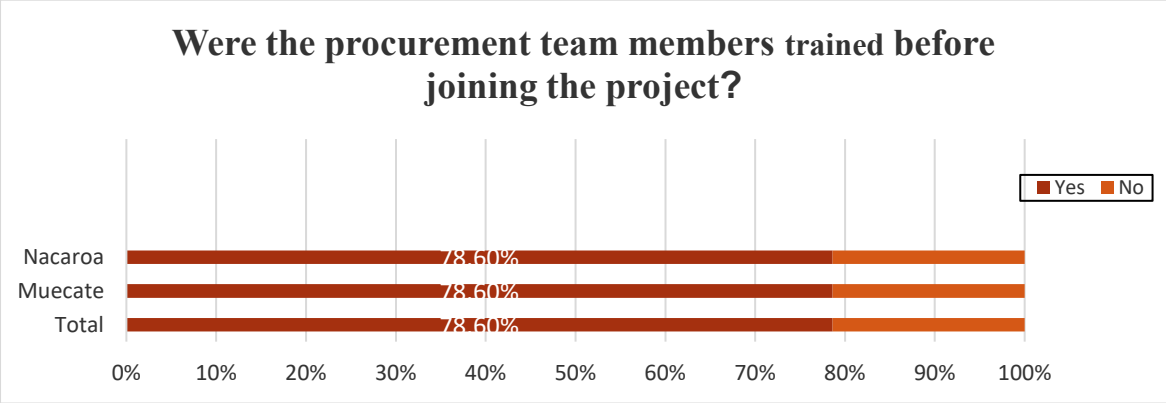

Figure 7: Procurement trained before joining the project

It was observed that 78.6 percent of the members have been trained before joining the project while in the baseline only 56 percent mentioned to have been trained. Most of the members of the committees interviewed had been trained by similar projects (94.1%) and by the government (5.9%) prior to joining the LRP as captured in Table 5.

District	How did you acquire that knowledge?		
	Similar projects	Government	Total
	%	%	Count
Total	94.1%	5.9%	17
Muecate	87.5%	12.5%	8
Nacaroa	100.0%	0.0%	9

Table 6: How Committee Members acquired knowledge of procurement

Table 5 shows that all the members of the procurement committee had knowledge on procurement. The table indicates that 29.4 percent of the members had knowledge in future contracts, 41.29 percent in storage management, 17.6 percent in quality management, and 23.5 percent in general procurement. However, for the baseline 75 percent committee members confirmed that had been trained in both warehouse management and quality management, whilst 35 percent reported that they had been trained in general procurement.

District	Do you have any knowledge on procurement				
	Future Contracts	Storage management	Quality management	General procurement management	Total
Districts	%	%	%	%	Count
Total	29.4%	41.2%	17.6%	23.5%	17
Muecate	25.0%	37.5%	25.0%	25.0%	8
Nacaroa	33.3%	44.4%	11.1%	22.2%	9

Table 7: Type of Procurement knowledge known by committee members

The study revealed that 50 percent of the procurement committee members received food from local farmer associations as eligible beneficiaries. The figure was slightly higher in Muecate where 71.4 percent of the committee members confirmed that they receive food from the farmer associations (see Table 7). In the baseline 56 percent of the procurement committee members confirmed to receive food from local farmer associations. The pattern of the level of response per district was similar in both baseline and final evaluation.

District	Do you receive food products form local farmer associations?		
	Yes	No	Total
	%	%	Count
Total	50.0%	50.0%	28
Muecate	71.4%	28.6%	14
Nacaroa	28.6%	71.4%	14

Table 8: Whether procurement committee members received food from local farmers associations

The study revealed (Figure 8) that the main method of quality control in the food management procedures was visual evaluation (82%). This was slightly higher than what was reported in the baseline (68.8%) but the pattern of the response was the same in both the baseline and final evaluation.

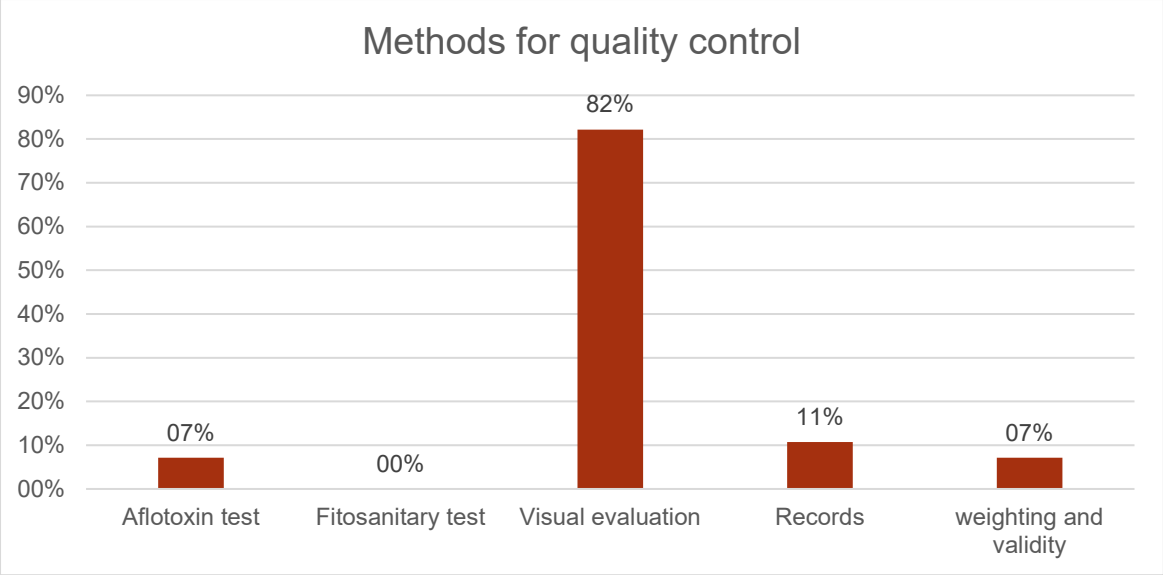

Figure 8: Methods for quality control of food

With regards to method used to check the delivery of food products, the study found that 75 percent of the procurement committee members viewed physical count as the main method. This was followed by delivery note (61%) in the two districts (Figure 9). In the baseline 62 percent of the members mentioned to use delivery notes and 43.8 percent mentioned to use products inventory.

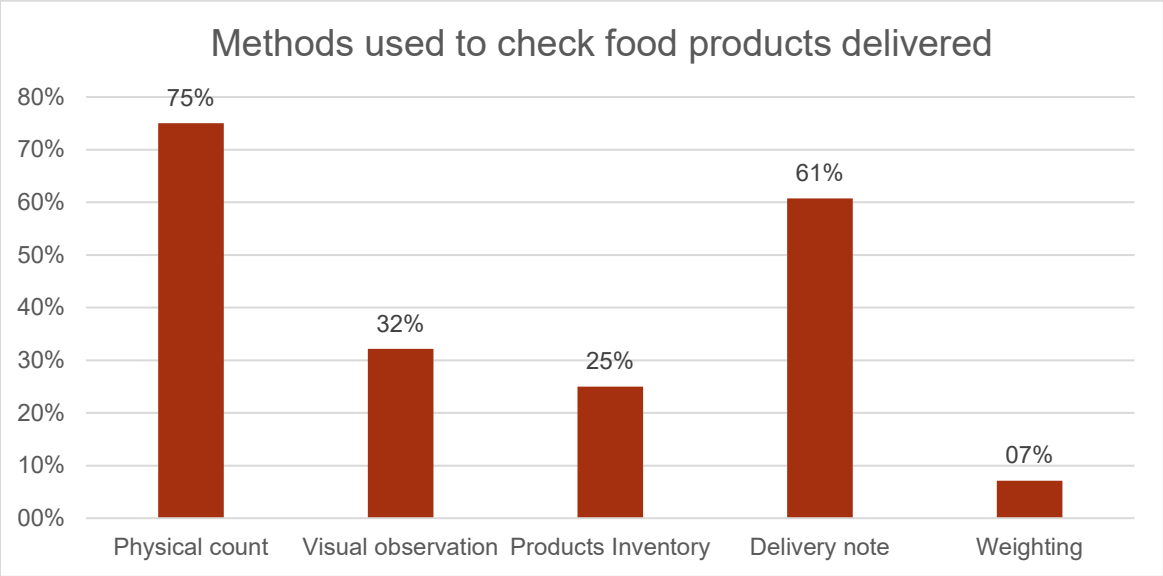

Figure 9: Methods to check food product delivered

3.4.7 PERCENTAGE OF COOKS TRAINED IN NUTRITIOUS FOOD PREPARATION

Table 8 indicates that all the cooks interviewed had received training from the ETC2 program in either cooking (40%) or Nutrition (50%) or Hygiene (48%) prior to their enrolment into the World Vision LRP sub-program. In the baseline 60 percent of the cooks mentioned to have been trained in cooking, 53.3 percent of the cooks mentioned to have been trained in Nutrition and 64.4 percent mentioned to have been trained in Hygiene related topics.

District	Have you been trained in the topics below?			
	Cooking	Nutrition	Hygiene	Total
	%	%	%	Count
Total	40.0%	50.0%	48.0%	50
Muecate	44.4%	59.3%	55.6%	27
Nacaroa	34.8%	39.1%	39.1%	23

Table 9: Percentage of Cooks trained since joining the project

The study further indicates that 66 percent, 62 percent and 62 percent of the cooks received training in cooking, nutrition and hygiene respectively during the ETC2 project as part of the project interventions to enable them deliver better. Table 9 depicts that at least 62 percent of the cooks in Muecate schools and 70.4 percent in Nacaroa schools had been trained under the project. For the baseline the study indicated that 82 percent 75.6 percent and 71 percent had been trained in cooking nutrition and hygiene respectively, by the project.

District	Have you been trained by the projects in the topics below?			
	Cooking	Nutrition	Hygiene	Total
	%	%	%	Count
Total	66.0%	62.0%	62.0%	50
Muecate	77.8%	70.4%	70.4%	27
Nacaroa	52.2%	52.2%	52.2%	23

Table 10: Percentage of trained before joining the project

It was however observed that majority (74%) of the cooks did not have all utensils to cook. This information was slightly higher than the baseline when 70% of the cooks mentioned the same. This applies to both control and treatment schools. The situation was more prevalent in

treatment schools as all the cooks (100%) in the Nacaroa treatment schools reported that they did not have the required utensils to cook.

District	Do you have all utensils to cook?		
	Yes	No	Total
	%	%	Count
Total	26.0%	74.0%	50
Muecate	29.6%	70.4%	27
Nacaroa	21.7%	78.3%	23

Table 11: Percentage of cooks with all utensils to cook

Specifically, the cooks lacked hygiene products (70.3%), crockery (59.5%), cutlery (48.6%), artisanal instruments (35.1%), and water (13.5). This was exactly what was mentioned by them in the baseline except of the lack of uniforms. The lack of hygiene products coupled with lack of water to enable the cooks carry out their activities raises serious public health concern at it could trigger the outbreak of epidemics in the schools

However, when asked about how satisfied they were with this activity the cooks reported levels of satisfaction that varied from average to very satisfied.

3.5 ASSESSMENT OF LRP OUTCOMES

It was observed that performance on outcome indicators showed mixed results, as output to outcome conversion varied significantly per type of activity. The consultant selected outcomes indicators to demonstrate whether project activities were leading to desired effects. The specific indicators selected were based on the robustness of indicators and the reporting data at the farmers and the community level. At the outcome level, these indicators served as a guide for where projects had an impact.

Across the LRP project, producing results or effects generally took longer for the projects requiring either strong engagement from counterparts or changes in farmer behaviour, especially, indicators related to training in business skills and agronomy practices.

The next section analyses the differences across farmer groups and associations and delivery models.

3.5.1 PERCENTAGE OF FARMER GROUPS WITH PARTNERSHIPS WITH SCHOOLS

Out of the 24 farmers associations interviewed 53.8 percent in Muecate and 72.7 percent in Nacaroa were officially registered. This differs slightly form the baseline when 59 percent of the associations in Nacaroa and 40 percent of the associations in Nacaroa were officially registered. On the average about 62.5 percent of the farmer associations in the two districts were registered (Table 11) While in the baseline only 48.9 per cent of the associations on average were registered. About 42 percent of the producer associations were formed between 2012 and 2015.

Districts	Is the association legally registered?			
	Yes	No	No answer	Total
	%	%	%	Count
Total	62.5%	12.5%	25.0%	24
Muecate	53.8%	15.4%	30.8%	13
Nacaroa	72.7%	9.1%	18.2%	11

Table 12: Percentage of Farmers Association legally registered

About 70.8% of the associations reported that their members pay membership fees. The figure was slightly higher in Maecate (76.9%) that Nacaroa (63.6%). This is considerably higher than what was reported in the baseline.

When asked about the benefits of being registered as an association, the members of association reported that the main advantages were access to commercial relations with other stakeholders (67%) and the access to markets (67%) as shown in Figure 10. This shows exactly the same pattern of response that the farmers surveyed in the baseline reported. With 65 percent and 47.5 percent. This response lend credence to the one reported at the baseline where 65 percent of the association mentioned access to commercial relations as the main benefit for registering farmer association.

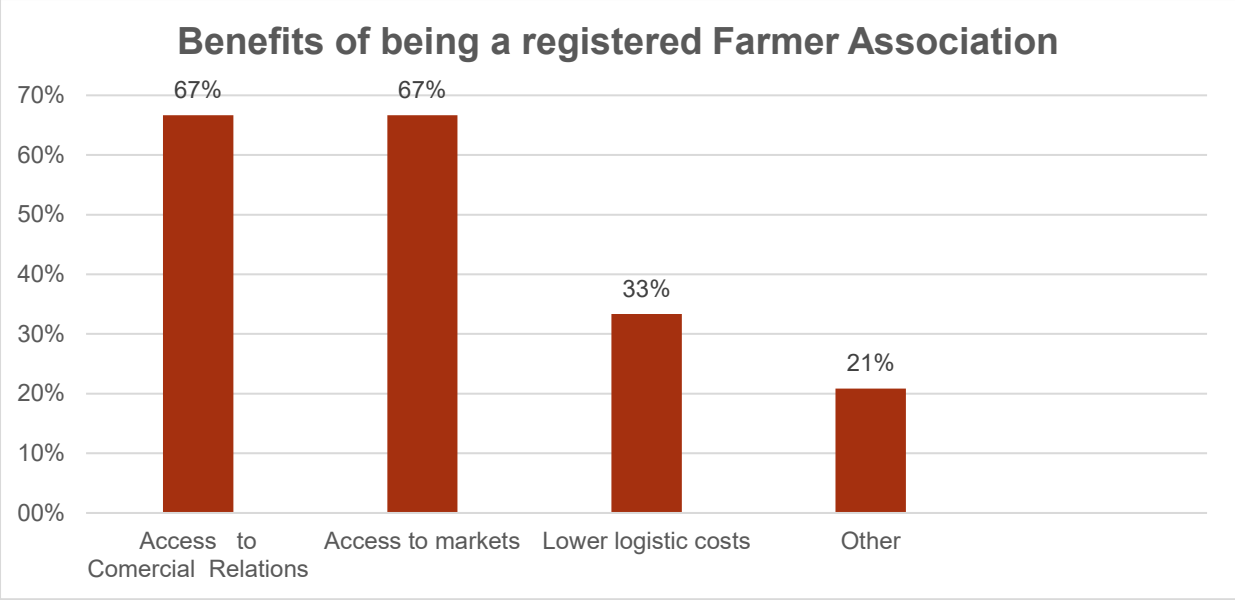

Figure 10: Benefits of being a registered Farmer Association Member

3.5.2 PERCENTAGE OF FARMERS TRAINED IN BUSINESS SKILLS

The results of the study indicates that 22 percent of the members of the farmers associations had been trained in business management. When the members of the associations were asked about their level of knowledge of record keeping, 36 percent of them reported that they had average knowledge and 13.6 percent have reported that they have good knowledge of records keeping. The level of resposnse in the baseline was more modest with 52 percent reporting to have agerave skills and 29.6 percent reporting to have good level of skills. About 33 percent of the members of the farmer associations in Muecate and 40 percent in Nacaroa had average level of knowledge in record keeping as indicated in Table 12.

District	Level of skills in record keeping				
	Low	Average	Good	No answer	Total
	%	%	%	%	Count
Total	4.5%	36.4%	13.6%	45.5%	22
Muecate	0.0%	33.3%	25.0%	41.7%	12
Nacaroa	10.0%	40.0%	0.0%	50.0%	10

Table 13: Level of skills in recording keeping

When asked about their level of skills in cash flow 36,4% of the famers reported to have average skills in cash flow.while 33 percent of the members of the farmers associations in Muecate and 40 percent in Nacaroa reported that they had average level of skills in cash flow (Table 13). Looking at baseline figures only 25.9 percent of the farmers in both districts reported to have skills in cash flow analysis.

District	How are the skills of farmers in cashflow				
	Low	Average	Good	No answer	Total
	%	%	%	%	Count
Total	18.2%	36.4%	13.6%	31.8%	22
Muecate	25.0%	33.3%	25.0%	16.7%	12
Nacaroa	10.0%	40.0%	0.0%	50.0%	10

Table 13: Level of skills in cash flow

About 50 percent of the members of the farmers association in Nacaroa and Muecate districts reported that they had average knowledge in profit and loss account while at the baseline only 25.9 percent of the farmers reported the same. About 25 percent and 0 percent of the members in Muecate and Nacaroa respectively reported that they had good knowledge in profit and loss account (Table 14), while for the baseline 23 percent and 28.6 percent of the farmers resported the same.

District	How are the skills of farmers in profit and loss account				
	Low	Average	Good	No answer	Total
	%	%	%	%	Count
Total	4.5%	50.0%	13.6%	31.8%	22
Muecate	0.0%	50.0%	25.0%	25.0%	12
Nacaroa	10.0%	50.0%	0.0%	40.0%	10

Table 14: Level of skills in profit and loss accounts

In the area of business planning, 50 percent of the members of the farmer associations in Nacaroa and 33 percent in Muecate indicated that they had average skills while at the baseline 53.8 perceent and 28.6 percent of the farmers reported the same. About 42 percent of the members of the associations in Muecate also reported that their business planning skills was good (Table 15), while at the baseline only 23.1 percent of the farmers reported the same.

District	How are the skills of farmers in Business planning				
	Low	Average	Good	No answer	Total
	%	%	%	%	Count
Total	4.5%	40.9%	22.7%	22.7%	22
Muecate	8.3%	33.3%	41.7%	16.7%	12
Nacaroa	0.0%	50.0%	0.0%	30.0%	10

Table 15: Level of skill in Business Planning

With respect to skills in forward contracts, it was reported that at least 30 percent of the members of the farmer associations in the two districts had good knowledge in that area as shown in Table 16. In the baseline 25.9 peercent of the farmers in both districts reported the same,

District	How are their skills in Forward Contracts				
	Low	Average	Good	No answer	Total
	%	%	%	%	Count
Total	9.1%	31.8%	31.8%	27.3%	22
Muecate	16.7%	33.3%	33.3%	16.7%	12
Nacaroa	0.0%	30.0%	30.0%	40.0%	10

Table 16: Level of skill in forward contract

3.5.3 PERCENTAGE OF FARMERS WITH TRAINING IN AGRICULTURAL PRODUCTIVITY

It was however noted that 92.3 percent and 90.9 percent of the members of the farmer Associations had been trained in Agronomy skills both in Nacaroa and Muecate respectively (Table 17). In the baseline the level of Reponses was considerably lower with 76 percent and 68 percent in Muecate nad Nacaroa respectively.

District	Did the members receive training in agriculture techniques?		
	Yes	No	Total
	%	%	%
Total	91.7%	8.3%	24
Muecate	92.3%	7.7%	13
Nacaroa	90.9%	9.1%	11

Table 16: Percentage of farmers trained in Agriculture techniques

It was observed however that the skills of the members of the farmer associations in quality control was low. Only 23.1 percent of the respondents in Muecate had good skills in quality control. None of the members in Nacaroa had good skills in quality control contrasting with the 50 percent reported in the baseline. As many as 58.3 percent of the respondents did not have skills in quality control as highlighted in Table 18.

District	How are their skills in Quality Control				
	Low	Average	Good	No	Total
	%	%	%	%	Count
Total	4.2%	25.0%	12.5%	58.3%	24
Muecate	7.7%	15.4%	23.1%	53.8%	13
Nacaroa	0.0%	36.4%	0.0%	63.6%	11

Table18: Level of skills in Quality Control

In the area of pest control, it came to light that only 33 percent of the members of the farmer associations in both districts had good knowledge in the control of pest comparing with 31 percdent reports in the baseline. In nacaroa 9 percent reported to have good skills in pest control.The situation was however different in Muecate as more than half (53.3%) of the farmers had good knowledge on pest control (Table 19).

District	How are their skills in Pest Control				
	Low	Average	Good	No answer	Total
	%	%	%	%	Count
Total	4.2%	25.0%	33.3%	37.5%	24
Muecate	0.0%	23.1%	53.8%	23.1%	13
Nacaroa	9.1%	27.3%	9.1%	54.5%	11

Table 19: Level of skills in Pest Control

Knowledge on Sweet potato conservation had a better rating by farmers associations in Muecate (61%) and low rating for farmer association in Nacaroa (18%) as indicated in Table 20. This was considerably higher when compared to baseline information were 21.7 per cent and 10 percent of farmers in Muecate and Nacaroa respectively reported to have good knowledge in sweet potato conservation.

District	How are their skills in Sweet Potato Conservation				
	Low	Average	Good	No answer	Total
	%	%	%	%	Count
Total	4.2%	29.2%	41.7%	25.0%	24
Muecate	7.7%	15.4%	61.5%	15.4%	13
Nacaroa	0.0%	45.5%	18.2%	36.4%	11

Table20: Level of Skills in Sweet Potato Conservation

Knowledge on how to improve yields had a similar score as sweet potato conservation. With 53.8 percent of farmers associations in Muecate and 18 percent of farmers in Nacaroa affirming to have good knowledge on skills to improve production yields as shown in Table 21. Ijn the baseline 52 percent and 31 peeercent of farmers reported to have good skills in production yield increase.

District	How are their skills to increase production yields				
	Low	Average	Good	No answer	Total
	%	%	%	%	Count
Total	4.2%	25.0%	37.5%	33.3%	24
Muecate	7.7%	15.4%	53.8%	23.1%	13
Nacaroa	0.0%	36.4%	18.2%	45.5%	11

Table 171: Level of skills to increase production yields

The farmer associations interviewed were into the production of quite diverse produce, with 33 percent of them producing 5 or more products comparing with 38 percent reported in the baseline. The trend in each of the two districts was the same with 30.8 percent and 36.4 percent in Muecate and Nacaroa respectively as shown in Table 22. While in the baseline 52 percent and 22.7 percent of the farmers in Mucate and Nacaroa reported to produce more than 5 products.

Districts	How many products types do the members produce					
	1 to 2	3 to 4	5 to 6	7 to 8	5	Total
	%	%	%	%	%	Count
Total	25.0%	16.7%	16.7%	8.3%	33.3%	24
Muecate	30.8%	15.4%	15.4%	7.7%	30.8%	13
Nacaroa	18.2%	18.2%	18.2%	9.1%	36.4%	11

Table 182: Types of products members produce

The study showed that at least more than 84 percent of the farmers produced Sweet Potato (OFSP) with farmers in Nacaroa recording the highest percentage (90.9%) and those in Muecata the lowest (84.6%). This information is remarkly higher than the one reported in the baseline when only 40% of the farmers reported to be producing sweet potato, with 36 percent and 45.5 percent of farmers reporting that in Mucate and Nacaroa respectively.

It came to light that 57 percent and 29 percent of the famer associations had formal relationship and future contract with processors, whilst the remaining 14 percent had other relationship with processors. Given the contractual nature of the arrangements between farmer associations and agribusinesses, farmers made an effort to comply with the standards of quality included in their contracts, as 21.4 percent of the associations indicated. The effort was greater in the treatment areas. In Muecate 60 percent of the farmer associations reported that most of their members made an effort to comply.

In the baseline 16 and 18 percent of the farmer associations reported to have formal relationships with processors in Muecate and Nacaroa repectively, and 25 percent of farmers in Muecate reported to have forward contracts with processors.

3.5.4 PERCENTAGE OF FARMER GROUP LEADERS TRAINED IN PRODUCE STORAGE AND HANDLING

About 46 percent of the Farmers associations affirmed that they use mainly the association storage facilities to store their produce. It can be seen in Table 23 that 61.5 percent of the farmers associations in Muecate used the Association storage facilities, whilst only 27.3 percent of the members of farmers association in Nacaroa used the Association storage. In the baseline, in both districts, 38.3 percent of the farmers association and use the the associations wharehouse while40 percent of them reported to use their members household warehouse. When looking at each district separately 36 percent and 40 percent of the farmers respectivel use the associations storage in Muecate and Nacaroa respectively.

Districts	Where do you store your products							
	Association storage	Rent storage facilities	Lent storage	school	at home	no need of storage	No Answer	Total
	%	%	%	%	%	%	%	Count
Total	45.8%	0.0%	4.2%	8.3%	4.2%	8.3%	16.7%	24
Muecate	61.5%	0.0%	0.0%	7.7%	7.7%	7.7%	15.4%	13
Nacaroa	27.3%	0.0%	9.1%	9.1%	0.0%	9.1%	18.2%	11

Table 193: Where products are stored

When asked about the challenges the farmers face with regards to food storage, 16.7 percent of them mentioned stealing of food, 45.8 percent indicated food deterioration, 25 percent stated lack of space and 29 percent referred to lack of adequate space for sweet potato storage as shown in Table 23.

Districts	Challenges faced with food storage					
	Food theft	Food deterioration	Lack of space	Lack of space adequate for OFSP	Other	Total
	%	%	%	%	%	Count
Total	16.7%	45.8%	25.0%	29.2%	8.3%	24
Muecate	7.7%	53.8%	15.4%	15.4%	7.7%	13
Nacaroa	27.3%	36.4%	36.4%	45.5%	9.1%	11

Table23: Challenges faced with food storage

In the baseline the farmer associations considered their main problem in food storage to be theft (57%) followed by the lack of storage space (29.8%). to attend to the requirements relating to quality standards. Only 21.4 percent of all members in an association attended to requirements relating to quality standards as captured in Table 24.

Districts	How is the effort of the members to attend to the requirements related to Quality Standards						
	All members	Majority of the members	Some of the member	None of the memb	Other	No answer	Total
	%	%	%	%	%	%	Count
Total	21.4%	7.1%	14.3%	0.0%	0.0%	57.1%	14
Muecat	60.0%	0.0%	0.0%	0.0%	0.0%	40.0%	5
Nacaro	0.0%	11.1%	22.2%	0.0%	0.0%	66.7%	9

Table 24: Requirement of Quality Standards

3.5.5 PERCENTAGE OF FARMERS ENGAGED IN FOOD SUPPLY CONTRACTS

The study revealed that the farmer association sell sweet potato to schools as indicated by 70.8 percent of the farmers interviewed. The disaggregated data showed that 69.2 percent and 72.7 percent of the farmer association interviewed in Muecate and 72 percent in Nacaroa had supplied OFSP to schools (Table 25).

District	Did the association sell sweet potato to schools		
	Yes	No	Total
	%	%	Count
Total	70.8%	29.2%	24
Muecate	69.2%	30.8%	13
Nacaroa	72.7%	27.3%	11

Table 25: Percentage of farmer association selling sweet potato to schools

The findings of the study gives an indication that the farmers were not very satisfied with the price offered for their produce. As shown in Table 26, none of the farmers in the two districts was satisfied with the price paid by buyers. The situation was even dire in Nacaroa where none of the farmers was satisfied the price of their produce.

District	Is the association happy with the price paid by the buyer?					
	No	Most of the times	Some times	Satisfied	Very satisfied	Total
	%	%	%	%	%	Count
Total	20.8%	4.2%	8.3%	20.8%	0.0%	24
Muecate	15.4%	7.7%	0.0%	38.5%	0.0%	13
Nacaroa	27.3%	0.0%	18.2%	0.0%	0.0%	11

Table 26: Percentage of association happy with price paid by buyers

In response to a question on the sale of produce, 53.8 percent of the farmer association in Muecate and 45.5 percent in Nacaroa answered in the affirmative. On the average, 50 percent of the farmers were able to sell their produce as shown in Table 27. This information is slightly lower than the information reported in the basleine when 63 percent of the farmers mentioned that they sell all their produce.

District	Does the association sell all products produced?		
	Yes	No	Total
	%	%	Count
Total	50.0%	33.3%	24
Muecate	53.8%	38.5%	13
Nacaroa	45.5%	27.3%	11

Table 27: Percentage of association who are able to sell all products

The results of the evaluation indicates that the products frequently sold by the vendors in the market were beans (64.7%), and peanuts (52.9%). It was however observed that salt was the main product sold by the vendors in Nacaroa (60%) as illustrated in Table 28.

Districts	Which products you sell in this market					
	Maize	Beans	Peanuts	Sweet	salt	Total
	%	%	%	%	%	Count
Total	11.8%	64.7%	52.9%	23.5%	17.6%	17
Muecate	16.7%	83.3%	66.7%	33.3%	0.0%	12
Nacaroa	0.0%	20.0%	20.0%	0.0%	60.0%	5

Table 28: Types of products being sold in the market

In the baseline it was reported that beans and peanuts were sold by many sellers, but only 15% of the producers sold OFSP. Other agricultural products sold at the market were cassava, corn, rice, tomato and onions.

3.5.6 INVOLVEMENT OF INTERMEDIARIES IN THE FOOD SUPPLY CHAIN

Out of the intermediaries that participated in the Focus group discussions 41.2 percent reported that they sell between 101 to 501 Mnt per day. About 24 percent of the intermediaries sold more than 1501 to per day (Table 29). In the baseline close to 70% of the sellers earned around 200 Mtn per day, while 31% got 1,400 Mtn or more per day .

Districts	How much do you sell per day in monetary terms?					
	1 to 100	101 to 500	501 to 1000	1001 to 1500%	1501 to 2000%	More than
	%	%	%	%	%	%
Total	11.8%	29.4%	11.8%	11.8%	11.8%	23,5%
Muecate	8.3%	33.3%	16.7%	8.3%	16.7%	16,7%
Nacaroa	20.0%	20.0%	0.0%	20.0%	0.0%	40,0%

Table29: Value of Sales per day by farmers

The intermediaries reported that their main suppliers were the producers (35.3%), other intermediaries (29%) and Wholesalers (23.5%) (See Table 30). In the baseline out of the intermediaries interviewed 54% bought their products from wholesalers and 31% from producers

District	Who are your main suppliers?				
	Producers	Wholesalers	Intermediaries	Other	Total
	%	%	%	%	Count
Total	35.3%	23.5%	29.4%	11.8%	17
Muecate	8.3%	33.3%	41.7%	16.7%	12
Nacaroa	100.0%	0.0%	0.0%	0.0%	5

Table30: Main suppliers to producers

3.6 ASSESSMENT OF LRP'S IMPACT AND PROGRESS TOWARDS SUSTAINABILITY

This section touches on LRP's effect on improving student's health and farmers' access to market and quality of market infrastructures. This was measured by the increase in rate of illness and deworming. This section also discusses some sustainability indicators. It must be indicated that it is still early to assess LRP's impact and sustainability. In view of this the following analyses do not intend to capture the full impact and sustainability story. However, the evaluation team believes that these analyses provide insights on the impact potential of LRP as well as steps made towards long-lasting system change.

3.6.1 PROJECT IMPACT ON STUDENTS HEALTH

There was a great improvement on student's health from the beginning of the project to the end. Only 13.7 percent of the students interviewed in both districts fell sick once a month as compare with the 28 percent of students that fell sick once a month at the beginning of the project as highlighted in Table 31.

How many times were you sick in the last semester of 2018									
District	Once a month	Twice a month	Once per trimester	Twice per trimester	Once per semester	Twice per semester	None	Other	Total
Total	13.7%	9.5%	12.9%	9.2%	12.0%	7.6%	34.0%	.9%	641
Muecate	21.1%	6.9%	7.7%	8.5%	10.9%	8.8%	35.5%	.5%	375
Nacaroa	3.4%	13.2%	20.3%	10.2%	13.5%	6.0%	32.0%	1.5%	266

Table 201: Sick days of students in the last semester

It was observed that more that 29 percent of the student did not missed school as a result of sickness or any other condition during the last semester (Table 32).

How many days of school have you missed						
District	No day	1-3 days	4-7 days	Between 1-2 weeks	More than 2 weeks	Total
	%	%	%	%	%	Count
Muecate	31.1%	57.1%	11.3%	0.6%	0.0%	177
Nacaroa	29.4%	55.9%	12.9%	1.2%	0.6%	170

Table 212: Average Number of school days missed by students

3.6.2 PROGRESS TOWARDS IMPROVED HEALTH KNOWLEDGE

The finding of the study show that 89.6 percent of the teacher in the two study districts were trained in basic first aid knowledge (Table 35). The teachers were also trained in nutrition, hygiene, and correct use of water. It was revealed that 71 percent of the schools had received first aid kits and 66 percent of the teachers used the kit at the time of the survey.

District	Has any teacher has basic knowledge of first aid		
	Yes	No	Total
	%	%	Count
Total	**89.6%**	**7.3%**	**96**
Muecate	92.2%	7.8%	51
Nacaroa	86.7%	6.7%	45

Table 35: Percentage of teachers with basic knowledge of first aid

In the baseline about 98% of the teachers had basic knowledge about first aid treatment for common illnesses. They also had been trained in nutrition, hygiene and correct food storage procedures. In both districts 94% of the teachers had received a first aid kit and 45% of them reported to have used it twice in the previous two weeks.

3.6.3 PROGRESS TOWARDS THE ACCESS TO MARKET AND MAINTENANCE OF MARKET INFRASTRUCTURES.

Analysis of the interview with the market committees showed that member ship of the committees vary in the two districts. About 75 percent of the market committees in Muecate and 28.6 percent in Nacaroa had three members (Table 36). In the baseline according the market committees interviewed, 30% stated that their committee had two members.

District	How many members does the market committee have?					
	1	2	3	4	10	Total
	%	%	%	%	%	Count
Muecate	25.0%	0.0%	75.0%	0.0%	0.0%	4
Nacaroa	0.0%	28.6%	28.6%	14.3%	28.6%	7

Table 36: Average membership of market committee

In the baseline it was identified that In general the markets were rudimentary and many of them did not have electricity, so the sellers had solar power for lighting. The provision of water also was poor.

This Study indicates that In terms of infrastructure offered by the markets, it was observed that the markets offered water, electricity, stands and toilets in all the two district, except Muecate where none of the markets was connected to electricity (Table 37).

District	What infrastructure does the market offer				
	Water	Electricity	Stands	W/c	Total
	%	%	%	%	Count
Muecate	75.0%	0.0%	100.0%	25.0%	4
Nacaroa	28.6%	14.3%	57.1%	14.3%	7

Table 37: Infrastructures offered by the market

It was revealed that majority (60%) of the vendors in Nacaroa were dissatisfied with water supply to the market. The vendor described the water situation in the market as bad. In a sharp contact, 50 percent of the vendors in Mucate were very satisfied with the water situation in the market. The vendors in deemed the water situation in the market as excellent as Table 38 indicates.

District	What is the level of satisfaction with the water supply					
	Excellent	Good	Average	Bad	No Answer	Total
	%	%	%	%	%	Count
Total	41.2%	11.8%	5.9%	23.5%	17.6%	17
Muecate	50.0%	8.3%	8.3%	8.3%	25.0%	12
Nacaroa	20.0%	20.0%	0.0%	60.0%	0.0%	5

Table 38: Level of satisfaction with water supply

The study assessed the level of satisfaction of the market vendors with energy supply and the results indicated that none of the vendors considered the service to be excellent. Only 25 percent of the vendor in Muecate considered the service to be good. The situation in Nacaroa was not different as 80 percent of the vendor considered the service to be of bad quality (Table 39).

District	What is the level of satisfaction with energy supply					
	Excellent	Good	Average	Bad	No Answer	Total
	%	%	%	%	%	Count
Total	0.0%	17.6%	17.6%	58.8%	5.9%	17
Muecate	0.0%	25.0%	16.7%	50.0%	8.3%	12
Nacaroa	0.0%	0.0%	20.0%	80.0%	0.0%	5

Table 3922: Level of satisfaction with energy supply

In terms of satisfaction with the toilets available in the markets, 76.5 percent of the vendors in the two districts reported that toilets in the markets were in bad conditions (Table 40).

District	What is the level of satisfaction with the W/C					
	Excellent	Good	Average	Bad	No Answer	Total
	%	%	%	%	%	Count
Total	5.9%	5.9%	11.8%	76.5%	0.0%	17
Muecate	8.3%	8.3%	8.3%	75.0%	0.0%	12
Nacaroa	0.0%	0.0%	20.0%	80.0%	0.0%	5

Table 230: Level of satisfaction with the WCs

The study also sought to capture the impression of the market vendor on the availability and quality of stands offered at the markets. The results showed that about 59 percent of the vendors were of the view that the availability and quality of the stands in the markets in the two districts were bad as shown in Table 41.

District	What is the level of satisfaction with availability of stands					
	Excellent	Good	Average	Bad	No Answer	Total
	%	%	%	%	%	Count
Total	0.0%	5.9%	35.3%	58.8%	0.0%	17
Muecate	0.0%	8.3%	33.3%	58.3%	0.0%	12
Nacaroa	0.0%	0.0%	40.0%	60.0%	0.0%	5

Table 241: Level of satisfaction with availability of stands

This information is similar to the information obtained in the baseline when it was reported that 76.9 percent of sellers were not happy with water supply 69.2 percent were not happy with the lighting, and 69.2 percent were not happy with the stands.

3.7 ASSESSMENT OF PROJECT MANAGEMENT

LRP was implemented efficiently, with teachers, students, farmers and the government officials giving high ratings for the level of technical and financial support received during the project period. The project diligent support to local organizations helped to build the capacity of farmers to achieve sustainability.

3.7.1 PROJECT EFFICIENCY

The results of the study indicates that the project has done well given the resources and staff allocated to it. A review of the project semi-annual reports, interview with the government official as well as school administrators and teachers, showed that the project had been implemented efficiently. The feedback received from a number of beneficiaries on the World Vision Project Officers was very positive. The project staff cultivated a strong relationship with farmers group and the school committees. It was also reported that the project was efficiently monitored. The monitoring system put in place for the project deemed as highly efficient by the beneficiaries. Judging from the breakdown of the project expenses, it was observed that the expenditure aligned very well with the budget outlined in the semi-annual reports. There was efficient use of resources and the project had operated within budget.

4 LESSONS LEARNED

This section focusses on distilling lessons learned from the implementation of the LRP to inform project design as well as organizational learning, going forward. It is based on the findings presented in the preceding sections. It must be indicated however that few of these lessons were identified by LRP during project implementation and highlighted in their semi-annual reports. This section lists these key lessons learned.

It was evident that the ability for a project to link holistically from farm to market is strengthened where a project engages the full value chain. In situations where the LRP leveraged other community service activities such as the farmers group and farmer associations engaging in different parts of the value chain, project performance was stronger.

The synchronization of the LRP objectives to that of the Government by increasing the capacity of Government Institutions strengthens the sustainability of the project.

The procurement of food locally strengthens local market supply and economy, and enhances the capacity of suppliers to provide high quality food to the local market.

Facilitating visits by Government officials and other Local Government staff to project sites enables project implementers as well as government to gain and share knowledge on the implementation of cutting edge projects.

The link between a school feeding project and the academic performance of students is strengthened through the motivation the project gives to students to avoid absenteeism, decreases the level of dropout of students.

Sustainability of the project can be guaranteed through school gardens managed by the school and the community.

Incentives to volunteers through provision of ration are key for the sustainability of the project.

The extension service is the key ingredient for farmers to yield of their produce. There is therefore the needs to be put in place measures to continually provide technical backstopping to the farmers in the area of extension services to ensure the sustainability of the project objectives.

Hygiene may jeopardize the benefits of the project it has been reported to be a key complaint by the volunteers.

5 CONCLUSIONS & RECOMMENDATIONS

ICED was contracted by the World Vision to conduct a final evaluation of the Mozambique Local and Regional Procurement Project (LRP).The study covered 50 schools distributed across two districts in the province of Nampula. It focused on school enrolment, student attendance, beneficiaries of the school feeding project, and the personnel and operational structures in the management of the project, including cooking, procurement committees and school management committees. The evaluation also covered farm production and farmers' knowledge and skills in business management, agronomy, marketing and contract management.

The main findings from the evaluation are as follows:

- The school feeding project was implemented in all schools reported to be part of the LRP project.

- A new crop, Orange flavour sweet potato (OFSP), has been introduced and it is being produced by 87.5 percent of the farmer associations and it is already being commercialised in the market by 23.5 percent of the producers.
- Farmers are starting to produce OFSP crop as a result of the demand from the LRP project. They are conscious that it is a nutritive food with a high market price. OFSP is already being supplied to schools by 71 percent of the farmer associations
- Farmers have been trained in business skills and agricultural techniques and they have some experience in commercial/contractual business processes.
- There is a high demand for the school feeding project as it provides balanced nutrition to students.

- LRP and USDA projects are reaching more than 652 direct beneficiaries (students) and more than 100 indirect beneficiaries (cooks and teachers).
- Students in both projects received balanced meals that included food from all food groups. The Peanut oil and coconut food group had the least students including it in their meals. However more than 84 percent of the students are eating from all the 4 food groups.
- The people working with the project were qualified for their responsibilities. This applies to the cooks and the procurement team members and it means that they have made good contribution to the implementation of the project. Nevertheless, procurement committees were trained on storage, quality and forward contracts.

Following from the above, it is evident that the project was very relevant, not only to the implementing organization but also to the government and the project beneficiaries. There is therefore the need to replicate the project in others provinces and districts whilst learning the lessons documented from the implementation of the project. For the successor projects to be successful, there is the need to put in place measures to provide adequate potable water to the new markets and improve the hygienic conditions of the market infrastructure through the provision of adequate toilet facilities.

APPENDIXES

APPENDIX A. **STUDENTS QUESTIONNAIRE**

Name of enumerator:

This questionnaire has the objective of collect information related to the final evaluation of the World Vision - Local and Regional Procurement; Do you accept to participate in it? Yes or No?

Yes –

No -

District	
School	
Grade	
Student Gender	

Q1. Do you have meals in school?

1.Yes

2. No

Q2. If yes what do you eat as part of the school meals?

	Food	X
1	1. Fuba porridge / CSB	
2	2. Beans	

4	3. Peanuts	
3	4. Orange flesh Sweet Potato	
3	5. Salt	

Q3. Do you like meals offered in school_ Yes or No?

a. I like a lot

b. I like

c. I don't like nor dislike

d. I don't like

Q4. If yes what do you like about it?

e. Good quantity served

f. Food served on time

g. Food tastes good

h. Other. Specify ….

Q5. If not, why?

a. Little quantity served

b. The food is not served on time

c. The food is not tasty

d. Other. Specify

Q6. What other meals did you have at home per day before the LRP project?

	Meals	X
3	1. Breakfast, luch and dinner	
2	2. Breakfast and luch	
2	3. Breakfast and dinner	
2	4.Luch and dinner	
1	5. Dinner	
1	6. Lunch	
1	7. Breakfast	
0	8.None	

Q7 What meals did you have at home yesterday?

	Meals	X
3	1. Breakfast, luch and dinner	
2	2. Breakfast and luch	
2	3. Breakfast and dinner	
2	4.Luch and dinner	
1	5. Dinner	
1	6. Lunch	
1	7. Breakfast	
0	8.None	

Q8 Do you eat at home any of the foods listed below?

1	1.Maize, sorghum, cassava, rice	
2	2. Beans, meat, fish, eggs,	
3	3.Sweet potato (OFSP), fruits and vegetables	
4	4. Peanut, oil, sugar cane, sugar , coconut	

Q10 How many times did you fall sick in the last semester of 2018?

a Once (1) a month.	
b. Twice (2) per month	
c. More than once per month	
c. Once per trimestre	
d. Twice oer trimestre Duas vezes por trimestre	
e. Once per semestre	
f. Twice per semester	
g. Any day	
h. Other. Specify.	

Q11. Have you been sick in the last 2 weeks? Yes or No. If no go to question 14.

Q12.If yes please mark the sicknesses you had in the last two weeks

a. Stomach ache	
b. Headache	
c. Cold	
d. Cough	
e. Fever	
f. Malaria	
g. Diarrhea	
h. Other	

Q13. If yes how many days of school have you missed? If yes Se sim quantos dias de aulas perdeu quando esteve doente?

a. Any day	
b. 1-3 days	
c. 4-7 days	
d. Between 1-2 weeks	
e. More than 2 weeks	

Q14. During the last semester have you received deworming medication? Yes or No. I

Q13. Where did you receive the medication?

a. at home	

b. In school	
c. In Hospotal	
d. In the community (vaccination campaign)	
e. Other	

APPENDIX B. TEACHER'S QUESTIONNAIRE

Name of enumerator:

This questionnaire has the objective of collecting information related to the final evaluation of the World Vision - Local and Regional Procurement; Do you accept to participate in it? Yes or No?

Yes –

No -

District	
School	
Grade	
Student Gender	

Parte B: Matrículas Escolares

B1. Qual é a classe que lecciona?

a. First grade	
b. Second Grade	
c. Third Grade	
d. Fourth Grade	
e. Fith Grade	
f. Sixth Grade	

g. Seventh Grade	

B2. what is the number of students that came to classes in the last semester of 2018?

B3. What is the number of students that quitted school in your class in the last semester of 2018?

Part C – Participation in the LRP project

C1. What is the proportion of students what participated in the LRP project in the last semester?

a. 90-100%

b. 80-89%

c. 70-79%

d. 60-69%

e. 50-59%

f. below 50%

C2. What is the type of food that is served to students?

	Food	X
1	1. Fuba porridge / CSB	
2	2. Beans	
4	3. Peanuts	

3	4. Orange flesh Sweet Potato	
3	5. Salt	

C.3 Do students like the food offered in school? Yes or No? If no go to question C5.

a. They like a lot

b. They like

c. They don't like nor dislike

d. They don't like

C4. If yes what do they like about it?

a. Good quantity served

b. Food served on time

c. Food tastes good

d. Other. Specify ….

C5. If not, why?

a. Little quantity served

b. The food is not served on time

c. The food is not tasty

d. Other. Especify

C6. Do you eat the same food students eat? Yes or No.

C7. If yes what do you eat?

	Food	X
1	1. Fuba porridge / CSB	
2	2. Beans	
4	3. Peanuts	
3	4. Orange flesh Sweet Potato	
3	5. Salt	

C8. Do you like the food offered in school?

a. I like a lot

b. I like

c. I don't like nor dislike

d. I don't like

C9. If yes why do you like?

a. Good quantity served

b. Food served on time

c. Food tastes good

d. Other. Specify ….

C10. If not, why?

a. Little quantity served

b. The food is not served on time

c. The food is not tasty

d. Other. Especify

C.11. O que é que come da comida listada abaixo?

	Food Groups	X	How many times you eat per week?
1	a. Maize, Sorghum, cassava, rice		
2	b. Beans, meats, fish, eggs,		
3	c. Orange flesh sweet potato, fruits, vegetables		
4	d. Peanuts, oil, sugar cane sugar, coconut		

PARTE D Health and Nutrition

D1 Is there any teacher with basic knowledge about how to give primary health care services and treat basic sicknesses? Yes or no.

D2. Was there any training for teachers on health nutrition hygiene and storage of food? Yes or No. If no please go to question C3.

D3. If yes what. were the topics included in the training:

a. First Aid

b. Monitoring nutrition indicators

c. Correct water consumption

D4. Do you know if the school has received the first aid kit for the treatment of the sicknesses listed below? Yes or No. If no please skip questions D5 and D6

a. Stomachache	
b. Headache	
c. Cold	
d. Cough	
e. Fever	
f. Malaria	
g. Diarrhea	
h. Other	

D6. Have you ever used the first Aid Kit? Yes or No. If no skip question D7.

D7. If yes how many times did you use it in the last two weeks?

a. Once	
b. Twice	
c. Trice	
d. Never	

e. Other	

D8. Were the students dewormed in the school? Yes, No or I don't know. If no go to question D12.

D9. If yes with what frequency is the deworming done in the school

a. Once every two years
b. Once a year
c. Once per semester
d. There was no deworming done
e. I don't know

D10. What was the date of the last deworming?

D11. Which was the organization that realized the last deworming in your school

a. NGO	
b. SDSMAS	
c. Other. Specify….	

D12. Is there any participation of community members in the implementation of the schools feeding project? Yes or No.

APPENDIX C. **SCHOOL MANAGEMENT QUESTIONNAIRE**

Name of enumerator:

PARTE A:

Name	
Distrito	
Name of school	

PARTE B:

The project:

1. For how long has the school been benefiting from the school feeding project?

    a. Less than two years

    b. 2-3 years

    c. 4-5 years

    d. 5 and above

2. What food was provided to students before the LRP Project|?

    a. Porridge

    b. Boiled Beans

    c. Cereals

    d. No food

    e. Other. Specify

3. What type of food does the school offer now?

a. Cereals
b. Beans
c. Grains
d. Soya

4. How many students does the school serve?
    a. 1 -50
    b. 51 – 100
    c. 101 – 150
    d. 151 – 200
    e. 201 – 250
    f. 250 or above

5. Does the project offer enough food to all students_ Yes or No. If not why?

6. How many students on average are not served?

Organizational capacity of the school to offer services

7. How many staff members are involved in the project?

8. What are the activities implemented by the project?

9. Does the school have all the facilities required for the implementation of a school feeding project?

A. Availability of water

B. Storage conditions

C. Kitchen facilities

D. Please list any other aspect not mentioned above

10. Has the school rehabilitated any facility for the implementation of the project? Yes or No.

11. If yes, what were the facilities improved and how ow much was spent

12. What are the challenges faced by the school in the context of the implementation of the school feeding project?

APPENDIX D. **QUESTIONÁRIO PARA COMITÉS DE APROVISIONAMENTO DAS ESCOLAS**

Nome do Inquiridor:

PARTE A

Nome da Escola	
Número de membros do SPC	
District	
Número de contacto do presidente/ responsável	

PARTE B:

13. For how long has the school been implementing the school feeding project?

    a. Less than 2 year

    b. 2-3 Years

    c. 4-5 Years

    d. 5 Years and above

a.	b.	c.	d.

14. What food products does the school receive from World Vision?

    a. Cereals

    b. Beans

    c. Peanuts

    d. Grains

e. Tuber (Orange fleshed sweet potato)

f. Iodate Salt

a.	b.	c.	d.	e.	f.

15. What quantities of the food products listed below have you received in the last semester?

Food Products	Kgs
Beans	
Peanuts	
Salt	
Orange fleshed sweet potato	

16. The food products received were not sufficient for all students eligible for the school feeding project?

17. If not, how did the committee found additional products to meet the required quantities?

18. Do you receive other products from other organizations? Yes or no. If not skip question 7.

19. If yes what products did the school receive from other organizations?

Food products
a.
b.

c.

20. How are the products delivered to the school?

    a. Visão Mundial car
    b. Car rented by World Vision
    c. Private vehicle
    d. Rented transport
    e. Other specify.

a.	b.	c.	d.	e.

21. Does the school receive food products from farmers associations? Yes or no?

22. If yes what products and in what quantities per product?

Food products	Quantities (kgs)

23. Where are products received stored?

a. Community Storage

b. Rented storage

c. School storages

d. Other specify...

a.	b.	c.	d.

24. What are the challenges faced in the storage of food products?

a. Theft

b. Food deterioration (pests)

c. Lack of space

d. Lack of space adequate for the storage of sweet potato

e. Other, specify

a.	b.	c.	d.	e.

25. What is the procedure to be used to control the quality of the food received??

a. Aflotoxin testo n peanuts

b. Phytosanitary test

c. Visual observation

d. Other. Specify...

26. What is the method used to control the quantities stored?

a. Physical count

b. Visual Observation

c. Inventory

d. Delievery forms

e. Other. specify..

a.	b.	c.	d.	e.

27. Did the school staff have any knowledge in procurement before joining the committee? Yes or No. If yes how did they acquire the knowledge?

a. They worked in other NGOs

b. They worked in similar projects of world vision

c. They were trained by Government institutions

d. Other. Specify..

a.	b.	c.	d.

28. What knowledge in procurement did you \they have?

a. Future contratcs

b. Storage management

c. Food products quality management

d. All topics (procurement)

e. Other. Specify...

29. Were they trained before working in the procurement committee? Yes or No.

30. If yes were they trained by which institutions?

a. World Vision project staff

b. World Vision ECT2 project staff

c. Consultants hired by World Vision

d. Hired insitutions

e. Government

f. Other. Specify...

a.	b.	c.	d.	e.	f.

31. Do you have any recommendation on how to improve the procurement process?

32. If yes what are the recommendations?

APPENDIX E. QUESTIONÁRIO PARA VENDEDORES

Parte A:

Nome	
Gender	
District	
Contact	

Section B.

1. Do you buy food/ agriculture products locally? Yes or No.

2. If yes what are the products that you buy locally:
    a. Peanuts
    b. Beans
    c. Salt
    d. Other. Specify.

3. If you buy locally who are your regular suppliers?

a. Intermediaries

b. Producers

c. Wholesalers

d. Agents

e. Other. Specify

a.	b.	c.	d.

4. Do you receive the products that you buy locally without delays? Yes or No.

5. Do you import some of your peanut's beans and salt from other countries? Yes or No

5.1 If yes, what are the products that you buy in other countries

a. Peanuts _____

b. Beans_____

c. Salt ____

5.2 From which country do you import your products

a. Peanuts ____

b. Beans ____

c. Salt ____

6. Do you buy any of your peanuts, beans and salt from other regions of the country? Yes or No.

6.1 If yes What products do you buy from other regions of the country?

a. Peanuts ____

b. Beans ____

c. Salt ____

6.2 From which region do you import your products?

a. Peanuts ____

b. Beans ____

c. Salt _____

A. What is the quantity (KGS) of the products that you buy monthly?

a. Peanuts _____

b. Beans. _____

c. Salt _____

7. How much do you pay for the products that you buy monthly

a. Peanuts _____

b. Beans _____

c. Salt _____

8. Where do you store your products?

a. Own storage ☐

b. Rented storage ☐

c. Lent storage ☐

9. If you answered c how much do you pay for renting the storage services?

10. Do you face challenges related to the products stored related to pests and rodents?

11. If yes what is the quantity of deteriorated products in your storage facilities?

12. How do you transport the products that you acquire in other provinces and countries?

a. Own transport
b. Rented transport
c. Lent transport
d. Other. Specify…

13. If you answered b above how much do you pay for transporting your products.

14. How many contracts you have with local and regional suppliers? Yes or No.

15. If yes, your local and regional suppliers have the capacity to fulfil the contracts agreed?

16. What are the challenges faced with local and regional suppliers?

APPENDIX F. **COOKS´ QUETIONNAIRE**

NAME OF ENUMERATOR:

District	
School	

PARTE B

1. For how long is the school implementing the school feeding project?
    a. 0-6 months
    b. 6-11 months
    c. 1-2 years
    d. 3-4 years
    e. More than 4 years

a.	b.	c.	d.	e.

2. Which of you work as a cook for longer in this school? For how long?
    a. 0-6 months
    b. 6-11 months
    c. 1-2 years
    d. 3-4 years
    e. More than 4 years

3. Which of you Works as a cook for less time in this school? For how long?
    a. 0-6 months

b. 6-11 months

c. 1-2 years

d. 3-4 years

e. More than 4 years

4. Who has worked as a cook before? For how long?

a. 0-6 months

b. 6-11 months

c. 1-2 years

d. 3-4 years

e. More than 4 years

5. How does your main job articulate with your volunteer work in the school as a cook?

6. Have you received training in any of the topics listed below before the LRP project?

Training Topic	
Gastronomy	
Nutrition	
Hygiene	
Other	
Havent received any training	

7. Have you participated in another training offered by the project?

Training Topic

Culinária
Nutrition
Hygiene
Other
Havent received any training

8. Do you have all ingredients to prepare the food? Yes or No. If not skip question 9.

9. If not, which do you usually lack?

10. Do you have all utensils that you need to cook? Yes or No? IS Yes go to question 12.

11. If not, which utensils you don't have?

12. In a scale of 1-10 how do you classify your level of satisfaction in relation to your activity. 1- not satisfied 10- very satisfied

13. Which challenges do you face in implementing this activity?

14. What are your suggestions about how to improve this activity?

APPENDIX G. **TRANSPORTERS QUESTIONNAIRE**

Name of enumerator

Parte A:

Enterprise	
Gender	
District	

Part B.

a. How many vehicles do you have?

17. What type of vehicle do use to render the services? (year make and capacity)

Characteristics of the vehicle	V1	V2	V3	V4	V5
Year					
Make					
Capacity					

18. Are the vehicles…?

a. Owned

b. Rented

c. Other. Specify…

19. Do you offer services exclusive to the LRP project or do you also serve other clients?

20. What type of contract do you have with World Vision?

a. Load /	
b. Mileage/ Kilometers	
c. Per trip	

21. If you charge per load Weight how much of you charge per kilo?

22. If you charge per mileage how much do you charge per kilometer?

23. If you charge per trip how much do you charge?

24. What the type of products that you transport?

a. Beans

a. Peanuts

b. Orange flesh sweet potato

c. Salt

d. SCB

25. On average how many schools do you serve per trip?

26. Are the Procurement committees being always ready to receive the food when you arrive?

    a. Always

    b. Sometimes

    c. never

27. If not how long on average do you have to wait to deliver the products.

    a. Always

    b. Sometimes

    c. never

28. Without the School feeding project do you have similar services that allow you to make a similar level of income. Yes or no.

29. If yes what type of services can give you the same income?

30. What are the challenges faced in the provision of this service?

31. How do you rate the service that you offer to World Vision?

a. Very Good

b. Good

c. Average

d. Bad

APPENDIX H. **GOVERNMENT OFFICIALS QUESTIONNAIRE**

Name of the enumerator:

PARTE A:

Position	
Gender	
District	

PART B.

1. For how long have you been worked for the school feeding project?
2. How many schools are involved in this project?
    a. At district level
    b. At provincial level
    c. At national level

3. Does the govern receive support to implement this project, from other organizations.

4. If yes from what type of institutions does the government receive support

a. Donnors

b. ONGs

c. Associations

d. Religious associations

c. Other. Specify

5. What type of the support does the Government receive from these institutions?

a. Technical Assistance

b. Financial Assistance

c. Assistance in kind

5. Does the government has a budget line to cover the school feeding project?

6. What products are common to school feeding projects implemented in Mozambique.?

7. What is your perception about the benefits of the implementation of this project in Mozambique?

9. What is the Government participation in the implementation of this project.

8. What are the challenges faced by the sector in the implementation of this activity?

9. What if the support to the government comes to an end…

10. What do you think should be improved in LRP and ETC2?

APPENDIX I. **MARKET MANAGEMENT QUESTIONNAIRE**

Name of enumerator:

Nome of the market	
Location	

1. How many members are part of the market management committee?

2. To whom does the management committee reports to at the government
   a. Direção distrital da educação.
   b. Chefe do bairro
   c. outro

3. What are the conditions that the market offers?

a. Water	
b. Electricity	
c. Stands	
d. Toilets	

4. How many stands does the market has?

a. 5-15	
b. 16-20	

c. 21-30	
d. More than 30	

5. How many vendors have a stand in this market?

a. 5-15	
b. 16-20	
c. 21-30	
d. More than 30	

6. Do the Vendors pay taxes? Yes or No.

Producers

7. Where is your plot?

a. Nearby/ same locality
b. Other administrative posts
c. Nearby districts
d. Other. Specify…

8. What is the distance (km)that you travel to come to the market?

9. How do you come to the market?

a. On foot
b. By bike

c. By motorbike

d. Public transport

e. Private vehicle

f. Other. Specify

10. Se usam transportes públicos quanto paga por viagem?

11. What type of food products are sold in this market?

12. What are the quantities (kgs)n per product that you bring to sell?

Products	Quantities

13. At what prices did you intend to sell your products?

Products	Prices

14. At what prices do you sell your products

Products	Prices

15. Are there any products that you cannot sell? Yes or no. If not skip question 16.

16. . If yes what do you do with those products?

a. Keep it to sell next day
b. Sell at a lower price
c. Consume
d. Offer to other people
e. Other. Specify

17. How often you come to the market?

Frequency	

a. Every day	
b. Once a week	
c. Twice a week	
d. Trice a week	
e. Other. Specify	

18. What are the main challenges that you face related to the products?

a. Reduced quality of products

b. Insuficient quantity of products

c. Inability to sell the products (too many buyers)

d. Lack of financial capacity of the buyers to pay the price Indisponibilidade financeira dos compradores de pagarem um preço justo pelos produtos

e. Other. Specify.

f. There are no challenges

18. What are the main challenges faced in this market related to the transport of products?

a. Bad condition of the roads

b. High transport prices

c. Reduced number of transporters

d. Lack of capacity of transport to handle large volume of products

e. Reduced frequency of transport

f. Other specify.

g. Has no challenges

20. What are the main challenges aced in this market related with staff?

a. Reduced number of available staff

b. High salaries

c. High turnover

d. Other. Specify

e. Have no challenges

21. What are the main challenges faced by this market related to the Government

a. High taxes

c. Conflicts with the policy

d. Conflicts with the inspectors

e. no support from the government

f. Other Specify

g. Não tem desafios

Traders

19. For how long have you been selling in this market?

a. Less than 6 months

a. 6 -11 months

b. 1 -2 years

c. 3 - 4 yars

d. More than 4 years

20. What products do you sell in this market?

21. What are the quantities of the products that you can sell per day?

22. How much income do you get from the daily sales (Mtn)?

23. Do you hire a stand? Yes or No?

24. If yes how much do you pay?

25. To whom do you hire a stand?

26. Do you pay taxes to the government? Yes or No.

27. If yes how much do you pay?

28. Do you have another activity apart from selling in this market? Yes or No. If no skip question 30.

29. If yes what type of activity?

    a. Do you farm

    b. Are you a street seller?

    c. Do you work for someone?

    d. Do you do small jobs

    e. Other. Specify.

30. What is the level of satisfaction related to the infrastructures (water, electricity toilets stand etc.)?

Infrastructures	Satisfaction level (1. excellent, 2. Good 3. Average, 4. Bad)
Water	
Electricity	
Toilets	
Stands	

31. Who are your main suppliers?
    a. Producers
    b. wholesalers
    c. Intermediaries
    d. Other. Specify

32. Who are your main buyers?
    a. Buyers for own consumption
    b. Confectionists retailers
    c. Retailers
    d. Other. Specify

33. In relation to the main product that you sell do you always have enough quantity to sell? Yes or No. If yes skip question 33.

34. If not, what is the period of the year that you don't have enough quantities to sell?
    a. Cold season
    b. Hot season
    c. Rainy season

d. Dry season

e. Other. Specify

35. What are the main challenges that you face related to the products?

a. Reduced quality of products

b. Insufficient quantity of products

c. Inability to sell the products (too many buyers)

d. Lack of financial capacity of the buyers to pay the price Indisponibilidade financeira dos compradores de pagarem um preço justo pelos produtos

e. Other. Specify.

f. There are no challenges

35. What are the main challenges faced in this market related to the transport of products?

a. Bad condition of the roads

b. High transport prices

c. Reduced number of transporters

d. Lack of capacity of transport to handle large volume of products

e. Reduced frequency of transport

f. Other specify.

g. Has no challenges

36. What are the main challenges aced in this market related with staff?

a. Reduced number of available staff

b. High salaries

c. High turnover

d. Other. Specify

e. Have no challenges

37. What are the main challenges faced by this market related to the Government

a. High taxes

c. Conflicts with the policy

d. Conflicts with the inspectors

e. no support from the government

f. Other Specify

g. Não tem desafios

Buyers from Outside

36. Where do you come from?

a. From other localities
b. From other districts
c. From other provincies
d. Other. Specify

37. How often do you come to this market?

Frequency	
a. Every day	
b. Once a week	
c. Twice a week	
d. Trice a week	

e. Other. Specify	

38. Do you only buy in this market or also in other markets?

39. What are the products that you buy in this market?

a. Sweet potato
b. Peanut
c. Salt
d. Oil
e. Rice
f. Cassava
g. Beans
h. Other. Specify

40. What is the quantity of products that you buy?

Products	Quantities (kgs)

41. At what prices do you buy the products?

Products	Prices -High demand	Prices low demand

42. Do you find all the products you need in this market? Yes or No.

43. Comparing with other markets, are the prices in this market competitive? Yes or No?

44. If yes how do you classify the prices?

a. Higher than average

b. Average

c. Lower than average.

45. Do the products meet your expectations? Yes or No.

46. In which phase of the year you don't find the products you need

a. Cold season

b. Hot season

c. Rainy season

d. Dry season

e. Other. Specify

47. Where do you buy the remaining quantities that you need?

a. From another market in the same district

b. In other markets in the province

c. In another province

d. Out of the country

e. Outros. Specify

48. What is the mean of travel that you use to come to this market?

a. Vehicle

b. Motorcycle

c. Bicycle

d. Other. Specify

49. What are the transport costs per trip?

50. What are the main challenges faced in this market related to the transport of products?

a. Bad condition of the roads

b. High transport prices

c. Reduced number of transporters

d. Lack of capacity of transport to handle large volume of products

e. Reduced frequency of transport

f. Other specify.

g. Has no challenges

50. What are the main challenges that you face related to the products?

a. Reduced quality of products

b. Insufficient quantity of products

c. Inability to sell the products (too many buyers)

d. Lack of financial capacity of the buyers to pay the price

e. Other. Specify.

f. There are no challenges

APPENDIX J. **FARMERS' ASSOCIATION QUESTIONNAIRE**

NAME OF ENUMERATOR

Parte A:

Association Name	
District	

PARTE B: Organizational Capacity of the association

B1. When was the association established		
B2. Is the association officially registered		
B3. How many members does it have?	M=	F=

B4. How many members are in the management team	
B5. Do the members of the association pay an association fee? Yes or No.	
B6. If yes how much do they pay?	
B7. What are the advantages for the business of being an official association of registered producers? 1 = Access to comercial network 2 = Access to the markets 3 = Lower distribution costs 4 = Other. Specify...	

B7. How many types of products do the association members produce?	
B8. Do they produce Orange fleshed sweet potato? Yes or No.	
B9. When did you start producing Orange fleshed sweet potato? (Year)	
B10 What did motivate you to produce this product a. It is very nutritive	

b. The product is highly demanded

c. The government supports this culture

d. Other. Specify…

B11 Where do you store your products?

a. Storage facilities owned by the association

b. Rented storage facilities

c. Lent storage facilites

d. Other. Specify...

B12 If you rent storage facilities how much do you pay per month for the service?

B13 What are the challenges faced in the storage of food products?

a. Theft of products

b. Deterioration of products

c. Lack of space

d. Lack of space adequate for the storage of orange fleshed sweet potato

e. Other. Specify

B11 Do you have any commercial relation with an agribusiness? Yes or No.

B12 If yes how many agribusinesses and what type of contract and what type of services do, they offer. What type of formal relation do you have and what is the number of Agribusinesses or services offered?

Type of agribusinesses	Number	Type pf relationship 1 = formal 2 = Informal 2a=Future contract 3. Other	Services offered
The association offers services to			
Processors			

Buyers and sellers				
National Private businesses				
International organizations				

The association buy services from.

Suppliers of inputs				
Other(Specify)				

Part C: Link with agribusinesses

C1. Who do you sell your products to?

1 = Processors 2= Vendors and registered buyers, 3= International Organizations, 5= Schools 6=Other, Specify____

C2. Do you have contractual agreements with agribusinesses? Yes or No.

C3. If yes what type of contract do you have?

1 = Future contract 2 = Inputs delivery 3 = _____

C4. When was the first contract signed between this association and....?

C5. What are the contractual terms that you had with…?

1 =Inputs delivered for free (for example, seeds, fertilizers, etc.) 2 = Inputs delivered at a lower cost; 3 = inputs supplied on credit ; 4 = Transport services offered 5= Price of sale guaranteed; 6 = Technical assistance included 7 = Exclusive sales to the school feeding project 8 = Option to receive advanced payment 9 = Access to credit 10 = knowledge of quality standards 11 = Other Specify _____ 11b.= The contract includes a premium price

C6. If the answer to question 11 option 10 how did your group acquire the knowledge about the requirements of standards of quality demanded by the buyers.

1 = The wholesaler organizes the trainings and workshops for the members 2 = The buyers offer trainings and workshops for the members; 3 = TV projects via radio organized by the wholesalers and buyers 4 = Other. Specify.

C7. How has been the effort of members to attend to the quality standards? 1 = All members do an effort to attend to the requirements; 2 = most of the members do an effort 3 = Some of the members do an effort 4 = None of the members do an effort

C8. When does the association receive the payment for their services?? 1 = At the delivery of the product 2 = After the final buyer makes the payment 3 = In advance 4 = Payments in instalments 5 = Exchange of inputs for products

C9.	How is the final price paid by buyers determined?1 = Determined and fixed by the buyer 2 = Determined and corrected by the intervention 3 = The association decides the price and negotiated with the buyer 4 = The. Buyer decides on the price and negotiates 5 = The association uses the current price on the market 6 = Other Specify ___
C10	The association is happy with the price received by the buyer?1 = Not satisfied 2 = Satisfied most of the times 3 = Satisfied sometimes 4 = Satisfied 5 = Not satisfied not unsatisfied 6 = Very satisfied
C11	The association cannot sell all products produced by its members. Yes or No.
C12	What does the association do with the remaining products Keeps it to sell next day? a. Sells at a lower price b. Consumes with the in their household c. Offers it to others d. Other. Specify
C13	The association sells Sweet potato to schools? Yes or No.
C14	If yes how much quantity of Orange fleshed sweet potato is sold to schools (kg)?
C15	What is the total value of the amount of sweet potato sold to schools?
C16	Is there any buyer in your area? Yes or No?
C17	If yes what is his impact in the market? 1 = Positive, 2 = Negative, 3 = No Impact, 4 = Doesn't know

PARTE D: Habilidades dos agricultores em negócios e técnicas agrícolas

D1 Did the members have training in management or business administration(agribusiness)? Yes or no. If not go to question 28.

D2. What type of business management skills do the members have?

	Register of cash in and cash out	Basic analysis of cash flow	Profit and loss account	Work plan	Basic elaboration of a business plan	Future contracts
Low						
Average	Low					
Good	Average					
	Good					

D3. Did the members receive any trainings in agriculture techniques? Yes or No.

D4. If yes, how many members were trained

D5. What type of agriculture technique do they have?

D6.	Quality control	Crop planning	Pest control mechanisms	Improved agriculture techniques to improve the yield	Improved techniques for the production and conservation of sweet potato

PARTE E: Service providers

E1. Does the association receive the services listed below from their service providers?

Type of services	Service providers (ONGs, SDAE, Bancs, outro....)	Information source (Tv, radio, SMS, information bulletins	Year	Frequency (daily, Weekly, monthly quarterly	Number of members that receive training/ information	Quality classification (excellent, good, average bad)

	Other Specify,	annual other)
Weather forecast information		
Market information		
Agricultre credit		
Agriculture inputs		
Extension services		