



Final Evaluation Report August/Sept. 2017

Project “Mejor Educación y Salud (MESA)” - Nicaragua

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Project “Mejor Educación y Salud (MESA Project)” Final Evaluation

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ACRONYMS

AOP	Annual Operating Plan
ASP	Analytical and Synthetic Phonics (Reading and writing teaching method)
BL	Baseline
CEDEHCA	Centro de Derechos Humanos, Ciudadanos y Autónomos (Center for Human, Civil and Autonomous Rights)
CI	Confidence interval
FAS	Foreign Agricultural Service
FE	Final Evaluation
FGD	Focus Group Discussion
FNS	Food and Nutrition Security
GRNU	Government of Reconstruction and National Unity
LPA	Learn, Practice and Apply (Reading and writing teaching method)
LQAS	Lot Quality Assurance Sampling
MAPAF	Mothers and fathers
ME	Midterm Evaluation
MEFCCA	Ministerio de Economía Familiar, Comunitaria, Cooperativa y Asociativa (Ministry of Family, Community, Cooperative and Associative Economy)
MESA	Mejor Educación y Salud (Better Education and Health) (MESA Project)
MGD	McGovern-Dole
MINED	Ministerio de Educación (Ministry of Education)
MINSA	Ministerio de Salud (Ministry of Health)
PCI	Project Concern International
PINE-MINED	Programa Integral de Nutrición Escolar del Ministerio de Educación (Ministry of Education Comprehensive School Nutrition Program)
PTA	Parent-Teacher Association
RACCS	Región Autónoma de la Costa Caribe Sur (Southern Caribbean Coast Autonomous Region)
REN	Rural Education Nucleus
SA	Supervision Areas
SFC	School Feeding Committee
SIMESA	Sistema de Información del Proyecto MESA (MESA Project Information System)
SN	Natural Sciences
SO	Strategic Objective
SODIS	Water treatment system using solar energy
SRS	Simple Random Sample
SS	Social Sciences
SSP	School Snack Program
TEPCE	Talleres de Evaluación, Programación y Capacitación Educativa (Evaluation, Programming, and Educational Training Workshops)
TOR	Terms of Reference
USDA	United States Department of Agriculture

EXECUTIVE SUMMARY

Project background

From September 2013 to September 2017, Project Concern International (PCI), the Center for Human, Citizen and Autonomous Rights (CEDEHCA) and the Comprehensive School Nutrition Program of the Ministry of Education (PINE-MINED), with funding from the United States Department of Agriculture (USDA), implemented the Better Education and Health Project (MESA in Spanish) in 11 municipalities of the country: seven from the Southern Caribbean Coastal Autonomous Region (RACCS) and four from the department of Jinotega. The purpose of the project was to support the education of school-aged boys and girls by integrating health and education activities aimed at improving the quality of teaching and the attendance and attention of children, thereby directly supporting the MINED's Comprehensive School Nutrition Program.

The project covered 1,115 primary schools, 473 of which are located in four municipalities of Jinotega (Jinotega, La Concordia, San Sebastián de Yalí and Santa María de Pantasma) and 642 are in seven municipalities of the RACCS (Bluefields, Kukra Hill, Laguna de Perlas, la Cruz de Río Grande, Desembocadura de Río Grande, El Tortuguero, and Corn Island). The project benefitted 106,743 people (students, parents, teachers, and government officials).

The MESA Project focused on two major outcomes

1. Improving the literacy of school-aged children (SO1) by improving the quality of education and the attendance and attention of school children in the classroom
2. Increasing health and nutrition practices (SO2) by improving knowledge of health and hygiene practices, food storage and preparation, and nutrition, as well as increasing access to safe drinking water, sanitation and preventive health

Purpose and methodology of the evaluation

The purpose of the final evaluation was to determine the completion of targets established in the project framework using a qualitative-quantitative approach. The information sources were:

- a) Surveys to school children, teachers, and mothers, using the Lot Quality Assurance Sampling (LQAS) methodology with a random sample (247) for each population group
- b) Interviews, group meetings and/or focus groups with key stakeholders (MINED and PINE-MINED officials, PCI and CEDEHCA technical teams, teachers, and parent members of the PTA)
- c) MESA Project Information System (SIMESA) and the PINE and MINED Information Systems. Quantitative survey data was processed in EpiInfo. Results were weighted by population, and their respective 95% confidence intervals (CIs) were obtained using a specific formula for the sampling methodology (LQAS) to be comparable with baseline results. All results were compared with the baseline, project targets and midterm evaluation (ME) results.

Evaluation findings

All stakeholders agree that the project is entirely relevant, contributing directly to the fulfillment of the education sector strategies contemplated in the National Development Plan of the Government of Reconstruction and National Unity (GRNU), the Ministry of Education Plan, and the Caribbean Coast Development Plan.

The objectives and targets of the project were satisfactorily fulfilled:

Improve the reading and writing of school-aged children through the training of teachers and the delivery of textbooks and school materials. Figures provided by MINED show an increase in reading and writing skills in 6th grade students: 82% of girls at Baseline (BL) compared to 97% in the Final Evaluation (FE), and 80% of boys at BL compared to 96%. These figures show a significant improvement and achievement of the target for both sexes. The project contributed to improving capacity in schools by surpassing the below targets:

- Provision of materials and supplies for teachers and school children in 1,092 schools, representing 7% more than the established target
- Capacity building among teachers through educational techniques and methodologies: 1,401 teachers were trained, exceeding the goal by 36%. It was expected that at least 50% of teachers would use new techniques or tools for teaching with project support, but 65% actually did, according to MINED's monitoring system.
- Directly benefiting 106,743 students, teachers, and parents, surpassing the target by 12%, and indirectly benefiting 310,184 people, meeting the target at 102%.

Improve student attention by alleviating short-term hunger through the delivery of school snacks, establishment of school gardens, and alliances with local producer groups. According to the teachers surveyed, 9% of school children did not pay attention in class, a decrease of 6 percentage points compared to the baseline result of 15%. The school snack contributes to the physical, psychological, and social well-being of the students. According to teachers, with the snack, *"students are more active, more dynamic, more aware of the explanations that are provided in class, and therefore learn to read and write faster."*

In the BL, 6% of students surveyed said they were hungry or very hungry, compared to 1.4% in the FE. A total of 3,847 tons of food (98% of the target) were distributed to the beneficiary schools. This benefited 75,900 school children who received the school snack during the life of the project, meeting the target. Although the target of developing school gardens in 200 schools was met, we recognize that further development is still needed in this component; the main difficulty is that schools do not have agroecological conditions that facilitate agricultural activity. The storage, preparation, and delivery process of the school snack served to develop the organizational capacity of both teachers and parents, as well as the involvement and partnership with other local stakeholders, mainly producers. There was significant parent participation in the school snack. Mothers and fathers each developed important roles in the process leading up to the ultimate delivery of the prepared food. The preparation of the school snack has improved by incorporating the complementary contributions from parents, thus substantially improving the quantity as well as the nutritional quality of the snack. This has made it more accepted by students.

Improve student attendance through increased community awareness of and advocacy to promote an understanding of the benefits of education and increase school enrollment in general. Statistics provided by MINED show that 88% of girls and boys attend classes regularly, an improvement from 80% at the beginning of the project. Of surveyed school children, 84.5% said they had missed at least one day of class in the 2017 school year, compared to 60% at the BL. Illness was the cause for 72% of the students who had missed a day of class. Despite this increase, school children's regular attendance substantially improved throughout the school year. *Improve the physical environment* for learning in schools, through the construction and rehabilitation of school infrastructure, including classrooms and kitchens. Using the initial assessment to select the schools, 394 schools were rehabilitated in kitchen areas, storage areas, and/or classrooms. At the end of the project, 98% of the classroom target, 105% of the kitchen target, and 134% of the storage areas target was achieved in selected schools, improving the basic conditions for a better teaching-learning process. Despite having met the targets, all

stakeholders agree that there are still gaps and needs that remain in many schools to create optimal conditions for teaching and for school children.

Improve access to preventive health interventions by increasing access to health services in schools, distributing medications for deworming, and holding educational talks. Coordination was established with local authorities at the Ministry of Health (MINSA) to provide deworming treatments to school children (lice treatment and intestinal deworming), reaching 1,019 schools. This surpassed the target of 986 and reached 74,703 school children, 24% above the target.

Improve health and eating habits by increasing access to water and sanitation services and knowledge of health and hygiene practices, nutrition, and preparation and safe storage of food. The practice of cleaning latrines increased to at least once a day, from 43% reported at BL to 85% in the FE, well exceeding the target of 50%. School children who practice handwashing before lunch increased from 47% to 94%. Teachers were directly observed teaching adequate handwashing techniques. In 64.7% of randomly selected schools, there was water and handwashing soap available, higher than the 15% recorded at BL. However, this is still below the 80% proposed target, representing a gap to overcome in the future. The "Tippy Tap" is an excellent initiative that helped increase the number of handwashing stations through the use of recycled materials and easy installation. Regarding food preparation and storage, 100% of the target was achieved by training 3,565 parents on preparation and adequate food storage practices. Of parents who participated in a training, 88% passed a test to determine the level of learning of food preparation and safe storage techniques. Among mothers surveyed, 55.2% were able to identify at least three benefits obtained from good nutrition or diet, exceeding the goal of 50% and significantly improving upon the 14% obtained at baseline.

Increase the capacity of government institutions and the participation of local organizations and community groups. During the project, 1,036 parents were trained in management, sustainability, and resource mobilization, meeting the target at 105%. The organized participation of fathers and mothers was strengthened through concrete activities during the preparation and delivery of the school snack. Community organization was consolidated in schools where it was non-existent or its development very weak, providing follow-up to 148 schools, 48% higher than the target (100). Sixty PINE-MINED, CEDEHCA, and PCI staff were trained in product management, accounting, monitoring and evaluation, and supervision and quality management, developing greater local managerial capacity.

Conclusions and Recommendations

The results show that the project targets were largely met or surpassed, contributing significantly to the achievement of the proposed objectives. Key elements that contributed to the success of the project are:

- a) The comprehensive approach in the design and execution of the project, including complementing the school snack with additional components such as health, training, infrastructure development, hygiene, and sanitation. Although this approach is more complex, its comprehensiveness shows greater benefits and better results.
- b) The integration of all local stakeholders and the strengthening of community engagement. In addition to the educational community (teachers, students, parents), the project achieved active participation from the local government, the private sector, and small and medium size producers.
- c) The capacity building of teachers in educational methodologies, school children and parents on the benefits of education, and everything related to school snacks, health, hygiene, and sanitation. This has improved basic health practices such as hand washing, the use of latrines, food preparation and storage, and nutrition.

For similar projects in the future, we recommend maintaining the comprehensive nature and components of the project. However, prioritization should be made according to the availability of resources (human, financial, and time). Coordination at the local level is fundamental for operational execution, but coordination at a strategic political level is also required. Thus, in addition to coordination between PCI and PINE-MINED management, we recommend reinforcing relationships with counterparts in other departments of MINED (Infrastructure, Planning, Capacity Development). Given that the financial resources of external cooperation will always be limited, to be sustainable we recommend strengthening and expanding activities aimed at integrating other sectors, especially the private sector where there is great potential both at the local level with producers as well as at a national level with bodies that implement Corporate Social Responsibility (CSR).

I. BACKGROUND AND PROJECT DESCRIPTION

1.1 Background

The Government of Nicaragua, through the Ministry of Education, implements the Ministry of Education's (PINE - MINED) Comprehensive School Nutrition Program, for which the main objective is to "*guarantee school children the Human Right to Adequate Food, through school feeding*," regulated by Law No. 693 "Sovereignty and Food and Nutritional Security, Article 30 subsection 'C'" throughout the national territory.¹ PINE-MINED runs four key components:

1. School Snack restores the human right to food. It stimulates attendance, lowers dropout rates, and contributes to nutritious and healthy food consumption by providing a daily food ration (145 grams of a staple food) for 150-160 days of the year.
2. School gardens promote love for Mother Earth and affect nutritional changes in eating behaviors. This is a teaching and production tool to supplement school snacks. It promotes the cultivation and consumption of vegetables and fruits.
3. Food and Nutrition Security (FNS) Education provides education for a healthier lifestyle and develops educational skills in FNS areas. As of 2009, it was included in the basic national teaching curriculum and teacher training.
4. School kiosks promote access to adequate food, consumption and culture of local food, and the consumption of nutritious and healthy food in schools through the sale of nutritious and hygienic food.

PCI Nicaragua, with the United States Department of Agriculture (USDA), from late 2013 until September 2017 implemented the Better Education and Health Project (Project MESA) in eleven municipalities: four departments in Jinotega and seven in the Southern Caribbean Coast Autonomous Region (Región Autónoma de la Costa Caribe Sur, RACCS) as previously defined with MINED authorities and in association with the local organization Center for Human, Civil and Autonomous Rights (CEDEHCA).

1.2 Results, objectives and activities by MESA project component

The results framework is based on the McGovern-Dole framework #1 and #2, which describes the strategic objectives and results of the MESA Project program that will contribute to the strategic plan of the USDA. (see *Annex 01. MESA Project Results Framework*). These are:

SO1 Improve the literacy of school-aged children

RI 1.1 Improve the quality of education

RI 1.2 Increase attention

RI 1.3 Improve school attendance

SO2 Increase health and nutrition practices through the following results:

RI 2.1 Better knowledge of health and hygiene practices

RI 2.2 Increased knowledge of safe food preparation and storage practices

RI 2.3 Increased knowledge of nutrition

RI 2.4 Increased access to clean water and sanitation

RI 2.5 Increased access to preventive health interventions

¹ Nicaragua. Ministry of Education. MINED Comprehensive School Nutrition Standards

The following objectives were defined according to the expected results of the project:

1. Improve the literacy of school-aged children,
2. Improve student attention,
3. Improve student school attendance,
4. Improve the physical learning environment in schools,
5. Improve access to preventive health interventions,
6. Improve health and eating habits, and
7. Increase the capacity of government institutions and increase the participation of local organizations and community groups.

According to the objectives and expected results, the project focused its activities in the four main areas of school snack, training, infrastructure, and health, developing specific activities in each of these linked directly to development and/or strengthening of the components that make up the School Snack Program (SSP). The activities developed by component were:

School Snack Component

- *Distribution of materials for School Snack:* Provided a daily food delivery (160 class calendar days) for children in preschool and elementary schools. The School Feeding Committee (SFC) organizes the preparation and delivery of food in schools.
- *Development of school gardens:* Encourages the involvement of parents and provides training, seeds, and tools; teaches children the entire cycle of production. The garden is used as a laboratory for learning.
- *Parent-Teacher Association (PTA, SFC):* Supports and works in schools to help improve teaching conditions for the school population.

Training Component

- *For the PTA, SFC:* Topics included proper food handling and storage and hygienic preparation of snacks, including storage and handling of commodities, recipes, and food preparation, proper hygiene practices with emphasis on handwashing before cooking and eating, and care and proper handling of food and utensils at home and school. Prioritized materials for food storage (barrels, pallets, "trunks") are delivered to schools. The PTA is trained on the importance of partnering for food preparation as a step toward sustainability, community planning, and monitoring.
- *For teachers:* Topics include participatory techniques, leadership development, personal development, and educational methodology (teaching), as well as MINED FNS materials on the importance of school nutrition, school gardens, food security, and selling healthy snacks in school kiosks. This included the delivery of manuals and guides developed by MINED.
- *Delivery and school supplies:* These include blackboards, chalk, flip charts, books, pencils, erasers, pencil sharpeners, pencils, paper, notebooks, geometry sets, and sports equipment, as well as textbooks for teaching, stories, and other supplies for "mini" libraries.
- *Training on good health and nutrition practices:* Students, teachers, and parents are trained on health education, nutrition and hygiene, prevention of parasitic diseases, nutritional deficiencies, infectious diseases, proper storage, and food preparation.

Infrastructure Rehabilitation Component

- *Classrooms, kitchens and food storage areas:* PCI provides construction materials, supplies and skilled labor in the locations with the highest need, and the community provides unskilled labor. It incorporates training for parents, teachers and students on how to use and maintain the infrastructure.

- *Water systems:* Renovation of wells, water systems, hand washing stations and rainwater collection systems. Parents, teachers and students were trained on the proper use and maintenance of water systems, water conservation, the importance and benefits of handwashing, and how to build “tippy tap” handwashing stations using simple technology. It also teaches water disinfection methods for drinking water, mainly using filters and the SODIS methodology, a water treatment system using solar energy.
- *Latrines:* This included the design, materials, construction supplies, and skilled labor when needed. PTA and community members provide unskilled labor. The educational component included training of parents, teachers and students on use and maintenance.

Health Component

- *Preventive health school campaigns:* In coordination with the Ministry of Health (MINSA), lice and deworming treatments, and vitamin A supplements were provided, as well as information dissemination on hygiene and health.

1.3 Project Coverage

The project covers 473 public elementary schools located in four municipalities of Jinotega (Jinotega, La Concordia, San Sebastian de Yali and Santa María de Pantasma) and 642 schools in seven municipalities of the RACCS (Bluefields, Kukra Hill, Laguna de Perlas, La Cruz de Río Grande, Desembocadura de Río Grande, El Tortuguero and Corn Island), for a total of 1,115 schools, including 129 community preschools. This benefits 106,743 students, parents, teachers, and government officials. The project indirectly benefits 310,184 other family members (see *Annex 02. Schools and beneficiary population by municipality*).

1.4 Purpose of the final evaluation

The overall purpose of the FE is to identify the level of achievement obtained according to the results and targets established under the project. It focuses on the following objectives:

- Assess whether the project has achieved the expected results as outlined in the results framework;
- Assess the relevance, effectiveness, efficiency, impact, and sustainability of project activities;
- Measure the results of the project and assess attribution;
- Identify lessons learned through the implementation/maturation of the project with emphasis on identifying key strategies, methodologies, and factors that contributed and/or inhibit success, focusing on areas that could be applied to similar programs;
- Draw conclusions and provide recommendations to PCI, USDA, beneficiaries, project partners, and other key stakeholders to strengthen future food assistance and similar programs.

II. Evaluation Methodology

The evaluation incorporates a mixed quantitative and qualitative approach to analysis that responds to the objectives of the assessment and the project's monitoring and evaluation plan.

The study universe is made up of different population groups linked to schools in the departments of Jinotega and the RACCS:

- *Students*: Primary school children from 4th to 6th grade,
- *Teachers* from primary schools,
- *Parents* of school children,
- *Ministry of Education Comprehensive School Nutrition Program (PINE-MINED) delegates and/or officials*
- *PTA*,
- *PCI and CEDEHCA officials or technical staff*,
- *USDA/Foreign Agricultural Service (FAS) /Nicaragua and USDA/FAS/Washington officials*

2.1 Quantitative approach

Analysis Unit: Corresponds to the population groups' program goals:

- Elementary student (girl or boy)
- Elementary school teacher
- Mother with children studying in elementary school

Sample: The LQAS methodology² (Lot Quality Assurance Sampling) was used for the evaluation, as it was in the BL and midterm evaluations. It is an easy to use methodology with acceptable statistical power in addition to its use for monitoring by Supervision Area (SA). The SAs used for the final evaluation are the same as those used in the BL and midterm evaluations (see *Annex 03. Sample disaggregated by population group and geographical area*).

- Five SAs in the department of Jinotega: two in the town of Jinotega, two in Pantasma, and one SA unifying the municipalities of Yalí and La Concordia.
- Eight in the RACCS: two SAs in La Cruz de Río Grande, two in El Tortuguero, two for Bluefields and Corn Island together, and one for Laguna de Perlas and Kukra Hill.

² LQAS, called "batch acceptance sampling," involves taking a small random sample from each set of population elements to determine if it meets a predetermined quality standard. LQAS is functionally identical to stratified sampling (where each lot is a single stratum), but requires smaller samples. LQAS was originally designed for use in industry to perform statistically valid quality tests at minimal cost. In the context of modern research, LQAS has become an accepted sampling method in the fields of public health and international development. It is a sampling method that:

- Can be used locally, at the level of a "supervision area," to identify priority areas (e.g. county, sector) or indicators that are not reaching average coverage or an established benchmark
- Can provide an accurate measure of coverage or quality of the health system at a more aggregated level (e.g. program catchment area, district, municipality, or department)
- Can be used for quality assurance using a principle of "minimum sample," "maximum safety."

According to the methodology, each SA corresponds to a set of 19 observations, and each set consists of the following population groups: a student, a teacher, and a mother. The sample size for each unit of analysis is 247.

Sampling: Random selection was performed in two stages:

- First stage selection of schools: Using an updated list of participating schools per municipality, each were coded sequentially with ordinary numbers. Using the *RAND()* function, the Excel program assigns a random number to each school. The *Sort* function was used to create a random distribution, from which 19 schools were selected in each Supervision Area (see *Annex 04. Sampling frame for Supervision Area*).
- Second stage selection of respondents: Student attendance lists from the day of the field visit to the selected school and a random number table were used to select students. Teachers were selected randomly in schools where there was more than one. Mothers were selected using the house nearest the selected school.

2.2 Qualitative approach

In-depth interviews: Key stakeholders in project implementation were selected for interview: MINED and municipal government officials, as well as PCI, CEDEHCA, and USDA officials.

Group meetings/focus groups: An independent group meeting was conducted with technical teams from PINE-MINED as well as focus groups discussions (FGD) with PTA/SFC members and teachers. See *Table 1*.

Table 1. Interviews and focus groups conducted, by key stakeholder/population group and geographic area.

	Number per zone			
	Jinotega	RACCS	Managua	Total
Interviews				
MINED departmental (Jinotega) and regional (RACCS) delegate	1	1	-	2
PINE-MINED official	1	1	1	3
Local government official	1	1	-	2
PCI departmental/regional project manager	1	1	-	2
PCI-CEDEHCA M&E project coordinator	1	2	1	4
CEDEHCA official	-	2	-	2
USDA/FAS/Nicaragua official	-	-	1	1
USDA/FAS/Washington official	-	-	1	1
Group Meeting/FGDs				
PINE-MINED official	1	1	-	2
Teachers	1	3	-	4
SFC parent members	1	2	-	3

2.3 Data collection

PCI's project information system (SIMESA) was used to obtain data about the activities completed and progress made on process indicators. Indicators related to literacy levels in school children and teacher ability to instruct (the same used for the baseline study) were obtained from the MINED information system upon request from PCI.

The quantitative tools (surveys) used with teachers, school children, and mothers were the same as those used in the baseline and midterm evaluations (*Annex 05. School children, teacher, and mother surveys*). Data collection was performed using a team of enumerators trained in the evaluation tools. During data collection, the following situations occurred in some schools:

- School closed by the teacher due to a convening called by the Municipal Delegate of MINED.
- Change of principal and/or new teacher (time in office: one week)
- School without a teacher during the 2nd semester 2017
- School not applicable because it only teaches grades 1 through 3
- School in conflict zone and highly dangerous
- School closed due to lack of a teacher
- Weather conditions prevented access to the communities (in some cases, the team waited several days for conditions to improve, but access was still not possible)

In cases where it was not possible to collect data, using the LQAS methodology we located the next nearest school to conduct the surveys. This happened in seven schools in Jinotega and 34 in the RACCS.

Qualitative data was collected by the research team through guided questions for each key stakeholder, addressing topics on attendance/enrollment, efficiency, impact, sustainability, and gender. *Annex 06. Guidelines for qualitative data collection.*

A document review was conducted using reports from previous studies, plans, performance frameworks, and process records linked to the distribution activities of school snacks. Working sessions were held with members of the PCI and CEDEHCA technical teams with whom we reviewed the project information system (SIMESA), including data collection (primary records) as well as municipal, provincial, and central level consolidated records, verifying their operation, use, and security.

2.4 Data processing and analysis

To process and analyze indicators, the sampling frame, definition of indicators, and data source, as used in the baseline and midterm evaluations were reviewed (*Annex 07. MESA Project definitions, sources, and indicator targets*).

Process indicators' established targets were compared with what was achieved, using data from the project information system to obtain achievement percentages.

For result indicators whose source was the MINED, the target or the BL data was compared with the data from the final evaluation, thereby establishing the level of progress. One limitation of this source of information is that it is not possible to conduct statistical tests to validate progress made for these indicators.

For indicators obtained through the household survey, Epilnfo was used for double data entry, cleaning, and processing to obtain output tables; results were weighted by population and 95% confidence intervals were constructed using a specific formula for LQAS sampling.³ The LQAS methodology uses fewer observations per SA (19), so the estimated specific coverage by lot and confidence limits are not accurate. However, accurate estimated coverage and corresponding

³ KPC 2000+. *Field Activities Manual. Analysis methodology for cluster and LQAS sampling.*

confidence limits were calculated by combining lots. Annex 08 describes the formula used by the LQAS methodology to calculate the weighting and the construction of confidence intervals (*Annex 08. Calculation of confidence limits for KPC LQAS Surveys*). The results were then compared to project targets and BL results. To determine the statistical significance of the FE results compared to the BL for indicators obtained through household surveys, both data were weighted by population and compared to their respective 95% CI; if it was outside the CI range, the changes are considered statistically significant.

In order to evaluate the statistical significance between the final evaluation and baseline results, a hypothesis test for large (more than 30) independent sample observations was carried out in selected results indicators. This test concentrates on the relative difference (difference divided by the standard deviation distribution of the sample) between the two sample proportions. The value of the statistical test (relative difference) is compared to the tabular value of the normal distribution, whereby the null hypothesis (Ho) is accepted or rejected.

Null Hypothesis:

$$Ho: p_1 = p_2$$

Where the alternative hypotheses are:

$$Ho: p_1 \neq p_2 \quad Ho: p_1 > p_2 \quad Ho: p_1 < p_2$$

The combined estimate of the alternative p value are calculated with the following formula:

$$p = \frac{x_1 + x_2}{n_1 + n_2}$$

Where:

p = sample proportion

x_1 = number of correct answers or obeys the condition in sample 1

x_2 = number of correct answers or obeys the condition in sample 2

n_1 = number of observations in sample 1

n_2 = number of observations in sample 2

The formula to calculate the test's statistical value is:

$$Zp = \frac{x_1/n_1 - x_2/n_2}{\sqrt{p(1-p)(1/n_1 + 1/n_2)}}$$

For all analysis, a 0.05 level of significance is used.

Qualitative data transcripts were initially written in Word. Matrices then organized the data by type of participant and themes to process the information and enable the identification of trends, similarities, and divergent aspects that help explain and/or interpret the results or the factors that in some way influenced them, as well as to identify best practices and lessons learned.

III. FINAL EVALUATION FINDINGS

The findings in the FE are defined by outcome and process indicators and described by comparing BL results and targets. The description of the results is accompanied by a qualitative analysis.

The evaluation addresses and establishes the project scope in relation to the following areas: project relevance, effectiveness and efficiency, sustainability, and gender approach.

3.1 Relevance

Stakeholders involved in project implementation agree that the project is entirely relevant, considering the support it provides, mainly to PINE-MINED, for achieving the objectives of the Government of Reconciliation and National Unity (GRNU) in the restoration of the right to food and quality education for children. It is also a project that is linked to the Government National Development Plan⁴ and the Ministry of Education Plan.

As expressed by interviewed PINE-MINED officials: *"Yes, it is relevant because it is focused on government challenges, quality and coverage, access to education and especially on the impoverished population."* They believe it has supported the priorities of MINED and is a project designed to meet the needs of beneficiaries that can influence improved education for elementary school children in the areas served by the project.

The representative of CEDEHCA assesses the relevance of the project from a perspective integrated with the Caribbean Coast Development Plan. In his opinion:

"...it is entirely relevant because it is aligned to the National Human Development Plan and is also aligned to the Caribbean Coast Development Plan. It prioritizes relevant and quality education, but also child nutrition. It [MESA project design] was done starting from a baseline and necessary studies to justify the development of this project. We determined that the limitations of school nutrition were directly proportional to school dropouts, meaning the children were not at school because they had no food. So, to provide schools with food helped to first increase enrollment in remote and rural communities, but also to maintain and increase school children retention."

According to the representative of the Mayor of Pantasma in the department of Jinotega, who was actively involved in project implementation, especially supporting the infrastructure component, the MESA project *"...really focused on the needs that they have, the roots and needs of the Ministry of Education...it was well guided. It supported the development of the beneficiary population, the Ministry of Education, students, teachers, and parents."*

All those interviewed agree that the MESA project responded to the needs of the population of the municipality, with activities to improve coverage and retention of children in primary schools where they had a high percentage of non-attendance and/or abandonment. In this regard, teachers expressed:

⁴ In the National Development Plan section 6.4.3. **Education sector strategy and policies** defines among GRNU's significant Lines of Policy Education: (i) **More education** consists of reducing the illiteracy of the population over 15 years of age, and **increase access and coverage in pre-school, primary, secondary, special, normal and technical education**; (ii) **Better Education** means mainly transforming the educational curriculum and the formation and training of teachers.

"...school snacks are an important component of the program. There are many boys (and girls) who attend our school to eat. This helps their nutrition and improves their health, but it also helps us achieve our goal of attendance, so that children do not drop out of school, they approve, that these (students) love school, they have the courage and physical and mental strength to acquire learning in the classroom and achieve the goal of quality education. In short, it is a project that has helped us to fulfill our educational indicators such as attendance, retention, approval, acquiring health values."

"...children did not go to school because sometimes they did not have anything to eat at home, and when the children had guaranteed food in school, it greatly helped families, and well-nourished students can pay more attention..., and something that has also contributed is the presence and involvement of the parents in schools preparing snacks for their sons and daughters."

3.2 Effectiveness (Results by indicator/target)

Effectiveness was assessed by the level of compliance with set targets as described in the monitoring and evaluation plan and disaggregated according to the performance framework for each outcome and process indicator. We compared the results of the final evaluation with the targets and/or results obtained in the BL study. The description and analysis of results are described below.

Respondent characteristics

Of the 247 teachers surveyed, 57.1% are female and 42.9% are male, with an average age of 32.6; 72% have a teaching degree, 23.1% completed secondary education, and 4.9% had incomplete secondary education. This data indicates an increase in academic standards in relation to the BL, where 63% had teaching degrees, and the rest had a secondary education. Respondents have been a teacher for an average of 9.8 years, compared to 6 years at BL; the average number of years was 11.2 in Jinotega and 8.9 in the RACCS. Among these teachers, 92.3% provide instruction to multiple grades; only 7.7% teach a single grade.

The average age of mothers surveyed is 34.9 years, with an average of 3.9 children (3.4 in Jinotega and 4.3 in the RACCS). On average, they have 1.9 children in school. Among mother respondents, 27.5% said they could not read or write (15.8% in Jinotega and 34.9% in the RACCS). On average, they had 3.8 years of schooling, indicating that a high percentage did not complete primary school. In Jinotega, the average number of years of study was 4.7 and in the RACCS, 3.2 years. This data is similar to that obtained at BL, where 73% reported literacy, and of those, 60% had incomplete primary education and adult education.

Among all the school children surveyed, 53% were girls and 47% were boys, with an average 12.4 years of age.⁵

MGD SO1. Improved literacy of school-aged children

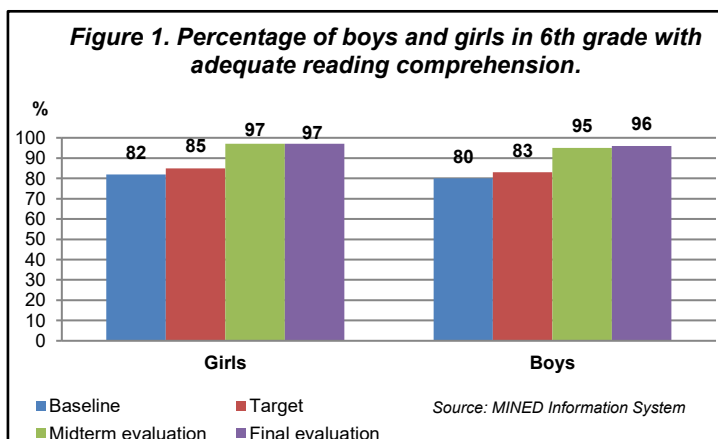
School children's literacy levels is measured by MINED as the number of students (boys and girls) who pass the 6th grade Language Arts class at the end of the year, divided by the total number of students (boys and girls) enrolled. According to records provided by MINED at the beginning of the project, 82% of girls and 80% of boys had adequate reading comprehension. These figures increased to 97% in girls and 96% in boys, indicating a significant improvement and exceeding the target in both sexes (85% for girls and 83% for boys) (See *Figure 1*). These results show the

⁵ PCI. MESA Project-Mejor Educación y Salud. Baseline Evaluation Report. February - July 2014.

significant impact of the project through the strategies and activities implemented during the project period that involved key populations such as students, teachers, and parents. The project impacted these results, as expression by a local MINED official:

"...[it's a] given that well-nourished children studying in suitable, clean environments and feeling protected could stay longer in school, pay more attention, and focus on their studies and of course achieve their learning accomplishments as well as learn to read and write within the expected time."

Project activities focused on achieving educational indicators: geographic coverage, enrollment, grade graduation, and learning literacy. The implementation of these activities required collaboration and teamwork by the parties involved, highlighting the role of MINED as manager of education in the country, as well as local government and project beneficiaries, including teachers, students, and parents. To achieve the results, each project component (school snack, school gardens, infrastructure, and training) involved completing activities through a process based on a needs assessment, planning, implementation, and monitoring and evaluation at different times.



The population that the project directly benefited through each component exceeded the target by 12% (16% in Jinotega and 8% in the RACCS). The project reached 102% of the target of people indirectly benefiting from project activities.

Table 01. Direct and indirect beneficiary population.

Indicator	Goal	Reached	
		#	%
S01. Total number of individuals benefiting directly from USDA-funded interventions	95,420	106,743	112
- Jinotega	46,816	54,289	116
- RACCS	48,604	52,459	108
S01. Total number of individuals benefiting indirectly from USDA-funded interventions	304,712	310,184	102
- Jinotega	156,104	161,164	103
- RACCS	148,608	149,020	100

Source: MESA Project Information System

Table 02. Student reading comprehension

Indicator	BL (%)	MTE (%)	FE (%)	Target (%)
S01. Percent of girls who, by the end of 6th grade demonstrate reading comprehension equivalent to their grade level as defined by national standards at USDA supported schools	82	97	97	85
S01. Percent of boys who, by the end of 6th grade demonstrate reading comprehension equivalent to their grade level as defined by national standards at USDA supported schools	80	95	96	83

Source: MINED data

3.2.1 Improved quality of literacy (MGD 1.1)

Fundamental strategies supported through the MESA Project to improve learning in school included the distribution of school supplies and materials, as well as teacher training.

Improved access to school supplies and materials (MGD 1.1.2)

The availability of school supplies and materials are essential so that both teachers and school children develop an appropriate teaching-learning process. The project provided didactic materials for use by school children and teachers. Some materials delivered were to be used directly in the classroom. Among these were backpacks, notebooks, pencils and other basic materials for school children. Educational materials for teachers included notebook guides on FNS, staplers, calculators, and rulers. Materials for use at school in mini libraries included a collection of 1st through 6th grade Nacho books, Natural Sciences (NS) sheets, Social Sciences (SS) sheets, national symbols, geometric cases, compasses, literacy materials, fungible materials, textbooks, and elementary language arts books. Desks were also delivered to priority schools. These materials provided important support to better facilitate the teaching and learning process. There were 1,092 schools that were given school supplies and materials, representing 107% of the target. These materials benefited 74,492 schools, representing 99% of the target (75,487). They also benefited 2,202 teachers, exceeding the target (2,032) by 8%.

Table 03. Delivery of school materials and beneficiary population.

Indicator	Target	Achieved	
		Number	Percentage
Number of schools receiving school supplies and materials as a result of USDA assistance 1.1.2. *	1,016	1,092	107
Number of students benefiting from the provision of school supplies and materials 1.1.2a**	75,487	74,492	99
Number of teachers benefiting from the provision of school supplies and materials 1.1.2a**	2,032	2,202	108

*Source: MESA Project Information System

**Indicator with extended target due to no-cost project time extension. Source: Project Information System

Improved knowledge and tools for teachers (MGD 1.1.4)

Teacher trainings focused on techniques and methodologies for teaching with the aim of strengthening their teaching capacity. Topics included participatory methodologies and techniques, proper use of Nachos Books, the ASP methodology, and basic skills for initial literacy. With the support of the project, 1,401 teachers were trained, exceeding the planned target by 36%. Jinotega met its target of 127 teachers. The global target was exceeded due to the RACCS, where through a request and negotiation with the local MINED, 1,274 teachers were trained, representing 41% more than the target (see *Table 03. Teacher training in educational methodologies*).

To monitor the level of instruction acquired by teachers, MINED, through its network of team supervisors in the territory, identified that 96% of teachers have improved their ability to teach reading and writing. This exceeded the target of 80%. With a focus on teacher capacity building, the project framework detailed that at least 50% of teachers would be using new techniques or tools for teaching. MINED reported that 65%⁶ was achieved, indicating this target was exceeded.

⁶ Information collected by the MINED through a simple random sample, using a supervision guide to apply the FSN curriculum in class plans

These data show that the technical and methodological capacity of teachers improved, thus providing a greater learning opportunity for school children.

Table 04. Teacher training in educational methodologies.

Indicator	Target	Achieved	
		#	%
Number of teachers trained in participatory techniques, leadership development, personal development and educational methodologies 1.1.14a*	1,030	1,401	136
Percentage of teachers demonstrating improved literacy instruction as identified by supervisors 1.1 **	80%	-	96%
Percentage of teachers in selected schools that demonstrate the use of new quality teaching techniques or tools 1.1.4 **	50%	-	65%

*Source: MESA Project Information System

**Source: Supplied by MINED

Teachers expressed the importance of receiving training through the MESA project, expressing satisfaction with the process and methodology used: *"...that teaching materials came, documents came, and they were updated according to the basic national curriculum of MINED. They analyzed and reviewed indicators, the skills that came in those study materials were related and contextualized."* Other positive aspects included that the training allowed for sharing experiences and that this was very useful for the preparation of informative materials according to the themes touched upon in the training.

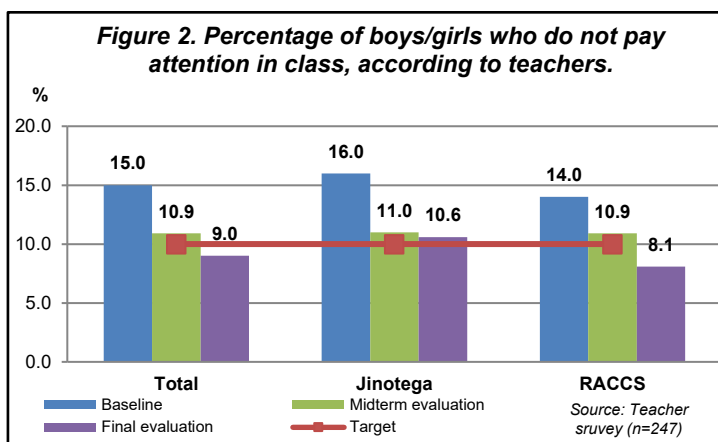
Two elements were key to the trainings being successful:

1. The selection and prioritization of key issues: This was important so that teachers had the correct methodological tools available for teaching. Two examples are the methodology for using Nacho books and the ASP method.
2. The themes were contextualized to the educational curriculum: Teachers expressed *"...that the training strengthened their work because they were given tools to use in classes with their students."*

The survey asked teachers for recommendations to improve the quality of teaching in schools. Most frequently cited, 66% of teachers specifically mentioned having more teacher capacity building, 57.5% mentioned the provision of school materials and supplies, and 55.1% mentioned using new teaching methodologies. A smaller percentage (15%), mentioned that greater involvement and participation of parents in the education process of their children would improve learning and teaching quality. These results show that project components successfully targeted the specific requirements of teachers and has allowed them to improve their teaching performance.

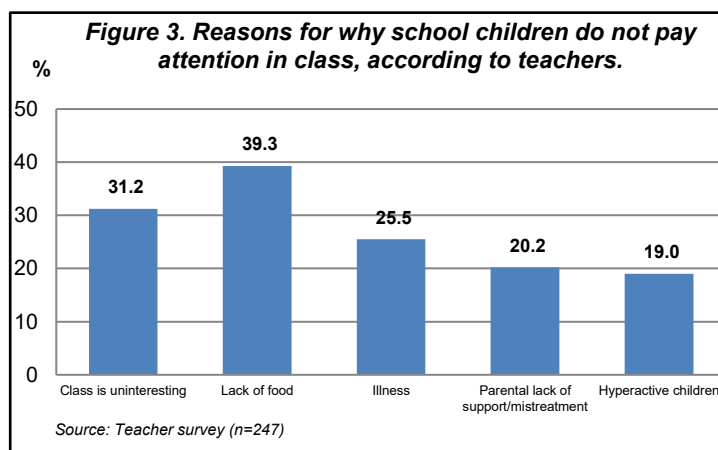
3.2.2 Increased attention in school children (MGD 1.2)

Teacher respondents stated that a total of 6,999 students attended the 247 selected schools, with an average of 28.3 children per teacher (25.6 in Jinotega and 30 in the RACCS). Each teacher respondent was asked if they identified children who were not paying attention during class. If their response was positive, they were asked how many children were not paying attention. The results show that 197 (80%) of teachers expressed that they had children in their classroom who do not pay attention in class, lower than the 92.7% (229) at BL and 85.8% (212) in the midterm evaluation. In total, teachers identified 628 children that do not pay attention in class, representing 9% of total students in these schools. This is six percentage points lower compared to BL (15%). When results are compared through the hypothesis test, the p value ($Z_p = -8.69$) shows that the decrease between the BL and FE is statistically significant (Annex 9). Teachers in Jinotega identified a higher percent of students who do not pay attention than those in the RACCS.



The data in Figure 2 show that the number of students who do not pay attention has diminished.

When asked what they thought were the reasons students do not pay attention, 39.3% mentioned lack of food, similar to data collected in the BL (36%). As seen in Figure 3, other reasons included the class being uninteresting (31.2%), illness (25.5%), hyperactive children (19%) and lack of support from parents (20.2%)⁷. According to teachers, student attention has improved, but there are still gaps that need follow-up, particularly in areas where the components of the school snack program play an important role.



In this regard, it is recognized that school snacks not only support the physical component of the student, but also the psychological and social – integral parts of school children. In the words of teachers, school snacks achieved "...greater integration in the class. [The child] is more active, more dynamic, more aware of the explanations given in class, and thus learns to read and write faster."

⁷ Sum of averages is over 100% due to use of a multiple-choice question in the survey instrument

Teachers claim that school snacks have improved the retention of students in schools: *"...when children are at school, they are awaiting their snack and when they receive them, they look happy, excited; it takes away the laziness and sleepiness and their performance is better."*

One experience shared in the focus group with teachers was:

"...a girl who was twelve but appeared to be six, is in first grade and the mom never let her eat the food. So we told her if the child does not eat she does not learn, because with an empty stomach the [alphabet] letters are not going to stick. Then we went with the director of the SFC to talk with the lady and at the last minute we took religious leaders and visited the house to see what was happening. There was no food (in the house). We walked into the kitchen, and there was nothing to eat in this house..., that's why the girl came to school and would fall asleep sitting up. From the moment that the girl began to eat food from school, she learned to read. So it seems that what she needed was something in her stomach to be able to learn. So there are children that sometimes have problems at home, and we do not know the child has an empty stomach."

Reduced short-term hunger (MGD 1.2.1)

The percent of school children who say they are hungry or very hungry during the school day decreased by almost five percentage points from BL to FE (6% to 1.4%). Compared to the target, this improved by more than half of what was expected (3%), showing that hunger in school children was reduced to a minimum. When results are compared through the hypothesis test, the p value ($Z_p = -2.94$) shows that the decrease between the BL and FE is statistically significant (Annex 9). In Jinotega, the result was 2.1%, and in the RACCS, 0.7% (see Table 05).

Among surveyed students, 93.8% said they received school snacks four to five times a week, more than the 87% found at BL. Despite a lack of statistical significance, the target was met as established under the project (92%) (see Table 05). In addition, 96.5% of mothers surveyed said their child received school snacks four or five times a week, confirming the statement by school children themselves. Midterm evaluation data confirms a steady high percentage of school snack delivery in over the last few school years. The results show that school snacks delivered systematically during the academic cycle of the past three years has contributed directly to the nutrition given to children in their homes, reducing hunger to a minimum in this population group.

Teachers recognize that many of the homes where students come from, especially those in remote areas, have limitations for providing good nutrition, which directly affects the learning ability of those students. In that sense, a teacher in the RACCS shared:

"At school, there are many boys and girls that work, that shine shoes, and maybe in their homes they do not receive any food and now at school they have a bite to eat. We are grateful for the snack because it supports the teaching-learning process, because a hungry child, what will he learn? It is very difficult and giving him a morsel of food, that child feels more dynamic, is more attentive and learns more."

Meanwhile, mothers and fathers share that the project has not only benefited their children with school snacks, but also themselves. In the trainings they received, they have learned to combine foods to be more nutritious and that there's teamwork between different family members now. One mother expressed, *"...we mothers prepare the snack and the fathers are there and collaborate by carrying firewood and by looking for things to supplement the snack."*

Table 05. Delivery of school snacks and perception of hunger in school children.

Indicator	BL (%)	Midterm Evaluation (%)	FE (%)	Target (%)
Percentage of students indicating they are "hungry" or "very hungry" during the school day MGD 1.2.1 (n=247)	6.8 (95% CI ± 3.4)	3.0	1.4 (95% CI ± 1.6)	3
- <i>Jinotega</i>		1.1	2.1	
- <i>RACCS</i>		4.2	0.7	
Percent of students in target schools consuming daily meals at school MGD 1.2.1.1/1.3.1.1 (n=247)	87.2 (95% CI ± 4.5)	92.8	93.8 (95% CI ± 3.1)	92
- <i>Jinotega</i>		98.9	93.7	
- <i>RACCS</i>		88.7	94.8	

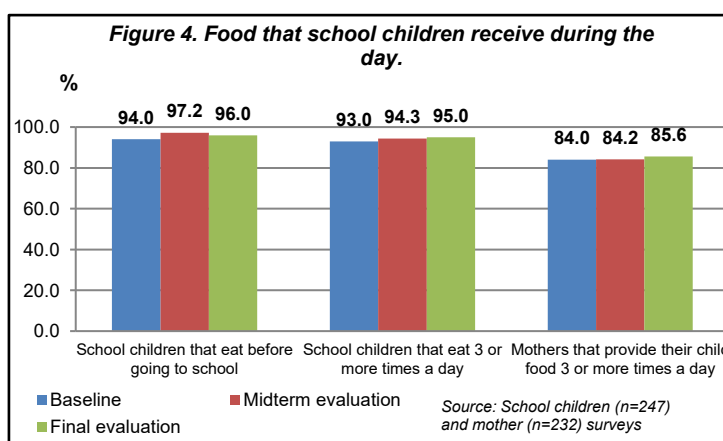
Source: Household survey to school children and mothers.

Improved access to food/school snacks (1.2.1.1/1.3.1.1)

Among students surveyed, 96% of students report that they eat food at home before attending school. This shows little variation relative to the BL (94%) and midterm evaluations (97.2%). There was no major difference between the two geographical areas.

The number of times a person eats affects healthy nutrition, as addressed in the Guide for Nutritious and Healthy Food for School Children, which states that in addition to quality and quantity, the distribution and schedule of snacks is also important. Food must be spread across various times: breakfast, lunch, dinner, and snacks or light snacks between meals.

School children respondents were asked the number of times they eat during the day: 95% said they eat three or more times daily, which varied little compared to BL (93%). This figure was similar in both geographical zones. Mothers were asked how many times a day they offer food to their school children: 85.6% said they provide food three or more times, similar to that found in the BL (84%). Again, there was little variation between the two geographical areas.



Access to school snacks was ensured through the delivery of basic foods to be prepared. It was estimated that 3,920 tons of food would need to be acquired and distributed through the duration of the project. By project end, 3,847 tons of food were distributed, 98% of the project's target (including the extension of the last period of the project). A total of 75,900 school children received school snacks during the project period, representing 101% of the target. This fulfilled one of the key targets and had a direct impact on the educational environment and on school children's performances.

School snacks have a direct impact on school children as well as an impact on the active participation of other stakeholders such as parents, who have been trained to take on important roles in this process. Parental participation in the program implementation involved transferring

food from the point of delivery to the school, finding good storage, preparing food adequately, and ensuring hygienic consumption.

Table 06. Number of school children who benefitted from school snacks.

Indicator	Target	Achieved	
		#	%
Number of boys receiving school meals as a result of USDA assistance (1.2.1.1/1.3.1.1)*	38,505	38,504	100
Number of girls receiving school meals as a result of USDA assistance (1.2.1.1/1.3.1.1)*	36,995	37,396	101
Total quantity of commodities (tons) provided for school meals as a result of USDA assistance (1.2.1.1/1.3.1.1)**	3,920	3,847	98

*Source: MESA Project Information System (SIMESA).

**Indicator whose goal was extended by a no-cost project time extension. Source: SIMESA.

School gardens

The school garden is an educational element in the academic environment and supplements the diet of the school population. Its implementation requires supplies, materials, and land. One hundred percent of the target was met, creating conditions for, and establishing gardens in 200 selected schools. The selection of these schools was coordinated with the local PINE-MINED team. By creating 200 gardens, 47% more school children benefitted than was expected. However, the number of parents who benefitted was only 68% of the expected. Neither Jinotega nor the RACCS met their target, and in the RACCS, only 45% of the target was reached.

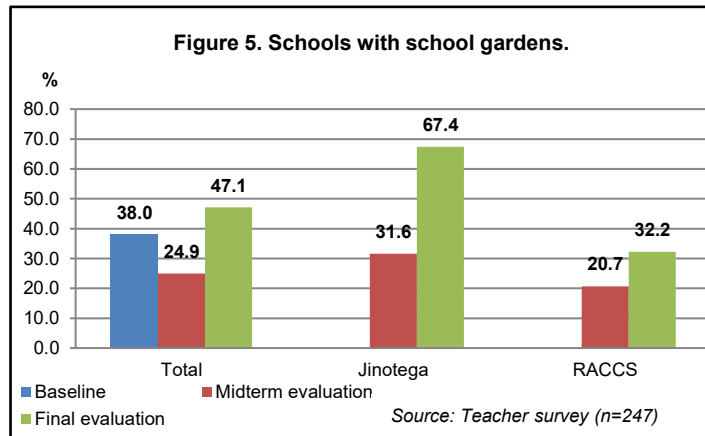
Table 07. School gardens created and beneficiary population.

Indicator	Target	Achieved	
		#	%
Number of school gardens established or created (1.2.1.1/1.3.1.1b)	200	200	100
- Jinotega	140	140	100
- RACCS	60	60	100
Number of students who benefit from the creation, establishment, etc., of school gardens (1.2.1.1/1.3.1.1b)	20,400	30,150	147
- Jinotega	14,280	24,926	174
- RACCS	6,120	5,224	85
Number of parents who benefit from the creation, establishment, etc., of school gardens (1.2.1.1/1.3.1.1b)	10,319	7,025	68
- Jinotega	7,220	5,637	78
- RACCS	3,099	1,388	45

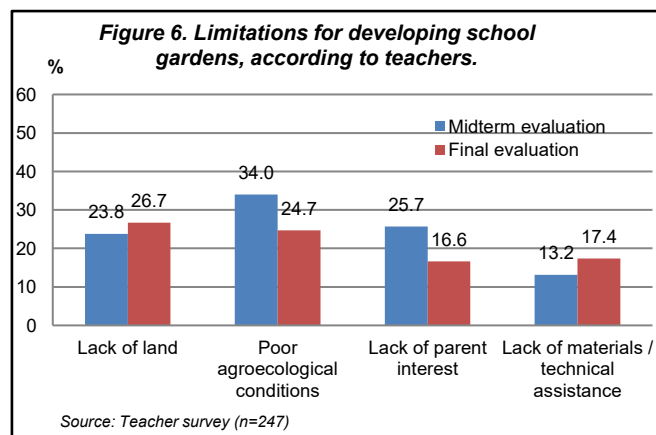
Source: MESA Project Information System.

Although the target of reaching 200 schools with school gardens was met, teachers and mothers expressed that this component deserves greater effort to ensure that schools have the garden, that they are sustainable, and that they remain productive.

The consensus among all stakeholders is that the creation of school gardens, while a very important component, has been less successful than the other components of the program. Evidence of this is that less than half (47.1%) of the 247 selected schools where household surveys were conducted had established school gardens. This situation is less favorable in the RACCS, where only 32.2% of the 152 schools sampled had gardens because agroecological conditions are less favorable for farming there.



The conditions that hinder the establishment of school gardens, according to teachers surveyed, are linked to a lack of land (26.7%), limited supplies and tools (17.4%) and poor agroecological and soil conditions (24.7%) that do not allow for production. In the focus group with teachers, all participants agreed with these limitations. They also stated that in general there was a lack of interest and motivation on this topic: *"...the lack of land in schools, the lack of tools or seeds, lack of water, but I think that what most affects some is the lack of interest, because they can even plant in a tire if they want. This need must be promoted more."* Although no data are available showing the conditions of schools for developing school gardens, it has been identified that not all schools have favorable conditions. Sharing experiences among teachers and students from different geographical areas could be an incentive to generate ideas that can help overcome limitations in creating school gardens.



In the creation or development of school gardens there are different experiences according to the conditions of each school. Some experiences expressed in the focus group with teachers in the municipality of Pantasma are motivating and can serve as an example for other territories. After being given the tools to work the garden in El Aserrió and San Cristóbal schools, there was increased motivation among parents, who then became more involved in this activity. Another benefit of the school garden is economic. One school stated that *"...last year they harvested a lot of cabbage and sold 100 cabbages at a favorable price. This helped to raise money that was used for an educational activity."* When production in school gardens is greater than consumption, they sell the products: *"...products that are not consumed due to excess production are sold to meet other needs, and we don't have to tell parents we want a pump (to pump water). We can buy one from the sale of surplus products and invest in the school garden and promotions."*

The project developed greater capacity for caring for gardens. One example is the preparation of organic fertilizer to apply to plants:

"Students and parents were watching how to prepare it so they could do it. The parents were excited when they managed to make the white fly [pest] disappear...and now parents do not say we will go buy a chemical to throw on the plant; now they say we will prepare it, and it's very easy and inexpensive I tell them, and there is no reason to intoxicate themselves and the children. So it helps to eliminate the use of insecticides."

School snack supplements

The school snack program delivers six staple foods, five of them supplied through the project (rice, beans, oil, grain and wheat flour) plus corn provided by PINE-MINED. These are prepared as a snack by mothers. Through their economic capacity and through activities carried out in the community, they incorporate what is known as a supplement to the school snacks. This means they incorporate ingredients to provide greater nutritional quality and/or flavor, such as onions, tomatoes, bell peppers, sugar, etc., as well as other types of food that accompany and enhance the snack, including vegetables (pipián, chayote, squash), tubers, milk or dairy, eggs and meat. In all schools visited, there was a complete willingness from school children families to provide snack supplements. In addition to the supplement provided, other positive experiences that have contributed to the snack are the alliances with local producers and other community members as well as the sale of products obtained through the school garden. These experiences and organization around preparing a snack, involving parents, teachers and other local stakeholders is a key pillar for ensuring the program's sustainability.

PINE-MINED's contribution of food and food transport amounted to US\$980,67⁸. The involvement of mothers has been substantial and has gone beyond simply preparing snacks to preparing foods with higher nutritional value and better taste. One comment about this experience from a mother recalls:

"...that we try to make the snack more attractive according to the [economic] possibilities each person has. Some add other little things like seasonings, tomatoes, cucumbers. We also add sugar to the juices. We add a little milk so that they eat well balanced and to add color. They (the children) say it is very delicious."

Teachers and parents agree that there has been good coordination to ensure the school snack supplements. *"...There are mothers who may not have any supplements (other foods), so then we immediately talk to a mother who has (a food supplement). She supports even though it's not her turn to prepare the snack that day. There has been great solidarity to make this reality possible."*

Although there has been some effort to count the foods that parents provided to supplement school snacks, it was not completely successful. Thus, we are unable to know exactly how much support has been provided in this manner. Counting the supplements requires daily recording of each product and the consolidation of all information at different levels. This process has a high level of complexity. While the family contribution is considered valuable information, it should be decided whether or not it is a priority for the project.

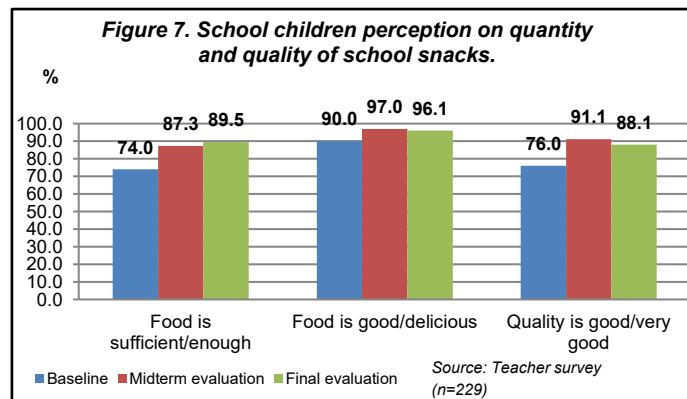
Perception of quantity and quality of school snacks

Access to the school snack is affected by the perception of users, in this case the students. Thus, the quantity and quality of food delivered to the school were evaluated. Of 247 students surveyed, 229 (92.7%) said they were receiving school snacks, and inquiries into the quantity and quality of

⁸ Source: MESA-PCI Project Accounting

the snack saw high percentages of satisfaction. The remaining 7.3% of students said they did not receive school snacks. This was because the survey was conducted at the end of the 2nd distribution period, and the food for that period had already been consumed in those schools.

- Most respondents (89.5%) think that the amount of food is sufficient, 15% higher than at BL. This was 91.6% in Jinotega and 89.6% in the RACCS.
- Almost all (96.1%) said that the food they received at school is delicious, has a good taste, and that they liked it. This percentage is higher than the 90% obtained at BL. In Jinotega, this was 94.7%, and in the RACCS, 97.8%.
- 88.1% of students believe that the quality of food they receive is good or very good, just over 12 percentage points higher than at BL. Although not a significant difference, it is a slight decrease in relation to the midterm evaluation. This was 88.4% in Jinotega and 89.6% in the RACCS.



All stakeholders involved in education in both geographical areas recognize that school snacks play an important role in school children's education. Parents, teachers, MINED officials, school children, and local authorities expressed their full support for the activities carried out to ensure the preparation and distribution of food at each school. They agree that the school snack is one of the project components that has brought the most benefits to the school population. The children are not only consuming nutritious foods that their mothers and fathers prepare for them, but they are also more motivated to go to and stay in school. They have improved their school performance, and there are more children who pass their grade.

3.2.3 Improved school attendance (MGD 1.3)

Reduced school absence due to illness (MGD 1.3.2)

Regular attendance is defined as when a child attends at least 80% of all school days in the calendar year. According to MINED attendance records, 88% of girls regularly attended school in the last school year, an improvement from the 80% reported at BL, despite a decrease compared to the 95% reported at the midterm evaluation. 80% of boys regularly attended school in both the BL and the midterm evaluation, then reached 88% in the FE. In both sexes, there was an improvement in regular school attendance. Separated by geographic area, the RACCS shows a higher percentage in both sexes: 93% for girls and 92% for boys. In Jinotega, the percentage for both sexes is 84% (see *Table 08*).

Of school children respondents, 84.5% expressed that they had missed class at least once during the course of the 2017 school year, representing an increase compared to the 60% reported at BL and 78.9% in the midterm evaluation. There are no major differences between the two geographic areas: Jinotega reports 86.3% and the RACCS 82.9% (see *Table 08*). The higher percentage of students who missed classes at least once as reported in the midterm and FE may be because both studies were conducted between the 7th and 8th month after classes had started, whereas the BL study was conducted during the 3rd month. Being in class for a longer period of time increases the likelihood of students missing class for any reason.

The main reason for missing class was illness (72.3%), an increase over the 41% obtained at BL; this reason was higher in Jinotega (82.9%) than in the RACCS (59.5%). A likely explanation for the increase in missing class due to illness during this period is due to outbreaks or sudden spikes of illnesses that occurred in the country and affected much of the population, including school children. Viral and/or vector borne diseases have had a large effect this year (Chikungunya, Zika, dengue, and malaria mainly in the RACCS communities). Other illnesses include viral respiratory diseases that primarily affect children.

Other reasons for missing class include supporting or helping with household tasks (27.4%), working outside the home (13.5%) and impassable roads on the way to school, mainly due to flooded rivers (13%).

Despite the increased number of students who missed class at least one day during the school year, the percentage of attendance throughout the school year has improved, which also influences retention and completion of the school year.

Table 08. School children attendance at school.

Indicator	BL	Midterm evaluation (%)	FE (%)	Target (%)
Percent of girls regularly (80%) attending USDA supported classrooms/schools. MGD 1.3*	-	95	88	80
- <i>Jinotega</i>			84	80
- <i>RACCS</i>			93	80
Percent of boys regularly (80%) attending USDA supported classrooms/schools. MGD 1.3*	-	80	88	80
- <i>Jinotega</i>			84	80
- <i>RACCS</i>			92	80
Percent of students who state that illness is the primary reason they are absent from school. MGD 1.3.2** (n=208)	41.5 (95% CI $\pm$ 8.0)	71.3	72.3 (95% CI $\pm$ 5.9)	20
- <i>Jinotega</i>		87.5	82.9	
- <i>RACCS</i>		61.8	59.5	

*Source: PINE-MINED Information System.

**Source: Household survey to school children.

Improved school infrastructure (MGD 1.3.3)

The project included the rehabilitation and/or construction of infrastructure in schools, specifically kitchens, storage areas, and classrooms, thus improving the environment for teaching, for the protection of food, and for preparing school snacks. This in turn encourages participation and retention of students in schools. Based on the initial diagnosis made, 394 schools were prioritized for rehabilitation of kitchen areas, storage areas, and/or classrooms. The established targets were achieved as follows: 100% rehabilitation of classrooms, 105% of kitchens, and 134% of storage areas for foods used in the preparation of school snacks with basic conditions to prevent spoilage (see Table 09).

The above percentages indicate excellent performance in this project component and thus a direct benefit to school children (see Table 09). Targets reached for beneficiaries are as follows:

- The number of school children benefitting from rehabilitated classrooms exceeded the target by 73%, mainly because in Jinotega more than twice the number of children benefited than was expected, since more children enrolled than anticipated. In the RACCS, the target was exceeded by 24%.
- The number of school children benefitting from rehabilitated kitchens reached 82% of the target, which represents a good performance despite not having achieved one hundred percent. The target was not reached because in schools where the kitchen was remodeled to prepare school snacks, fewer children enrolled than the target estimated. A higher percentage was achieved in the RACCS (87.4%) compared to Jinotega (75%).
- The number of school children benefitting from the construction of food storage areas/trunks reached 98% of the target. In the RACCS, only 58.7% was achieved, while in Jinotega the target was exceeded by 65%, mainly because of the larger number of children enrolled in schools where the restoration took place.

Wells, stalls or water systems, and/or hand washing stations were also rehabilitated and/or constructed in schools, so that the school population had a better system for clean drinking water. The project rehabilitated/constructed 400 water systems in as many schools, achieving the program target (394) at 102%. With the rehabilitation/construction of these water systems in schools, the population of students expected to benefit tripled, mainly in the municipalities of Jinotega where the number of student beneficiaries increased fivefold. In the RACCS, the number of beneficiaries expected doubled (see Table 09).

The authorities of MINED and teachers recognized the improved infrastructure in schools through the MESA project:

"The project has greatly helped school infrastructure. Kitchens where school snacks are prepared have been rebuilt, latrines have been built or rebuilt, water storage tanks have been installed, and water systems have been installed to have safe water. They have provided safe trunks to store food...completely sealed with a padlock to prevent rodents from contaminating food for the school snacks. They have facilitated the construction of kitchens which are more comfortable, quiet, and social for the children to eat their snack."

In the infrastructure component, in addition to the participation of MINED and project technical teams, the participation of other stakeholders was promoted and encouraged, especially for the municipal government and students' family members. They provided materials, labor, or cash as mentioned in the following:

"...parents have offered their labor, have supplied some materials such as boards, zinc, wire, and nails for repairs in classrooms and making fences for garden spaces. The Mayor's Office has facilitated transport of food and materials for construction or school repairs and have joined with PCI to install water systems in schools where this was lacking so beneficiaries could consume safe water. They planted trees together with some farmers to rescue water sources. So this is the organization that is actually responding to these needs."

Infrastructure development was also a key element for uniting efforts in a common cause. The project encouraged teamwork: *"...It was good to see the Mayor's Office, parents working together with PCI, and the most important thing to recognize is that by improving school environments children feel better, get sick less, they stay in school and improve their learning."*

The municipal authorities and producer organizations contributed US \$9,780.60 in materials and transportation for infrastructure.

Stakeholders are satisfied with the results and level of development that occurred during the remodeling of infrastructure. It is clear that the project incorporated the rehabilitation component rather than new construction. However, MINED authorities expressed a desire for greater investment in this line of work given the great need.

Part of the infrastructure component included training on proper management to take care of the improvements, including keeping them clean and hygienic, making good use of empty bottles by filling them with soil to sow plants, and managing trunks for food storage. All this knowledge helps ensure better maintenance of infrastructure. This is an example of the comprehensiveness of the project components. The integrated approach was a traceable factor in the project, which certainly made the results and success possible.

Table 09. Rehabilitation of infrastructure in schools.

Indicator	Target	Achieved	
		#	%
Number of classrooms to be constructed/rehabilitated. 1.3.3a	394	394	100
- <i>Jinotega</i>	133	133	100
- <i>RACCS</i>	261	261	100
Number of students benefiting from the (rehabilitated or constructed) classrooms as a result of USDA assistance. 1.3.3.	15,760	27,295	173
- <i>Jinotega</i>	6,320	15,547	245
- <i>RACCS</i>	9,440	11,748	124
Number of kitchens be built/rehabilitated. 1.3.3a	394	412	105
- <i>Jinotega</i>	104	104	100
- <i>RACCS</i>	290	308	106
Number of students benefiting from the (rehabilitated or constructed) kitchens as a result of USDA assistance. 1.3.3.	31,520	25,984	82
- <i>Jinotega</i>	12,640	9,487	75.0
- <i>RACCS</i>	18,880	16,497	87.4
Number of storage areas to be constructed/rehabilitated. 1.3.3a	394	528	134
- <i>Jinotega</i>	158	252	159
- <i>RACCS</i>	236	276	117
Number of students benefiting from the (rehabilitated or constructed) storage areas as a result of USDA Assistance. 1.3.3.	31,520	30,864	98
- <i>Jinotega</i>	12,640	19,782	165
- <i>RACCS</i>	18,880	11,082	58.7
Number of wells, posts and water systems be constructed/rehabilitated. 2.4 ^a	394	400	102
- <i>Jinotega</i>	158	160	101
- <i>RACCS</i>	236	240	102
Number of students who benefit from wells, posts and water systems to be constructed/rehabilitated as a result of USDA assistance. 2.4	10,400	33,737	324
- <i>Jinotega</i>	4,170	21,038	504
- <i>RACCS</i>	6,230	12,699	203

Source: MESA Project Information System (SIMESA).

Greater community awareness about the benefits of education (MGD 1.3.5)

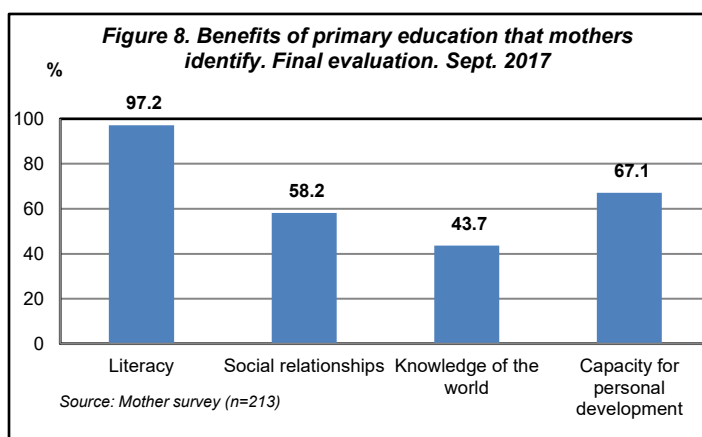
Of surveyed mothers, 47.1% could name three or more benefits of primary education, representing 36 percentage points higher than at BL (11%). Statistical analysis shows ($Z_p = 9.68$) the difference between the BL and FE is statistically significant (Annex 9). This indicates substantial progress in sensitizing mothers to support their children in attending school and completing their studies. In Jinotega, 46.7% of mothers mentioned three or more benefits, and in the RACCS, 57.7%.

Table 10. Knowledge of the benefits of primary education.

Indicator	BL (%)	Midterm evaluation (%)	FE (%)	Target (%)
Percent of parents in target communities who can name at least three benefits of primary education. MGD 1.3.5 (n=213)	11.0 (95% CI ± 4.3)	27.5	47.1 (95% CI ± 6.6)	50
- Jinotega		51.6	46.7	50
- RACCS		12.5	57.7	50

Source: Household survey to mothers.

The main benefit identified by mothers (97.2%) is related to literacy and the development of analytical skills obtained by studying. Support for their children in developing life skills to be prepared for the future and able to “confront” life was mentioned second most often, at 67.1%. Similarly, 58.2% of mothers believe that studying at school benefits their children in the learning process in being able to establish relationships with others, and 43.7% said their children gained knowledge related to the world, science, geography, and other issues addressed at school. Other benefits of primary education mentioned by mothers included that it teaches moral values (4 mothers) and that the children receive support such as school snacks, clothing, shoes, and other items (2 mothers).



Activities were implemented to improve knowledge regarding the benefits gained when children finish their basic education, especially in finishing primary school. The target was to reach 11,420 fathers and mothers in these knowledge and awareness activities. The target was exceeded by 92%, particularly in the RACCS municipalities where the number of parents who participated in these activities was double the expected number.

Table 11. Parents benefitted from campaigns on the importance of education. Comparison of baseline, midterm and final evaluation. MESA Project-Sept. 2017.

Indicator	Goal	Reached	
		#	%
Number of parents who benefitted from awareness campaigns on the importance of education. 1.3.5a.	11,420	22,005	192
- Jinotega	6,252	8,488	135
- RACCS	5,168	13,517	261

Source: MESA Project Information System.

MGD SO2 Increased health and nutrition practices (SO2)

The link between learning ability and good health and nutrition, especially in school children, is well recognized. With this vision, the project strategically integrated health and nutrition activities that contribute to improving health and nutrition knowledge and practice in the community. The five intervention areas addressed by the project include knowledge and practices in hygiene and sanitation, preparation and storage of food, aspects of nutrition, access to safe water and sanitation, and access to preventive health interventions.

3.2.4 Improved knowledge and practice on health and hygiene (MGD 2.1)

Indicators of hygiene knowledge and practice including practices of washing latrines in schools, mothers' knowledge of health and hygiene practices, handwashing knowledge and practice, and the use and maintenance of health services were measured and evaluated.

According to teachers, 85.2% of schools clean the latrines at least once a day, representing a statistically significant improvement compared to BL (39.5%)⁹, and exceeding the expected target (50%). Although there was great improvement in both geographic areas in this practice, there is a difference between Jinotega schools at 97.9% and RACCS schools at 78.5%.

Of surveyed mothers, 73% were able to mention at least three health and hygiene practices, achieving the project target (70%) and exceeding the BL result (43.9%). Although this vastly improved in both geographic areas covered by the project, there is greater knowledge of health and hygiene practices in the RACCS (78.9%) compared to Jinotega (68.4%).

Table 12. Knowledge and practice of health and hygiene.

Indicator	BL (%)	Midterm evaluation (%)	FE (%)	Target (%)
Percent of target schools that clean their latrines at least once a day. MGD S02 (n=247)	39.5 (95% CI ±6.0)	72.1	85.2 (95% CI ±3.8)	50.0
- <i>Jinotega</i>		78.7	97.9	
- <i>RACCS</i>		67.4	78.5	
Percent of parents in targeted communities who can identify at least three important health/hygiene practices. MGD 2.1 (n=247)	43.9 (95% CI ±6.0)	77.3	73.0 (95% CI ±5.6)	70.0
- <i>Jinotega</i>		85.3	68.4	
- <i>RACCS</i>		72.4	78.9	

Source: Household survey to teachers and mothers.

School children, parents, and teachers were trained in various topics on health, child nutrition, and nutritional food security. In these population groups, more people were reached than the expected target because there were more participants in the knowledge and awareness activities developed. While there was high participation in both geographic areas, the RACCS area had higher participation by parents, showing a great interest for more learning on the subjects. The population reached throughout the project period included the following:

- The cumulative sum of teachers trained was 2,240, meeting the target at 114%.
- The number of school children trained was 15,700, reaching the target at 106%; in both geographic areas, the target was satisfactorily fulfilled.
- The number of parents trained was 15,228, more than double the target; in the RACCS the number trained was more than triple the target (332%).

Sixth graders were trained on the importance of school snacks, why should they eat them, what nutrients they contained, and how it helps improve nutrition and school performance. They were trained on how to create a school garden, on planting they can do in their homes to provide a home garden, on water consumption at school, and on hand washing technique.

⁹ Zp = 8.47, (Annex 9)

Table 13. Training on child health and nutrition topics.

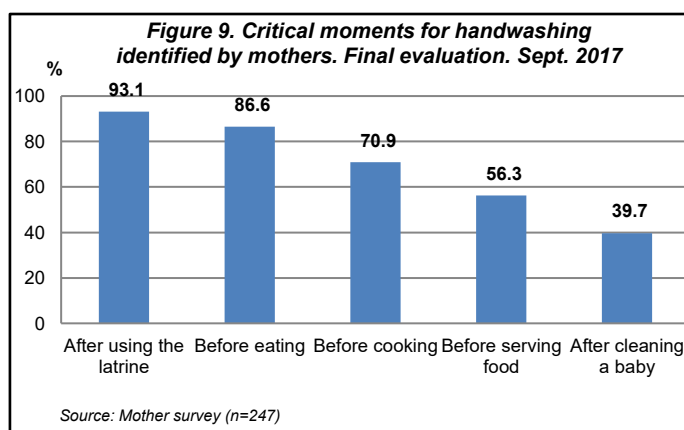
Indicator	Target	Achieved	
		#	%
Number of students trained in child health and nutrition. 2.1a.	14,800	15,700	106
- Jinotega	7,000	6,996	99.9
- RACCS	7,800	8,704	111
Number of parents trained in child health and nutrition. 2.1a.	5,958	15,228	256
- Jinotega	2,000	2,009	100
- RACCS	3,958	13,129	331
Number of teachers trained in child health and nutrition. 2.1a.	1,972	2,240	114
- Jinotega	1,226	1,391	113
- RACCS	746	849	114

Source: MESA Project Information System (SIMESA)

Knowledge and practice of handwashing

Key elements to improve the practice of handwashing include providing supplies (water and soap) and knowledge of key times for carrying out this practice. Project activities included ensuring water supply and training teachers and school children, mainly regarding the key times that hand washing should be practiced.

Overall handwashing knowledge vastly improved. The percentage of mothers who could identify at least three important times for hand washing rose from 49% at baseline to 94.6%, representing a significant improvement. The key times that mothers most identified included: after using the latrine (93.1%), before lunch (86.6%), and before cooking (70.9%). Two other key times, including before serving food and after cleaning babies, were mentioned by less than 60% of mothers.



School children that identified at least two key times to practice hand washing increased from 77% at baseline to 90.7%, and the percentage of school children who claim to practice hand washing before lunch increased from 47% to 94%. In all the schools visited, school children were seen washing their hands before school snacks were served. Direct observation also verified the use of proper technique. Teachers expressed that they have been trained in hand washing techniques and in turn have taught and reinforced this practice with school children.

Each selected school was observed to determine if they had soap and water in the posts used for handwashing. In 63.4%, of schools, they had both soap and water, representing a statistically significant improvement compared to 13.6% at BL¹⁰. However, this failed to reach the target of 80%. A breakdown by region shows that in Jinotega reached 77.9% and the RACCS 57.2%.

¹⁰ Zp = 10.48, (Annex 9)

Table 14. Knowledge and practice of hand washing.

Indicator	BL (%)	Midterm evaluation (%)	FE (%)	Target
Percent of schools with soap and water at a hand washing station commonly used by students. MGD S02 (n=247)	13.6 (95% CI ± 6.3)	31.5	63.4 (95% CI ± 5.4)	80
- <i>Jinotega</i>		13.6	77.9	80
- <i>RACCS</i>		59.6	57.2	80

Source: Household survey with teachers, school children and mothers.

In general, one limitation was that some schools do not have a water system, so each child carried his or her own water for drinking. During visits to selected schools, most schools were observed to not have soap at the hand washing station; instead, teachers kept the soap in classrooms. Teachers do this to avoid losing it every time it is left outside the classroom due to theft by people outside of the school. This situation was an unexpected finding, so it was not quantified. However, the fact that soap is kept in classrooms has not had much impact on school children's practice of hand washing.

One positive and effective initiative for hand washing was the construction of "Tippy Tap" style hand washing stations. These stations use basic materials and a simple structure that allow for rapid construction at a very low cost. Its use has been widely accepted within the school population and is a simple and practical way to provide a hand washing station.

Teachers recognize the progress of their students in improving their hygiene habits. *"...they have learned well the art of hand washing and at what times to do it. They also demonstrate without problem when asked to do so to verify their learning."* Mothers also expressed this same practice is carried out at home, which shows that the exercise of good hygiene practices is sustained and that these good habits are taken home and influence other relatives to adopt the same practice.

3.2.5 Improved knowledge and practice on food preparation and storage (MGD 2.2)

A goal of the project linked to school snacks was to improve the knowledge and practice of key stakeholders involved in storing food and food preparation, particularly teachers and parents. They play important roles in receiving and storing food until the preparation and delivery of snacks, where the process then requires hygienic standards for the safe preparation of foods.

Knowledge about health standards for food storage and handling

Distribution of food (basic grains) from the central to the municipal level is divided into three cycles during the school year. Food is initially taken to delivery points where the SFC is responsible for bringing them to each school for storage until they are used during the day by the mothers in charge, according to the monthly role of snack preparation.

Once food (basic grains) are delivered to each school, part of the role that SFC members (teachers and parents) should play is to ensure good storage to prevent damage or loss. The project strengthened knowledge of standards through a training plan on food practices and storage aimed at parents. The project reached 100% the number of trained beneficiaries in both geographic coverage areas of the project. The project technical team in charge of monitoring located in different municipalities conducted knowledge tests at the end of the workshop to assess the level of learning. The average score in post-tests was 88%, surpassing the target of at least 80%, indicating a good level of learning.

Table 15. Parent training on food preparation and storage.

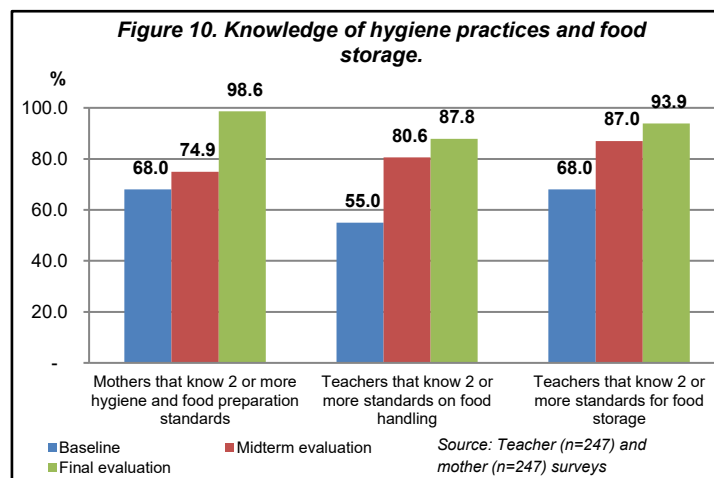
Indicator	Target	Achieved	
		#	%
Number of parents trained in food preparation and storage practices. 2.2.a.	3,550	3,565	100
- Jinotega	1,430	1,436	100
- RACCS	2,120	2,129	100
Percent of parents at target schools who achieve a passing score on a test of safe food preparation and storage. 2.2	80%	-	88%
- Jinotega	80%	-	89%
- RACCS	80%	-	84%

Source: MESA Project Information System (SIMESA)

Knowledge about suitable food preparation and storage practices were evaluated in mothers. Knowledge was defined as having mentioned at least two practices. Of mothers surveyed, 98.6% had knowledge, exceeding the 68% obtained at BL and indicating a statistically significant improvement¹¹.

Teacher knowledge of health standards for storage and knowledge of standards for food preparation was also assessed. This was defined as having mentioned at least two standards. Of teachers surveyed, 93.9% knew the standards for proper storage of food, showing a clear improvement relative to BL (68%), and 87.8% of teachers know the standards for food handling, also an improvement compared to the 55% obtained at BL.

All indicators show significant improvement in both geographic areas covered by the project. The project had an impact through training with teachers, students, and parents on different topics including the consumption of healthy and nutritious food, food handling, how to prepare, cook, and serve in portions appropriate for children, as well as handwashing, consumption of safe drinking water, and administration of deworming medicines.



3.2.6 Improved knowledge of nutrition (MGD 2.3)

Of mothers surveyed, 55.2% mentioned three or more benefits gained from good nutrition or diet, a significant increase compared to BL (14.5%)¹² and exceeding the project target (50%). The result validates that this population has become more knowledgeable on these issues. Given that the mother usually prepares food at home, this increase also helps to improve nutrition and diet in school children.

¹¹ $Z_p = 7.14$, (Annex 9)

¹² $Z_p = 10.2$, (Annex 9)

Table 16. Mother knowledge of nutrition benefits.

Indicator	BL (%)	Midterm evaluation (%)	FE (%)	Target (%)
Percent of mothers (or care providers) in targeted communities who can identify at least three important nutrition or dietary guidelines/recommendations. MGD 2.3 (n=247)	14.5 (95% CI ± 4.4)	33.2	55.2 (95% CI ± 6.1)	50
- Jinotega		56.8	57.9	50
- RACCS		18.4	58.6	50

Source: Household survey to mothers.

3.2.7 Improved access to safe water and sanitation (MGD 2.4)

Access to safe water and sanitation services by the school population was assessed through direct questions to teachers at selected schools. Access to water at school, the source of water, frequency of water availability, and method of disinfection used to treat the water for drinking were assessed, as well as school children's knowledge of safe water.

In the first phase of the project, after conducting a health diagnosis in schools per the available budget, it was decided to support 394 schools to improve access to a safe water source. This was achieved in 602 schools (153%), fulfilling the established target. The target was achieved in both geographic areas of project coverage using filters, chlorination, and SODIS and was made possible by the efforts of the respective local governments and community support. In Jinotega, 224 schools were reached (141%) and in the RACCS, 378 were reached (160%).

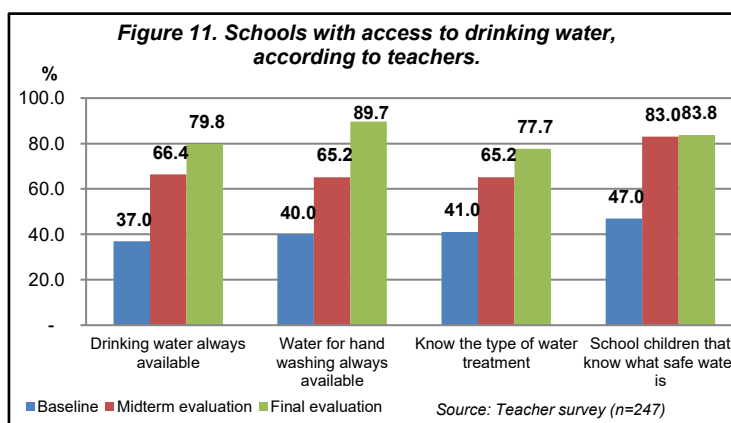
Table 17. Rehabilitation of water systems in selected schools.

Indicator	Target	Achieved	
		#	%
Number of target schools with year round access to a clean and safe water source. 2.4	394	602	153
- Jinotega	158	224	141
- RACCS	236	378	160

Source: MESA Project Information System

In the household survey conducted with teachers, 79.8% reported there is always water to drink at school, and 89.7% said they always have water for washing hands. Both were higher percentages than those found in the BL study, showing a significant improvement. Among teachers, 77.7% knew the type of treatment given to the water source used at school.

Despite the effort and having met the target for the number of schools with access to a safe water source, these data show that there is still a percentage of schools without access to drinking water.



School children were assessed on their knowledge of what safe water is, and 83.8% correctly related this concept to obtaining water that is clean and free of bacteria or microbes. This was

47% higher than at BL, a significant change. By geographic area, 88.4% and 81.6% were the figures in Jinotega and in the RACCS, respectively.

In the case of sanitation facilities, the project rehabilitated and built latrines in 418 schools, satisfactorily reaching the target. This benefitted 20,690 students, exceeding the target by 29%.

Table 18. Rehabilitation of latrines and number of beneficiaries.

Indicator	Target	Achieved	
		#	%
Number of latrines to be built/rehabilitated. 2.4b	400	418	105
- <i>Jinotega</i>	160	161	100
- <i>RACCS</i>	240	257	107
Number of students benefiting from rehabilitated or constructed latrines as a result of USDA assistance. 2.4	16,000	20,690	129
- <i>Jinotega</i>	6,400	10,428	163
- <i>RACCS</i>	9,600	10,282	107

Source: MESA Project Information System

At the start of the project, only 13% of schools had separate sanitation facilities for boys and girls. On site visits to the selected schools, 67.2% of schools were directly observed as possessing clearly identified sanitation facilities used separately for boys and girl, surpassing the 30% minimum target. While this represents a statistically significant improvement¹³, this data also shows a gap given just over 30% of schools that still do not implement this practice. In the RACCS, only 57% of schools in the sample had separate latrines for boys and girls.

There is a percentage of schools that only have one latrine, thus a limitation for making this service available separately for boys and girls. In these schools, the priority must be building new latrines.

Table 19. Access to sanitation services.

Indicator	BL (%)	Midterm evaluation (%)	FE (%)	Target (%)
Percentage of target schools with separate latrines for boys and girls. MGD 1.3.1 (n=244)	13.4 (95% CI ± 4.5)	45.6	67.2 (95% CI ± 5.1)	30
- <i>Jinotega</i>		47.9	89.5	30
- <i>RACCS</i>		43.9	57.0	30

Source: Household beneficiary survey.

3.2.8 Improved access to preventive health interventions (MGD 2.5)

The project benefitted 1,021 schools with preventive health interventions, surpassing the target of 986. These operations were closely coordinated with local Ministry of Health (MINSA) authorities, reaching a total of 74,703 schools, 24% above the target.

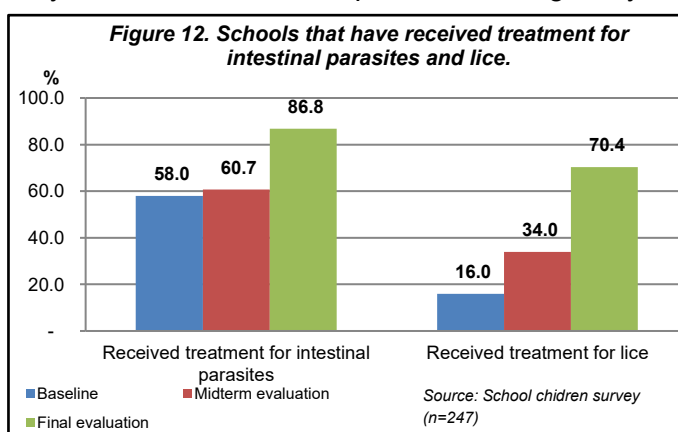
¹³ $Z_p = 12.4$, (Anexo 9)

Table 20. Schools and school children benefiting from preventive health interventions.

Indicator	Target	Achieved	
		#	%
Number of target schools benefiting from preventive health interventions. 2.5.	986	1,021	103
- <i>Jinotega</i>	350	369	105
- <i>RACCS</i>	636	652	102
Number of students benefiting from the provision of preventative health services. 2.5.a	60,390	74,703	124
- <i>Jinotega</i>	38,280	38,280	100
- <i>RACCS</i>	22,110	36,423	165

Source: MESA Project Information System

The preventive health interventions aimed to provide treatment for parasites and lice. School children were asked in the survey whether they had been treated for parasites during the year: 86.8% said they had been treated for internal parasites and 70.4% had been treated lice. In Jinotega, the project covered more children with both treatments: 97.9% for intestinal parasites and 92.6% for lice. In the RACCS, coverage was lower at 79.6% for intestinal parasites and 57.3% for lice. The lower percentage in the RACCS was probably due to less accessible schools, therefore making it more difficult for health personnel to travel there.



The application of both treatments for preventing parasites increased significantly and met the target. In addition to coordination with MINED for deworming, teachers remarked that some schools formed an alliance with MINED and through this alliance were able to obtain first-aid kits with alcohol, analgesics, antibiotics, and anti-allergy medication. They were trained on how to use these medicines should a child have a health problem at school.

Although progress was made in implementing activities to ensure preventive treatment of these parasitic diseases, the implementation team says that there was not complete coordination among the parties. There was less synergy between MINSA, MINED, and project managers in both geographic areas.

3.2.9 Increased participation of local organizations and community groups (MGD 1.4.4 / 2.7.4)

The project strengthened the capacity of community groups by organizing and training them, particularly school feeding committees and the PTA, and by building partnerships with the private sector to strengthen the school snack program.

The project trained 1,036 parents in management, sustainability, and resource mobilization, reaching the target at 105%. Parents were organized in the PTA or SFC to organize and execute concrete activities related to preparing and delivering school snacks. Through this project, community organization was solidified in 148 schools, 48 more than initially planned. This occurred in schools they discovered there was no community organization or where it was very weak (see Table 21).

The partnership with different sectors was anticipated as key to the success of the project. Partnerships with the private sector was a new initiative promoted by PCI based upon successful experiences in other projects. Given the agricultural activity in the area covered by the project, especially in the municipalities of Jinotega, the project worked to promote and create partnerships between the public sector (schools) and the private sector via individual producers and cooperatives to support the delivery of food to schools. In both types of partnerships, the project exceeded the targets.

- Thirty-six partnership agreements were signed between schools and different private sector representatives located in the municipalities. In Jinotega, there were 31 signed partnerships, one more than the target, and in the RACCS, five partnerships were signed. These alliances committed support for the school snacks program. The contributions were delivered in kind or in cash, accumulating US \$7,617.80 in total during the project period.¹⁴
- There were 34 partnerships signed with individual producers or cooperatives: 21 in Jinotega and 13 in the RACCS. The latter almost doubled its set target (seven). These alliances made a commitment to deliver food products to supplement school snacks, resulting in the accumulation of 17,558 kilograms of food, or 46% of the planned target. In total, US \$9,780.60 was accumulated throughout the project period.¹⁵

The coordination between PINE-MINED technical staff, community networks, PCI, and CEDEHCA technical staff as well as local producers to ensure school snacks, was recognized as beneficial among the different stakeholders. At meetings with teachers, they remarked:

"...the good coordination and accompaniment of the colleagues of the school PINE, who bring them the food on time, see to the quality of the food, and of course with the PCI technicians who are always in the area. They talk with the children; they see their progress in hand washing, sometimes when they eat food...they are very supportive, and we see the teamwork."

The alliance with the agricultural sector has not been as large. However, coordination was strengthened, and this is considered an important step for the future involvement of these stakeholders. As expressed by teachers in two cases:

"One aspect to note are the alliances and coordination that have been established in the community. There is the story of a mother who has land near the school, who lent almost half a manzana where there are more than 80 fruit trees, and last year for the fruit season sold oranges, and the children were given fresh orange and mango juice every day."

"...a parent donated a roll of wire to fence the place where they were going to work the garden and so parents are joining efforts and valuing the importance of school gardens in schools and they themselves are motivated to build them in their houses."

¹⁴ Project registration system

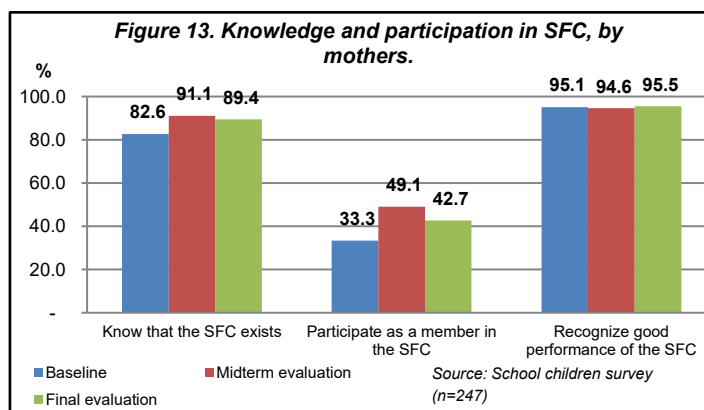
¹⁵ Project registration system

Table 21. Participation of local organizations and community groups.

Indicator	Target	Achieved	
		#	%
Number of parents trained in priority setting, financial management, asset mapping, development of sustainability plans and resource mobilization. 1.4.4/2.7.4a	986	1,036	105
- Jinotega	500	503	100
- RACCS	486	533	109
Number of Parent-Teacher Associations or similar "school" governance structures contributing to their school as a result of USDA assistance. 1.4.4/2.7.4	100	148	148
- Jinotega	40	19	47
- RACCS	60	129	215
Number of public-private partnerships formed as a result of USDA assistance	35	36	103
- Jinotega	30	31	103
- RACCS	5	5	100
Number of alliances formed with cooperatives/producer groups to supply food to schools. 1.4.4/2.7.4.b	28	34	121
- Jinotega	21	21	100
- RACCS	7	13	186
Quantity of food (in kilograms) delivered to schools by producers. 1.4.4/2.7.4.b	37,949	17,558	46
- Jinotega	29,274	9,809	33.5
- RACCS	8,675	7,749	89.3

Source: MESA Project Information System

Mothers were asked about their knowledge and participation in the SFC. Results show that a high percentage of mothers (89.4%) know that there is a SFC. When asked about the operations of the SFC, a high percentage of mothers (95.5%) recognize the role it plays in ensuring school snacks. When asked about their participation in the SFC, 42.7% mothers expressed membership, a higher percentage compared to BL (33.3%). This is a group that normally rotates membership, which may influence the variability of its participants. The percentage of mothers participating in the SFC shows that there are opportunities opening up for further participation for this population.



The work performed by the PTA/SFC is also highly regarded, especially in reference to the involvement of parents, as expressed by teachers:

"The SFC plays an important role, one might say an excellent one. They are very committed, they come to the school to see what problems there are and how they can help; they get involved in everything to collaborate; they are always thinking about how to complement the snack; they see the importance this has for their children. There's no need for us to say anything to them; rather they come to us saying 'We have more for the snack!' They have learned -- the parents -- to be more responsible, more united to share experiences and to contribute what they can to improve the snack if a mother does not have anything [to give]...I think the project awakened in them this sense of solidarity, because before they never approached the school."

3.2.10 Improved capacity of governmental institutions (MGD 1.4.4 / 2.7.1)

To provide management tools to key personnel involved in the School Snack Program, PINE-MINED officials and PCI and CEDEHCA technical personnel were trained in the main components of the program, including product management, accounting, monitoring and evaluation, supervision, and quality management. A total of 60 people in the three institutions were trained, thus developing greater management capacity and strengthening of the local level. Those trained are at the forefront of activities in both geographic project areas.

Table 22. Management training to institutional staff.

Indicator	Target	Achieved	
		#	%
Number of government officials trained in school feeding program management (commodity management, accountability, M&E, supervision and quality management). 1.4.1/2.7.1a.	16	16	100
Number of technical staff trained in school feeding program management (commodity management, accountability, M&E, supervision and quality management). 1.4.1/2.7.1a.	40	44	110
- PCI en Jinotega y RACCS	34	34	100
- CEDEHCA en la RACCS	6	10	100
Number of established Parent-Teacher Associations trained in preparation for sustainability. 1.3.5a	986	901	91
- Jinotega	350	350	100
- RACCS	636	551	86.7
Number of parents in target communities who are members of PTA (or a similar school-based community group). 1.3.5	4,064	5,490	135
- Jinotega	1,622	1,665	102
- RACCS	2,442	3,825	157

Source: MESA Project Information System

There is a clear differentiation of roles and functions in the organization and work required for the preparation of the school snack. These were supported by the project via organizational strengthening and capacity development.

- Teachers manage and lead the SFC. They recognize that the responsibility for school snacks and being the lead of the SFC is a task they must assume, and they do so with a positive manner and are aware of the benefits it brings for girls and boys. They are responsible for organizational aspects and food quality control, including ensuring that food is well stored, keeping inventory, and preparing reports. They are responsible for preparing and conducting meetings with parents, planning how snacks will be carried out, distributing roles, and controlling the rations distributed daily to the children.
- Mothers prepare the food, rotating the responsibility monthly. When the snacks are prepared at home, mothers bring the food to school prepared and ready to serve to the children.
- Parents provide support in securing supplies for food preparation, particularly firewood and other foods to supplement the snack and make it more substantial.

The project strengthened the SFC. It trained members of the SFC and other community groups who support the school snack program. The targets established for the training of these human resources were satisfactorily met. The project also managed to broaden the base of parental participation in the SFC, particularly in the RACCS, which exceeded the set target by 57%.

3.3 Sustainability

Sustainability was a cornerstone during the design of the project with the purpose of sustaining any achievements beyond project end. A sustainability strategy was developed with a defined scope of work and a tool to monitor progress in schools.

The basis of sustainability is framed in the empowerment and participation of government institutions, local organizations, and community groups. In the Sustainability Strategies¹⁶ document designed within the framework of the project, sustainability is conceptualized as *"the facilitation of a process of school organization empowerment (PTA, SFC, MAPAF¹⁷) to sustain over time the benefits of school snacks to increase primary school children attention and attendance for greater learning."*

All stakeholders consulted agree that there is a high degree of sustainability and relevance in the strategies and development of project components, which implies a predisposition by the government that translates into the development and implementation at all levels of the School Snack Program. In the words of the PINE-MINED director, *"It is sustainable because it works in conjunction with the GRNU for which school snacks are a priority and government policy."*

A key element for sustainability is the awareness of stakeholders that play important roles in the implementation of the program. Although the participation of key local stakeholders is highly valued, there remains a need for greater integration of some sectors, particularly local government and the private sector. A local government representative summarizes this point as follows:

"...I think we've already mentioned that all the project beneficiaries have really taken ownership: parents are involved in preparing food, including the work involved in creating school gardens; the students are attending classes and doing well on their homework; teachers are taking control and improving the quality of learning. You see the commitment to take concrete action, but as I mentioned before we need to get more involved - everyone, including those of us who've been a little on the margin, only supporting when asked. We want to be a part as well and have all the information before, during and after, and we want other stakeholders to also be involved. This will make it more sustainable, which ultimately is what we seek, because we can't be thinking that this project will be here forever."

In this sense, the representative of CEDEHCA states that among the elements that stand out and make the program sustainable, it *"...is the active participation of the various institutions and organizations and the efforts made at the coordination level for the project; that speaks of sustainability, citizen participation, mothers and fathers."*

The activities developed by the project are part of the institutional strategies of MINED and are thus considered relevant and sustainable. The local MINED representative emphasizes multi-stakeholder participation to strengthen educational programs, including school snacks, with all its components: *"...because they are a necessity for MINED to make a qualitative leap in education. However, we will always need support, friendly hands complementing the work - those of PCI, key stakeholders, institutions like the mayor's office supporting infrastructure in schools like building classrooms..."*

¹⁶ PCI/CEDEHCA. Sustainability Strategy. MESA Project.

¹⁷ Mothers and fathers

The level of organization that the school community currently has, as well as the level of training in on issues related to the different project components, is a guarantee for sustainability. It has increased awareness and therefore participation.

"...this project changed the behavior of teachers, students and parents; We have seen parents very interested, organized, trained, showing all the achievements, they have had, how they have learned to do a work plan. Families have reached a higher level within the school; they have become empowered in the role they play...that the teacher is also integrated with parents discussing the problems they have in school, families talk about the importance of nutrition both in the city as well as in the countryside. It's great and the main thing that they now know is that these programs are rights they have - this is what has stayed with people."

While PCI's monitoring tool prepared to support the sustainability strategy is very useful, it is still being validated. It has been used by technical teams in both geographic areas and allowed them to measure progress in certain schools, but it has not been used systematically, and there is no tool available that consolidates all the information by SA and/or municipality, which would provide a broader perspective. Technicians in the RACCS express:

"The tool provides a technician a chance to see the development taking place in each of the activities, because there is a classification that allows us to visualize communities or schools that are more empowered. That allows us to direct attention to those schools that are a little weaker."

This tool incorporates five defined conditions considered key to ensuring sustainability. Each condition is evaluated by variables or indicators through a scoring system that is assigned depending on the observed level of progress. The basis for assigning a certain score is by verifying evidence. However, not all the variables measured have clearly defined categories to assign a certain score, leaving it to the discretion of each evaluator. Although staff have been trained on how to use the current tool, a standardization process that incorporates MINED technical staff is needed.

Other key elements that are not incorporated in the guide for the use of the sustainability tool include the frequency with which to apply it in schools and a mechanism to develop a feedback process with different areas of the MINED, starting with teachers of the schools where it is applied, the Rural Education Nucleus (REN), and the municipal MINED.

On the other hand, not all MINED municipal delegations have had the opportunity to use this tool. It requires a level of ownership by MINED officials for its use, since it is a very useful instrument for monitoring activities focused on sustainability.

3.4 Assessment of the gender approach

For the MESA project, an approach to strategies and activities through a gender lens was both cross-cutting and a challenge. As part of this approach, teachers, students, and parents were trained on this topic, thus strengthening MINED, who also views gender as a cross-cutting axis.

Nicaraguan culture has maintained strongly defined roles for women and men, especially in more rural areas and communities. However, the perception is that this culture has changed through multiple activities developed by government institutions, civil society organizations, and other sectors. There is no quantitative measurement of change, but some perceptions expressed by MINED teachers and representatives include the following:

"In shaping the direction of the SFC, we have seen participation by both men and women."

"There is more parent involvement in snack preparation. At one school, during a meeting, a father said: 'I am a single father, but I have my children go to classes. I have no partner, and I'm the one who has to prepare food.' And people recognize that this father is one of the people that whenever it's his turn (to prepare the snack) he is punctual with his food."

"It's something that has been quite difficult. We've been working on that. I could not tell you how the dads are involved in the snack activities because the food is prepared at home. I imagine that in one way or another the father supports the mother. The father helps by bringing the food to school, but in other schools the dads stay and help serve the food. Where I have been and they have invited me, I have seen the participation of both men and women."

There is widespread recognition of parent involvement in preparing snacks, although in general there are distinct roles:

"...in practice, it is possible to see gender equity. Both men and women are involved in the activities. For example, the men transfer the food for snacks from the point of delivery to the school, and the women make the food for the boys and girls." "...as far as the roles, the woman always cooks the food; the fathers bring the firewood, and they look for [food] to complement the snack. Parents are getting more involved in meetings. Before only the mothers arrived. We can say that little by little the men have been getting involved, but we still have to fight the machismo. It's always the mothers who are taking care of the children and the fathers are in agricultural work."

Changes are taking place little by little. It is a process that requires time, because they require changes in attitudes that must be unlearned and new behaviors that have to be learned. The representative of the local government recognizes that the MESA Project incorporated a gender approach. However, the representative expressed that more efforts are needed to improve this area.

"...it is still not easy for men to prepare food for their children, for example; it is always the women who do so. However, the men are becoming more involved at school, but doing their traditional roles of bringing firewood, working in the garden, arranging the classrooms. There needs to be more work on the machismo and more training on this aspect. The important thing is that both men and women have been involved as being responsible for the children."

An important aspect that was mentioned is that the men show greater openness for allowing their partner to participate in these activities: *"...there is more acceptance of men to let women leave home to participate more in community activities like those at school and in trainings, but there needs to be more involvement of men."*

The local MINED official recognizes that the project promoted the involvement of fathers and mothers in project activities:

"...they have been trained on the subject, progress has been made, parents have been working, but there are still gaps. We see women's participation more because the culture of our rural people is too ingrained. It is still dad who is going to the field and the woman who stays at home cooking. As I say, we are going little by little, because in Nicaragua before the father never picked up a broom and now he does. So it has progressed, but logically fighting against century-long traditions requires a lot of work and effort, but we can say that we are moving forward."

IV. CONCLUSIONS

The quantitative and qualitative data related to indicators aimed at improving the coverage, attendance, and ability to read and write in school children show that the targets were reached or exceeded and therefore the objectives of the project were satisfactorily fulfilled. Except for one result indicator (MGD S02. Schools that have soap and water in handwashing posts), the project targets were met or exceeded by a large percentage.

There is evidence of an improvement in the quality of education, measured through the ability of 6th grade students to read and write, as well as the attendance of children in school. The project contributed directly to the improvement of these indicators through the distribution of school materials, rehabilitation or construction of infrastructure, and the development of technical-methodological capacity in teachers, thus providing materials and methodological tools necessary to ensure a better teaching-learning process.

With the delivery of school snacks, the project contributed to the following:

- Improved attention of school children during class. According to the perception of teachers, the number of children who did not pay attention during the class was halved, leaving only a few students who did not pay attention.
- Increased enrollment and consistency of attendance by boys and girls.
- Greater integration of sectors and local stakeholders in educational activities and in the provision of school snacks. In addition to traditional participants (teachers, parents, and school children), local producers, cooperatives, and local government were involved as well.
- Increased awareness of the school's general population. Greater willingness and commitment of all involved stakeholders affected program sustainability through participation in activities that ensure the safeguarding, preparation, and delivery of food, including complementary/supplemental foods.

The project completed the planned number of gardens in schools. However, the consensus of stakeholders is that this component deserves more effort. Some schools had successful experiences with the participation of teachers, school children, and parents. These schools were able to produce food that in addition to being used as a complement to school snacks, were able to be sold and part of the financial profits invested in school improvements.

Through the infrastructure rehabilitation/construction component there was a substantial improvement in the conditions for storing and preparing food (rehabilitation of kitchens and storage spaces), in waste disposal (rehabilitation of latrines), and in the provision of safe water (rehabilitation of wells or water systems). The support of local government and the involvement of parents through their labor were fundamental for fulfilling the proposed target for the rehabilitation of infrastructure. However, this component is one of the most in demand due to the poor conditions that many schools still have.

Training plans implemented by the project improved the knowledge of the educational community on issues of FNS and hygiene and health issues, translating into better hand washing practices, use and management of sanitation facilities, safe water, and the use of standards for food storage and preparation.

Parent participation (PTA/SFC) was strengthened in both organization and function; there is significant participation by teachers and parents, which provides the basis for the sustainability of

the School Snack Program with all its components. However, greater management capacity is still needed, especially in the use of notebooks for food control and building alliances with other sectors in the communities, particularly the private sector.

Coordination with the local authorities of MINSA was effective in meeting the targets of preventive care for school children, especially to ensure anti-parasite treatment.

The preparation of a Sustainability Strategy is an excellent initiative because in addition to specific activities, it incorporates a monitoring tool. However, the latter is not final and remains to be validated with internal staff and MINED. In addition, the scoring system is not fully defined, all personnel including MINED must receive a standard training on use, there is no system in place to consolidate the information, there is no specified frequency for when to apply it in schools, and no defined feedback mechanism for teachers, REN, and the municipal MINED.

V. RECOMMENDATIONS

1. The positive results of the project reflect the comprehensive approach adopted during the life of the project. For this reason, we recommend **maintaining this comprehensive vision** when developing similar projects with the participation of all the stakeholders that have been involved in the execution of each component. For future projects that incorporate diverse components in different areas, we recommend strengthening coordination and defining priorities. Specifically:
 - a. Strengthen coordination and communication with the different structures in Central MINED that are linked to the project components (School Snack Program, capacity building, and infrastructure) to have a direct counterpart with which to coordinate and agree on activities for each component.
 - b. Part of the efficiency of the MESA Project was the comprehensiveness and approach used in its different components and its focus on results and impact in primary education. This undoubtedly required effective organization and coordination among all stakeholders, in addition to financial resources. Recognizing that these latter resources are limited, we recommend identifying and agreeing on priorities with institutional authorities. This could also serve to identify other sources of funding.
2. **Strengthen engagement with the private sector for sustainability.** There is great potential to support government education plans and programs via the private sector, including school snacks and their components. Recognizing this potential and establishing future alliances with this sector, we recommend:
 - a. Taking advantage of the CSR network that exists in Nicaragua and to explore and/or take steps that can lead to strategic alliances with the goal of obtaining contributions for the different components of the institutional program that support the project.
 - b. Obtaining supplies that supplement the school snack and support efforts that strengthen alliances with small and medium producers at the local level. This would both allow for cooperation and benefit both parties.
3. A good practice that the project implemented was to **sign alliance agreements** between parties with specified commitments. We recommended maintaining and strengthening this practice with all sectors, thereby consolidating efforts at the local level (SFC, community groups, REN and others).

4. The **school gardens** component of the school snack program requires further development. We recommend assessing the successful initiatives developed in some municipalities and translating them to other areas as part of an exchange and new learning process. Additionally, conducting negotiations with government agencies (MEFCCA) for their support in capacity building will strengthen the program, as well as evaluating alternatives such as the use of improved seeds or growing from local seeds.
5. **Infrastructure** is a component that always requires a high investment of financial resources. Recognizing the requirements and needs in schools as well as the budgetary constraints that exist, we recommend that in addition to establishing priorities, the project strengthen efforts with municipal governments so that they assume a greater role in this area while simultaneously maintaining steady efforts with other sectors, particularly the private sector.
6. **Management with MINSA.** To take advantage of the experience gained through implementation of preventive activities against parasites and to integrate more school health components, especially focused on health education, we recommend establishing greater management and coordination with the local MINSA.
7. To strengthen **monitoring and evaluation** for similar future projects we recommend:
 - a. Incorporating evaluation using specific tests (EGRA) in a random sample of school children. In addition to measuring the level of learning achieved in a given grade level, the tests have the ability to identify elements that can contribute to the learning process.
 - b. Although the project incorporates activities for the promotion and prevention of diseases, these are specific for parasitic diseases and not for other diseases that also affect children and school attendance. Unless a second phase of the project includes other activities to prevent these other diseases, we do not recommend keeping this indicator.
 - c. The Sustainability Readiness Guide is a good initiative for monitoring schools with a focus on sustainability. To strengthen this tool and its use, we recommend:
 - Finalizing the instrument validation process for primary data collection in schools,
 - Designing a tool to consolidate data, which could be in an Excel format for simple use by all staff,
 - Providing a standardized training for the entire technical team that uses the tool,
 - Presenting and negotiating its use with the local MINED and incorporating members of the MINED technical team into the standardization process for the tool,
 - Sharing the results obtained from using this tool with the different areas of MINED (Municipal, REN, teachers) and other appropriate areas to support improvement activities.
8. Key stakeholders approached in the evaluation provided recommendations. The most notable are:
 - ✓ Maintain a **strengthening of institutional capacity** as a priority work area, including but not limited to educational materials, hiring of qualified personnel, means of transportation, office equipment, and office supplies for monitoring and follow-up in intervention municipalities.
 - ✓ Continue to provide **training** to all stakeholders (teachers, students, and parents). Teachers need to learn new teaching and assessment strategies, and there is a need to strengthen a strategy that is both active and participatory. Technology is also a fundamental component that should be incorporated. Classroom workshops should learn and improve by doing evaluations.
 - ✓ **Trunks for food storage** are necessary and important to keep food from spoiling and should be provided to all schools that do not have them.

VI. ANNEXES

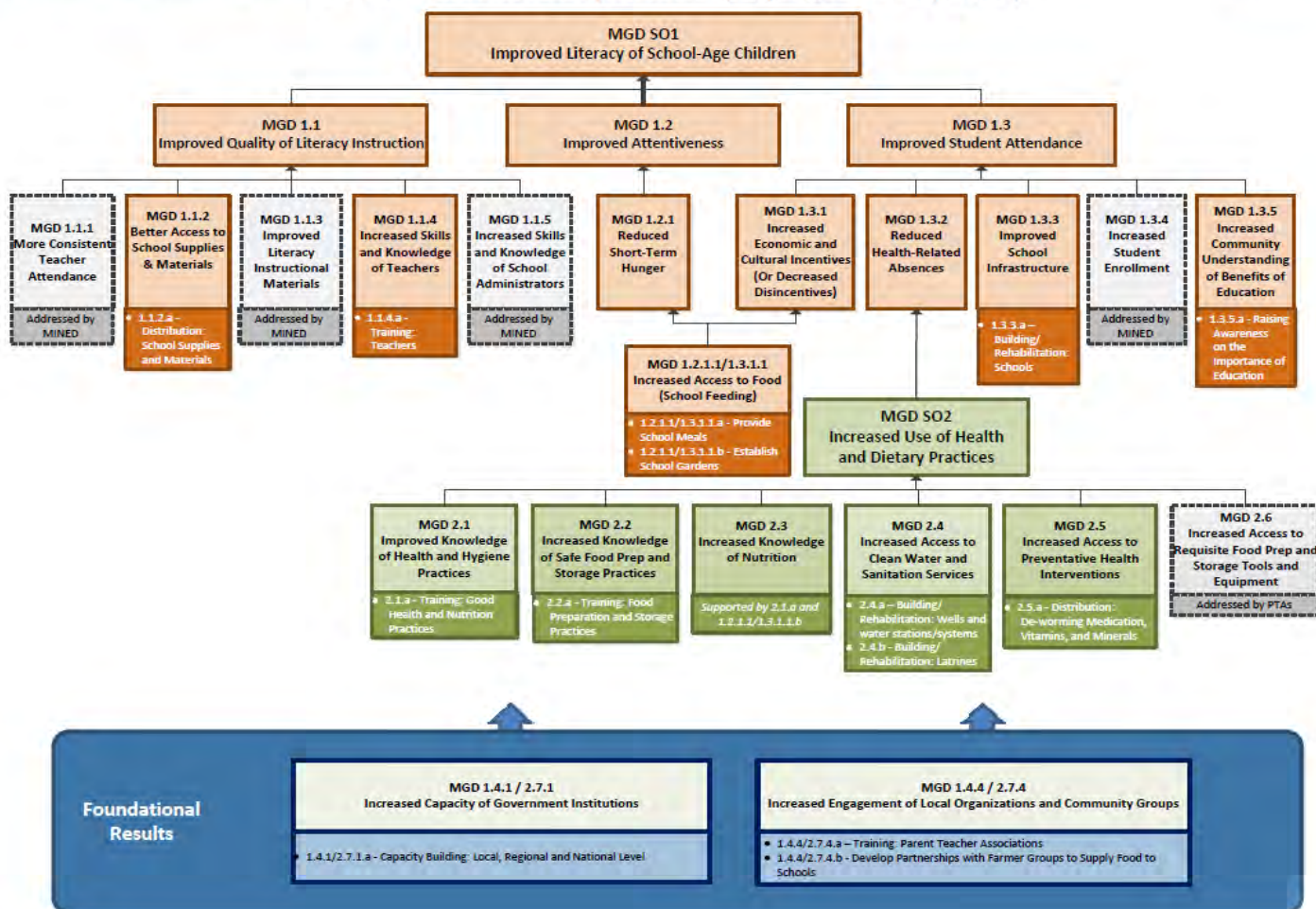
- Annex 01.** MESA Project Results Framework (Pg. 45)
- Annex 02.** Beneficiary schools and population, by municipality (Pg. 46)
- Annex 03.** Quantitative sample disaggregated by population group and geographic area (Pg. 46)
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- Annex 07.** MESA Project definitions, sources and indicator targets (Pg. 105-108)
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Annex 01. MESA Project Results Framework

Project MESA (*Mejor Educación y Salud*)

Results Framework: Project MESA (*Mejor Educación y Salud*)

Attachment 2



Annex 02. Beneficiary schools and population, by municipality

No.	Municipality	No. schools	School children	Teachers	Parents
1	Jinotega	235	22,898	449	5,293
2	Yalí	75	5,580	306	2,807
3	La Concordia	32	1,319	90	884
4	Pantasma	131	9,774	384	4,500
5	Bluefields	208	13,751	608	3,759
6	Corn Island	5	1,638	29	274
7	Kukra Hill	61	3,334	72	1,604
8	Laguna de Perlas	71	3,882	133	733
9	El Tortuguero	130	5,556	190	4,659
10	La Cruz de Río Grande	159	6,804	167	3,113
11	Desembocadura del Río Grande	8	1,364	56	733
	TOTAL	1,115	75,900	2,484	28,359

Annex 03. Quantitative sample disaggregated by population group and geographic area

Supervision Area		No. of schools	Population group		
No.	Municipality		Students	Teachers	Mothers
Jinotega					
1	Jinotega 1	19	19	19	19
2	Jinotega 2	19	19	19	19
3	Yalí y La Concordia	19	19	19	19
4	Pantasma 1	19	19	19	19
5	Pantasma 2	19	19	19	19
Sub total	5 Supervision Areas	95	95	95	95
RACCS					
6	Bluefields and Corn Island 1	19	19	19	19
7	Bluefields and Corn Island 2	19	19	19	19
8	Kukra Hill	19	19	19	19
9	Laguna de Perlas	19	19	19	19
10	El Tortuguero 1	19	19	19	19
11	El Tortuguero 2	19	19	19	19
12	LCRG and Desembocadura de Río Grande 1	19	19	19	19
13	LCRG and Desembocadura de Río Grande 2	19	19	19	19
Sub total	8 Supervision Areas	152	152	152	152
TOTAL	13 Supervision Areas	247	247	247	247

Annex 04. Sampling frame by Supervision Area

SUPERVISION AREA JINOTEGA 1				
Random no.	No.	Municipality	Community	School Name
0.01576319	1	Jinotega	Alpes	Alpes
0.89233039	51	Jinotega	San Antonio de Sisle	San Gregorio
0.0190136	41	Jinotega	Paso Real 2	Proyecto Lourdes
0.87112528	14	Jinotega	Cerrones 2	Diriangén (Cerrones 2)
0.6145986	54	Jinotega	San Francisco de los Cedros	San Francisco de los Cedros
0.28087117	55	Jinotega	San Francisco de los Cedros	San Isidro
0.62787764	52	Jinotega	San Esteban 1	San Esteban 1
0.62752216	57	Jinotega	Santa Ana	Santa Ana de los Cedros
0.43981977	16	Jinotega	Cerrones 4	Salomón Ibarra Mayorga
0.80756684	65	Jinotega	Sardinal 1	Carlos Fonseca Amador
0.2077356	71	Jinotega	Sisle 1	Divino Niño
0.19887124	76	Jinotega	Virgen	Buenos Aires
0.28162785	70	Jinotega	Sierra Morena	Sierra Morena
0.87182038	28	Jinotega	Embocadero	Embocadero
0.11716576	45	Jinotega	Pita del Horno	Pita del Horno
0.66747782	48	Jinotega	Pueblo Nuevo	José Dolores Estrada/ Pueblo Nuevo
0.56315711	20	Jinotega	Colinas	Bastilla
0.63103894	40	Jinotega	Paso Real 1	Elías Blandón Machado
0.77894178	72	Jinotega	Sisle 2	Juan Pablo Segundo

SUPERVISION AREA JINOTEGA 2				
Random no.	No.	Municipality	Community	School Name
0.36223359	66	Jinotega	Santa Inés	Santa Inés
0.44796522	58	Jinotega	Reforma Arriba	Reforma Arriba (Las Marías)
0.79064348	15	Jinotega	Camelias	Camelias
0.33291281	75	Jinotega	Walasa	Walasa
0.25193758	28	Jinotega	Esperanza	Esperanza/ Paraíso
0.79191775	74	Jinotega	Viola	Viola
0.73077575	21	Jinotega	Consuelo	Rubén Darío
0.77314227	65	Jinotega	Santa Enriqueta	Santa Enriqueta
0.21704801	42	Jinotega	Mercedes	Mercedes
0.00024794	47	Jinotega	Palestina	Palestina
0.07548853	71	Jinotega	Tejera	Tejera
0.12521464	38	Jinotega	Lipululo	Lipululo
0.20548984	40	Jinotega	Mancotal abajo	San Miguel
0.39007609	60	Jinotega	Sajonia	Sajonia
0.39753499	12	Jinotega	Barrio San Isidro	Anexo INACS
0.00251796	67	Jinotega	Santa Isabel 2	Santa Isabel 2
0.52649283	31	Jinotega	Hatillo	Hatillo
0.60546734	27	Jinotega	Esmeralda	Lázaro Talavera
0.3947353	3	Jinotega	Aurora	Aurora

SUPERVISION AREA YALI - CONCORDIA 3				
Random no.	No.	Municipality	Community	School Name
0.202685858	57	San Sebastián de Yalí	Yalí urbano	Enmanuel Mongalo y Rubio
0.462222946	42	San Sebastián de Yalí	Rodeítos	Miguel Ángel Vásquez
0.785676168	52	San Sebastián de Yalí	Trabón	Andres Castro
0.197897483	50	San Sebastián de Yalí	Terreros	Augusto Cesar Sandino
0.208681376	85	La Concordia	Zapote Oriental	Padre Odorico Andrea
0.757755805	43	San Sebastián de Yalí	San Antonio	San Antonio
0.843978381	31	San Sebastián de Yalí	Pavona Abajo	Pavona Abajo
0.466578713	81	La Concordia	Vallecillo	Vallecillo
0.365029108	53	San Sebastián de Yalí	Trabón	Juan Pablo Segundo
0.714259892	70	La Concordia	Coyolito	Jose Santos Rivera
0.246585876	18	San Sebastián de Yalí	Estación	Divino Niño
0.126221664	36	San Sebastián de Yalí	Portillos	Portillos
0.942643393	46	San Sebastián de Yalí	San Pedro	San Pedro
0.724066949	80	La Concordia	Valerio	Armidia Zelaya Valdivia
0.444759512	58	San Sebastián de Yalí	Yoluca	Salomón de la Selva
0.365479401	8	San Sebastián de Yalí	Chamastro	Chamastro
0.032969077	14	San Sebastián de Yalí	Cureñas	Cureñas
0.676503808	47	San Sebastián de Yalí	Santa Isabel	Santa Isabel
0.483834167	35	San Sebastián de Yalí	Portal	Poeta Niño

SUPERVISION AREA PANTASMA 4				
Random no.	No.	Municipality	Community	School Name
0.607232597	35	Santa Maria de Pantasma	Quebrada El Hule 1	Quebrada El Hule 1
0.388133625	7	Santa Maria de Pantasma	Brellera 2	Brellera 2
0.493656233	34	Santa Maria de Pantasma	Prisionero 2	Prisionero 2
0.848918886	42	Santa Maria de Pantasma	Tamalaque	Tamalaque
0.781573013	32	Santa Maria de Pantasma	Portal	Portal
0.770824127	39	Santa Maria de Pantasma	Sacramento	Sacramento
0.951008479	41	Santa Maria de Pantasma	Soledad 2	Soledad 2
0.502445795	47	Santa Maria de Pantasma	Wale 2	Wale 3
0.227683202	46	Santa Maria de Pantasma	Wale 1	Wale Arriba 2
0.231856741	6	Santa Maria de Pantasma	Brellera 1	Brellera 1
0.884313746	11	Santa Maria de Pantasma	Corozal	Corozal
0.647402353	4	Santa Maria de Pantasma	Bramadero 1	Bramadero 1
0.846208519	24	Santa Maria de Pantasma	Nispero	Nuevo Amanecer
0.557927577	17	Santa Maria de Pantasma	Limonas 1	Miguel Larreynaga
0.043827705	29	Santa Maria de Pantasma	Patastillal	Santa Martha
0.870080349	33	Santa Maria de Pantasma	Prisionero 1	Bosque
0.876779456	40	Santa Maria de Pantasma	Soledad 1	San Cristóbal
0.641585751	26	Santa Maria de Pantasma	Palmeras	Palmeras
0.223752829	5	Santa Maria de Pantasma	Bramadero 2	Bramadero 2

SUPERVISION AREA 5 PANTASMA				
Random no.	No.	Municipality	Community	School Name
0.163378428	28	Santa Maria de Pantasma	Piragua	Piragua
0.390287941	23	Santa Maria de Pantasma	Guapinol 1	Guapinolito 1
0.038866004	26	Santa Maria de Pantasma	Laureles	Laureles
0.605211291	3	Santa Maria de Pantasma	Aguas Calientes 2	Salomón de la Selva
0.226974925	45	Santa Maria de Pantasma	Venado 2	Venado 2
0.493317437	14	Santa Maria de Pantasma	Comal 1	José Dolores Estrada
0.643375667	39	Santa Maria de Pantasma	Santa Cruz 1	Santa Cruz 1
0.694630067	20	Santa Maria de Pantasma	Flor de Pino 1	Flor de Pino de Vilán 1
0.852715359	46	Santa Maria de Pantasma	Ventarrón 1	Ventarrón 1
0.572134494	32	Santa Maria de Pantasma	Porvenir	José Cecilio del Valle
0.770125649	31	Santa Maria de Pantasma	Plátano	Rafaela Herrera
0.202358624	33	Santa Maria de Pantasma	Praderas	Nicarao/ Ninfa Segura Castillo
0.270890611	24	Santa Maria de Pantasma	Guapinol 2	Rubén Darío
0.055366612	36	Santa Maria de Pantasma	San Luis	San Luis
0.574817293	18	Santa Maria de Pantasma	Delirio	Paraíso
0.901667896	44	Santa Maria de Pantasma	Venado 1	Alfredo Alegría
0.758766116	27	Santa Maria de Pantasma	Malecón	Miguel de Cervantes Saavedra/ Luis Alfonso Velásquez Flores
0.505911961	9	Santa Maria de Pantasma	Chamarro 1	Chamarro 1
0.384540845	35	Santa Maria de Pantasma	San José 2	San José 2

SUPERVISION AREA 6 Bluefields CEDEHCA					
Random no.	No.	Municipality	Community	School Name	Random no.
0.411282351	43	Bluefields	PG	Nueva Esperanza	Esperanza
0.067593696	87	Bluefields	Yaladina	Yaladina	Dinamarca
0.570882255	7	Bluefields	Bluef	Barrio Central	San Marcos Primaria
0.650766009	84	Bluefields	Torsuany	Torsuany	José Dolores Estrada
0.079245235	2	Bluefields	Bluef	Loma Fresca	Cristiano Nueva Visión
0.053985683	62	Bluefields	PG	Porvenir	Santa Rosa
0.995318043	10	Bluefields	Bluef	Barrio San Pedro	Pública San Pedro
0.630863966	6	Bluefields	Bluef	Barrio Old Bank	Comunal Old Bank
0.387641235	17	Bluefields	PG	Flores Sector 1	Delicias de las Flores
0.636748537	9	Bluefields	Bluef	Barrio Loma Fresca	Barbie Henríquez
0.969397793	58	Bluefields	PG	Venado	Venado
0.737206846	46	Bluefields	PG	Pejibaye	Diriangén
0.253651563	40	Bluefields	PG	San Miguel	Maria José
0.555228407	59	Bluefields	PG	Flores	San Juan de la Salle
0.972768871	41	Bluefields	PG	Monte Crique	Monte Crique
0.246164844	68	Bluefields	PG	Camilo Palo Bonito	Neysi Ríos
0.332936274	11	Bluefields	Bluef	Barrio 19 De Julio	Corazón del Padre
0.386908033	54	Bluefields	PG	Naranjo	Nazareno
0.898293541	53	Bluefields	PG	Molinales	Madroño

SUPERVISION AREA 7 Bluefields and Corn Island PCI					
Random no.	No.	Municipality	Community	School Name	Random no.
0.413940823	64	Bluefields	Leydi	Pájaro	Rubén Darío 2
0.783847345	62	Bluefields	Marjorie	Naranjal 2	Luz de la Esperanza
0.283851438	58	Bluefields	Julio César	Montes Verdes	Niños del Futuro
0.958241204	79	Bluefields	Marjorie	San Miguelito KR	Buena Esperanza
0.659648348	46	Bluefields	Julio César	Delicias del Pajaro 2	Rubén Darío Sarmiento
0.69583329	18	Bluefields	Marjorie	Barrio Tres Cruces	Bautista
0.582604113	14	Bluefields	Marjorie	Barrio San Mateo	Comunal San Mateo
0.688784731	56	Bluefields	Leydi	Montes verdes	Manatíal
0.797464508	41	Bluefields	Leydi	Colorado 2	Triunfo
0.895212062	80	Bluefields	Julio César	San Pablo	Sorpresa
0.648210931	96	Bluefields	Marjorie	Villa Nueva 1	San José 1
0.166676969	70	Bluefields	Leydi	Peñones	José de la Cruz Mena
0.838211634	7	Bluefields	Marjorie	Barrio 19 de Julio	Rubén Darío
0.284751748	63	Bluefields	Marjorie	Nueva Alianza	Santa Teresita (vicariato)
0.896710634	71	Bluefields	Leydi	Quebradón	Nicaragüita
0.417358381	66	Bluefields	Leydi	Paraíso	Luz de Esperanza
0.837233454	5	Bluefields	Leydi	Asentamiento Augusto Cesar Sandino	Carlos Fonseca Amador
0.998329573	6	Bluefields	Leydi	Aurora	Edwin Baltodano
0.997783562	4	Bluefields	Marjorie	Ángeles de Masayón	San José

SUPERVISION AREA 8 - Kukra Hill				
Random no.	No.	Municipality	Community	School Name
0.337281252	4	Kukra Hill	Buena Vista	Buena Vista
0.063311725	14	Kukra Hill	Fonseca	Maria Auxiliadora 2
0.412133931	28	Kukra Hill	Maravillas	Celestina
0.491990769	37	Kukra Hill	Panchón	Enmanuel Mongalo
0.914080303	56	Kukra Hill	Unión	Santa Martha
0.053411152	25	Kukra Hill	Loma de Mico	San José
0.503201758	39	Kukra Hill	Pichinga	Letania
0.081157471	43	Kukra Hill	Pichinga	Sendero de Vida
0.840083466	30	Kukra Hill	Maravillas	Eneida
0.479219906	45	Kukra Hill	Porvenir	Gladys Álvarez
0.328352816	1	Kukra Hill	Asent.Samuel Lau	Andronico Espinales
0.067343312	57	Kukra Hill	Wary	Rubén Darío/ Wary
0.407087732	33	Kukra Hill	Neysi Rio	Santa teresita
0.297041939	47	Kukra Hill	Rosario	Rosario
0.554576649	32	Kukra Hill	Neysi Rio	San Antonio
0.402347263	51	Kukra Hill	San Ramón Viejo	San Francisco
0.068634886	42	Kukra Hill	Pichinga	Buen Pastor
0.582863865	12	Kukra Hill	Escobal	Escobal
0.818425667	38	Kukra Hill	Pichinga	San Marcos

SUPERVISION AREA 9 - Laguna de Perlas				
Random no.	No.	Municipality	Community	School Name
0.92649317	40	Laguna de Perlas	Pondler	Sueño
0.744135694	26	Laguna de Perlas	Papel	Nueva Esperanza
0.800924481	46	Laguna de Perlas	Pueblo Nuevo	Israel Galiano
0.504384966	55	Laguna de Perlas	Pueblo Nuevo	Mi Hogar
0.981511854	52	Laguna de Perlas	Pueblo Nuevo	Florida
0.601320633	3	Laguna de Perlas	Arenita	Rafaela Herrera 2
0.21661793	14	Laguna de Perlas	Cedro	Santa Teresa
0.624342223	56	Laguna de Perlas	Pueblo Nuevo	Nuevo Amanecer
0.735917729	34	Laguna de Perlas	Pedregal	San José
0.325701729	39	Laguna de Perlas	Pondler	Rubén Darío 3
0.86762609	54	Laguna de Perlas	Pueblo Nuevo	Laureles
0.459262844	9	Laguna de Perlas	Castaño	Borbollón
0.08599682	13	Laguna de Perlas	Castaño	Santa Idubis
0.865271223	43	Laguna de Perlas	Pueblo Nuevo	Buenos Aires
0.786047102	58	Laguna de Perlas	Pueblo Nuevo	Reymundo Hernández
0.54063559	66	Laguna de Perlas	San Vicente	San Vicente
0.571332195	53	Laguna de Perlas	Pueblo Nuevo	Quinta
0.416388259	42	Laguna de Perlas	Pueblo Nuevo	Buen Samaritano
0.598481572	6	Laguna de Perlas	Caño Wilson	Diriangén

SUPERVISION AREA 10 - El Tortuguero 1				
Random no.	No.	Municipality	Community	School Name
0.523256219	31	El Tortuguero	San Miguel Santa Lucia	Rubén Darío 3
0.151165854	36	El Tortuguero	Santa Rita	San Jerónimo
0.902967001	27	El Tortuguero	San José Sawawas	Jerusalén del Guayabo
0.053765572	38	El Tortuguero	Santa Rita	San Miguel
0.707322135	9	El Tortuguero	Hierba Buena	Diriangén
0.176044798	56	El Tortuguero	Chacachaca	San Juan
0.061685327	1	El Tortuguero	Espabel	Carmen 3
0.379124298	21	El Tortuguero	Guitarra	San Isidro 2
0.195197731	7	El Tortuguero	Chilicreck	Buenos Aires
0.847288198	42	El Tortuguero	Sawawas	Patria Unida
0.978104243	30	El Tortuguero	San Miguel Santa Lucia	San Francisco Santa Lucia
0.256087998	57	El Tortuguero	Flor de Pino	Flor de Pino
0.617538114	44	El Tortuguero	Sulating	Sendero de Luz
0.498914482	5	El Tortuguero	Bambucito Piñol	Nazareth
0.77142709	68	El Tortuguero	Mango	María Auxiliadora
0.158915391	28	El Tortuguero	San José Sawawas	San Jacinto
0.723125541	32	El Tortuguero	San Miguel Santa Lucia	Nuevo Amanecer 1
0.219121882	41	El Tortuguero	Sawawas	Linda Vista
0.797770882	10	El Tortuguero	Hierba Buena	Jehová es mi Pastor

SUPERVISION AREA 11 - El Tortuguero 2				
Random no.	No.	Municipality	Community	School Name
0.173984899	47	El Tortuguero	Waspado Caserío	San Rafael
0.014183114	20	El Tortuguero	Salto	Sinaí 1
0.811355793	61	El Tortuguero	Makatis	Buen Samaritano 2
0.848746689	4	El Tortuguero	Kasmiting Central	Ríos de Agua Viva
0.77019407	42	El Tortuguero	Waspado	Rubén Darío 1
0.053753953	21	El Tortuguero	San Francisco Wawalating	Naranjo
0.402455131	63	El Tortuguero	Mata de Caña	San José 2
0.472690187	15	El Tortuguero	Pavon	Nueva Esperanza 2
0.688574765	50	El Tortuguero	Waspado Santa Marta	Santa Marta 3
0.91308128	38	El Tortuguero	San Juan Chiriwas	Camino a Luz
0.824946888	8	El Tortuguero	Paharatigne	Jardín del Edén 3
0.964975494	31	El Tortuguero	Tamarindo	Arca de Noé
0.945926595	24	El Tortuguero	San Jose Kurinwas	San José Good Living
0.741296724	33	El Tortuguero	Tortuguita	Nueva Luz 2
0.214870572	10	El Tortuguero	Pajarating	Nuevo Amanecer 3
0.888469424	62	El Tortuguero	Mata de Caña	Trinidad
0.075924171	2	El Tortuguero	Kasmiting	Sinaí 2
0.029435328	67	El Tortuguero	Belén Central	Santa Elena
0.160525293	1	El Tortuguero	Kasmiting	Progreso

SUPERVISION AREA 12 - La Cruz de Río Grande				
Random no.	No.	Municipality	Community	School Name
0.019613644	26	La Cruz de Río Grande	San Antonio	San Ramón
0.146228035	29	La Cruz de Río Grande	San Antonio	Buen maestro
0.652997393	75	La Cruz de Río Grande	Uliwas	Rubén Darío 1
0.241832525	57	La Cruz de Río Grande	Sixiwas	Sacuanjoche
0.840291625	9	La Cruz de Río Grande	Nuevo San Antonio	San Fidel
0.292539892	15	La Cruz de Río Grande	Ponkaya	Santa Martha3
0.8372875	11	La Cruz de Río Grande	Palma	San Antonio
0.976029742	40	La Cruz de Río Grande	San Miguel Casa de Alto	Luz Divina
0.462723412	7	La Cruz de Río Grande	Nuevo Amanecer	Jesús El Buen Maestro
0.419015169	5	La Cruz de Río Grande	Mayawas	San Pablo
0.638274887	69	La Cruz de Río Grande	Tumarin Mestizo	Monte Líbano
0.035845841	61	La Cruz de Río Grande	Trinidad	San Jorge
0.706932423	23	La Cruz de Río Grande	Sagrado Corazón	Gloria
0.292521076	72	La Cruz de Río Grande	Uliwas	Nueva Esperanza
0.384903964	43	La Cruz de Río Grande	San Miguel Esperanza	Nuevo Paraíso
0.577521176	52	La Cruz de Río Grande	Santo Domingo Carmen	Buena Esperanza
0.943722516	13	La Cruz de Río Grande	Patriota	Esperanza
0.88513779	27	La Cruz de Río Grande	San Antonio	San Antonio
0.023700208	38	La Cruz de Río Grande	San Miguel Casa de Alto	San Francisco de Asís

SUPERVISION AREA 13 - La Cruz de Río Grande y Desembocadura de Río Grande				
Random no.	No.	Municipality	Community	School Name
0.214641252	63	La Cruz de Río Grande	Naranjo	Divino Niño
0.825379018	11	La Cruz de Río Grande	Apawas	Luz de la Enseñanza
0.858717208	9	La Cruz de Río Grande	Apawas	Bendición de Dios
0.418285885	5	La Cruz de Río Grande	Apawonta	Olivos
0.852728033	73	Desembocadura del Río Grande	Guadalupe	Guadalupe
0.263749812	60	La Cruz de Río Grande	Naranjo	Paraíso
0.107614432	50	La Cruz de Río Grande	Hachita	Rubén Darío
0.86322344	19	La Cruz de Río Grande	Batitán	San José
0.924513203	46	La Cruz de Río Grande	Hachita	Monte de los Olivos
0.074373989	26	La Cruz de Río Grande	Betani	Madre del Divino Pastor
0.010750154	39	La Cruz de Río Grande	Estrella	Santa Fe
0.820667827	52	La Cruz de Río Grande	Makantaka	San Martin
0.697959874	38	La Cruz de Río Grande	Estrella	Jesús de la Buena Esperanza
0.314320565	41	La Cruz de Río Grande	Estrella	Fortuna
0.293472514	37	La Cruz de Río Grande	Estrella	Jesús el Buen Maestro
0.651405102	54	La Cruz de Río Grande	Matagalpa	Nuestra Señora de Guadalupe
0.133341881	65	La Cruz de Río Grande	Naranjo	Enmanuel 2
0.29890146	75	Desembocadura del Río Grande	Esperanza	Esperanza
0.00217705	6	La Cruz de Río Grande	Apawas	Esperanza

Annex 05. Survey Instruments for school children, teachers and mothers

		
Evaluación Final Proyecto MESA. Julio/Agosto, 2017. PCI -CEDEHCA - USDA		
ENCUESTA A NIÑO/A ESCOLAR DE GRADO SUPERIOR EN ESCUELA PRIMARIA Conocimiento y práctica en alimentación escolar, salud-higiene.		
SECCION A. IDENTIFICACION DEL CUESTIONARIO		
A01. Fecha de la entrevista: DÍA MES AÑO A02. Número de cuestionario:		
A03. Departamento: RACCS ☐ Jinotega ☐ A04. Municipio:		
A05. Nombre de escuela:		
A06. Código único de escuela: A07. Nombre entrevistador/a:		
CONSENTIMIENTO INFORMADO		
Hola. Mi nombre es _____ estoy trabajando con PCI-Nicaragua/CEDEHCA. Estamos realizando una entrevista a los y la niñas dentro de las escuelas, sobre la alimentación que reciben, los aprendizajes en salud, nutrición e higiene dentro de la escuela. Sus opiniones son importantes, apreciaríamos su participación. Esta información ayudará a mejorar las actividades que estamos desarrollando con el PINE/MINED. Esta entrevista normalmente tarda _____ minutos. Cualquier información que Usted nos proporcione es estrictamente confidencial y no se mostrará a otras personas. Su participación en esta entrevista es voluntaria y Usted puede escoger no contestar cualquier pregunta individual o todas las preguntas. Le gustaría participar? ¿En este momento, usted quiere preguntarme algo acerca de la entrevista? ACEPTA SER ENTREVISTADA?..... SI 1 NO 2 → TERMINE Firma del entrevistador: _____ Nombre:		
SECCIÓN B. IDENTIFICACIÓN DEL ESCOLAR		
B01. Nombre: B02. GÉNERO: NIÑO ☐ NIÑA ☐		
B03. Edad: AÑOS CUMPLIDOS B04. Fecha de Nacimiento: DÍA MES AÑO		
B05. Comunidad donde vive: B06. Grado que está cursando:		

SECCION C. ALIMENTACIÓN Y NUTRICIÓN

NÚM.	PREGUNTAS	RESPUESTA/S	PASE A
C01	Normalmente, ¿Comés algo en tu casa antes de venir a la escuela?	SI 1 NO 0	
C02	Regularmente, ¿Qué tipo de comida comés en tu casa? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	TORTILLA/PAN A HUEVOS B FRIJOLES C VERDURAS / HORTALIZAS D CARNE / POLLO E ARROZ F LECHE Y DERIVADOS G ATOL / CEREAL H FRUTAS / REFRESCOS I OTRO X (ESPECIFIQUE) NO SABE/NO RESPONDE Y	
C03	¿En el día, cuántas veces comés?	UNA VEZ 1 DOS VECES 2 TRES VECES 3 CUATRO VECES 4	
C04	El año pasado, en la escuela, ¿Recibiste alimentación o merienda escolar?	SI 1 NO 0	
C05	Actualmente, ¿Estás recibiendo alimentación en la escuela?	SI 1 NO 0	→ C11
C06	¿Cuántas días en la semana comés en la escuela?	UN DÍA 1 DOS-TRES DÍAS 2 CUATRO-CINCO DÍAS 3	
C07	¿La cantidad de alimentos que te dan, es poco, suficiente o mucho?	POCO 1 SUFICIENTE 2 MUCHO 3 NO OPINA / NO RESPONDE 88	
C08	Para vos, ¿Qué sabor tienen los alimentos que te dan en la escuela?	RICO / SABROSO 1 FEO / MAL 2 OTRO 96 (ESPECIFIQUE) NO OPINA / NO RESPONDE 88	
C09	Para vos, ¿Cómo es la calidad de la comida que te dan en la escuela?	MUY BUENA 1 BUENA 2 REGULAR 3 MALA 4 NO OPINA / NO RESPONDE 88	

SECCION C. ALIMENTACIÓN Y NUTRICIÓN			
NÚM.	PREGUNTAS	RESPUESTA/S	PASE A
C10	Cuando comés en la escuela, ¿Quedás muy lleno, lleno, sin hambre, con hambre o con mucha hambre? SI ES NECESARIO REPITA LA PREGUNTA MÁS DESPACIO	MUY LLENO 1 LLENO 2 SIN HAMBRE 3 CON HAMBRE 4 CON MUCHA HAMBRE 5 NO OPINA / NO RESPONDE 88	
C11	¿Crees que la alimentación en la escuela tiene algún beneficio para los niños y niñas?	SI 1 NO 0	→ C13
C12	¿En qué crees que ayuda a los niños/as la alimentación escolar? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	MAS ATENTOS EN CLASE A MEJOR APRENDIZAJE B MEJORA SU SALUD C FORTALECE SU DESARROLLO D JUGAR CON MÁS ENTUSIASMO E OTRO X (ESPECIFIQUE)	
C13	Para Usted, ¿Cuáles alimentos piensa que son buenos para los niños y niñas de tu edad? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	CEREALES (Arroz, pan) A RAICES Y TUBERCULOS (yuca, papa, malanga) B LEGUMBRES Y FRUTOS SECOS (repollo, zanahoria, tomate, almendra) C FRIJOLES D HUEVO E LECHES Y DERIVADOS F CARNES / PESCADO G FRUTAS/VERDURAS RICAS EN VIT. A H OTRAS FRUTAS E OTRO X (ESPECIFIQUE) NO SABE/NO RESPONDE Y	

SECCION D. HIGIENE Y MANIPULACIÓN DE LOS ALIMENTOS																		
NÚM.	PREGUNTAS	RESPUESTA/S	PASE A															
D01	Me gustaría preguntarle sobre el abastecimiento de agua en la escuela, ¿En la escuela siempre tienen agua para beber?	SI 1 NO 0																
D02	¿En la escuela siempre tienen agua para lavarse las manos?	SI 1 NO 0																
D03	¿Sabes qué es agua segura? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	AGUA LIMPINA, SIN BACTERIAS / SIN MICROBIOS A OTRO X (ESPECIFIQUE) NO SABE/NO RESPONDE Y																
D04	Menciona algún beneficio del agua segura RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	EVITAR ENFERMEDADES A CRECER SANO / FUERTE B OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y																
D05	¿Sabes cuándo te debes lavar las manos? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	ANTES DE COMER A DESPUÉS DE COMER B DESPUÉS DE IR A LA LETRINA C OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y																
D06	En la escuela, ¿En qué momentos te lavas las manos? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS. SI ENCUESTADOR/A ESTÁ PRESENTE DURANTE PREPARACIÓN O DISTRIBUCIÓN DE ALIMENTOS, SUBRAYAR SI FUE POR OBSERVACIÓN, DE LO CONTRARIO SOLO PREGUNTAR	ANTES DE COMER A DESPUÉS DE COMER B DESPUÉS DE IR A LA LETRINA C OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y																
D07	¿Dónde se lavan las manos en la escuela? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	LAVAMANOS / PILA DE AGUA A LLAVE SIN PILA EN EL PATIO B NO ME LAS LAVO C NO TIENE / NO HAY LAVAMANOS D OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y																
D08	OBSERVE el lugar donde se lavan las manos, si tienen los siguientes insumos OBSERVE Y MARQUE CADA UNO DE LOS ASPECTOS	<table border="0"> <tr> <td></td> <td>SI</td> <td>NO</td> </tr> <tr> <td>AGUA EN EL GRIFO O LLAVE</td> <td>1</td> <td>0</td> </tr> <tr> <td>JABÓN</td> <td>1</td> <td>0</td> </tr> <tr> <td>RECIPIENTE DE AGUA C/TAPA</td> <td>1</td> <td>0</td> </tr> <tr> <td>PANA / GUACAL</td> <td>1</td> <td>0</td> </tr> </table>		SI	NO	AGUA EN EL GRIFO O LLAVE	1	0	JABÓN	1	0	RECIPIENTE DE AGUA C/TAPA	1	0	PANA / GUACAL	1	0	
	SI	NO																
AGUA EN EL GRIFO O LLAVE	1	0																
JABÓN	1	0																
RECIPIENTE DE AGUA C/TAPA	1	0																
PANA / GUACAL	1	0																

SECCION E. ACCESO A SERVICIOS DE SALUD			
NÚM.	PREGUNTAS	RESPUESTA/S	PASE A
E01	¿Alguna vez te han dado a tomar pastillas para parásitos en la escuela?	SI 1 NO 0	
E02	¿Alguna vez te han aplicado líquido en la cabeza para los piojos en la escuela?	SI 1 NO 0	
E03	¿En este año has faltado a clase algún día?	SI 1 NO 0	→ FIN
E04	¿Cuáles fueron los motivos para faltar a clase? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	POR ENFERMEDAD A POR AYUDAR EN CASA B POR TRABAJAR FUERA DE CASA C POR NO TENER UNIFORME, ZAPATOS, CUADERNO D OTRO X (ESPECIFIQUE) NO SABE/NO RESPONDE Y	

MUCHAS GRACIAS POR SU COLABORACIÓN !!!!

Evaluación Final Proyecto MESA. Julio/Agosto, 2017. PCI -CEDEHCA - USDA

ENCUESTA A MAESTRO/A DE ESCUELA PRIMARIA Conocimiento y práctica en alimentación escolar, salud-higiene.

SECCION A. IDENTIFICACION DEL CUESTIONARIO

A01. Fecha de la entrevista:

DIA		MES		AÑO	

A02. Número de cuestionario:

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A03. Departamento: RACCS ☐

Jinotega ☐

A04. Municipio

A05. Nombre de escuela:

A06. Comunidad:

A07. Código único de escuela

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A08. Nombre entrevistador/a

CONSENTIMIENTO INFORMADO

Hola. Mi nombre es _____ estoy trabajando con PCI-Nicaragua. Estamos realizando una entrevista a los/as maestros/as de las escuelas sobre los conocimientos y prácticas de la alimentación y los aprendizajes sobre salud e higiene dentro de la escuela. Su opinión es importante para PCI, agradeceríamos su participación.

Esta información ayudará a mejorar las actividades que estamos desarrollando con el PINE/MINED. Esta entrevista normalmente tarda _____ minutos. Cualquier información que Usted nos proporcione es estrictamente confidencial y no se mostrará a otras personas.

Su participación en esta entrevista es voluntaria y Usted puede escoger no contestar cualquier pregunta individual o todas las preguntas. Le gustaría participar?

¿En este momento, usted quiere preguntarme algo acerca de la entrevista?

ACEPTA SER ENTREVISTADA?.....SI 1

NO 2 → **TERMINE**

Firma del entrevistador: _____

Nombre:

SECCIÓN B. IDENTIFICACIÓN DEL/LA MAESTRO/A DE ESCUELA PRIMARIA

B01. Nombre:

B02. Sexo: MASCULINO ☐

FEMENINO ☐

B03. Edad:

--	--

AÑOS CUMPLIDOS

B04. Nivel Escolar:

SEC. INCOMP. ☐

SEC. COMP. ☐

GRADUADO ☐

B05. Estudia actualmente:

SI ☐

NO ☐

B06. Qué estudia?:

B07. Cuántos años tiene de docencia:

--	--

SI ES MENOS DE UN AÑO, ESCRIBA 00

B08.Cuál(es) grado(s) atiende actualmente:

B09. Cuántos alumnos/a atiende actualmente:

P

1

2

3

4

5

6

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ALUMNOS/AS

SECCION C. SALUD Y NUTRICIÓN			
NÚM.	PREGUNTAS	RESPUESTAS	PASE A
C01	El año pasado, ¿Usted recibió capacitación sobre la importancia de la alimentación nutritiva y saludable del escolar?	SI 1 NO 0	→ C05
C02	¿Puede mencionar algunos de los temas de capacitación que recibió? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	CONCEPTOS BÁSICOS DE ALIMENTACIÓN Y NUTRICIÓN A ALIMENTACIÓN BALANCEADA B APORTES NUTRICIONALES DE LOS ALIMENTOS C OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
C03	En la escuela, ¿Para qué le han servido las capacitaciones recibidas? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	ORIENTAR A LOS NIÑOS/AS A ORIENTAR A PADRES DE FAMILIA B COMPARTIR CON OTROS MAESTROS/AS C APLICARLO CON SU FAMILIA D OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
C04	¿De parte de quien recibió capacitaciones sobre la importancia de la alimentación nutritiva y saludable del escolar? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	MINED / PINE A PERSONAL DE CEDEHCA B PERSONAL DE PCI C BRIGADISTA DE SALUD D OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
C05	¿Usted ha identificado durante el desarrollo de sus clases que algunos niños/as no prestan atención?	SI 1 NO 0	→ C07
C06	¿Cuántos de los niños/as que atiende en la clase no ponen atención?	NÚMERO DE NIÑOS/AS	
C07	¿Sabe Usted porqué los niños/a no prestan atención en la clase? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	FALTA DE ALIMENTACIÓN A ENFERMEDAD B LA CLASE NO ES LLAMATIVA PARA ELLOS ... C OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
C08	Cuando los niños/as no prestan atención, ¿Qué ha hecho para mejorar o captar la atención de los niños/as? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	REFORZAR LA LECCIÓN CON OTROS MÉTODOS DE ENSEÑANZA A CAMBIAR OTRO TEMA DE INTERESANTE PARA LOS ESTUDIANTES B INVESTIGAR LAS DIFICULTADES DEL ESTUDIANTE C INSISTIR EN EL MÉTODO DE ENSEÑANZA USUAL D NADA E OTRO X (ESPECIFIQUE)	

SECCION D. HIGIENE, MANIPULACIÓN Y ALMACENAMIENTO DE LOS ALIMENTOS			
NÚM.	PREGUNTAS	RESPUESTAS	PASE A
D01	¿Se realiza en la escuela prácticas de lavado de mano con los niños/as antes de comer?	SI 1 NO 0	
D02	¿Puede mencionar algunas normas de higiene para la manipulación de los alimentos? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	LAVAR ALIMENTOS CON AGUA POTABLE O CLORO ANTES DE COCINARLOS A COCINAR BIEN LOS ALIMENTOS B NO JUNTAR ALIMENTOS CRUDOS CON LOS COCINADOS C CONSUMIR INMEDIATAMENTE LOS ALIMENTOS DESPUES DE COCINADOS D EL AGUA PARA PREPARAR ALIMENTOS DEBE ESTAR CLORADA O HERVIDA E QUITAR LA BASURA, PIEDRAS Y TIERRA DE LOS GRANOS, ANTES DE PREPARARLOS F OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
D03	¿Puede mencionar algunas condiciones sanitarias para almacenar los alimentos en la escuela? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	ALMACENAR SOBRE POLINES, TABLAS O MESAS A PRODUCTOS/ALIMENTOS SEPARADOS B NO ALMACENAR LOS ALIMENTOS JUNTO A PRODUCTOS QUÍMICOS C LOCAL DONDE SE ALMACENAN DEBE LIMPIARSE TODOS LOS DÍAS D TAPAR LOS RECIPIENTES QUE CONTIENE ALIMENTOS E OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
D04	¿Puede mencionar algunas condiciones higiénicas sanitarias del lugar donde se preparan los alimentos? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	PISO, PAREDES Y TECHO DEBEN LIMPIARSE CON FRECUENCIA A LIMPIAR MESAS PARA COCINAR ANTES Y DESPUÉS B NO DEBEN HABER ANIMALES DOMÉSTICOS EN EL LUGAR C EL RECIPIENTE QUE SE USA DE BASURERO DEBE ESTAR LEJOS Y TAPADO D OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
D05	Actualmente, ¿Los alumnos/as están recibiendo alimentación en la escuela?	SI 1 NO 0	→ D07

SECCION D. HIGIENE, MANIPULACIÓN Y ALMACENAMIENTO DE LOS ALIMENTOS			
NÚM.	PREGUNTAS	RESPUESTAS	PASE A
D06	SI RESPUESTA ES NEGATIVA, PREGUNTE: ¿Porqué no? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	NO HA LLEGADO ALIMENTO A LA ESCUELA .. A NO HA HABIDO APOYO PARA TRASLADO B NO HA HABIDO APOYO PARA COCINAR C NO INCLUYERON A LA ESCUELA ESTE AÑO .. D OTRO X (ESPECIFIQUE)	
D07	¿Cuántos días a la semana se les prepara alimentación a los niños/as?	NÚMERO DE DÍAS	
D08	¿Usan cuaderno o registro para control y seguimiento de los alimentos en la escuela?	SI 1 NO 2 NO TIENE CUADERNO 3	
D09	¿El CAE supervisa la recepción de los alimentos, el almacenamiento y su distribución?	SI 1 NO 0	
D10	¿Los padres de familia realizan aportes para complementar la alimentación escolar?	SI 1 NO 0	
D11	¿En qué estado reciben los alimentos para los/as niños/as de la escuela?	BUENO 1 REGULAR 2 MALO 3 NO SABE 88	
D12	¿Utilizan la cocina de la escuela?	SI 1 NO 2 NO TIENE COCINA 3	
D13	¿Se ha establecido en la escuela Huerto Escolar?	SI 1 NO 0	
D14	¿Qué limitantes o dificultades tienen para establecer un huerto escolar? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	NO TIENEN TERRENO A NO TIENE INTERÉS MAESTROS B NO TIENEN APOYO DE PADRES C NO CONDICIONES AGROECOLÓGICAS D OTRO X (ESPECIFIQUE) NO SABE/ NO RESPONDE Y	

SECCION E. AGUA Y SANEAMIENTO			
NÚM.	PREGUNTAS	RESPUESTA/S	PASE A
E01	Me gustaría preguntarle sobre el abastecimiento de agua en la escuela, ¿En la escuela siempre tienen agua para beber?	SI 1 NO 0	
E02	¿En la escuela siempre tienen agua para lavarse las manos?	SI 1 NO 0	
E03	En la escuela, ¿De donde reciben el agua para beber?	POZO 1 AGUA ENTUBADA 2 MINI ACUEDUCTO POR GRAVEDAD 3 AGUA DE LLUVIA 4 PADRES LLEVAN BALDES DE AGUA 5 OTRO 96 (ESPECIFIQUE) NO SABE/NO RESPONDE 88	
E04	¿Sabe qué tratamiento de desinfección le hacen al agua de beber en la escuela?	SI 1 NO 0	→ E06
E05	Usualmente, ¿Qué tipo de tratamiento le hacen al agua que utilizan para beber en la escuela?	LA CLORAN 1 CON SODIS 2 LA HIERVEN 3 LA FILTRAN 4 NINGUNA 5	
E06	¿Cuántas estaciones de lavado de manos hay en la escuela? Anote el número mencionado SI NO HAY, ANOTE 0 Y SALTE A E09	NÚMERO DE ESTACIONES MENCIONADAS	→ E09
E07	OBSERVE , si en el lavamanos o estaciones de agua tienen jabón	SI 1 NO 0	
E08	OBSERVE , cuántos lavamanos o estaciones de agua están funcionando ANOTE EL NÚMERO OBSERVADO	NÚMERO DE ESTACIONES OBSERVADAS	
E09	¿Qué tipo de deposición de excretas tiene la escuela?	LETRINA 1 INODORO 2 NINGUNA 3 OTRO 96 (ESPECIFIQUE)	
E10	¿Cuántas veces al día limpian la(s) letrina(s) de la escuela?	UNA VEZ 1 MÁS DE UNA VEZ 2 NINGUNA 3 NO SABE/NO RESPONDE 88	

SECCION E. AGUA Y SANEAMIENTO																					
NÚM.	PREGUNTAS	RESPUESTAS	PASE A																		
E11	OBSERVE , si se cuenta con letrinas separadas para niños y niñas. SI NO ESTÁ ROTULADO, LA RESPUESTA ES NO	SI 1 NO 0																			
E12	OBSERVE , cómo se encuentran todas las letrinas de la escuela OBSERVE Y MARQUE CADA UNO DE LOS ASPECTOS	<table><tr><td></td><td>SI</td><td>NO</td></tr><tr><td>LIMPIA POR FUERA</td><td>1</td><td>0</td></tr><tr><td>BANCO LIMPIO Y TAPADO</td><td>1</td><td>0</td></tr><tr><td>SIN PAPEL ALREDEDOR DEL BANCO</td><td>1</td><td>0</td></tr><tr><td>PUERTA CERRADA</td><td>1</td><td>0</td></tr><tr><td>CON TUBO DE VENTILACIÓN</td><td>1</td><td>0</td></tr></table>		SI	NO	LIMPIA POR FUERA	1	0	BANCO LIMPIO Y TAPADO	1	0	SIN PAPEL ALREDEDOR DEL BANCO	1	0	PUERTA CERRADA	1	0	CON TUBO DE VENTILACIÓN	1	0	
	SI	NO																			
LIMPIA POR FUERA	1	0																			
BANCO LIMPIO Y TAPADO	1	0																			
SIN PAPEL ALREDEDOR DEL BANCO	1	0																			
PUERTA CERRADA	1	0																			
CON TUBO DE VENTILACIÓN	1	0																			
E13	¿Qué hacen con la basura en la escuela? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	LA TIRAN AL PATIO 1 LA ENTIERRAN 2 LA QUEMAN 3 LA TIRAN AL RÍO 4 LA RECICLAN 5 OTRO 96 (ESPECIFIQUE)																			
E14	OBSERVE si en la escuela cuentan con recipientes para depositar la basura	SI 1 NO 0																			

SECCION F. EDUCACIÓN			
NÚM.	PREGUNTAS	RESPUESTAS	PASE A
F01	Para Usted, cómo se podría mejorar la calidad de la enseñanza en las escuelas? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	UTILIZANDO UN CURRÍCULO AJUSTADO A LAS CARACTERÍSTICAS DE LOS NIÑOS/AS ... A UTILIZAR NUEVAS METODOLOGÍAS DE ENSEÑANZA B CAPACITANDO A MAESTROS/AS C DOTANDO A LA ESCUELA DE MATERIALES EDUCATIVOS D OTRO X (ESPECIFIQUE)	

MUCHAS GRACIAS POR SU COLABORACIÓN !!!!

**Evaluación Final Proyecto MESA. Julio/Agosto, 2017.
PCI -CEDEHCA - USDA**

**ENCUESTA A MADRES DE FAMILIA CON NIÑOS/AS EN ESCUELA PRIMARIA
Conocimiento y práctica en alimentación escolar, salud-higiene.**

SECCION A. IDENTIFICACION DEL CUESTIONARIO

A01. Fecha de la entrevista:	 DIA MES AÑO	A02. Número de cuestionario:	
A03. Departamento:	RACCS ☐ Jinotega ☐	A04. Municipio	
A05. Nombre de escuela		A06. Tipo de escuela:	Urbana ☐ Rural ☐
A07. Código único de escuela		A08. Nombre entrevistador/a	

CONSENTIMIENTO INFORMADO

Hola. Mi nombre es _____ estoy trabajando con PCI-Nicaragua. Estamos realizando una entrevista a madres de familia con hijos/as en las escuelas, sobre los conocimientos y prácticas de la alimentación y los aprendizajes sobre salud e higiene que han recibido. Su opinión es importante para PCI, apreciaríamos su participación. Esta información ayudará a mejorar las actividades que estamos desarrollando con el PINE/MINED. Esta entrevista normalmente tarda _____ minutos. Cualquier información que Usted nos proporcione es estrictamente confidencial y no se mostrará a otras personas.

Su participación en esta entrevista es voluntaria y Usted puede escoger no contestar cualquier pregunta individual o todas las preguntas. Le gustaría participar?

¿En este momento, usted quiere preguntarme algo acerca de la entrevista?

ACEPTA SER ENTREVISTADA?..... SI 1
 NO 2 → **TERMINE**

Firma del entrevistador: _____ Nombre:

SECCIÓN B. IDENTIFICACIÓN DE LA MADRE

B01. Nombre:		B02. Edad:	AÑOS CUMPLIDOS
B03. Comunidad donde vive:			
B04. Número de hijos/as:		B05. No. de hijos/as en la escuela:	
B06. En qué grado está/n su/s hijo/s:		B07. Sabe leer: SI ☐ NO ☐	
		B08. Último grado aprobado:	

SECCION C. IMPORTANCIA DE LA EDUCACIÓN			
NÚM.	PREGUNTAS	RESPUESTAS	PASE A
C01	¿Cree Usted que la educación es importante o aportará un beneficio para su/s hijo/s e hija/s?	SI 1 NO 0	
C02	¿Usted ha recibido charlas o información sobre la importancia de la educación para los niños y niñas?	SI 1 NO 0	→ Sec. D
C03	¿Puede mencionar algunos beneficios de la educación primaria para los niños y niñas? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS ¿ALGO MÁS?	APRENDER A LEER, ESCRIBIR, ANALIZAR A APRENDER A CONVIVIR CON LOS DEMAS (RELACIONES INTERPERSONALES) B CONOCEN O DESCRUBREN EL MUNDO (LAS CIENCIAS, LA COMUNIDAD, SU PAÍS, OTROS PAÍSES, ETC.) C SE PREPARAN PARA SER CAPACES DE ENFRENTAR O DEFENDERSE EN LA VIDA ... D OTRO X (ESPECIFIQUE)	
C04	¿Qué institución brindó estas charlas o información sobre la importancia de la educación primaria? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	MINISTERIO DE EDUCACIÓN A PCI-NICARAGUA/USDA B UNIVERSIDAD C CEDEHCA/USDA D OTRO X (ESPECIFIQUE)	
C05	¿A través de qué medio recibió charlas o información sobre la importancia de la educación? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	DE LA ESCUELA A ASOC. PADRES DE FAMILIA B DE OTRO PADRE/MADRE DE FAMILIA C DE LA RADIO D FERIAS O REUNIONES COMUNIDATARIAS E OTRO X (ESPECIFIQUE)	

SECCION D. ALIMENTACIÓN Y NUTRICIÓN

NÚM.	PREGUNTAS	RESPUESTA/S	PASE A
D01	Actualmente ¿Su hijo/a está recibiendo alimentación en la escuela?	SI 1 NO 0	→ D06
D02	¿Considera Usted que los alimentos que reciben los niños/as es: Poca, suficiente o mucho, para el período del año?	POCA 1 SUFICIENTE 2 MUCHO 3	
D03	¿Sabe Usted quién entrega a las escuelas este alimento? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	PINE- MINISTERIO DE EDUCACIÓN A PCI-NICARAGUA/USDA B CEDEHCA/USDA C OTRO X (ESPECIFIQUE)	
D04	¿Cuáles son los alimentos que recibe la escuela para la alimentación escolar? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	MAÍZ A ARROZ B ACEITE C FRIJOLES D HARINA DE TRIGO E CEREAL/CSB F NO SABE/NO RESPONDE Y	
D05	¿El niño/a, cuántas veces en la semana come en la escuela?	UN DÍA 1 DOS-TRES DÍAS 2 CUATRO-CINCO DÍAS 3	
D06	¿Puede mencionar algunas recomendaciones para una buena alimentación en los niños/as que van a la escuela? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	ALIMENTACIÓN BALANCEADA/ADECUADA A ALIMENTACIÓN COMBINADA/VARIADA B ALIMENTACIÓN FRECUENTE/VARIAS VECES.. C ALIMENTACIÓN NUTRITIVA/COLORIDA..... D ALIMENTOS CON VITAMINAS Y MINERALES ... E HIGIENE DE LOS ALIMENTOS F OTRO X (ESPECIFIQUE) NO SABE/NO RESPONDE Y	
D07	¿El año pasado o en lo que va de este año, recibió charlas o capacitación sobre alimentos nutritivos y saludables?	SI 1 NO 0	→ D10
D08	¿Podría mencionar qué temas recibió en estas charlas o capacitaciones? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	ALIMENTACIÓN BALANCEADA/ADECUADA A ALIMENTACIÓN COMBINADA/VARIADA B ALIMENTACIÓN FRECUENTE/VARIAS VECES.. C ALIMENTACIÓN NUTRITIVA/COLORIDA..... D ALIMENTOS CON VITAMINAS Y MINERALES ... E HIGIENE DE LOS ALIMENTOS F OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	

SECCION D. ALIMENTACIÓN Y NUTRICIÓN

NÚM.	PREGUNTAS	RESPUESTA/S	PASE A
D09	¿A través de qué medio recibió charlas o información sobre alimentación y nutrición? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	DE LA ESCUELA A DE OTRO PADRE/MADRE DE FAMILIA B DE LA RADIO C DE FERIAS / REUNIONES COMUNITARIAS D OTRO X (ESPECIFIQUE)	
D10	El día de ayer ¿Qué le dio de comer a su hijo/a que va a la escuela? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	CEREALES (Arroz, pan) A RAICES Y TUBERCULOS (yuca, papa, malanga) B LEGUMBRES Y FRUTOS SECOS (repollo, zanahoria, tomate, almendra) C FRIJOLES D HUEVO E LECHES Y DERIVADOS F CARNES / PESCADO G FRUTAS/VERDURAS RICAS EN VIT. A H OTRO X (ESPECIFIQUE) NO SABE/NO RESPONDE Y	
D11	El día de ayer, cuántas veces le ofreció comida a su hijo/a en el día?	MENOS DE 3 VECES 1 DE 3 A 5 VECES 2 MÁS DE 5 VECES 3 NINGUNA VEZ 4 NO RECUERDA/NO RESPONDE 88	
D12	Para Usted, ¿Cuáles son las causas de la desnutrición o mal nutrición en los niños y las niñas? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	ALIMENTACIÓN INADECUADA A POCA DISPONIBILIDAD DE ALIMENTOS B FALTA DE HIGIENE EN LA PREPARACIÓN DE ALIMENTOS C INFECCIONES Y PARÁSITOS D FALTA DE CONOCIMIENTO SOBRE ALIMENTACIÓN Y NUTRICIÓN E POCO ACCESO A LOS ALIMENTOS F OTRO X (ESPECIFIQUE) NO SABE/NO RESPONDE Y	

SECCION E. HIGIENE Y MANEJO DE LOS ALIMENTOS			
NÚM.	PREGUNTAS	RESPUESTAS	PASE A
E06	Sabe Usted ¿En qué momento se debe lavar las manos? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	DESPUÉS DE USAR LA LETRINA A ANTES DE COMER B ANTES DE COCINAR C ANTES DE SERVIR LOS ALIMENTOS D DESPUÉS DE LIMPIAR AL NIÑO/A E OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
E07	¿Puede mencionar algunas prácticas de higiene en la preparación de los alimentos? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	LAVAR LAS MANOS ANTES DE COCINAR A LAVAR ALIMENTOS CON AGUA POTABLE O CLORO ANTES DE COCINARLOS B COCINAR BIEN LOS ALIMENTOS C NO JUNTAR ALIMENTOS CRUDOS CON LOS COCINADOS D CONSUMIR INMEDIATAMENTE LOS ALIMENTOS DESPUES DE COCINADOS E EL AGUA PARA PREPARAR ALIMENTOS DEBE ESTAR CLORADA O HERVIDA F QUITAR LA BASURA, PIEDRAS Y TIERRA DE LOS GRANOS, ANTES DE PREPARARLOS G OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
E04	¿A través de qué medio recibió charlas o información sobre alimentación y nutrición? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	DE LA ESCUELA A DE OTRO PADRE/MADRE DE FAMILIA B DE LA RADIO C DE FERIAS / REUNIONES COMUNITARIAS D ASOC. DE PADRES DE FAMILIA E OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	
E05	De lo que Usted sabe, ¿Puede mencionar algunas prácticas de higiene personal? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	BAÑARSE TODOS LOS DÍAS A CORTARSE FRECUENTEMENTE LAS UÑAS B USO DE LETRINA O INODORO C CEPILLARSE LOS DIENTES D USO DE ROPA LIMPIA E OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	

SECCION F. PARTICIPACIÓN / SOSTENIBILIDAD DEL PROGRAMA DE ALIMENTACIÓN ESCOLAR

NÚM.	PREGUNTAS	RESPUESTA/S	PASE A
F01	¿Sabe Usted si en la escuela hay un Comité de Alimentación Escolar (CAE)?	SI 1 NO 0	→ F04
F02	¿El Comité de Alimentación Escolar (CAE), está funcionando?	SI 1 NO 0 NO SABE/NO RESPONDE 88	
F03	¿Usted es miembro del Comité de Alimentación Escolar (CAE)?	SI 1 NO 0	
F04	Actualmente o el año pasado ¿Usted participó en la preparación de la alimentación escolar?	SI 1 NO 0	
F05	¿Cómo considera Usted que es la participación de los padres en la preparación de los alimentos?	BUENA 1 REGULAR 2 MALA 3 NO SABE/NO OPINA 88	
F06	¿Los padres aportan algunos complementos alimenticios para mejorar la alimentación escolar?	SI 1 NO 0	→ FIN
F07	¿Qué tipo de aporte alimenticio dan los padres de familia para mejorar la alimentación escolar? RESPUESTA MÚLTIPLE. PUEDE ENCERRAR EN CÍRCULO VARIAS RESPUESTAS	CONDIMENTOS, ESPECIAS A VEGETALES / HORTALIZAS C LECHE / DERIVADOS D CARNE / POLLO E PAN F OTRO X (ESPECIFIQUE) NO RECUERDA/NO RESPONDE Y	

MUCHAS GRACIAS POR SU COLABORACIÓN !!!!

Annex 06. Qualitative data collection guides

PCI Nicaragua / CEDEHCA / USDA
Proyecto “Mejor Educación y
Evaluación Final 2017



CEDEHCA

Salud – MESA” Jinotega-RACCS

GUIA No. 1 - Entrevista en profundidad Delegado/a departamental MINED – Responsable de Secretaría Regional del MINED/RACCS

DATOS GENERALES

Fecha: ____/____/____ Hora de inicio: ____ Hora de finalización: ____

Departamento/Región: Jinotega ☐ RACCS ☐ Municipio: _____

Nombre y Apellidos: _____

Cargo en la institución: _____

Tiempo en el cargo: _____

Entrevistador/a: _____

INTRODUCCIÓN

Hola, mi nombre es ____ Soy parte del equipo de investigación que está realizando la Evaluación final del proyecto “Mejor Educación y Salud” que está desarrollando PCI en Jinotega y la RACCS, en esta última con apoyo de CEDEHCA. Quisiera saber si puedo realizarle una entrevista con el objetivo de conocer su opinión, experiencia y/o participación en las actividades que realiza el proyecto en relación a educación, nutrición y alimentación (merienda escolar) en la zona. Sus ideas, punto de vista, conocimiento o experiencia que nos pueda compartir, serán de mucha utilidad en esta evaluación final. Su participación es completamente voluntaria y confidencial, y se utilizará exclusivamente para efectos de la investigación. **¿Está de acuerdo con ser entrevistado/a?**

Temas y preguntas de indagación

Pregunta de indagación	Respuestas /opinión
<i>Pertinencia</i>	
1. ¿Me podría decir cuáles son las prioridades que tiene el MINED en esta zona (departamento, región, municipio o escuela)? 2. En su opinión, ¿Cómo valora Usted el proyecto en función de las prioridades que tiene el MINED, estudiantes y/o comunidad educativa? ¿Cómo fue la integración y respuestas que se brindaron a través del proyecto? 3. ¿En qué medida se han incluido las necesidades de la población beneficiaria en el diseño de este proyecto? 4. ¿En qué medida las actividades del Proyecto respondieron a las necesidades de los beneficiarios, incluido el MINED, administradores/maestros de las escuelas y los estudiantes?	
5. ¿Cómo considera que se ha avanzado en el resultado de “Mejorar la calidad de la enseñanza para la lectoescritura? En su opinión, ¿cómo se está abordando? <u>INDAGUE:</u> <i>Sobre merienda escolar relacionada a la asistencia, retención, y educación en seguridad alimentaria, involucramiento de la comunidad educativa en mejoramiento de la infraestructura e importancia de la educación primaria de sus hijos.</i> <i>Huertos escolares: Organización, Producción de hortalizas y frutas de periodo corto, Educación y Nutrición</i> <i>Capacitación: incremento del conocimiento sobre seguridad alimentaria, nutrición y salud. Principalmente maestros/as</i>	
6. En la región/zona, ¿existe alguna experiencia exitosa que se podría retomar con respecto al enfoque para este resultado 7. Desde su punto de vista, ¿cómo se podría hacer en futuros Proyectos similares a este, para mejorar sus procesos de planificación en el abordaje de los desafíos y limitaciones internas y externas?	
<i>Eficiencia</i>	
8. ¿Cómo valora las relaciones y mecanismos de coordinación y colaboración del MINED con PCI, la Alcaldía, las iglesias, USDA y otros actores claves? 9. ¿Cómo contribuyen estas a la realización de planes de acción y obtención de resultados? ¿Pudo haber sido mejor?	
10. ¿Podría mencionar alguna de las estrategias o actividades ejecutadas con el proyecto que hizo posible conseguir los resultados a menor costo o en menor tiempo? 11. ¿Cuáles actividades desarrolladas con el Proyecto Usted recomendaría para su expansión y/o imitarla, para asegurar un uso más eficiente de los recursos y que se tenga el mismo o mayor resultado?	

Pregunta de indagación	Respuestas /opinión
12. ¿Hubo alguna estrategia o actividad que se adecuó a las condiciones particulares de la zona para conseguir los resultados? Si es afirmativo, por favor mencione en qué consistió.	
13. En la zona de cobertura del Proyecto ¿Conoce si hay otros programas o proyectos con enfoque de seguridad alimentaria que se estén desarrollando en las escuelas y que estén "duplicando" las actividades del proyecto? Si es afirmativo por favor menciónelos.	
Efectividad - Resultados/ Impacto	
14. Desde su punto de vista y experiencia con el Proyecto ¿Cómo se ha llevado a cabo la ejecución y el cumplimiento de las actividades del proyecto a nivel técnico/programático, organizativo y administrativo?	
15. En su experiencia con el Proyecto ¿Cuáles son los principales resultados alcanzados por las actividades desarrolladas? <i>Retome: Merienda escolar, capacitación y huertos escolares, mejoramiento de la infraestructura e importancia de la educación primaria de sus hijos.</i> Considera que el Proyecto alcanzó los resultados esperados en relación a: 1. Alfabetización/ Lecto escritura 2. Calidad de la enseñanza 3. Atención y asistencia de los estudiantes	
16. ¿Ha influido el proyecto en estos resultados?	
17. ¿Hubo algún resultado que no se cumplió de acuerdo a lo esperado? Si es así, ¿cuáles fueron los motivos? ¿Se hicieron ajustes al proyecto para superarlos?	
18. ¿Cuáles de las estrategias que se están aplicando con el proyecto, han sido más efectivas para la obtención de los resultados? ¿Por qué?	
19. ¿Cuáles estrategias/actividades cree que fueron menos efectivas? ¿Por qué?	
20. ¿Cómo considera Usted el nivel de satisfacción de los beneficiarios o participantes directos del Proyecto?	
21. ¿Cree que hubo impacto no intencionado, como producto de enfoque o estrategias ejecutadas en el Proyecto? Sea este impacto positivo o negativo. ¿Cómo ocurrieron estos impactos y cómo considera que pudieron haber sido maximizados o mitigados?	
Sostenibilidad	
22. En general, ¿Considera que las acciones y resultados obtenidos con apoyo del proyecto son sostenibles?	
23. ¿En qué medida las actividades del proyecto promovieron cambios sostenibles en los comportamientos de estudiantes, maestros/as y padres/madres de familia?	
24. ¿Cómo considera que ha sido la apropiación del MINED en las actividades implementadas en el proyecto? <i>Ejemplo: El Proyecto de alimentación escolar es más que entregar meriendas a los escolares, reconocen la importancia de los PTA para implementar un PAE completo y adecuado, identifican la participación de socios privados a nivel local como pilar fundamental en el PAE.</i>	

Pregunta de indagación	Respuestas /opinión
25. ¿En qué medida considera que ha sido la integración de actores locales (sector privado, organización comunitaria, instituciones locales, otros) para garantizar la sostenibilidad del Proyecto?, y cuáles han sido esas formas de integración (participación física, contribución económica, contribución en especie, otros)	
26. En el marco del proyecto, ¿Cómo se abordaron las necesidades de capacitación institucional: Capacidad en las autoridades superiores, Dirección de escuelas y de los/as docentes? ¿Y en los recursos del PINE-MINED? ¿Alguna recomendación para que se considere en proyecto similar de futuro?	
27. ¿Considera que ha habido algún progreso para asegurar la sostenibilidad de los recursos humanos, recursos financieros, infraestructura o algún otro tipo de recurso? ¿la ejecución del proyecto tuvo participación en este progreso?	
28. Desde su perspectiva, ¿cómo cree que contribuye la participación de padres/madres u otros miembros de la familia, a la sostenibilidad de los resultados del Proyecto o al programa mismo?	
29. Presente la herramienta de Evaluación Preparación de la Sostenibilidad. Pregunte: ¿Conoce esta herramienta que ha utilizado PCI para medir la Sostenibilidad del Proyecto? ¿Cree que es una manera eficaz de medir la sostenibilidad? ¿Qué recomendaciones podría brindar para mejorar ésta herramienta? <i>Si la respuesta es negativa explique las 5 condiciones que se evalúan en la herramienta y consulte si cree que es eficaz para medir la sostenibilidad y si tuviese recomendaciones para mejorarla</i>	
Abordaje de Género	
30. ¿Cómo considera que el proyecto promovió la equidad de género? ¿Qué resultados y/o impacto diferenciados tuvo el Proyecto en mujeres y niñas?, ¿en hombres y niños?	
31. ¿Hasta qué punto el proyecto abordó las barreras y restricciones específicas de género, en relación a la educación y el compromiso de la comunidad?	
Facilitadores/limitantes – Lecciones aprendidas y recomendaciones	
32. Desde su conocimiento, ¿podría decirme si se presentaron imprevistos o limitantes en la implementación del proyecto, que se haya transformado en barrera para obtener los resultados previstos? Si es así, ¿cuáles fueron y qué ajustes se realizaron para su abordaje?	
33. ¿Qué aspectos o elementos han sido facilitadores en la ejecución de las estrategias del proyecto?	
34. ¿Qué lecciones aprendidas o mejores prácticas identifica usted de la participación en este proyecto? <u>Indague además:</u> ¿De lo que ha aprendido, qué puede ser retomado para futuro, o sea para la implementación de otro proyecto? ¿Qué cambios considera se deben hacer para mejorar?	

¡Muchas gracias por su participación!!



PCI Nicaragua / CEDEHCA / USDA
Proyecto “Mejor Educación y Salud – MESA” Jinotega-RACCS
Evaluación Final 2017

GUIA No. 2 - Entrevista en profundidad
Personal técnico gerencial del proyecto PCI y CEDEHCA

DATOS GENERALES

Fecha: ____/____/____ Hora de inicio: _____ Hora de Finalización: _____

Departamento/Región: Jinotega ☐ RACCS ☐ Municipio: _____

Nombre y Apellidos: _____

Cargo en la institución: _____

Tiempo en el cargo: _____

Entrevistador/a: _____

INTRODUCCIÓN

Hola, mi nombre es _____. Soy parte del equipo de investigación que está realizando la Evaluación final del proyecto “Mejor Educación y Salud” que está desarrollando PCI en Jinotega y la RACCS, en esta última con apoyo de CEDEHCA. Quisiera saber si puedo realizarle una entrevista con el objetivo de conocer su opinión, experiencia y/o participación en las actividades que realiza el proyecto en relación a educación, nutrición y alimentación (merienda escolar) en la zona. Sus ideas, punto de vista, conocimiento o experiencia que nos pueda compartir, serán de mucha utilidad en esta evaluación final. Su participación es completamente voluntaria y confidencial, y se utilizará exclusivamente para efectos de la investigación. **¿Está de acuerdo con ser entrevistado/a?**

Temas y preguntas de indagación

Pregunta de indagación	Respuestas /opinión
Pertinencia	
1. ¿En qué medida los resultados y el enfoque del proyecto MESA son válidos para el contexto local, cultural, político, económico y social?	
2. ¿En qué medida considera que en el proyecto se incluyeron las necesidades de la población beneficiaria?	
3. Según su valoración, ¿el propósito del proyecto responde a las prioridades que tiene el MINED, estudiantes y/o comunidad educativa? Si es afirmativo, mencione en ¿cuáles prioridades y abordaje/respuestas se brindaron a través del proyecto?	

Pregunta de indagación	Respuestas /opinión
4. Las estrategias y actividades que se ejecutaron como parte del proyecto, ¿cómo aportaron al desarrollo de los actores y beneficiarios? Valore el aporte que se da a lo interno y externo.	
5. ¿En qué medida cree que se ha avanzado en el resultado de “Mejorar la calidad de la enseñanza para la lectoescritura a través del proyecto o programa de seguridad alimentaria?	
INDAGUE: <u>Sobre merienda escolar</u> relacionada a la asistencia, retención, y educación en seguridad alimentaria, involucramiento de la comunidad educativa. <u>Huertos escolares:</u> Organización, producción de hortalizas y frutas de periodo corto, educación y nutrición. <u>Capacitación:</u> incremento del conocimiento sobre seguridad alimentaria, nutrición y salud. Del personal técnico de PCI o CEDEHCA, Maestros, Padres de familia y escolares. <u>Mejoramiento de la infraestructura</u> e importancia de la educación primaria de sus hijos.	
6. ¿Qué cambios considera deben hacerse para mejorar la pertinencia en la siguiente fase de implementación del proyecto en la región?	
7. ¿Conoce alguna experiencia exitosa que se podría retomar para este resultado?	
8. Desde su punto de vista, ¿cómo se podría hacer en futuros proyectos similares a este, para mejorar sus procesos de planificación en el abordaje de los desafíos y limitaciones internas y externas?	
9. ¿Podría decirme hasta qué punto abordaron las recomendaciones de los resultados obtenidos en la evaluación intermedia con los socios o MINED?	
Eficiencia	
10. En su experiencia ¿Cuáles son los principales resultados alcanzados producto de las actividades desarrolladas y los insumos suministrados por el proyecto?	
<i>Retome: Merienda escolar, capacitación y huertos escolares, mejoramiento de la infraestructura e importancia de la educación primaria de sus hijos.</i>	
11. ¿Cómo valora las relaciones establecidas entre el personal del proyecto con personal MINED y/o las instancias del gobierno y socios locales?	
12. ¿Cuáles fueron los mecanismos de coordinación que ustedes tuvieron con las contrapartes del proyecto durante la ejecución de las actividades, y cómo contribuyeron a la realización de planes de trabajo para la obtención de resultados? ¿Se puede mejorar?	

Pregunta de indagación	Respuestas /opinión
13. ¿Cuán eficiente y eficaz considera usted que fueron los recursos (humanos, financieros, de capital y similares) asignados y utilizados para lograr los resultados del proyecto?	
14. ¿Podría mencionar alguna de las estrategias o actividades ejecutadas con el proyecto que hizo posible conseguir los resultados a menor costo o en menor tiempo?	
15. ¿Cuáles actividades desarrolladas con el proyecto Usted recomendaría para su expansión y/o limitarla, para asegurar un uso más eficiente de los recursos y que se tenga el mismo o mayor resultado?	
16. ¿Hubo alguna estrategia o actividad que se adecuó a las condiciones particulares de la zona para conseguir los resultados? Si es afirmativo, por favor mencione en qué consistió.	
17. En la zona de cobertura del proyecto ¿Conoce si hay otros programas o proyectos con enfoque de seguridad alimentaria que se estén desarrollando en las escuelas y que estén "duplicando" las actividades del proyecto? Si es afirmativo por favor menciónelos.	
Efectividad - Resultados/ Impacto	
18. ¿Se cumplieron las actividades contempladas en el proyecto a nivel técnico/programático, organizativo y administrativo por parte del MINED?	
19. ¿Cuáles considera usted que son los principales resultados alcanzados producto de las actividades desarrolladas en el marco del proyecto? <i>Retome: Merienda escolar, capacitación y huertos escolares, mejoramiento de la infraestructura e importancia de la educación primaria de sus hijos.</i> <i>Considera que el Proyecto alcanzó los resultados esperados en relación a:</i> ✓ Alfabetización/ Lecto escritura ✓ Calidad de la enseñanza ✓ Atención y asistencia de los estudiantes	
20. ¿En qué medida considera que la alimentación escolar, la capacidad instalada, la promoción de huertos escolares y otras actividades del proyecto, incidió en estos resultados?	
21. ¿Podría ejemplificar cómo ha sido esta incidencia del proyecto y en quiénes?	
22. ¿Podría decirme qué mejoría significativa reconoce usted que han tenido los beneficiarios del proyecto en relación a su visión de futuro? ¿Podría ejemplificar por favor en qué ha observado o ha consistido esa mejoría y en quiénes? <i>Indague (salud, nutrición, educación, alimentación)</i>	

Pregunta de indagación	Respuestas /opinión
23. ¿De acuerdo al conocimiento e información que tienen, cree que se alcanzaron los objetivos específicos del proyecto? ¿Si no es así, cuáles fueron los motivos y cuáles ajustes se realizaron para avanzar?	
24. ¿Cuáles de las estrategias del proyecto considera que fueron las más efectivas para la obtención de los resultados? Por qué.	
25. ¿Cuáles estrategias/actividades cree que fueron menos efectivas y por qué?.	
26. ¿Cómo considera Usted el nivel de satisfacción de los beneficiarios o participantes directos del proyecto?	
27. ¿Cree que hubo algún impacto no intencionado/esperado, como producto del enfoque o estrategias ejecutadas en el proyecto? Sea este impacto positivo o negativo. ¿Cómo ocurrieron estos impactos y cómo considera que pudieron haber sido maximizados o mitigados?	
Sostenibilidad	
28. En general, ¿Considera que las acciones y resultados obtenidos con apoyo del proyecto pueden ser sostenibles por parte del MINED? ¿Qué le hace pensar en eso?	
29. ¿En qué medida cree usted que las actividades del proyecto promovieron cambios sostenibles en los comportamientos de estudiantes, maestros/as y padres/madres de familia?	
30. ¿Cómo considera que ha sido la apropiación del MINED en las actividades implementadas en el proyecto? <i>Ejemplo: El programa de alimentación escolar es más que entregar meriendas a los escolares, reconocen la importancia de los PTA para implementar un PAE completo y adecuado, identifican la participación de socios privados a nivel local como pilar fundamental en el PAE.</i>	
31. ¿En qué medida considera usted que se han integrado los actores locales para garantizar la sostenibilidad del Proyecto?: Sector privado, organización comunitaria, instituciones locales, otros,	
32. ¿Considera usted que ha habido algún progreso para asegurar la sostenibilidad del Proyecto, en cuanto a recursos humanos, recursos financieros, infraestructura o algún otro tipo de recurso? ¿El proyecto tuvo participación en este progreso hacia la sostenibilidad?	
33. Según su opinión ¿Qué necesidades específicas de capacidad institucional deberían ser consideradas en un futuro para fomentar una mayor participación?, ¿Para el PINE-MINED, autoridades superiores, directores/as de escuelas, docentes?	
34. Desde su perspectiva, ¿cómo cree que contribuye la participación de padres/madres u otros miembros de la familia, a la sostenibilidad de los resultados del Proyecto o al programa mismo?	

Pregunta de indagación	Respuestas /opinión
35. ¿Qué tanto fue de utilidad al equipo técnico la herramienta para el monitoreo de esta estrategia? ¿Qué recomendaciones tiene para mejorar la estrategia y su implementación a nivel operativo?	
Abordaje de Género	
36. ¿Cómo considera que el proyecto promovió la equidad de género? ¿Qué resultados y/o impacto diferenciados tuvo el Proyecto en mujeres y niñas?, ¿en hombres y niños?	
37. ¿Cómo cree que se abordaron en el proyecto las barreras específicas de género y las limitaciones en la educación y la participación de la comunidad?	
Facilitadores/limitantes – Lecciones aprendidas y recomendaciones	
38. ¿Qué aspectos o elementos han sido facilitadores en la ejecución de las estrategias del proyecto?	
39. Desde su conocimiento, ¿podría decirme si se presentaron imprevistos o limitantes en la implementación del proyecto que se haya transformado en barrera para obtener los resultados previstos? Si es así, ¿cuáles fueron y qué ajustes se realizaron para su abordaje?	
40. ¿Qué lecciones aprendidas o buenas prácticas identifica usted de la participación en este proyecto? <i>Indague, además:</i> ¿De lo que ha aprendido, qué puede ser retomado para futuro, o sea para la implementación de otro proyecto? ¿Qué cambios considera se deben hacer para mejorar?	

¡Muchas gracias por su participación!!!



PCI Nicaragua / CEDEHCA / USDA
Proyecto “Mejor Educación y Salud – MESA” Jinotega-RACCS
Evaluación Final 2017

GUIA No. 3 - Entrevista en profundidad
Representante de Alcaldía municipal

DATOS GENERALES

Fecha: ____/____/____ Hora de inicio: _____ Hora de finalización: _____

Departamento/Región: Jinotega ☐ RACCS ☐ Municipio: _____

Nombre y Apellidos: _____

Cargo en la institución: _____ Tiempo en el cargo: _____

Entrevistador/a: _____

INTRODUCCIÓN

Hola, mi nombre es _____. Soy parte del equipo de investigación que está realizando la Evaluación final del proyecto “Mejor Educación y Salud” que está desarrollando PCI en Jinotega y la RACCS, en esta última con apoyo de CEDEHCA. Quisiera saber si puedo realizarle una entrevista con el objetivo de conocer su opinión, experiencia y/o participación en las actividades que realiza el proyecto en relación a educación, nutrición y alimentación (merienda escolar) en la zona. Sus ideas, punto de vista, conocimiento o experiencia que nos pueda compartir, serán de mucha utilidad en esta evaluación final. Su participación es completamente voluntaria y confidencial, y se utilizará exclusivamente para efectos de la investigación. **¿Están de acuerdo con ser entrevistado/a?**

Temas y preguntas de indagación

Pregunta de indagación	Respuestas /opinión
<i>Pertinencia</i>	
1. ¿Cómo valora usted que está la situación de la educación primaria en el departamento y/o región? Puede ser: Alfabetismo, cobertura/cantidad de escuelas y maestros, calidad de la enseñanza, rendimiento académico, retención escolar, etc., en general.	
2. ¿Conoce cuáles son las prioridades que tiene el MINED en esta zona (departamento, región, municipio)?	
3. ¿Qué conoce usted sobre el proyecto MESA que desarrolla PCI/CEDEHCA con el MINED en este municipio? <i>Proyecto que incluye merienda escolar,</i>	

Pregunta de indagación	Respuestas /opinión
<i>capacitación, huerto escolar, mejoramiento de la infraestructura e importancia de la educación primaria de sus hijos.</i> 4. En su opinión, ¿Cómo valora Usted el proyecto en función de las prioridades que tiene el MINED, estudiantes y/o la comunidad educativa? 5. ¿En qué medida cree que se reflejan las necesidades de la población en el proyecto MESA? 6. ¿En qué medida cree que las actividades del proyecto respondieron a las necesidades de los beneficiarios, incluido el MINED, administradores/maestros de las escuelas y los estudiantes? 7. ¿De qué manera cree usted que las estrategias y actividades que desarrolló el proyecto, aportó al desarrollo de la población beneficiada?	
8. ¿Cómo cree usted que este proyecto contribuye en el resultado de “Mejorar la calidad de la enseñanza para la lectoescritura? INDAGUE: <u>Sobre merienda escolar</u> relacionada a la asistencia, retención, y educación en seguridad alimentaria, involucramiento de la comunidad educativa. <u>Huertos escolares:</u> Organización, producción de hortalizas y frutas de periodo corto, educación y nutrición. <u>Capacitación:</u> incremento del conocimiento sobre seguridad alimentaria, nutrición y salud. Del personal técnico de PCI o CEDEHCA, Maestros, Padres de familia y escolares. <u>Mejoramiento de la infraestructura e importancia de la educación primaria de sus hijos.</u> 9. Pensando en el futuro, ¿cree que PCI/CEDEHCA debería retomar este resultado en la siguiente fase de implementación del proyecto? En la región, ¿Qué tendría que hacer para ello?	
10. Para mejorar la planificación en el abordaje de las necesidades y prioridades de la población en esta zona, ¿Qué recomendaciones daría para futuros proyectos similares a este?	
Eficiencia	
11. ¿Cómo valora las relaciones de la Alcaldía con el proyecto MESA, el MINED y/o otras instancias del gobierno y socios locales? 12. ¿Cuáles fueron los mecanismos de coordinación que el proyecto implementó con ustedes durante su ejecución? ¿Fue efectiva esta coordinación para la realización de planes de trabajo y obtención de resultados? ¿Pudo haber sido mejor?	
13. ¿Usted considera que la inversión que el proyecto realizó en las escuelas, fue eficiente y eficaz? (utilización de recursos humanos y financieros del proyecto)	

Pregunta de indagación	Respuestas /opinión
14. Desde su conocimiento en la ejecución del proyecto, ¿podría mencionar alguna estrategia o actividad ejecutada que obtuvo resultados a menor costo o en menor tiempo?	
15. ¿Cuál(es) actividad(es) que se implementó con apoyo del proyecto MESA y que considera muy eficiente, Usted recomendaría para su expansión o para ser reproducida en otra experiencia?	
16. ¿Conoce usted si hubo alguna estrategia o actividad que se adecuó a las condiciones particulares de la zona para conseguir los resultados? Si es afirmativo, por favor méncionela.	
17. En la zona de cobertura del proyecto ¿Conoce si hay otros programas o proyectos con enfoque de seguridad alimentaria que se estén desarrollando en las escuelas y que estén "duplicando" los resultados del proyecto? Si es afirmativo por favor méncionelos.	
Efectividad - Resultados/ Impacto	
18. Desde su conocimiento que tiene del proyecto MESA, ¿Cómo se ha llevado a cabo la ejecución y el cumplimiento de sus actividades? En lo que respecta al área técnica/programática, organizativa/administrativa?	
19. En su conocimiento ¿Cuáles cree que son los principales resultados alcanzados producto de las actividades desarrolladas e insumos suministrados por el proyecto?	
<i>Retome: Merienda escolar, capacitación y huertos escolares, mejoramiento de la infraestructura e importancia de la educación primaria de sus hijos.</i>	
20. ¿Cuáles cree que fueron los beneficios obtenidos con la ejecución del proyecto? <i>Considera que el Proyecto alcanzó los resultados esperados en relación a:</i> 1. Alfabetización/ Lecto escritura 2. Calidad de la enseñanza 3. Atención y asistencia de los estudiantes	
21. Podría decirme ¿qué mejoría significativa reconoce usted que tuvieron los estudiantes, padres de familia y maestros (beneficiarios del proyecto) con este proyecto? Por ejemplo, en cuanto a la salud, nutrición, educación, alimentación.	
22. De acuerdo a su conocimiento e información, ¿cree que se alcanzó todos los resultados del proyecto? Si no es así, ¿cuáles fueron los motivos y cuáles ajustes se tenían que haber hecho para lograrlo?	
23. ¿Qué opinión tiene usted acerca del nivel de satisfacción de los beneficiarios o participantes directos del Proyecto?	
24. ¿Cree que hubo algún impacto no intencionado/no proyectado, como producto del enfoque o estrategias ejecutadas en el proyecto MESA? Sea este impacto positivo o negativo. ¿Cómo cree que ocurrieron estos impactos y cómo considera que pudieron haber sido maximizados o mitigados?	
Sostenibilidad	
25. ¿Considera que las acciones y resultados obtenidos en las escuelas con apoyo del proyecto son sostenibles?	

Pregunta de indagación	Respuestas /opinión
26. ¿En qué medida considera que las actividades del proyecto promovieron cambios sostenibles en los comportamientos de estudiantes, maestros/as y padres/madres de familia?	
27. Para la sostenibilidad de este Proyecto, ¿cómo valora el nivel de apropiación por parte de actores locales? <i>Indague con cada uno de los siguientes actores cuáles han sido las formas de integración para garantizar la sostenibilidad del Proyecto (organización, contribución económica o en especie, otros): Gobierno Municipal, Sector privado/comercial, organización comunitaria, población en general, iglesia, otros presentes en la zona.</i>	
28. Conoce si con el proyecto se abordó las necesidades de capacitación institucional: Con autoridades superiores, Dirección de escuelas, maestros/as, en el PINE-MINED? ¿Alguna recomendación para que se considere en proyecto similar de futuro?	
29. Desde su perspectiva, ¿cómo cree que contribuye la participación de padres/madres u otros miembros de la familia, a la sostenibilidad de los resultados del programa de alimentación escolar?	
Abordaje de Género	
30. ¿Sabe si el proyecto promovió la equidad de género? ¿Considera qué tuvo resultados o impacto diferenciados en mujeres y niñas?, ¿en hombres y niños?	
31. ¿Hasta qué punto considera que el proyecto abordó las barreras y restricciones específicas de género, en relación a la educación y el compromiso de la comunidad?	
Facilitadores/limitantes – Lecciones aprendidas y recomendaciones	
32. ¿Cuáles considera que fueron los aspectos o elementos que facilitaron la ejecución de las estrategias y obtención de resultados del proyecto?	
33. ¿Qué aspectos o elementos dificultaron o limitaron la ejecución de las estrategias del proyecto? ¿Conoce si se hicieron ajustes para su abordaje?	
34. ¿Qué lecciones aprendidas identifica usted de la participación en este proyecto? <u>Indague, además:</u> • <u>¿De lo que ha aprendido, qué puede ser retomado para futuro, o sea para la implementación de otro proyecto?</u> • <u>¿Qué cambios considera que se deben hacer para mejorar?</u>	

¡Muchas gracias por su participación!!



PCI Nicaragua / CEDEHCA / USDA
Proyecto “Mejor Educación y Salud – MESA” Jinotega-RACCS
Evaluación Final 2017

Guía No. 4
Entrevista Grupal Funcionarios de PINE-MINED
Tema de discusión: Estrategias de Seguridad Alimentaria Escolar

DATOS GENERALES

Fecha: ____/____/____ Hora de inicio: _____ Hora de finalización: _____

Departamento/Región: Jinotega ☐ RACCS ☐ Municipio: _____

Participantes

Nombre y apellido	Cargo	Tiempo de laborar en PINE-MINED

Facilitador/a: _____

Anotador/a y apoyo logístico: _____

INTRODUCCIÓN:

Hola, mi nombre es _____, soy parte del equipo de investigación que está realizando la Evaluación final del proyecto “Mejor Educación y Salud”, que está desarrollando PCI en Jinotega y la RACCS, en esta última con apoyo de CEDEHCA.

Hoy estamos aquí para realizar una Entrevista grupal en el marco de la Evaluación final del proyecto que se está implementando en esta zona. El propósito es conocer de Ustedes su opinión, experiencia y/o participación que han tenido en las actividades que realiza el proyecto en relación a las estrategias de seguridad alimentaria, con énfasis en educación, nutrición y alimentación (merienda escolar, capacitación, huertos escolares, infraestructura y participación de los padres, madres en actividades escolares) en las escuelas beneficiarias del proyecto.

Sus ideas, puntos de vista, conocimiento o experiencia que nos pueda compartir, serán de mucha utilidad en esta evaluación final y también para considerarlas en la nueva fase del

proyecto. Su participación es completamente voluntaria y lo que aquí se exprese será confidencial, y se utilizará exclusivamente para efectos de la evaluación. ¿Están de acuerdo en participar en esta entrevistada de grupo? Muchas gracias.

Metodología y actividades iniciales

- ✓ Presentarse y dar la bienvenida agradeciendo la presencia de los/as participantes y presentar el objetivo de la entrevista grupal: *“Compartir las experiencias, conocimientos y puntos de vista sobre la implementación y resultados del proyecto MESA (merienda escolar, capacitación a escolares, padres, madres y maestros/as, huertos y mejoramiento de infraestructura e importancia de la educación primaria de sus hijos) que fueron ejecutados en las escuelas y cómo se ha involucrado toda la comunidad educativa.”*
- ✓ Explicar las reglas y procedimientos a seguir durante la entrevista grupal:
- ✓ La participación es de forma totalmente voluntaria; debe haber una participación activa y sus opiniones son muy importantes, queremos que todas y todos tengan la misma oportunidad de participar y opinar. Ninguna está obligada a responder las preguntas que no quiera responder. Si alguien quiere salirse de la reunión puede hacerlo en cualquier momento.
- ✓ Para registrar sus opiniones se hará grabación de la conversación - si ustedes no tienen inconveniente - por eso omitiremos sus nombres completos, pero pueden pedir interrumpir la grabación si desean expresar algo que no quieren que quede grabado.
- ✓ Se garantiza que la información será resguardada y utilizada única y exclusivamente para fines de esta evaluación.
- ✓ Coloque una tarjeta con el nombre de la persona para facilitar la comunicación personalizada, también debe estar identificado el equipo que facilita la Entrevista grupal.
- ✓ Realizar dinámica de presentación y/o rompe hielo con las personas participantes, luego proceder con la guía de preguntas.
- ✓ Explique cómo se desarrollará la actividad, dé a conocer los temas o contenidos que se estarán abordando. Dígales que se estarán haciendo preguntas en cada tema (por bloque) y que a través de estas preguntas generadoras que Usted hará, se irá desarrollando la discusión grupal.

Cada bloque/tema contiene preguntas específicas; cada persona puede opinar en el momento que desee, pero se insta a que todas y todos participen de forma activa.

- Primer bloque/tema: Merienda Escolar
- Segundo bloque/tema: Capacitación
- Tercer bloque/tema: Huertos escolares
- Infraestructura escolar e involucramiento de los Comité Escolar o CAE para la sostenibilidad
- Quinto bloque/tema: Género, Lecciones aprendidas y recomendaciones

Desarrollo de la entrevista grupal

Primer bloque/tema: Merienda escolar

1. ¿En las escuelas donde trabajan Ustedes se implementa la Merienda Escolar? ¿Nos podrían contar desde hace cuánto tiempo y qué les parece esta estrategia?
2. Nos pueden contar ¿qué actividades realizan en la estrategia de Merienda Escolar?
 - ✓ ¿Cómo están organizados, cómo realizan la distribución, almacenamiento, consumo y control de los alimentos estrategia o programa de Merienda Escolar?
 - ✓ ¿Quiénes participan (comité escolar y otros actores) y qué papel o rol desempeñan?
 - ✓ ¿Cómo funciona el comité escolar en relación a la merienda escolar?

Programa de Merienda Escolar	Descripción
Actividades realizadas y Cómo se organizan	
Quiénes participan y qué rol juega c/u	
Cómo funciona el Comité Escolar dentro del programa	

3. ¿Cómo valoran Ustedes el proyecto en función de las prioridades que tiene el PINE MINED, estudiantes y/o comunidad educativa? ¿Cómo fue la integración y respuestas brindadas a través del apoyo del proyecto?
 - ✓ En qué medida **se incluyeron las necesidades de la población beneficiaria** en el diseño de este proyecto
 - ✓ En qué medida las actividades del proyecto **respondieron a las necesidades de los beneficiarios**, incluido el MINED, directores /maestros de las escuelas y los estudiantes
4. ¿Cuáles consideran que son los principales resultados alcanzados producto de las actividades desarrolladas en el marco del proyecto? El proyecto alcanzó los resultados esperados en relación a:
 - ✓ **Asistencia y Retención escolar por parte de estudiantes**
 - ✓ **Calidad de la enseñanza. Rendimiento académico / Promoción escolar**
 - ✓ **Aspectos de salud, nutrición/alimentación de escolares**
 - ✓ **Participación e involucramiento de la comunidad educativa en mejoramiento de la infraestructura y sensibilización en la importancia de la educación primaria de sus hijos.**
5. ¿En qué medida consideran que la capacidad instalada, la promoción de huertos escolares y otras actividades educativas del proyecto, incidió en la merienda escolar? ¿Podrían ejemplificar cómo ha sido esta incidencia del proyecto y en quiénes?
6. Para futuros proyectos similares a este, ¿cómo se podría hacer para mejorar el proceso de planificación en el abordaje de las prioridades del PINE-MINED, los desafíos y limitaciones internas y externas?

7. Según sus propias experiencias ¿Qué es lo que ha funcionado bien del proyecto y qué no ha funcionado como se esperaba? Indague:
- ✓ *De lo que ha funcionado bien, ¿Cuáles fueron los elementos o factores que facilitaron el buen funcionamiento*
 - ✓ *De lo que no funcionó bien, ¿Qué elementos o factores pudieron incidir de forma negativa?*
 - ✓ *¿Qué aspectos se deben mejorar y qué se debe hacer para lograrlo?*
8. ¿Consideran que la estrategia de merienda escolar se puede mantener en el tiempo después que el proyecto finalice? ¿Por qué sí, o por qué no? Indague:
- ✓ *¿Hay otros programas o proyectos que se estén desarrollando "duplicando" las actividades del proyecto? Mencione*
 - ✓ *¿Cuál ha sido el aporte que brindaron las familias de niños y niñas para la merienda escolar?*
 - ✓ *¿En qué medida otros actores locales se han comprometido para garantizar la sostenibilidad de las actividades en las escuelas? Sector privado, asociaciones comunitarias, instituciones del gobierno local, etc.*
 - ✓ *¿Qué recursos han invertido en esta estrategia desde el nivel departamental/regional hacia el municipio o escuela?*

Segundo bloque/tema: Capacitación SAN

1. Para desarrollar las estrategias del Proyecto ¿En qué temas fueron capacitados Ustedes, estudiantes, comité escolar y familias? *Mencionar por cada beneficiario. Explorar sobre temas de alimentación, nutrición, higiene de los alimentos, lavado de manos, métodos de desinfección del agua.*

Temas de capacitación	PINE-MINED	Maestros/as	CAP	Escolares
Metodología, herramientas, instrumentos para gerencia, seguimiento y monitoreo				
Alimentación y nutrición – Preparación de alimentos				
Higiene de los alimentos / lavado de manos				
Desinfección del agua				
Herramientas para la docencia: FAS, Metodología participativas, Manejo metodología colección Nacho				
Importancia de la Educación Primaria				
Importancia de las Alianzas para sostenibilidad				
Otros, describa				

2. ¿Cómo consideran que fue el aporte de la capacitación en los conocimientos, actitudes y comportamientos de docentes, estudiantes, comité escolar y familia? **¿Mejoró o desmejoró?**

Aporte en	PINE-MINED	Maestros/as	CAP	Escolares
Conocimientos nuevos adquiridos				
Actitudes mejoradas (en comparación antes de la intervención)				
Mejora en el comportamiento / prácticas (en comparación antes de la intervención)				

3. ¿Qué necesidades de capacitación o prioridades creen que todavía hizo falta para que la estrategia educativa funcionara mejor o se obtuvieran mejores resultados?

Tercer bloque/tema: Huertos escolares

- ¿En qué consiste la estrategia de huertos escolares? ¿Hay huertos en todas las escuelas de la zona? Si la respuesta es negativa, cuáles son los motivos?
- ¿Nos pueden comentar la experiencia que han tenido/observado para el desarrollo de huertos escolares? *Indague ¿cómo ha sido su implementación. ¿En alguna escuela se hizo diferente, o no se pudo implementar? Expliquen.*
 - ✓ ¿Qué contempla los huertos escolares (acciones organizativas, demostrativas, prácticas supervisadas, involucramiento y aportes de padres, etc.)?
 - ✓ ¿Cómo se organiza su implementación? ¿Quiénes participan y qué papel o rol desempeña, por ejemplo, el comité escolar?
 - ✓ ¿Qué productos producen y qué hacen con los productos?
 - ✓ ¿Cómo valora sus resultados, en términos de lo que funciona bien y lo que debe mejorar? ¿Cuáles fueron los factores que facilitaron? ¿Cuáles fueron las limitantes o los elementos que afectaron los resultados esperados?

Estrategia Huerto escolar	Descripción	Aspectos positivos y por mejorar
Qué contempla		
Cómo se organiza / participantes. Rol de maestros/as, Madre/padre, estudiantes, otros		
Qué producen y qué hacen con los productos		
Resultados obtenidos		

- ¿Consideran que hay aceptabilidad de los huertos escolares? ¿Cómo ha sido la experiencia para que cumplan con la razón de ser? Indague
 - ✓ Si los productos que se producen en la escuela (corto plazo) son consumidos sin resistencia por las niñas y niños.
 - ✓ Cómo ha sido la participación de las familias/padres/madres
 - ✓ Si hay algunas familias que han hecho huertos en sus casas.
 - ✓ Hay compromiso de las partes involucradas para mantener los huertos

4. ¿Cómo valoran los resultados obtenidos en relación a la implementación de los huertos escolares?
5. ¿Podría valorar si esta estrategia se puede mantener en el tiempo a pesar de que el proyecto finalice? ¿Por qué sí o por qué no?

Cuarto bloque/tema: Infraestructura escolar e involucramiento de los Comité Escolar o CAE para la sostenibilidad

1. En el marco de los compromisos establecidos en el proyecto ¿Cómo valoran los resultados obtenidos en relación a la mejora en la infraestructura escolar? ¿En las aulas? ¿En baúles y cocinas? ¿En las estaciones de agua y los servicios sanitarios?
2. Además de los recursos invertidos directamente por el proyecto, ¿hubo apoyo financiero o en especie brindado por algún otro actor local, por ejemplo, del gobierno municipal, el sector privado (comerciante, productor, organización de padres y madres de familia)?
3. ¿Considera que las inversiones realizadas en las escuelas son sostenibles? ¿Por qué sí, por qué no?
4. Y en cuanto al desarrollo organizativo y funcional de los CAE, ¿cómo valoran los resultados obtenidos? ¿Se logró que funcionaran en todas las escuelas? ¿Por qué creen que en algunas escuelas funcionan mejor que en otras escuelas? Indague:
 - ✓ ¿Cuáles fueron los factores que facilitaron
 - ✓ ¿Cuáles fueron las limitantes o los elementos que afectaron los resultados esperados?
5. ¿El proyecto tuvo un abordaje integral para el desarrollo de los CAE? ¿Qué acciones consideran que fueron las más efectivas y que llevaron a los mejores resultados?
6. ¿Cómo consideran que ha sido la integración y participación de padres/madres/maestros/as en la los CAE? ¿Cómo se podría mejorar?

Quinto bloque/tema: Género, lecciones aprendidas y recomendaciones

1. A través de la implementación del proyecto ¿Cómo fue promovido la equidad de género? ¿Consideran que hubo resultados diferenciados entre mujeres/niñas y hombres/niños?
2. Hasta qué punto a través de la implementación del proyecto se abordaron las barreras de género para los aspectos propios de la educación y en cuanto al compromiso de la población/comunidad? Indague:
 - ✓ ¿Qué barreras de género identifican todavía y cómo han tratado estas cuestiones?
 - ✓ ¿Se integran los hombres (padres) en la elaboración de la merienda escolar o todavía es una actividad sólo para las mujeres (madres)
 - ✓ ¿Las niñas y los niños se integran por igual a las actividades del proyecto?

3. En general, para todo lo que significó la implementación del proyecto durante estos cuatro años:
¿Cuáles consideran que fueron factores facilitadores y factores limitantes para lograr los resultados esperados? ¿Qué otros elementos pueden mencionar? Por ejemplo:
 - ✓ *Adecuación de estrategia o alguna actividad*
 - ✓ *Mecanismos de coordinación*
 - ✓ *Planes de mejora*
 - ✓ *Monitoreo, supervisión, evaluación*
 - ✓ *Desarrollo de alianzas para la sostenibilidad*
4. Podrían identificar desde su experiencia ¿qué aprendizajes tuvieron Ustedes con la implementación de las estrategias del proyecto?
5. Mencionen lecciones aprendidas durante la implementación del proyecto: En cuanto al desarrollo de la Merienda Escolar, los huertos escolares, Proyecto de capacitación y la infraestructura escolar.
6. Pensando en el futuro, para mejorar y continuar con las estrategias del Proyecto, ¿Qué recomendaciones sugieren que se deben retomar?

Aspecto	Componente del Proyecto			
	Merienda Escolar	Huertos Escolares	Capacitaciones SAN	Infraestructura
Organización				
Funcionamiento				
Seguimiento y monitoreo				
Capacitación				
Plan de Mejora/ Preparación para la Sostenibilidad				
Enfoque de género				

Finalización de la actividad

1. Agradezca nuevamente la participación de todas las personas
2. Pregunte si hay algo más que deseen mencionar
3. Concluya la actividad haciendo ver lo importante que fueron los aportes brindados.
4. Revise la lista de asistencia para verificar que todas las personas están anotadas.
5. Ofrezca un refrigerio para compartir.

¡Muchas gracias por su participación!!!



PCI Nicaragua / CEDEHCA / USDA
Proyecto “Mejor Educación y Salud – MESA” Jinotega-RACCS
Evaluación Final 2017

Guía No. 5
Entrevista Grupal
Maestros/as – Ministerio de Educación
Tema de discusión: Estrategias de Seguridad Alimentaria Escolar

DATOS GENERALES

Fecha: ____/____/____ Hora de inicio: _____ Hora de finalización: _____

Departamento/Región: Jinotega ☐ RACCS ☐ Municipio: _____

Participantes

Nombre y apellido	Cargo	Tiempo de laborar en PINE-MINED

Facilitador/a: _____

Anotador/a y apoyo logístico: _____

INTRODUCCIÓN:

Hola, mi nombre es _____, soy parte del equipo de investigación que está realizando la Evaluación final del proyecto “Mejor Educación y Salud”, que está desarrollando PCI en Jinotega y la RACCS, en esta última con apoyo de CEDEHCA.

Hoy estamos aquí para realizar una Entrevista grupal en el marco de la Evaluación final del proyecto que se está implementando en esta zona. El propósito es conocer de Ustedes su opinión, experiencia y/o participación que han tenido en las actividades que realiza el proyecto en relación a las estrategias de seguridad alimentaria, con énfasis en educación, nutrición y alimentación (merienda escolar, capacitación, huertos escolares, infraestructura y participación de los padres, madres en actividades escolares) en las escuelas beneficiarias del proyecto.

Sus ideas, puntos de vista, conocimiento o experiencia que nos pueda compartir, serán de mucha utilidad en esta evaluación final y también para considerarlas en la nueva fase del proyecto. Su participación es completamente voluntaria y lo que aquí se exprese será confidencial, y se utilizará exclusivamente para efectos de la evaluación. ¿Están de acuerdo en participar en esta entrevistada de grupo? Muchas gracias.

Metodología y actividades iniciales

Presentarse y dar la bienvenida agradeciendo la presencia de los/as participantes y presentar el objetivo de la entrevista grupal: *“Compartir las experiencias, conocimientos y puntos de vista sobre la implementación y resultados del proyecto MESA (merienda escolar, capacitación a escolares, padres, madres y maestros/as, huertos y mejoramiento de infraestructura e importancia de la educación primaria de sus hijos) que fueron ejecutados en las escuelas y cómo se ha involucrado toda la comunidad educativa.”*

- ✓ Presentarse y dar la bienvenida agradeciendo la presencia de los/as participantes y presentar el objetivo de la entrevista grupal: *“Compartir las experiencias, conocimientos y puntos de vista sobre la implementación y resultados del proyecto MESA (merienda escolar, capacitación a escolares, padres, madres y maestros/as, huertos y mejoramiento de infraestructura e importancia de la educación primaria de sus hijos) que fueron ejecutados en las escuelas y cómo se ha involucrado toda la comunidad educativa.”*
- ✓ Explicar las reglas y procedimientos a seguir durante la entrevista grupal:
- ✓ La participación es de forma totalmente voluntaria; debe haber una participación activa y sus opiniones son muy importantes, queremos que todas y todos tengan la misma oportunidad de participar y opinar. Ninguna está obligada a responder las preguntas que no quiera responder. Si alguien quiere salirse de la reunión puede hacerlo en cualquier momento.
- ✓ Para registrar sus opiniones se hará grabación de la conversación - si ustedes no tienen inconveniente - por eso omitiremos sus nombres completos, pero pueden pedir interrumpir la grabación si desean expresar algo que no quieren que quede grabado.
- ✓ Se garantiza que la información será resguardada y utilizada única y exclusivamente para fines de esta evaluación.
- ✓ Coloque una tarjeta con el nombre de la persona para facilitar la comunicación personalizada, también debe estar identificado el equipo que facilita la Entrevista grupal.
- ✓ Realizar dinámica de presentación y/o rompe hielo con las personas participantes, luego proceder con la guía de preguntas.
- ✓ Explique cómo se desarrollará la actividad, dé a conocer los temas o contenidos que se estarán abordando. Dígales que se estarán haciendo preguntas en cada tema (por bloque) y que a través de estas preguntas generadoras que Usted hará, se irá desarrollando la discusión grupal.

Cada bloque/tema contiene preguntas específicas; cada persona puede opinar en el momento que desee, pero se insta a que todas y todos participen de forma activa.

- Primer bloque/tema: Merienda Escolar
- Segundo bloque/tema: Capacitación
- Tercer bloque/tema: Huertos escolares
- Infraestructura escolar e involucramiento de los Comité Escolar o CAE para la sostenibilidad
- Quinto bloque/tema: Género, Lecciones aprendidas y recomendaciones

Desarrollo de la entrevista grupal

Primer bloque/tema: Merienda escolar

1. ¿En las escuelas donde trabajan Ustedes se implementa la Merienda Escolar? ¿Nos podrían contar desde hace cuánto tiempo y qué les parece esa estrategia?
2. ¿Nos pueden contar qué actividades realizan en la estrategia de Merienda Escolar?
 - ✓ ¿Cómo están organizados, cómo realizan la distribución, almacenamiento, consumo y control de los alimentos estrategia o programa de Merienda Escolar?
 - ✓ ¿Quiénes participan (comité escolar y otros actores) y qué papel o rol desempeñan?
 - ✓ ¿Cómo funciona el comité escolar en relación a la merienda escolar?

Programa de Merienda Escolar	Descripción
Actividades realizadas y Cómo se organizan	
Quiénes participan y qué rol juega c/u	
Cómo funciona el Comité Escolar dentro del programa	

3. ¿Cómo valoran Ustedes el proyecto en función de las prioridades que tiene el PINE MINED, estudiantes y/o comunidad educativa? ¿Cómo fue la integración y respuestas brindadas a través del apoyo del proyecto?
 - ✓ En qué medida **se incluyó las necesidades de la población beneficiaria** en el diseño de este proyecto.
 - ✓ En qué medida las actividades del proyecto **respondieron a las necesidades de los beneficiarios**, incluido el MINED, directores, maestros de las escuelas y los estudiantes
4. ¿Cuáles consideran que son los principales resultados obtenidos con apoyo del proyecto? El proyecto alcanzó los resultados esperados en relación a:
 - ✓ **Asistencia y Retención escolar por parte de estudiantes**
 - ✓ **Calidad de la enseñanza. Rendimiento académico / Promoción escolar**
 - ✓ **Aspectos de salud, nutrición/alimentación de escolares**
 - ✓ **Participación e involucramiento de la comunidad educativa** en mejoramiento de la infraestructura y sensibilización en la importancia de la educación primaria de sus hijos.
5. ¿En qué medida consideran que la capacidad instalada, la promoción de huertos escolares y otras actividades educativas del proyecto, incidió en la merienda escolar? ¿Podrían ejemplificar cómo ha sido esta incidencia del proyecto y en quiénes?

6. Según sus propias experiencias ¿Qué es lo que ha funcionado bien del Proyecto y qué no ha funcionado como se esperaba? Indague:
- ✓ De lo que ha funcionado bien, ¿Cuáles fueron los elementos o factores que facilitaron el buen funcionamiento?
 - ✓ De lo que no funcionó bien, ¿Qué elementos o factores pudieron incidir de forma negativa?
 - ✓ ¿Qué aspectos se deben mejorar y qué se debe hacer para lograrlo?
7. ¿Consideran que la estrategia de merienda escolar se puede mantener en el tiempo después que el proyecto finalice? ¿Por qué sí, o por qué no? Indague:
- ✓ ¿Hay otros programas o proyectos que se estén desarrollando "duplicando" las actividades del proyecto? Mencione
 - ✓ ¿Cuál ha sido el aporte que brindaron las familias de niños y niñas para la merienda escolar?
 - ✓ ¿En qué medida otros actores locales se han comprometido para garantizar la sostenibilidad de las actividades en las escuelas? Sector privado, asociaciones comunitarias, instituciones del gobierno local, etc.
 - ✓ ¿Qué recursos han invertido en esta estrategia desde el nivel departamental/regional hacia el municipio o escuela?
8. Presente la herramienta de Evaluación Preparación de la Sostenibilidad. Pregunte: ¿Conoce esta herramienta que ha utilizado PCI para medir la Sostenibilidad del Proyecto? ¿Cree que es una manera eficaz de medir la sostenibilidad? ¿Qué recomendaciones podría brindar para mejorar ésta herramienta?

*Si la respuesta es negativa explique las 5 condiciones que se evalúan en la herramienta y **consulte si cree que es eficaz para medir la sostenibilidad y si tuviese recomendaciones para mejorarla***

Segundo bloque/tema: Capacitación SAN

1. Para desarrollar las estrategias del Proyecto ¿En qué temas fueron capacitados Ustedes, estudiantes, comité escolar y familias? *Mencionar por cada beneficiario. Explorar sobre temas de alimentación, nutrición, higiene de los alimentos, lavado de manos, desinfección del agua, otros.*

Temas de capacitación	PINE-MINED	Maestros/as	CAP	Escolares
Metodología, herramientas, instrumentos para gerencia, seguimiento y monitoreo				
Alimentación y nutrición – Preparación de alimentos				
Higiene de los alimentos / lavado de manos				
Desinfección del agua				
Herramientas para la docencia: FAS, Metodología participativas, Manejo metodología colección Nacho				
Importancia de la Educación Primaria				
Importancia de las Alianzas para sostenibilidad				
Otras, describa				

2. ¿Cómo consideran que fue el aporte de la capacitación en los conocimientos, actitudes y comportamientos de docentes, estudiantes, comité escolar y familia? ¿Mejóro, desmejoró? ¿Se mantuvo igual?

Aporte en	PINE-MINED	Maestros/as	CAP	Escolares
Conocimientos nuevos adquiridos				
Actitudes mejoradas (en comparación antes de la intervención)				
Mejora en el comportamiento / prácticas (en comparación antes de la intervención)				

3. ¿Qué necesidades de capacitación o prioridades creen que todavía hizo falta para que la estrategia educativa funcionara mejor o se obtuvieran mejores resultados? *Señale temas específicos.*

Tercer bloque/tema: Huertos escolares

1. ¿En qué consiste la estrategia de huertos escolares? ¿En sus escuelas hay huertos? ¿Y en las otras escuelas de su zona?
2. ¿Nos pueden comentar la experiencia que han tenido para el desarrollo de huertos escolares? *Indague ¿cómo ha sido su implementación. ¿En alguna escuela se hizo diferente, o no se pudo implementar? Expliquen.*
- ✓ *¿Qué contempla los huertos escolares (acciones organizativas, demostrativas, prácticas supervisadas, involucramiento y aportes de padres, etc.)?*
 - ✓ *¿Cómo se organiza su implementación? ¿Quiénes participan y qué papel o rol desempeña, por ejemplo, el comité escolar?*
 - ✓ *¿Qué productos producen y que hacen con los productos?*
 - ✓ *¿Cómo valora sus resultados, en términos de lo que funciona bien y lo que debe mejorar? ¿Cuáles fueron los factores que facilitaron? ¿Cuáles fueron las limitantes o los elementos que afectaron los resultados esperados?*

Estrategia Huerto escolar	Descripción	Aspectos positivos y por mejorar
Qué contempla		
Cómo se organiza / participantes		
Qué producen y qué hacen con los productos		
Resultados obtenidos		

3. ¿Consideran que hay aceptabilidad de los huertos escolares? ¿Cómo ha sido la experiencia para que cumplan con la razón de ser? *Indague*
- ✓ *Si los productos que se producen en la escuela (corto plazo) son consumidos sin resistencia por las niñas y niños.*
 - ✓ *Cómo ha sido la participación de los Comité Escolar o Comité Alimentación Escolar o las familias*
 - ✓ *Si hay algunas familias que han hecho huertos en sus casas.*
 - ✓ *Hay compromiso de las partes involucradas para mantener los huertos*

4. ¿Cómo valoran los resultados obtenidos en relación a la implementación de los huertos escolares?
5. ¿Podría valorar si esta estrategia se puede mantener en el tiempo a pesar de que el proyecto finalice? ¿Por qué sí o por qué no?

Cuarto bloque/tema: Infraestructura escolar e involucramiento de los Comité Escolar o CAE para la sostenibilidad

1. En el marco de los compromisos establecidos en el proyecto ¿Cómo valoran los resultados obtenidos en relación a la mejora en la infraestructura escolar? ¿En las aulas? ¿En baúles y cocinas? ¿En las estaciones de agua y los servicios sanitarios?
2. Además de los recursos invertidos directamente por el proyecto, ¿hubo apoyo financiero o en especie brindado por algún otro actor local, por ejemplo, del gobierno municipal, el sector privado (comerciante, productor, organización de padres y madres)?
3. ¿Considera que las inversiones realizadas en las escuelas son sostenibles? ¿Por qué sí, por qué no?
4. Y en cuanto al desarrollo organizativo y funcional de los CAE, ¿cómo valoran los resultados obtenidos? ¿Se logró que funcionaran en todas las escuelas? ¿Por qué creen que en algunas escuelas funcionan mejor que en otras escuelas? Indague:
 - ✓ *¿Cuáles fueron los factores que facilitaron*
 - ✓ *¿Cuáles fueron las limitantes o los elementos que afectaron los resultados esperados?*
5. ¿El proyecto tubo un abordaje integral para el desarrollo de los CAE? ¿Qué acciones consideran que fueron las más efectivas y que llevaron a los mejores resultados?
6. ¿Cómo consideran que ha sido la integración y participación de padres/madres/maestros/as en la los CAE? ¿Cómo se podría mejorar?

Quinto bloque/tema: Género, lecciones aprendidas y recomendaciones

1. A través de la implementación del proyecto ¿Cómo fue promovido la equidad de género? ¿Consideran que hubo resultados diferenciados entre mujeres/niñas y hombres/niños?
2. Hasta qué punto a través de la implementación del proyecto se abordó las barreras de género para los aspectos propios de la educación y en cuanto al compromiso de la población/comunidad? Indague:
 - ✓ *¿Qué barreras de género identifican todavía y cómo han tratado estas cuestiones?*
 - ✓ *¿Se integran los hombres (padres) en la elaboración de la merienda escolar o todavía es una actividad sólo para las mujeres (madres)*
 - ✓ *¿Las niñas y los niños se integran por igual a las actividades del proyecto?*

3. En general, para todo lo que significó la implementación del proyecto durante estos cuatro años: ¿Cuáles consideran que fueron factores facilitadores y factores limitantes para lograr los resultados esperados? ¿Qué otros elementos pueden mencionar? Por ejemplo:
 - ✓ *Adecuación de estrategia o alguna actividad*
 - ✓ *Mecanismos de coordinación*
 - ✓ *Planes de mejora*
 - ✓ *Monitoreo, supervisión, evaluación*
 - ✓ *Desarrollo de alianzas para la sostenibilidad*
4. ¿Podrían identificar desde su experiencia qué aprendizajes tuvieron Ustedes con la implementación de las estrategias del proyecto?
5. Mencionen lecciones aprendidas durante la implementación del proyecto: En cuanto al desarrollo de la Merienda Escolar, los huertos escolares, programa de capacitación, infraestructura escolar.
6. Pensando en el futuro, para mejorar y continuar con las estrategias del proyecto, ¿Qué recomendaciones sugieren que se deben retomar?

Aspecto	Componente del programa			
	Merienda Escolar	Huertos Escolares	Capacitaciones SAN	Infraestructura escolar
Organización				
Funcionamiento				
Seguimiento y monitoreo				
Capacitación				
Preparación para la Sostenibilidad				
Enfoque de género				

Finalización de la actividad

1. Agradezca nuevamente la participación de todas las personas
2. Pregunte si hay algo más que deseen mencionar
3. Concluya la actividad haciendo ver lo importante que fueron los aportes brindados.
4. Revise la lista de asistencia para verificar que todas las personas están anotadas.
5. Ofrezca un refrigerio para compartir.

¡Muchas gracias por su participación!!!



PCI Nicaragua / CEDEHCA / USDA
Proyecto “Mejor Educación y Salud – MESA” Jinotega-RACCS
Evaluación Final 2017

Guía No. 6 - Grupo Focal

**Madres y Padres organizados en Comité/Patronato/Gabinete Escolar (PTA),
Comité Alimentación Escolar (CAE) y Mujeres Empoderadas (ME)**

Tema de discusión: Estrategias de Seguridad Alimentaria Escolar

DATOS GENERALES

Fecha: ____/____/____ Hora de inicio: _____ Hora de finalización: _____

Departamento/Región: Jinotega ☐ RACCS ☐ Municipio: _____

Participantes

Facilitador/a: _____

Anotador/a y apoyo logístico: _____

INTRODUCCIÓN:

Hola, mi nombre es _____, soy parte del equipo de investigación que está realizando la Evaluación final del proyecto “Mejor Educación y Salud”, que está desarrollando PCI en Jinotega y la RACCS, en esta última con apoyo de CEDEHCA.

Hoy estamos aquí para realizar una Entrevista grupal en el marco de la Evaluación final del proyecto que se está implementando en esta zona. El propósito es conocer de Ustedes su opinión, experiencia y/o participación que han tenido en las actividades que realiza el proyecto en relación a las estrategias de seguridad alimentaria, con énfasis en educación, nutrición y alimentación (merienda escolar, capacitación, huertos escolares, infraestructura y participación de los padres, madres en actividades escolares) en las escuelas beneficiarias del proyecto.

Sus ideas, puntos de vista, conocimiento o experiencia que nos pueda compartir, serán de mucha utilidad en esta evaluación final y también para considerarlas en la nueva fase del proyecto. Su participación es completamente voluntaria y lo que aquí se exprese será confidencial, y se utilizará exclusivamente para efectos de la evaluación. ¿Están de acuerdo en participar en esta entrevistada de grupo? Muchas gracias.

Metodología y actividades iniciales

- ✓ Presentarse y dar la bienvenida agradeciendo la presencia de los/as participantes y presentar el objetivo de la entrevista grupal: *“Compartir las experiencias, conocimientos y puntos de vista sobre la implementación y resultados del proyecto MESA (merienda escolar, capacitación a escolares, padres, madres y maestros/as, huertos y mejoramiento de infraestructura e importancia de la educación primaria de sus hijos) que fueron ejecutados en las escuelas y cómo se ha involucrado toda la comunidad educativa.”*
- ✓ Explicar las reglas y procedimientos a seguir durante la entrevista grupal:
- ✓ La participación es de forma totalmente voluntaria; debe haber una participación activa y sus opiniones son muy importantes, queremos que todas y todos tengan la misma oportunidad de participar y opinar. Ninguna está obligada a responder las preguntas que no quiera responder. Si alguien quiere salirse de la reunión puede hacerlo en cualquier momento.
- ✓ Para registrar sus opiniones se hará grabación de la conversación - si ustedes no tienen inconveniente - por eso omitiremos sus nombres completos, pero pueden pedir interrumpir la grabación si desean expresar algo que no quieren que quede grabado.
- ✓ Se garantiza que la información será resguardada y utilizada única y exclusivamente para fines de esta evaluación.
- ✓ Coloque una tarjeta con el nombre de la persona para facilitar la comunicación personalizada, también debe estar identificado el equipo que facilita la Entrevista grupal.
- ✓ Realizar dinámica de presentación y/o rompe hielo con las personas participantes, luego proceder con la guía de preguntas.
- ✓ Explique cómo se desarrollará la actividad, dé a conocer los temas o contenidos que se estarán abordando. Dígales que se estarán haciendo preguntas en cada tema (por bloque) y que a través de estas preguntas generadoras que Usted hará, se irá desarrollando la discusión grupal.

Cada bloque/tema contiene preguntas específicas; cada persona puede opinar en el momento que desee, pero se insta a que todas y todos participen de forma activa.

- Primer bloque/tema: Merienda Escolar
- Segundo bloque/tema: Capacitación
- Tercer bloque/tema: Huertos escolares
- Infraestructura escolar e involucramiento de los Comité Escolar o CAE para la sostenibilidad
- Quinto bloque/tema: Género, Lecciones aprendidas y recomendaciones

Desarrollo del grupo focal

Objetivo: Compartir las experiencias, conocimientos y puntos de vista sobre la implementación y resultados del proyecto MESA (merienda escolar, capacitación a escolares, padres, madres y maestros/as, huertos y mejoramiento de infraestructura e importancia de la educación primaria de sus hijos) que se ejecutan en las escuelas y cómo se ha involucrado en el comité de madres y padres como estructura organizada para trabajar en pro de la escuela. *Indagar previamente el nombre de la organización en ese territorio.*

Preguntas	Respuestas
Actividades iniciales	
Realizar dinámica de presentación y/o rompe hielo con las personas participantes, luego proceda con la guía de preguntas.	
Estrategias de seguridad alimentaria nutricional abordadas en el proyecto MESA	
1. ¿En las escuelas donde estudian sus hijas e hijos se implementa la Merienda Escolar? ¿Nos podrían contar desde hace cuánto tiempo y qué les parece? 2. ¿Nos pueden contar en qué consiste la Merienda Escolar? 3. ¿Desde hace cuánto tiempo son miembros del Comité de madres y padres? ¿Qué les motivó integrarse y cómo se sienten en esa labor comunitaria? • ¿Cómo se organizan en el comité de madres y padres? • ¿Cómo funciona la organización? • ¿Cómo participa el comité de madres y padres y qué papel o rol desempeñan en la merienda escolar? • ¿Hay alguna escuela en que funciona diferente? • ¿Qué limitantes han tenido?	
4. ¿Cómo valoran Ustedes la integración y respuestas brindadas a través del apoyo del proyecto? En qué medida el proyecto <i>incluyó y respondió a las necesidades de la población beneficiaria</i>	
5. ¿Cuáles son los beneficios que tiene la merienda escolar para escuela, niñas, niños y familia? <u>Indague sobre la incidencia en la calidad de la enseñanza al obtener estos beneficios</u> • Asistencia, retención escolar y rendimiento académico, promoción. • Salud, nutrición, alimentación • Involucramiento de la comunidad educativa para la sostenibilidad.	
6. Según sus propias experiencias ¿Qué es lo que ha funcionado bien del proyecto y qué no ha funcionado como se esperaba?	
7. ¿En su rol de como miembro del comité de madres y padres qué aspectos cree que se deben mejorar y qué se debe hacer para lograrlo?	
8. ¿En qué medida otros actores locales se han comprometido para garantizar la sostenibilidad de las actividades en las escuelas? Sector privado, asociaciones comunitarias, instituciones del gobierno local, etc.	

Preguntas	Respuestas
Actividades iniciales	
9. Consideran ustedes que hay condiciones a nivel de la comunidad para la sostenibilidad del proyecto de alimentación escolar (qué posibilidades hay que continúe implementándose cuando ya no se cuente con financiamiento del proyecto). <i>Explique su respuesta.</i>	
10. Para desarrollar la estrategia del proyecto ¿En qué temas fueron capacitados Ustedes como comité escolar? Los/as estudiantes? ¿y las familias? Alimentación, higiene de los alimentos, lavado de manos, salud, nutrición, método de desinfección del agua, huertos escolares, importancia de la educación primaria, importancia de las alianzas para la sostenibilidad.	
11. ¿Cómo aportó la capacitación recibida en los conocimientos, las actitudes y comportamientos de docentes, estudiantes, comité escolar y familia? ¿Mejóro, desmejoró, se mantuvo igual?	
• <i>Conocimientos nuevos adquiridos</i> • <i>Actitudes mejoradas (en comparación antes de la intervención)</i> • <i>Comportamientos en prácticas (en comparación antes de la intervención)</i>	
12. ¿Qué necesidades o prioridades de capacitación se les dio atención en el proyecto y a qué beneficiario?	
• <i>Temas</i> • <i>Metodología, herramientas, instrumentos</i> • <i>Herramientas para seguimiento y monitoreo</i> • <i>Materiales, otros</i>	
13. ¿Qué otros temas de capacitación creen que les hubiera gustado recibir desde el proyecto para que este funcionara mejor o se obtuvieran mejores resultados? <i>Señale temas específicos.</i>	
14. ¿Cómo fue la experiencia de desarrollo de Huertos escolares? ¿cómo fue su implementación en sus escuelas?	
• <i>¿Qué contempló los huertos familiares (componentes, insumos, etc.)?</i> • <i>¿Cómo se organizó su implementación?</i> • <i>¿Quiénes participaron y qué papel o rol desempeña? ¿Ustedes como comité de madres y padres qué rol tienen?</i> • <i>¿Qué tipo de productos producen y que hacen con estos productos?</i> • <i>¿Cómo valora los resultados de los huertos?</i>	
15. ¿Hay aceptabilidad de los huertos escolares y cómo ha sido la experiencia para que cumplan con la razón de ser?	
16. ¿Conocen si hay algunas familias que han hecho huertos en sus casas; y en el caso de Ustedes tienen huertos en sus casas?	
17. ¿Podría valorar si esta estrategia se puede mantener en el tiempo a pesar de que el proyecto finalice? ¿Por qué sí o por qué no?	
¿Qué se puede mejorar para la implementación de esta estrategia? Pueden brindar alguna recomendación.	

Preguntas	Respuestas
Actividades iniciales	
18. ¿Cómo valoran los resultados obtenidos en relación a la mejora en la infraestructura escolar? ¿En las aulas? ¿En bodegas y cocinas? ¿En las estaciones de agua y los servicios sanitarios?	
19. ¿Ustedes como miembros del CAE han tenido alguna participación en estas actividades? ¿Pueden describirlas?	
20. Conocen si además de los recursos invertidos directamente por el proyecto, hubo apoyo financiero o en especie brindado por algún otro actor local, por ejemplo: el gobierno municipal, el sector privado (comerciante, productor, organización de padres y madres)?.	
21. ¿Considera que las inversiones realizadas en las escuelas son sostenibles? ¿Por qué sí, por qué no?	
22. En cuanto al desarrollo organizativo y funcional de los CAE, ¿cómo valoran los resultados obtenidos? ¿Se logró que funcionaran en todas las escuelas? ¿Por qué creen que en algunas escuelas funcionan mejor que en otras escuelas? Indague: ✓ ¿Cuáles fueron los factores que facilitaron ✓ ¿Cuáles fueron las limitantes o los elementos que afectaron los resultados esperados?	
23. ¿Tuvo el proyecto MESA alguna incidencia, desarrolló actividades para que los CAE/Comité escolar/Mujeres empoderadas se fortalecieran? ¿Qué acciones consideran que fueron las más efectivas y que condujeron a los mejores resultados?	
24. ¿Cómo consideran que ha sido la integración y participación de padres/madres/maestros/as en la los CAE? ¿Cómo se podría mejorar?	
Género, Lecciones aprendidas y recomendaciones	
25. ¿Cómo participan las mujeres y los hombres en las estrategias del proyecto? ¿Se integran los hombres a la elaboración de la merienda escolar? ¿Qué se puede hacer para lograr su integración tanto como las mujeres?	
26. ¿Las niñas y los niños se integran por igual a las actividades del proyecto?	
27. ¿Cómo se coordinan Ustedes con docentes y el proyecto para la ejecución de las actividades? ¿Existe planes de acción conjunto o para el comité de madres y padres? ¿Cómo se puede mejorar esta coordinación?	
28. ¿Cuáles consideran que fueron factores facilitadores y factores limitantes para lograr los resultados esperados? ▪ Adecuación de estrategia o alguna actividad ▪ Mecanismos de coordinación ▪ Planes de mejora ▪ Monitoreo, supervisión, evaluación ▪ Desarrollo de alianzas para la sostenibilidad	
29. ¿Podrían identificar desde su experiencia qué aprendizajes tuvieron ustedes con la implementación de las estrategias del proyecto?	

Preguntas	Respuestas
Actividades iniciales	
30. Del resultado alcanzado en cada una de las estrategias ¿qué lecciones aprendidas se pueden sacar? Merienda, huertos, capacitación, infraestructura escolar. (Ubicar las lecciones en la tabla al final de la guía) <i>Puede llevarlo en un papelógrafo para llenarlo en conjunto.</i>	

LECCIONES APRENDIDAS

De las actividades ejecutadas o resultados alcanzados en cada componente del proyecto, podrían compartir alguna lección aprendida				
Estrategia	Organización	Funcionamiento	Seguimiento y monitoreo	Resultado alcanzado (positivo o negativo)
Merienda Escolar				
Huertos Escolares				
Capacitaciones SAN				
Infraestructura escolar / desarrollo de CAE				

RECOMENDACIONES

Pensando en el futuro, para mejorar y continuar con las estrategias del proyecto, ¿Qué recomendaciones sugieren que se deben retomar?					
Estrategias	Organización	Funcionamiento	Seguimiento y monitoreo	Capacitación	Sostenibilidad
Merienda Escolar					
Huertos Escolares					
Capacitaciones SAN					
Infraestructura escolar / desarrollo de CAE					

Tema/ Contenido	Preguntas	Respuestas
SOLO PARA MUJERES ORGANIZADAS (Mujeres Empoderadas)	31. Si algunas de ustedes están participando en grupos de Mujeres empoderadas (ME), ¿En qué ha contribuido su participación en estos grupos para apoyar la educación de sus hijos? 32. En los grupos ME se promueve el liderazgo y participación activa, ¿Esto ha facilitado su rol en el comité de la escuela? ¿De qué manera? Explique	

Finalización de la actividad

1. Agradezca nuevamente la participación de todas las personas
2. Pregunte si hay algo más que deseen mencionar
3. Concluya la actividad haciendo ver lo importante que fueron los aportes brindados.
4. Revise la lista de asistencia para verificar que todas las personas están anotadas.
5. Ofrezca un refrigerio para compartir.

¡Muchas gracias por su participación!!!

Annex 07. MESA Project definitions, sources and indicator targets

Performance Indicator		LOP Target	Indicator Definition	Data Source
Contribution to Feed the Future	Number of public-private partnerships formed as a result of USDA assistance	35	Total number of alliances with other public and/or private entities, e.g. municipal governments. Please refer to MGD Feed the Future Indicator 1 for the complete definition.	Project Records, Financial Records
	Number of social assistance beneficiaries participating in productive safely nets as a result of USDA assistance	95,420	Total number of individuals participating in USDA-supported social assistance programming with productive components aimed at increasing community assets, household assets, or strengthening human capital. Please refer to MGD Feed the Future Indicator 4 for the complete definition.	Project monitoring data
SO1. Improved literacy of school-aged children	Percent of girls who, by the end of 6th grade demonstrate reading comprehension equivalent to their grade level as defined by national standards at USDA supported schools	85%	Numerator: Total number of girls assessed who, by the end of 6th grade, demonstrate they can read and understand grade level text Denominator: Total number of girls assessed at the school Please refer to MGD Standard Indicator 4 for the complete definition.	Baseline and final evaluation MINED Evaluation Data
	Percent of boys who, by the end of 6th grade demonstrate reading comprehension equivalent to their grade level as defined by national standards at USDA supported schools	83%	Numerator: Total number of boys assessed who, by the end of 6th grade, demonstrate they can read and understand grade level text Denominator: Total number of boys assessed at the school Please refer to MGD Standard Indicator 4 for the complete definition.	Baseline and final evaluation MINED Evaluation Data
	Total number of individuals benefiting directly from USDA-funded interventions	95,420	Total number of individuals who directly participate in any USDA-funded activity, e.g. trainings, school feeding program, etc. Please refer to MGD Standard Indicators 21 and 22 for the complete definition.	Project monitoring data SIMESA
	Total number of individuals benefiting indirectly from USDA-funded interventions	304,712	Total number of individuals who indirectly participate in any USDA-funded activity, e.g. trainings, school feeding program, etc. Please refer to MGD Standard Indicators 21 and 22 for the complete definition.	Project monitoring data SIMESA
MGD 1.1 Improved quality of reading and writing instruction in schools	Percent of teachers who demonstrate improved literacy instruction as identified by supervisors	80%	Numerator: Total number of teachers who demonstrate improved literacy instruction as per evaluation by supervisors Denominator: Total number of teachers surveyed	MINED Evaluation Data
MGD 1.1.2 Improved access to school supplies and materials	Number of schools receiving school supplies and materials as a result of USDA assistance	1016	Total number of schools that receive school supplies and materials (i.e. pencils, paper, flip charts, recreational materials, etc.) a minimum of one time through USDA support.	Materials Delivery Report SIMESA
MGD 1.1.4 Improved teachers' skills and knowledge	Percentage of teachers in selected schools that demonstrate the use of new quality teaching techniques or tools	50%	Total number of teachers who complete at minimum one training through USDA support in educational topics including participatory techniques, leadership development, personal development and/or educational methodologies, and demonstrate the ability to apply them to other teachers or students.	Training Register SIMESA

Performance Indicator		LOP Target	Indicator Definition	Data Source
MGD 1.2 Improved students attention in class	Percent of students in classrooms identified as inattentive by their teachers (data collected during a single day, at specific intervals)	10%	Numerator: Total number of students identified as inattentive by their teachers based on pre-established criteria. Denominator: Total number of students assessed for inattentiveness at the school	Baseline, Mid-Term, Final Evaluation, Teachers Survey
MGD 1.2.1 Percent of students who feel hungry in school reduced	Percent of students in target schools who indicate that they are "hungry" or "very hungry" during the school day (collected through a student survey)	3%	Numerator: Total number of students who indicate they are "hungry" or "very hungry" during the school day (Likert Scale) Denominator: Total number of students assessed at the school	Baseline, Mid-Term, Final Evaluation Student Survey
MGD 1.2.1.1/ 1.3.1.1 Increased access to food (school meals)	Percent of students in target schools consuming daily meals at school	92%	Numerator: Total number of students in target schools consuming daily meals at school Denominator: Total number of students enrolled in target schools	Baseline, Mid-Term, Final Evaluation Student Survey
MGD 1.3 Improved students' school attendance	Percent of boys regularly (80%) attending USDA supported classrooms/schools	80%	Numerator: Total number of boys who attend at least 80% of class sessions at the end of the school year Denominator: Total number of boys enrolled Please refer to MGD Standard Indicator 2 for the complete definition.	MINED Evaluation Data
	Percent of girls regularly (80%) attending USDA supported classrooms/schools	80%	Numerator: Total number of girls who attend at least 80% of class sessions at the end of the school year Denominator: Total number of girls enrolled Please refer to MGD Standard Indicator 2 for the complete definition.	MINED Evaluation Data
MGD 1.3.1 Economic and cultural incentives increased; and/or disincentives reduced	Percent of target schools that have separate latrines for boys and girls	30%	Numerator: Total number of targeted schools that have separate latrines for boys and girls Denominator: Total number of targeted schools	Baseline, Mid-Term, Final Evaluation Teachers Survey
MGD 1.3.2 Health-related school absences reduced	Percent of students who state that illness is the primary reason they are absent from school	20%	Numerator: Total number of students assessed who state that the primary reason for their school absences is due to health reasons Denominator: Total number of students assessed at the school	Baseline, Mid-Term, Final Evaluation Student Survey
MGD 1.3.3 School infrastructure improved	Number of students benefiting from the (rehabilitated or constructed) classrooms as a result of USDA Assistance	15,760	Total number of students that benefit from infrastructure support (classrooms), both rehabilitation and/or new construction projects. Please refer to MGD Standard Indicator 10 for the complete definition.	Project reports; Infrastructure plans; Field Technician reports SIMESA
	Number of students benefiting from the (rehabilitated or constructed) kitchens as a result of USDA Assistance	31,520	Total number of students that benefit from infrastructure support (kitchens), both rehabilitation and/or new construction projects. Please refer to MGD Standard Indicator 10 for the complete definition.	Project reports; Infrastructure plans; Field Technician reports SIMESA
	Number of students benefiting from the (rehabilitated or constructed) storage areas as a result of USDA Assistance	31,520	Total number of students that benefit from infrastructure support (storage areas), both rehabilitation and/or new construction projects. Please refer to MGD Standard Indicator 10 for the complete definition.	Project reports; Infrastructure plans; Field Technician reports SIMESA

Performance Indicator		LOP Target	Indicator Definition	Data Source
	Number of students benefiting from the (rehabilitated or constructed) wells, water station/systems as a result of USDA Assistance	10,400	Total number of students that benefit from infrastructure support (wells, water station/systems), both rehabilitation and/or new construction projects. Please refer to MGD Standard Indicator 10 for the complete definition.	Project reports; Infrastructure plans; Field Technician reports SIMESA
	Number of students benefiting from the (rehabilitated or constructed) latrines as a result of USDA Assistance	16,000	Total number of students that benefit from infrastructure support (latrines), both rehabilitation and/or new construction projects. Please refer to MGD Standard Indicator 10 for the complete definition.	Project reports; Infrastructure plans; Field Technician reports SIMESA
MGD 1.3.5 Increased Community Understanding of Benefits of Education	Percent of parents in target communities who can name at least three benefits of primary education (collected through a survey)	50%	Numerator: Total number of parents who can name at least three benefits of primary education. Denominator: Total number of parents assessed	Parent questionnaires Surveys
	Number of parents in target communities who are members of PTA (or a similar school-based community group)	4,064	Total number of parents who are registered members of school Parent Teacher Associations (PTAs)	PTA membership registers Project Records: SIMESA
SO2. Use of health and nutritional practices increased (See RF 2)	Percent of schools with soap and water at a hand washing station commonly used by students	80%	Numerator: Total number of schools with soap and water at a minimum of one hand washing station commonly used by students verified through direct observation Denominator: Total number of schools surveyed	Baseline, Mid-Term, Final Evaluation Teachers Survey
	Percent of target schools that clean their latrines at least once a day	50%	Numerator: Total number of targeted schools that clean their latrines once a day. Denominator: Total number of targeted schools	Field Technician reports Baseline, Mid-Term, Final Evaluation Teachers Survey
MGD 2.1 Knowledge on health and hygiene practices improved	Percent of parents in targeted communities who can identify at least three important health/hygiene practices (e.g. use of latrines)	70%	Numerator: Total number of parents who can identify at least three important health/hygiene practices, e.g. use of latrines, washing hands before eating, etc. Denominator: Total number of parents assessed	Baseline, Mid-Term, Final Evaluation Mothers Survey
MGD 2.2 Knowledge on safe food preparation and storage improved	Percent of parents at target schools who achieve a passing score on a test of safe food preparation and storage	80%	Numerator: Total number of parents trained in food preparation who respond correctly to a minimum of 80% of questions on safe food preparation and storage (i.e. washing hands prior to handling clean utensils and preparing food, using treated water for beverages, etc.) Denominator: Total number of parents interviewed by survey	Baseline, Mid-Term, Final Evaluation Training Register
MGD 2.3 Knowledge on nutrition improved	Percent of mothers (or care providers) in targeted communities who can identify at least three important nutrition or dietary guidelines/recommendations	50%	Numerator: Total number of mothers (or care providers) who can identify at least three healthy nutrition practices, i.e. eating a balanced diet with vegetables, etc. Denominator: Total number of mothers (or care providers) assessed	Baseline, Mid-Term, Final Evaluation Mothers Survey
MGD 2.4 Access to clean water and sanitation services increased	Number of target schools with year round access to a clean and safe water source	394	Total number of schools that have access to potable water, including schools using SODIS for water disinfection	Technical Specialist Report Project Records: SIMESA

Performance Indicator		LOP Target	Indicator Definition	Data Source
MGD 2.5 Access to preventive health interventions increased	Number of target schools benefiting from preventive health interventions	986	Total number of schools that benefit from preventative health interventions (e.g. de-worming and vitamins, health education and training, etc.)	Technical Specialist Report SIMESA
MGD 1.4.1 / 2.7.1 Improved capacity of governmental institutions	Number of standard operating procedures and tools for management and oversight of school feeding programs by relevant government offices that are operational	1	Number of standard operating procedures and tools for management and oversight of school feeding programs by relevant government offices (e.g. Ministry of Education) that are operational (e.g. systematically utilized by the entire government agency)	Government office records
MGD 1.4.1 / 2.7.4 Increased participation of local organizations and community groups	Number of Parent-Teacher Associations or similar "school" governance structures contributing to their school as a result of USDA assistance	100	Number of Parent-Teacher Associations (PTA) contributing to their school as a result of USDA assistance. Contributions can include assistance in the provision of school meals (e.g. meal preparation), helping to establish school gardens, etc.	Project Records: SIMESA

Annex 08. Calculation of confidence limits for LQAS KPC Survey

Calculation of the weight for each lot or SA:

Definition of symbols:

- N = Sample size in LQAS (Total number of children in the sample)
- n_i = Sample size for determined lot or SA (**19** per lot)
- N = Total number of population according to the project area
- N_i = Total number of population in determined lot

The weight for determined lot (w_i) = Total number of population in each lot divided by the total number of population in the project area
 $= N_i / N$

Example of calculation of the weight for the five supervision areas

LOT (SUPERVISION AREA)	POPULATION SIZE	WEIGHT (w_i)
Supervision Area A	1,600	$1,600/10,000 = .16$
Supervision Area B	2,300	$2,300/10,000 = .23$
Supervision Area C	2,200	$2,200/10,000 = .22$
Supervision Area D	2,000	$2,000/10,000 = .20$
Supervision Area E	1,900	$1,900/10,000 = .19$
TOTAL (Global Project Area)	10,000	

Calculation of the coverage ratio, using the weighting by SA:

Definition of symbols:

- n_i = Sample size in LQAS (Total number of children in the sample)
- x_i = Number of correct or adequate conditions by SA
- w_i = Weight of the lot i (see previous section "Calculation of the weight for each SA")

Weighted data from each SA to determine overall coverage

LOT	n_i	x_i	x_i/n_i	w_i	$w_i * (x_i/n_i)$
Supervision Area A	19	3	.16	.16	.03
Supervision Area B	19	5	.26	.23	.06
Supervision Area C	19	5	.26	.22	.06
Supervision Area D	19	7	.37	.20	.07
Supervision Area E	19	11	.58	.19	.11
TOTAL	95				.27

In the example, the weighted coverage by population for the global project area is 27% ($.27 \times 100$).

To calculate the confidence limit for the estimated global coverage, we used the following formula.

Z = 95% confidence = 1.96

P = true proportion in the population

p = proportion of coverage for the global programmatic area

p_i = proportion of coverage for determined lot (= x_i/n_i)

$q_i = 1-p_i$

n_i = sample size for determined lot

$$P = p \pm Z \times \sqrt{\frac{w_i^2 \times (pq/n)}{n_i}}$$

Notes:

The LQAS methodology yields a smaller number of cases within each Supervision Area (SA) that correspond to the area of programmatic administration (lot). Consequently, the estimates of specific coverage by lot or SA and its confidence limits will not be precise, and therefore will give useless information. However, **it is possible to calculate with great precision, an estimate of coverage and corresponding confidence limits for the total project area, by combining all the SA or lots.** In doing so, it is important to remember that the number of beneficiaries probably varies from one lot to another. In such cases, when calculating an estimate of coverage through the program, the results of each SA or lot should be weighted according to the total number of beneficiaries residing in it.

When a sample is used, the estimate obtained will probably be similar but different from the actual percentage in the population. However, when using a random sample, in addition to obtaining an estimate, it is possible to express how certain the result is by using the confidence interval (CI) of the sample. Thus the last step for measuring a coverage ratio is to calculate the CI. This measure is necessary because the coverage is an estimate and is not accurate. A 95% CI is the range in which you have 95% confidence that the estimated coverage is within it. In other words, when the estimated percentage is presented, it is almost certain (95% confidence) that the actual population percentage is within the range. These data are used to establish comparisons between results of the same mean: when the CI of two means overlap, the difference between the two is not statistically significant; on the other hand, when they do not overlap, the difference is statistically significant.

Annex 09: p Value tests for two independent proportions

Valor P 2 proporciones independientes

1.2. Porcentaje de estudiantes en las clases que identifiquen con falta de atención por parte de sus maestros

$H_0: p_1 = p_2$

$H_1: p_1 < p_2$

Poblacion 1		Poblacion 2	
x1	628	x2	999
n1	6999	n2	7360
p1	0.09	p2	0.14
p1 - p2	-0.05		
Nc	95%		
α	5%		
$\hat{p}$	0.1133087		
$\hat{q}$	0.8866913		
$\sigma_{\Delta o}$	0.0053		
Z_e	-8.69		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	1.00000	No rechazo la H_0	
Prueba bilateral	0.00000	Rechazo la H_0	
Cola inferior	0.00000	Rechazo la H_0	

$$H_0: p_1 = p_2$$

Las hipótesis alternativas posibles son

$$H_1: p_1 \neq p_2 \quad H_1: p_1 > p_2 \quad H_1: p_1 < p_2$$

La estimación combinada de p se puede calcular de la siguiente manera:

$$\hat{p} = \frac{x_1 + x_2}{n_1 + n_2}$$

Donde:

$\hat{p}$ = proporción muestral

x_1 = número de aciertos en la muestra 1

x_2 = número de aciertos en la muestra 2

n_1 = número de observaciones de la muestra 1

n_2 = número de observaciones de la muestra 2

Este valor de p se utiliza para calcular el valor estadístico de prueba

$$z_{prueba} = \frac{\frac{x_1}{n_1} - \frac{x_2}{n_2}}{\sqrt{\hat{p}(1-\hat{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

1.2.1. Porcentaje de estudiantes que dicen responden tener hambre o mucha hambre durante el día

$H_0: p_1 = p_2$

$H_1: p_1 < p_2$

Poblacion 1		Poblacion 2	
x1	3	x2	14
n1	247	n2	223
p1	0.01	p2	0.06
p1 - p2	-0.05		
Nc	95%		
α	5%		
$\hat{p}$	0.0361702		
$\hat{q}$	0.9638298		
$\sigma_{\Delta o}$	0.0172		
Z_e	-2.94		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.99834	No rechazo la H_0	
Prueba bilateral	0.00333	Rechazo la H_0	
Cola inferior	0.00166	Rechazo la H_0	

1.2.2.1/1.3.1.1 Porcentaje de escolares que consumen comidas diarias en la escuela

$H_0: p_1 = p_2$

$H_1: p_1 > p_2$

Poblacion 1		Poblacion 2	
x1	216	x2	196
n1	229	n2	223
p1	0.94	p2	0.88
p1 - p2	0.06		
Nc	95%		
α	5%		
$\hat{p}$	0.9115044		
$\hat{q}$	0.0884956		
$\sigma_{\Delta o}$	0.0267		
Z_e	2.41		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.00805	Rechazo la H_0	
Prueba bilateral	0.01610	Rechazo la H_0	
Cola inferior	0.99195	No rechazo la H_0	

1.3.2 Porcentaje de escolares que afirman que la enfermedad es la razón principal por la que se ausentan a la escuela

$H_0: p_1 = p_2$

$H_1: p_1 < p_2$

Poblacion 1		Poblacion 2	
x1	143	x2	61
n1	208	n2	148
p1	0.69	p2	0.41
p1 - p2	0.28		
Nc	95%		
α	5%		
$\hat{p}$	0.5730337		
$\hat{q}$	0.4269663		
$\sigma_{\Delta o}$	0.0532		
Ze	5.18		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.00000	Rechazo la H_0	
Prueba bilateral	0.00000	Rechazo la H_0	
Cola inferior	1.00000	No rechazo la H_0	

1.3.5 Porcentaje de madres que pueden nombrar al menos tres beneficios de la educacion primaria

$H_0: p_1 = p_2$

$H_1: p_1 > p_2$

Poblacion 1		Poblacion 2	
x1	113	x2	28
n1	213	n2	247
p1	0.53	p2	0.11
p1 - p2	0.42		
Nc	95%		
α	5%		
$\hat{p}$	0.3065217		
$\hat{q}$	0.6934783		
$\sigma_{\Delta o}$	0.0431		
Ze	9.68		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.00000	Rechazo la H_0	
Prueba bilateral	0.00000	Rechazo la H_0	
Cola inferior	1.00000	No rechazo la H_0	

1.3.1 Porcentaje de escuelas que tienen letrinas separadas por sexo

$H_0: p_1 = p_2$

$H_1: p_1 > p_2$

Poblacion 1		Poblacion 2	
x1	170	x2	29
n1	244	n2	224
p1	0.70	p2	0.13
p1 - p2	0.57		
Nc	95%		
α	5%		
$\hat{p}$	0.4252137		
$\hat{q}$	0.5747863		
$\sigma_{\Delta o}$	0.0457		
Ze	12.40		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.00000	Rechazo la H_0	
Prueba bilateral	0.00000	Rechazo la H_0	
Cola inferior	1.00000	No rechazo la H_0	

SO2 Porcentaje de escuelas con agua y jabon en estaciones de lavado de manos usado por escolares

$H_0: p_1 = p_2$

$H_1: p_1 > p_2$

Poblacion 1		Poblacion 2	
x1	161	x2	15
n1	247	n2	100
p1	0.65	p2	0.15
p1 - p2	0.50		
Nc	95%		
α	5%		
$\hat{p}$	0.5072046		
q	0.4927954		
$\sigma_{\Delta o}$	0.0593		
Ze	8.47		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.00000	Rechazo la H_0	
Prueba bilateral	0.00000	Rechazo la H_0	
Cola inferior	1.00000	No rechazo la H_0	

SO2 Porcentaje de escuelas que limpian la letrina al menos una vez al dia

$H_0: p_1 = p_2$

$H_1: p_1 > p_2$

Poblacion 1		Poblacion 2	
x1	210	x2	97
n1	247	n2	247
p1	0.85	p2	0.39
p1 - p2	0.46		
Nc	95%		
α	5%		
$\hat{p}$	0.6214575		
q	0.3785425		
$\sigma_{\Delta o}$	0.0436		
Ze	10.48		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.00000	Rechazo la H_0	
Prueba bilateral	0.00000	Rechazo la H_0	
Cola inferior	1.00000	No rechazo la H_0	

2.1 Porcentaje de madres que identifican al menos tres practicas de salud/higiene

$H_0: p_1 = p_2$

$H_1: p_1 > p_2$

Poblacion 1		Poblacion 2	
x1	185	x2	107
n1	247	n2	247
p1	0.75	p2	0.43
p1 - p2	0.32		
Nc	95%		
α	5%		
$\hat{p}$	0.5910931		
q	0.4089069		
$\sigma_{\Delta o}$	0.0442		
Ze	7.14		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.00000	Rechazo la H_0	
Prueba bilateral	0.00000	Rechazo la H_0	
Cola inferior	1.00000	No rechazo la H_0	

2.3 Porcentaje de madres que identifican al menos tres beneficios importantes de la nutricion

$H_0: p_1 = p_2$

$H_1: p_1 > p_2$

Poblacion 1		Poblacion 2	
x1	144	x2	35
n1	247	n2	247
p1	0.58	p2	0.14
p1 - p2	0.44		
Nc	95%		
α	5%		
$\hat{p}$	0.3623482		
q	0.6376518		
$\sigma_{\Delta o}$	0.0433		
Ze	10.20		
$\alpha/2$	2.5%		
$Z_{\alpha/2}$	1.96	-1.96	
Z_{α}	-1.64		
$Z_{1-\alpha}$	1.64		
Δo	0		
	P-valor	Decision	
Cola superior	0.00000	Rechazo la H_0	
Prueba bilateral	0.00000	Rechazo la H_0	
Cola inferior	1.00000	No rechazo la H_0	