United States Department of Agriculture

World Vision
Por los niños

World Vision/USDA FFE

CREAN Project (Children Reading and Nourished)

Baseline Study
May - September, 2015
Final Report
By NicaSalud

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Agreement Number: FFE-524-2014/045-00

Managua, Nicaragua

CONTENT

"*When children are well fed and educated, not only their lives are vastly better, but they also enhance in a concrete way the lives of next generations*"

–James T. Morris, Executive Director
United Nations World Food Program
2006

"To understand the relationship between hunger and learning it is necessary to have a long-term perspective: what happens at a certain stage of life touches next stages and what happens to a generation affects the next. Suffering hunger during childhood can cause irreversible mental retardation and a decrease in the intelligence quotient (IQ) and the ability to learn."

–UNICEF hunger report 2016

ABBREVIATIONS

AWAEP	Assessment Workshop and Educational Planning
CAE	Comité de Alimentación Escolar (School Nutrition Committee)
CGP	Correspondence between Grapheme-Phoneme
CREAN	Children Reading and Nourished
EGRA	Early Grade Reading Assessment
LPA	Learn, Practice and Apply (Method of literacy teaching)
MMF	Minimum Meal Frequency
MDD	Minimum Dietary Diversity
MAD	Minimum Acceptable Diet
MAGFOR	Ministry of Agriculture and Forestry of Nicaragua
MOE	Ministry of Education of Nicaragua
NER	Núcleo Educativo Rural (Rural Nuclear School)
NGOs	Non-Governmental Organization
PAS	Phonic, Analytical, Synthetic (Method of literacy teaching)
PINE	Programa Integral de Nutrición (Integrated Nutrition Program)
PMP	Performance Monitoring Plan
PTAs	Parent-Teacher Associations
TCS	Two-stage Cluster Sampling
TEPCE	Taller de Evaluación y Planificación Educativo (Evaluation & Planning Educational Workshop)
USAID	United States Agency for Development
USDA	United States Department of Agriculture
WVNIC	World Vision Nicaragua

I. INTRODUCTION

World Vision Nicaragua (WVNIC), in partnership with the McGovern-Dole program of USDA, has initiated the implementation of a daily school meal program with supporting activities in literacy, health and nutrition. The CREAN Project (Children Reading and Nourished) will provide interventions using immediate provision of materials and services, capacity building, and educating the enabling environment to improving education, attendance and enrollment rates in preschool and primary schools. CREAN is developing interventions in eight municipalities within the departments of León and Estelí. In the Department of León, municipalities include Achuapa, El Jicaral, El Sauce and Santa Rosa del Peñón. In the department of Estelí, CREAN will work in the municipalities of Estelí, La Trinidad, San Juan de Limay and San Nicolas.

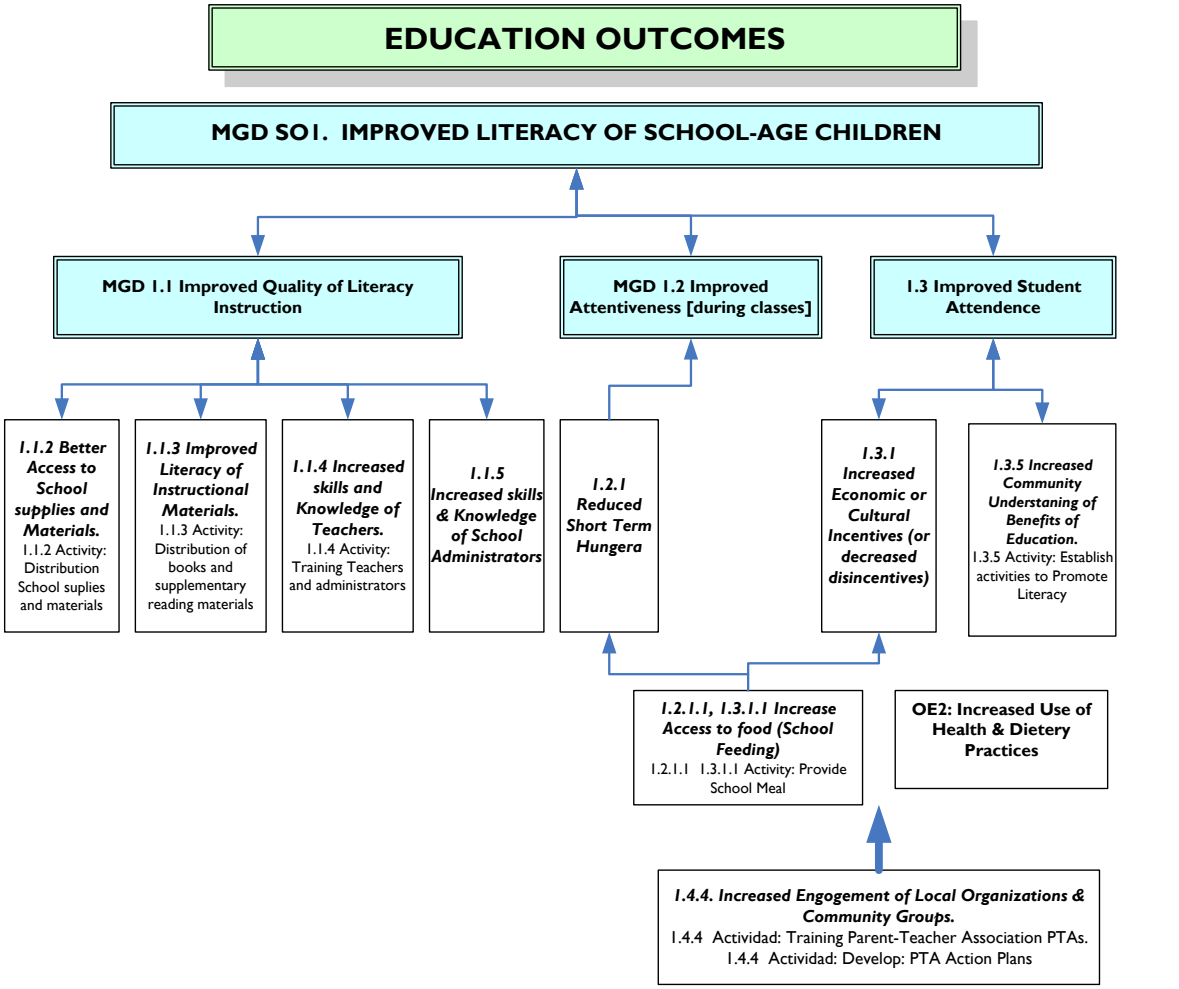
The project is a direct support to the Integrated Nutrition Program (PINE) that is run by the Government of Nicaragua through the Ministry of Education. The target population are preschool and primary school-age children, teachers, school staff and directors, municipal delegations of MOE, and parents. Project activities include:

Delivery of Daily School Meals: CREAN will provide daily school meals for children and their teachers in preschool and primary schools located in the departments of Estelí and León, to increase attendance and attentiveness in the classroom.

Delivery of Supplies and Materials: CREAN will provide appropriate reading materials and supplies to strengthen child literacy outcomes and the capacity of teachers, administrators (lead teachers) and school council members (parent teacher associations - PTA) – so they are up to standards with the Nicaraguan Ministry of Education (MOE) curriculum competencies.

Support for Nutrition, Hygiene and Health: CREAN will contribute to a comprehensive and healthy environment for learning. Schools and communities will initiate vegetable and fruit gardens. CREAN will provide garden tool kits, seeds and guidance manuals on best practices for planting, maintenance and harvest. CREAN will also work to improve the conditions of water and sanitation through rehabilitation of latrines and will provide education on good hygiene practices (handwashing, tooth brushing) and nutrition to prevent micronutrient deficiencies.

Community Empowerment: CREAN will raise awareness on the benefits of education with community groups at the local and national level to empower communities towards long-term sustainability. The project will also work with each community to develop a sustainability plan that will continue to strengthen enrollment and literacy rates, moving the community towards self-sufficiency in its school meals program.


EDUCATION OUTCOMES
MGD SO1. IMPROVED LITERACY OF SCHOOL-AGE CHILDREN
MGD 1.1 Improved Quality of Literacy Instruction
MGD 1.2 Improved Attentiveness [during classes]
1.3 Improved Student Attendence
1.1.2 Better Access to School supplies and Materials. 1.1.2 Activity: Distribution School suplies and materials
1.1.3 Improved Literacy of Instructional Materials. 1.1.3 Activity: Distribution of books and supplementary reading materials
1.1.4 Increased skills and Knowledge of Teachers. 1.1.4 Activity: Training Teachers and administrators
1.1.5 Increased skills & Knowledge of School Administrators
1.2.1 Reduced Short Term Hungera
1.3.1 Increased Economic or Cultural Incentives (or decreased disincentives)
1.3.5 Increased Community Understaning of Benefits of Education. 1.3.5 Activity: Establish activities to Promote Literacy
1.2.1.1, 1.3.1.1 Increase Access to food (School Feeding) 1.2.1.1 1.3.1.1 Activity: Provide School Meal
OE2: Increased Use of Health & Dietery Practices
1.4.4. Increased Engogement of Local Organizations & Community Groups. 1.4.4 Actividad: Training Parent-Teacher Association PTAs. 1.4.4 Actividad: Develop: PTA Action Plans
HEALTH AND NUTRITION OUTCOMES
MGD SO2: INCREASED USE OF HEALTH AND DIETARY PRACTICES
2.1. Improved Knowledge of Health and Hygiene Practices. 2.1 Activity Establish Student Health and Hygiene Clubs
2.2 Increased Knowledge of Safe Food Prep and Storage Practices. 2.2 Activity: Training: Food preparation and storage practices
2.3 Increased Knowledge about Nutrition 2.3 Activity: Establish School Gardens. 2.3 Activity: Training: Good health and nutrition practices
2.4 Increased Access to Clean Water and Sanitation Services. 2.4 Activity: Building/ Rehabiliation: WASH Infrastructure
2.5 Increased Access to Preventative Health Interventions
2.6 Increased Access to Requisite Food Prep and Storage Tools and Equipment. 2.6 Activity: Distribution: Food Prep and Storage Tools and Equipment

II. PURPOSE AND OBJECTIVES OF THE BASELINE

2.1 Purpose

The purpose of this study is to establish benchmarks for project performance indicators against which project activities will be measured. Specifically, the study developed a baseline in which the project can measure performance and results of the project against the mandate that was outlined in the project's strategic framework and determine the reasons for success or lack thereof and to draw lessons and recommendations for improved performance in future food security response.

This baseline will serve the following purposes:

- Determine the baseline values of key outcome indicators
- Collect data comparable to final evaluation to determine degree of change
- Establish and validate annual and end of project targets in the Performance Monitoring Plan

This report presents findings, discussions, conclusions and recommendations made following a baseline study of the project titled CREAN in Nicaragua. The evaluation took place in the months of May through September 2015 and was conducted in its entirety by an external, third-party Nicaraguan consultant firm, NicaSalud.

2.2 Specific Objectives

1. Determine the level of literacy of school-age children
2. Determine access to supplies, materials and teaching aids for schools
3. Identify skills and knowledge of teachers, according to the curriculum competence of the Ministry of Education (MOE)
4. Identify the level of attentiveness of school children in the classroom.
5. Determine school attendance
6. Identify the engagement of local organizations and community groups providing educational support to school children
7. Identify the feeding, health and hygiene practices of boys, girls and parents
8. Identify knowledge and safe practices for food preparation and storage
9. Identify access to clean water and sanitation facilities in project-targeted communities

2.3 Duration

The assessment took five months for start-up, preparation and translation of tools, extensive travel to collect qualitative and quantitative data from 8 municipalities in two departments, Leon and Esteli, and report writing and presentation. The consultancy period was from April to September 2015. Although the contract for the baseline was signed in January 2015, the Government of Nicaragua did not provide approvals for the consultant to begin collecting data until April 2015. Attempts were made to request approval to enter schools in January 2015, however the request was not granted until April 2015. Below is an illustrative timeline of events.

Activities	Dates
Training workshop for data collection	April 23-24, 2015
Data collection	April 27 – May 22, 2015
Processing and data analysis	May 25 – June 5, 2015
Preparation and submission of preliminary report	June 8-18, 2015
Review and adjustment of final report	June 19-30, 2015

2.4 Geographic Scope

The geographic scope of the study included four municipalities in the department of Estelí and four municipalities in the department of León. The population was composed of the following stakeholders: teachers, principals, municipal delegates, parents, school staff, school councils, preschool and elementary students. The following table demonstrates the number of students, schools and teachers by town, as provided by MOE.

Department of Estelí	# of Students	# of Schools	# of Teachers
San Nicolás	1,320	70	98
San Juan de Limay	2,625	53	147
La Trinidad	3,818	81	158
Estelí	15,632	150	659
Subtotals:	*23,395*	*354*	*1,062*
Department of León			
Achuapa	4,115	61	146
El Sauce	8,764	132	283
Santa Rosa del Peñon	1,925	28	88
El Jicaral	3,072	38	126
Subtotals:	*17,876*	*259*	*643*
TOTAL	**41,271**	**613**	**1705**

Ref: MOE 2013

2.5 Deliverables

- An inception report: including the overall study design, methods for sampling, plans for data collection, cleaning and analysis
- Survey tools for quantitative and qualitative studies
- Supervisor and enumerator training plans, including timeline
- Data analysis plan
- First draft report for review
- Final report, including baseline numbers for all outcome level indicators
- Power point presentation to stakeholders and flip chart presentations to communities
- Electronic copies of the final report and all corresponding documents (instruments/field manual)
- Electronic copies of clean data sets with variables and value labels

III. METHODOLOGICAL DESIGN

3.1 Types of Study

Research was conducted with a mixed data collection approach (quantitative and qualitative) to address the evaluation questions, collect and analyze data. The design of this study is a performance evaluation.

Data collection methods included:

1) Review of literature and analysis of relevant documents;
2) In-depth interviews with key informants;

3) Survey of preschool and primary school students, parents and MOE institutions;
4) Observation guide used in interviewing school directors and/or others responsible for school facilities;
5) Reading and comprehension tests were given to children of second and third grade.

3.2 Population Groups

I. *Schools* were included for the analysis of indicators related to infrastructure (hygiene, sanitation, educational facilities) and educational materials.

II. *Population groups targeted through quantitative approach*
- Boys and girls from preschool and primary schools
- Teachers from preschool and primary schools
- Parents of boys and girls from preschool and primary schools

III. *Population groups targeted through qualitative approach*
- MOE Officials: departmental delegates of PINE-MOE, representatives of municipal delegations and of Rural Nuclear Schools (NER)
- Parents and School Council Representatives
- WVNIC staff

Instruments used by population group:

Populations	Instrument	Annex
2nd & 3rd Grade students	EGRA Test	Annex 1
5th & 6th Grade students	Survey: knowledge of and practice in health, hygiene, feeding and nutrition	Annex 2
Teachers	Survey: capacity and utilization of teaching techniques	Annex 3
Parents	Survey: benefits of education and feeding preparation	Annex 4
School Council members	Interview	Annex 5
Schools	Observation: infrastructure conditions and materials, school feeding practices, water and sanitation facilities	Annex 6
MOE Officials	Interview	Annex 7

3.3 Sample Size & Sampling

Sample sizes were determined by population groups and in accordance to result indicators (please see the updated table found on page 8).

Schools: a full census was carried out by observation in all participating schools for indicators related to infrastructure, school materials and supplies, and water and sanitation services.

School children, teachers and parents: a Two-Stage Cluster Sampling[1] (TCS) was used by defining 8 clusters that correspond to each municipality where the project is implemented (4 municipalities for Estelí and 4 municipalities in León), which is Sampling Units for the First Stage (SUFS). Using Epidat[2] 4.1 was defined the sample size: 87 schools, making a proportional distribution by municipality. More specifically, the basis for the sampling was by clusters. This is a

[1]Residing At Pallas Josep M; Jimenez Villa Josep. Methods of research. Clinical and epidemiological 2da. Editing.
[2]Epidat 4: Aid of sampling. October 2014.

probabilistic sample in which each unit is a cluster (collection) of elements from the population of interest.

For the Two Phase Sampling Clusters (PSC):

Phase One: determine 8 clusters, one for each municipality of the project (4 municipalities of Estelí and 4 municipalities of León). These clusters are Phase One Units. Results were representative for this level.

Phase Two: determine which elements from those clusters will be analyzed. For this purpose, Epidata 4.1 was used. The constant fraction option was applied to all clusters chosen to determine the sample size. The result was 87 schools; considering the total sample, a proportional distribution was made for all clusters.

Once we had the number of schools by clusters in each municipality, an estimated sample for each population group was set with a fixed size method.

School children: 2,191 interviews in schools were conducted to measure boys' and girls' knowledge of and practice in health, hygiene, feeding and nutrition. An average of 25 questionnaires were done in each of the selected schools; sampling for these were random with boys and girls in the 5th and 6th grades according to the following steps:

- Teacher presented a list of students who are present at school that day
- A consecutive code was assigned to each child
- All codes were written on single paper sheets and put in a container
- Codes were taken out of the container one by one, until all 25 codes were complete.

This sampling method was also used to conduct questionnaires on hygienic practices.

Teachers: An estimated sample of teachers was determined by multiplying the average number of teachers by conglomerate (municipality) by the number of schools selected. The total sample size is 261 teachers, who are distributed along all clusters. Furthermore the indicator established for this group was focused on measuring skills and abilities of teachers on literacy teaching techniques. An average of three (3) teachers from each school, from 1st, 2nd and 3rd grade were included.

Indicators measure the capacity and development of literacy teaching methodologies. Selection preference was given to pre-school teachers in 1st to 3rd grades. A random selection was made in schools where there was more than one teacher for each grade. Teachers of pre-school and first through third grades are preferred as children ages 6 to 12 years old are considered to have developed formal language skills and are able to organize and express their ideas accurately. This age group is important to ensure that the children develop literacy skills.

Parents: 889 questionnaires were administered to measure parents' knowledge and practice in health, hygiene, feeding and nutrition. On average 25 questionnaires were given per school. Parents (both mothers and fathers) who participated needed to be involved with the preparation of school meals.

School children for EGRA test application: the Early Grade Reading Assessment (EGRA) test was used to specifically measure the level of literacy for boys and girls in 2nd and 3rd grades. Selected schools corresponded to the selected cluster (87 schools), performing the test to 10 school children of 2nd grade and 10 of 3rd grade in each school. A random selection was made in schools that had more than 10 children for each grade; in schools with fewer students the EGRA test was completed in neighboring schools.

Sample Size by Cluster and Population Group									
Department & Municipality	# of Schools	Sample of children	# of school children	Sample of teachers	# of Teachers	Sample of parents	# of Parents	Sample of EGRA	# of School children who took the EGRA test
San Nicolás	9	225	235	27	27	90	90	180	181
San Juan de Limay	7	175	154	21	18	70	73	140	152
La Trinidad	12	300	299	36	33	120	121	240	240
Estelí	22	550	567	66	75	220	221	440	430
Subtotal	**50**	**1250**	**1255**	**150**	**153**	**500**	**505**	1000	**1003**
Achuapa	9	225	234	27	30	90	88	180	188
El Sauce	19	475	475	57	62	190	204	380	393
Santa Rosa del Peñón	4	100	102	12	19	40	42	80	83
El Jicaral	5	125	125	15	15	50	50	100	92
Subtotal	**37**	**925**	**936**	**111**	**126**	**370**	**384**	740	**756**
TOTAL	**87**	**2175**	**2191**	**261**	**279**	**870**	**889**	1740	**1759**

Sample Control Group

A control group was intended to conduct a case-control study to indicate the level of project impact. However, due to government restrictions the consultants were not able to collect data in one of the two municipalities and therefore this comparison will not be included as part of the baseline.

Qualitative Approach: In-depth interviews

In-depth interviews were conducted with officials from the Ministry of Education at the department, municipal and local levels, as well as with parents, school council members and WVNIC staff.

Group	# of Interviews
Departmental Delegation of MOE	1
Coordinator of PINE MOE	1
Municipal Delegate/ from MOE	7
NER Coordinator	16
Father/mother, member of School Board	23
Official/departmental WVNIC	1

Observation Guide

The observation guide was based on findings and was developed to observe 100 percent of the (613) schools located in the eight municipalities included in the project. The observation indicators included: the availability of improved water and sanitary installation, the storage of products, educational materials, food and other items related to the school activities.

According to information initially provided by the project, the plan was to make observations on 613 schools. The coordination with the local MOE authorities the Department of Estelí, limited the number of schools to be observed and was reduced from 354 to 215. The National Ministry of Education (MOE) provided current statistics, but when the data collectors went to the targeted program regions, they found the actual number of primary schools to be lower and found a higher number of preschools.

3.4 Data collection, Processing and Presentation of Results

Data Standardization for Enumerators: NicaSalud established criteria on selection of the evaluation team which included: field experience in data collection, post graduate education, certified teachers, prior consultation and/or experience working with MINED. A 2 day training workshop was held by NicaSalud for 24 enumerators on 23-24 of April, 2015 in Leon. The topics covered in the training included:

- Data collection methods and techniques on how to conduct interviews
- Use and handling of instruments and field guide
- Random sampling techniques
- Field testing of assessment instruments for validation.

Upon completion of the workshop, enumerators were organized into two teams (one for Esteli and the other for Leon) and assigned geographical areas which they would work.

Data Collection: Data collection was scheduled to begin on February 23, 2015 but was delayed awaiting approval from PINE-MOE for enumerators to access schools and coordinate with authorities of the central, department and municipal levels. Coordination with departmental delegations began two months later in April 2015. Data collection began in the department of León on May 4, 2015 and Estelí on May 11, 2015. Total data collection lasted four weeks.

During the data collection, there was a difference in the actual number of schools in comparison to the information provided by the municipal offices. The study was set to target 613 primary schools, but after further investigation the number of targeted schools increased to 643. This total included 469 primary schools: 254 in León and 215 in Estelí. The study also found an additional 174 preschools which were meeting informally in households or other community structures.

Data was collected for one of the two locations selected for the control study in the municipality of Quezalguaque, department of León, The MOE did not authorize the collection of data in the municipality of Pueblo Nuevo.

Data processing and analysis: Surveys were conducted using the Census and Survey Processing System (CSPRO 5.0). Entry, editing, tabulation and data analysis[3] were processed in SPSS version 17, and the results are presented in tables (1-28) by indicator and disaggregated by department, municipality and sex. A summary table of indicators can be found in Annex 8.

Qualitative data was transcribed and text was coded. The deliverable was a matrix that organized the data by participant and category, indicators for trends, similarities and divergent issues to explain and/or interpret information from the participants' subjectivity.

The consultant presented their findings from the baseline report and delivered the following:

- Presentation of the results to the task force and members of the national office
- Advice to the areas of DME
- Analysis and feedback of indicators by the technician of the project team CREAN
- Presentation of the results to stakeholders

[3]User's Guide. International Programs Center Population Division U.S. Census Bureau. Washington DC 20233-88

IV. RESULTS

Findings from the baseline study are presented by the indicator defined for each objective and are presented in terms of numbers, percentage and/or average.

MGD SO1. Improved Literacy of School-Aged Children

The current literacy level of boys and girls in the 2nd and 3rd grade was evaluated using the EGRA test. EGRA is an oral student assessment designed to measure the most basic foundational skills for literacy acquisition in the early grades: recognizing letters of the alphabet, reading simple words, understanding sentences and paragraphs, and listening with comprehension. The instrument contains eight subtests or components, each one of them evaluates the following skills in literacy:[4]

Within the narrative sections of Oral Reading Fluency and Reading Comprehension the data is disaggregated to indicate separate values for each subtest. Tables 1 and 2 represent the combination of Oral Reading Fluency and Reading Comprehension by geographic location, sex and grade. Reading comprehension is also represented in Table 3 by grade, geographic location and sex.

Component/Subtest	Early Reading Skill	Demonstrated skill for student capacity:
Letter-name Knowledge	Letter Recognition	Provide the name uppercase and lowercase letters, in random order
Phonemic Awareness	Phonemic Awareness	Segment words into phonemes letters, identify the initial sounds in different words
Letter-Sound Knowledge	Phonics	Provide the sound of upper- and lowercase letters distributed in random order
Familiar Word Reading	Word Reading	Read simple words and common one and two syllables
Unfamiliar Word Reading	Alphabetic Principle	Make grapheme- phoneme correspondences (GPCs) through the reading of simple unfamiliar words
Oral Reading Fluency with Comprehension	Oral Reading Fluency	Read a text with accuracy, with little effort, and at a sufficient rate
	Reading Comprehension	Respond correctly to different types of questions, including literal and inferential question about the text they have read
Listening Comprehension	Listening Comprehension	Respond correctly to different types of questions, including questions verbatim and inferences about the text the enumerator reads to them
Dictation	Alphabetic Principle	Write, spell and use grammar properly through a dictation exercise

Indicator 1. Percent of students who, by the end of two grades of primary schooling, demonstrate that they can read and understand the meaning of grade level text (female)

Results are presented by: 1) **Reading Fluency**, measured by the number of words in a text that are read correctly in one minute (the average correct words per minute for 2nd grade is 40 wpm and 3rd grade is 60 wpm), and 2) **Reading Comprehension**, measured by correct responses to questions about the text read.

[4] Manual for the initial assessment of the reading in primary school children. RTI International; Prepared for Office of Economic Development, Agriculture and Trade (EGAT/ED), USAID. 2009. Adaptation to the Spanish by Juan E. Jimenez p. 35

Table 1 presents the results for third grade **female** students, demonstrating higher reading and comprehension skills in girls; geographical department, it was higher in Estelí than in León. An average of **17.6%** (*female*) students in the second grade can read and understand the meaning of grade level text, showing 20.4% for León Department and 15.3% for Estelí Department. An average of **35.5%** (*female)* students in the third grade can read and understand the meaning of grade level text, 38.6% for Estelí and 31.2% for León department. The baseline for female students is 35.5%.

Table 1. Percent of students (female) who show they can read and understand the meaning of a text according to grade level. CREAN project, May 2015.

	Second grade			Third grade		
Geographic location	n	Met standard of fluency and reading comprehension		n	Met standard of fluency and reading comprehension	
		Number	Percent		Number	Percent
León	226	46	20.4%	154	48	31.2%
Estelí	275	42	15.3%	215	83	38.6%
TOTAL	**501**	**88**	**17.6%**	**369**	**131**	**35.5%**

Indicator 2. Percent of students by the end of two grades of primary schooling, demonstrate that they can read and understand the meaning of grade level text (male).

Table 2 presents an average of 13.7% **male** students in the second grade can read and understand the meaning of grade level text, 13.9% for León and 13.5% for Estelí. An average of **23.8%** of (*male)* students in the third grade can read and understand the meaning of grade level text, 26% for Estelí and 20.9% for León. The baseline for male students is 23.8%.

Table 2. Percent of students (male) who show they can read and understand the meaning of a text according to age grade. CREAN project, May 2015.

	Second grade			Third grade		
Geographic location	n	Met standard of fluency and reading comprehension		n	Met standard of fluency and reading comprehension	
		Number	Percent		Number	Percent
León	180	25	13.9%	196	41	20.9%
Estelí	251	34	13.5%	262	68	26.0%
TOTAL	**431**	**59**	**13.7%**	**458**	**109**	**23.8%**

Other Results Achieved through EGRA Test

Table 3 presents a breakdown of other results achieved through EGRA test, disaggregated by grade, sex and department.

a) ***Letter-name knowledge****:* the number of letters (an average) each student named correctly in one minute using the complete alphabet (both uppercase and lowercase).

In second grade students, the average letters named correctly was 40.5 for girls and 37.9 for boys. In León the average was 38.7 for girls and 36.2 in boys, in Estelí the average was 42 for girls and 39.2 for boys.

In third grade students, the average letters named correctly was 48.2 for girls and 45.3 for boys. In León the average was 46.3 for girls and 41.6 in boys, in Estelí it was found 49.6 for girls and 48 for boys.

b) ***Phonemic awareness:*** the ability to identify the first sound in a word, the assessor reads a word aloud and asks the child to say the sound of the first letter. This is scored as the number of initial sounds correctly identified out of ten.

In second grade students, the average number of initial sounds they said correctly was 6 for boys and 6.1 for girls. In León there was an average of 5.5 for boys and 5.4 for girls, in Estelí it was found 6.3 for boys and 6.6 for girls.

In third grade students, the average number of initial sounds they said correctly was 5.6 for boys and 6 for girls. In León the average was 4.9 for boys and 5.2 for girls, in Estelí it was found 6.2 for boys and 6.6 for girls.

c) ***Letter-Sound Knowledge****:* the ability of the school children to speak or read the sound of each letter fluently in one minute.

In second grade students, the average number of letters spoken or read correctly in one minute for boys was 19.1 and 20.4 for girls. In León the average was 16.6 for boys and 16.4 for girls, in Estelí it was found 20.8 for boys and 23.7 for girls.

In third grade students, the average number of letters spoken or read correctly in one minute was 18.6 for boys and 20.1 for girls. In León the average was 15.3 for boys and 17.5 for girls, in Estelí it was found 21 for boys and 21.9 for girls.

d) ***Familiar Word Reading:*** the number of words school children are able to read correctly in one minute.

In second grade students, the average number of words children could read correctly in one minute was 35.8 for boys and 38.2 for girls. In León the average was 33.1 for boys and 34.7 for girls, in Estelí it was 37.7 for boys and 41.2 for girls.

In third grade students, the average number of words children could read correctly in one minute was 44 for boys and 49.4 for girls. In León the average was 39.3 for boys and 47.3 for girls, in Estelí it was found 47.6 for boys and 50.9 for girls.

e) ***Unfamiliar Word Reading:*** the number of unfamiliar words school children are able to read and understand correctly in one minute.

In second grade students, the average number of unfamiliar words read and understood correctly was 24.3 for boys and 26.6 for girls. In León the average was 22.6 for boys and 23.7 for girls, in Estelí the average was 25.5 in boys and 29 for girls.

In third grade students, the average number of unfamiliar words read and understood correctly was 30 for boys and 33.2 in girls. In León the average was 27.3 for boys and 31.5 for girls, in Estelí the average was 32.1 for boys and 34.4 for girls.

f) ***Oral Reading Fluency*****:** the ability to translate letters into sounds, relate text to meaning, counting the number of words read correctly in a minute

In second grade students, the average percentage who could read words correctly in a minute was 62.1% for girls and 56.1% for boys. In León the average was 56.6% for girls and 50% for boys; in Estelí the average was 66.5% for girls and 60.6% for boys.

In third grade students, the average percentage who could read words correctly in a minute was 56.9% for girls and 43.4% for boys. In León the average was 51.9% for girls and 37.8% for boys. In Estelí the average was 60.5% for girls and 47.7% for boys.

g) ***Reading comprehension*****:** the ability to read a passage and answer five questions related to the text correctly.

In second grade students, reading comprehension was 14.6% for boys and 18.6% for girls. In León the average was 15% for boys and 21.7% in girls, in Estelí it was found 14.3% for boys and 16% for girls.

In third grade students, reading comprehension was 30.3% for boys and 41.2% for girls. In León the average was 25% for boys and 33.8% in girls, in Estelí it was 34.4% for boys and 46.5% for girls.

h) ***Oral comprehension:*** *the ability to listen to* a short paragraph and answer five questions related to the text correctly.

In second-grade students, oral comprehension was 59.1% for boys and 55.3% in girls. In León the average was 60.6% for boys and 57.3% in girls, in Estelí it was 58% for boys and 53.7% in girls.

In third grade students, oral comprehension was 60.7% for boys and 59.7% in girls. In León the average was 62.4% for boys and 60.8 % in girls, in Estelí it was 59.4% for boys and 59% in girls.

The results of the last two indicators show that boys and girls have a greater oral understanding (when read to), than reading comprehension (when reading themselves).

i) ***Dictation:*** the ability to write from hearing a short phrase which can be repeated up to two more times. Dictation is measured with several criteria, including the use of capital letters at the beginning of the sentence and in their own name, acute accent, use of punctuation, and correct spelling.

In second grade students, 39.5% of boys and 42.1% of girls wrote a sentence correctly. In León the average was 38% for boys and 39.5% in girls, in Estelí it was 40.6% for boys and 44.2% in girls.

In third grade student, 44.1% of boys and 54.3% of girls wrote a sentence correctly. In León the average was 41.3% for boys and 51.2% in girls, in Estelí it was 46.1% for boys and 56.5% in girls.

Table 3. Other Results of the EGRA test, disaggregated by grade, sex and geographic location. Project CREAN Mayo 2015												
Sub test	León				Estelí				TOTAL			
	Second		Third		Second		Third		Second		Third	
	Boys (n=180)	Girls (n=226)	Boys (n=196)	Girls (n=154)	Boys (n=251)	Girls (n=275)	Boys (n=262)	Girls (n=215)	Boys (n=431)	Girls (n=501)	Boys (n=458)	Girls (n=369)
a. Letter-name knowledge	36.2	38.7	41.6	46.3	39.2	42.0	48.0	49.6	37.9	40.5	45.3	48.2
b. Phonemic awareness	5.5	5.4	4.9	5.2	6.3	6.6	6.2	6.6	6.0	6.1	5.6	6.0
c. Letter-Sound Knowledge	16.6	16.4	15.3	17.5	20.8	23.7	21	21.9	19.1	20.4	18.6	20.1
d. Familiar Word Reading	33.1	34.7	39.3	47.3	37.7	41.2	47.6	50.9	35.8	38.2	44.0	49.4
e. Unfamiliar word Reading	22.6	23.7	27.3	31.5	25.5	29	32.1	34.4	24.3	26.6	30.0	33.2
f. Oral reading fluency with comprehension (%)*	50.0	56.6	37.8	51.9	60.6	66.5	47.7	60.5	56.1	62.1	43.4	56.9
g. Oral Reading Comprehension (%) **	15.0	21.7	25.0	33.8	14.3	16.0	34.4	46.5	14.6	18.6	30.3	41.2
h. Oral Compre-hensionl (%)	60.6	57.3	62.4	60.8	58.0	53.7	59.4	59.0	59.1	55.3	60.7	59.7
i. Dictation (%)	38.0	39.5	41.3	51.2	40.6	44.2	46.1	56.5	39.5	42.1	44.1	54.3

** Reading Fluency for 2nd grade is> = 40 wpm, for 3rd grade is > = 60 wpm*
*** Reading comprehension, the score is 3 or more responded questions correctly*

Indicator 3. Number of individuals benefiting directly from USDA-funded interventions (female).
Baseline result is zero.

Indicator 4. Number of individuals benefiting directly from USDA-funded interventions (male)
Baseline result is zero.

Indicator 5. Number of individuals benefiting indirectly from USDA-funded interventions.
Baseline result is zero.

Indicator 6. Number of individuals benefiting directly from USDA-funded interventions (new).
Baseline result is zero.

Indicator 7. Number of individuals benefiting directly from USDA-funded interventions (continuing).
Baseline result is zero.

MGD 1.1. Improved Quality of Literacy Instruction

Indicator 8. Number of teachers in target schools who demonstrate improved literacy instruction as identified by supervisors, mentors, or coaches.

At baseline, this result is zero.

Table 4 presents information collected to support MOE priorities in planning activities. One priority of the MOE is the implementation of the Phonic Analytical Synthetic (PAS) Method to teach literacy for boys and girls in the early grades. According to MOE authorities from León and Estelí, the MOE

has been developing a process of training teachers and has reached one hundred percent of first and second grade teachers *"…100% of the teachers have been trained, the same manner for public and private schools, in addition to achieving a single teaching method such as the PAS method".*

MOE authorities also recognized that while teachers are trained and capable, their capacity in the PAS methodology is not yet at one hundred percent. The perception of (female and male) teachers when asked if they understand and apply PAS methods, gave scores between very high, high, intermediate, low and nothing. 56.6% of female and male teachers said that they had a high or very high manage of the literacy teaching methodology; in León 54% and 58.8% in Estelí. Teachers, disaggregated by gender, who consider that they have a good understanding are 55.2% female and 67.7% male.

The study attempted to define the level and scope of capabilities and development of teaching methods for reading and writing. Although supervisors share positive experiences in relation to capacity building with a total coverage reported to 100% trained teachers, the perception actually was not very positive, adding that not all teachers have been trained and in practice not all are developing this methodology. There is a perceived resistance to the introduction of this methodology. Teachers comment that it is a difficult methodology to implement mainly because of limited resources for proper implementation.

NOTE: MOE reported 100% of first and second grade teachers have received training, it is important to note our findings demonstrate 85.2% of teachers surveyed reported having been trained in a method to teach reading and writing.

The study also found that teachers who have limitations to applying the PAS methodology are teaching in multi-grade schools, with a number of students per classroom that does not allow the teachers to implement all steps in the PAS method.

Table 4. Perception of teachers that manage the PAS method of literacy teaching, by department, gender and municipality. Baseline Study, CREAN Project, May 2015

Categories		n	Teachers proficient (high or very high) the literacy teaching method	
			Number	Percent
Department				
León		126	68	54.0%
Estelí		153	90	58.8%
Gender				
Teachers (female)		248	137	55.2%
Teachers (male)		31	21	67.7%
Municipality				
Achuapa		30	14	46.7%
El Jicaral		15	13	86.7%
El Sauce		62	30	48.4%
Santa Rosa		19	11	57.9%
Estelí		75	47	62.7%
La Trinidad		33	19	57.6%
San Juan de Limay		18	9	50.0%
San Nicolás		27	15	55.6%
TOTAL		**279**	**158**	**56.6%**

The Project has established a strategy called *Accompanying Literacy Animation of Preschool and Elementary School*. In coordination with the Ministry of Education, CREAN aims to improve the educational quality of teaching through the methodology of literacy animation. Thus, the strategy should help to bolster teachers competency in the government approved and promoted PAS method.

1.1.2 Better Access to School Supplies and Materials

The observation guide tool was applied in identifying the need for books and/or the limited supply of books and supplementary materials in each school, for teachers and students. The current government strategy allows for provision of supplies to the schools. However the resources for supplies are limited and the government is unable to provide for all schools, children and teachers.

Indicator 9. Number of textbooks and other teaching and learning materials provided as a result of USDA assistance

The baseline result is zero.

The outcome of this indicators is intended at delivering such inputs by the project. However, for purposes of having secondary information to support planning, inventory of the existing text books is presented below in table 5.

Table 5. Number and average per student, text books by subjects, disaggregated by department and municipality. Base Line Study- CREAN Project. May 2015

Categories	Number of students	Math		Natural Sciences		Social Sciences		Literature	
		No.	Average	No.	Average	No.	Average	No.	Average
Department									
León	9,158	7,186	0.8	5,107	0.6	5,100	0.6	6,962	0.8
Estelí	18,942	10,309	0.5	7,669	0.4	7,770	0.4	8,870	0.5
Municipality									
Achuapa	2,169	1,625	0.7	1,275	0.6	1,294	0.6	1,709	0.8
El Jicaral	1,524	1,067	0.7	885	0.6	818	0.5	974	0.6
El Sauce	4,382	3,653	0.8	2,268	0.5	2,270	0.5	3,389	0.8
Santa Rosa	1,083	841	0.8	679	0.6	718	0.7	890	0.8
Estelí	14,253	6,265	0.4	4,575	0.3	4,678	0.3	5,298	0.4
La Trinidad	1,995	1,851	0.9	1,443	0.7	1,446	0.7	1,558	0.8
San Juan de Limay	1,701	1,588	0.9	989	0.6	972	0.6	1,256	0.7
San Nicolas	993	605	0.6	662	0.7	674	0.7	758	0.8
TOTAL	**28,100**	**17,495**	**0.6**	**12,776**	**0.5**	**12,870**	**0.5**	**15,832**	**0.6**

1.1.3 Improved Literacy of Instructional Materials.

Indicator 10. Number of target schools with supplemental reading materials available to students.

Baseline result is zero.

This indicator was split into two variables during the baseline study: 1) number of schools with textbooks available and 2) number of schools receiving supplies.

Number of schools with textbooks available

Seen in table 6 below, 397 out of the 469 schools sampled have textbooks of all four subjects: math, natural sciences, social sciences and literature. The municipality of El Sauce has fewer (67.2%) text books available, while the remaining schools sampled have greater (80%) availability.

Table 6. Number of schools with textbooks available (math, natural sciences, social science and literature), by department and municipality. CREAN Project. May 2015

Categories	n	Math		Natural Sciences		Social Sciences		Literature		Textbooks availability for the four subjects	
		No.	%	No.	%	No.	%	No.	%	No.	%
Department											
León	254	198	78.0	196	77.2	196	77.2	199	78.3	193	76.0
Estelí	215	199	92.6	201	93.5	201	93.5	198	92.1	186	86.5
Municipality											
Achuapa	60	51	85.0	50	83.3	49	81.7	51	85.0	49	81.7
El Jicaral	35	32	91.4	32	91.4	32	91.4	31	88.6	31	88.6
El Sauce	128	87	68.0	87	68.0	87	68.0	89	69.5	86	67.2
Santa Rosa	31	28	90.3	27	87.1	28	90.3	28	90.3	27	87.1
Estelí	95	88	92.6	84	88.4	86	90.5	84	88.4	77	81.1
La Trinidad	42	40	95.2	40	95.2	41	97.6	41	97.6	39	92.9
San Juan de Limay	46	45	97.8	46	100.0	44	95.7	44	95.7	44	95.7
San Nicolas	32	26	81.3	31	96.9	30	93.8	29	90.6	26	81.3
TOTAL	**469**	**397**	**84.6**	**397**	**84.6**	**397**	**84.6**	**397**	**84.6**	**379**	**80.8**

Number of schools receiving supplies

Table 7 presents the number of schools with expendable material, by department and municipality. Supplies most found available in the schools include: markers, flip chart paper, scissors and erasers.

The current government strategy allows for the provision of supplies to the schools. However, the resources of supplies are limited and the government is unable to provide for all schools.

CREAN is contributing supplies that the government is unable to provide in some schools.

Table 8 presents the number of schools that have availability of reading resources, by department and municipality. The municipalities with the greatest number of supplies were San Nicolas (96.9%) in Estelí and Achuapa (70%) from León. The municipalities with less availability are Santa Rosa (41.9%) and El Sauce (49.2%) from León and San Juan de Limay (52.2%) from Estelí. The reading promotion strategy aims to develop the project with its resources and support. The implementation of this reading strategy is not to replace any program that the Ministry of Education implements on school literacy; rather it is complementary to the work of teachers and the education community. It is included in the delivery of excess materials, textbooks, supplementary materials, such as dictionaries, natural sciences books, Atlases of the human body, and social sciences guides. This strategy is a complete picture that helps the teacher and students to develop and improve learning, all paid upon application, to deepen the complexity of the learning to read and write.

Supplementary material: 279 schools (59.5%) have availability of supplementary materials; 139 schools in Estelí and 140 in León. Supplementary material includes literature such as dictionaries, books of CCN, CCS, Atlas serves as material for consultation for children and the teacher (classes to develop planning and tasks).

Table 7. Number of schools with expendable material, by department and municipality. Base Line Study. CREAN Project May 2015											
Categories	n	Number of schools that have materials									
		Scissors	Pens	Card-boards	Flip-chart papers	Note-books	Pencil Cases	Markers	Erasers	Papers	Crayons
Department											
León	254	35	23	32	33	46	7	49	34	8	11
Estelí	215	41	29	38	49	14	7	52	38	0	0
Municipality											
Achuapa	60	14	5	9	5	8	2	12	8	2	3
El Jicaral	35	7	5	6	11	10	3	10	11	3	4
El Sauce	128	14	6	17	4	14	2	11	12	3	4
Santa Rosa	31	0	7	0	13	14	0	16	3	0	0
Estelí	95	14	11	9	8	9	7	10	15	0	0
La Trinidad	42	1	1	2	0	0	0	1	1	0	0
San Juan de Limay	46	20	1	16	18	0	0	16	19	0	0
San Nicolas	32	6	16	11	23	5	15	25	3	1	1
TOTAL	**469**	**76**	**52**	**70**	**82**	**60**	**29**	**101**	**72**	**9**	**12**
Percent		**16.2**	**11.1**	**14.9**	**17.5**	**12.8**	**6.2**	**21.5**	**15.4**	**1.9**	**2.6**

Reading Corner: 195 schools (41.6%) have a designated space for reading; 116 schools from León and 79 schools in Estelí. Municipalities with a lower percentage of schools implementing this model are Estelí (25%), San Juan de Limay (26.1%) and Santa Rosa del Peñon (35.5%).

Traveling Backpacks: are currently only available in 25 schools; 12 schools in León and 13 schools in Estelí. The backpack consists of a bag and books of different types, stories, novels, cookbooks, biographies, etc. (interesting material) that motivates the students to read. The backpack is lent to a family for a determined period of time (one week) and is then returned in good condition. The following month children may request another backpack with additional reading content. In returning the backpack the parents write a report (traveler passport) to note which texts were read, if they were read in full, describing their experience and the time they took with the traveling backpack. Teachers may request during class time that the children speak or comment about their reading experience. This is an after school activity; the only additional time required is when the children have comments or questions on the material.

Library: There is a library in 105 schools; 52 in León and 53 in Estelí. Municipalities with fewer libraries are: Santa Rosa (9.7%) and Trinidad (12.1%).

The availability and use of teaching materials were identified as limitations, as expressed by municipal delegations and NER coordinators:

"…the lack of didactic material, for example textbooks they don't have"; the lack of textbooks limits teachers from being better prepared and having resources for their classes"; "they have knowledge of the topics, but we cannot deny that we lack materials. There are good intentions, but we don't have the adequate resources."

Table 8. Number of schools that have availability of reading resources, by department and municipality. CREAN Project. May 2015									
Categories	No. of schools	Supplementary Material		Reading Corner		Traveling Backpack		Library	
		Number	%	Number	%	Number	%	Number	%
Department									
León	254	140	55.1	116	45.7	12	4.7	52	20.5
Estelí	215	139	64.7	79	36.7	13	6.0	53	24.7
Municipality									
Achuapa	60	42	70.0	27	45.0	5	8.3	17	28.3
El Jicaral	35	22	62.9	28	80.0	3	8.6	10	28.6
El Sauce	128	63	49.2	50	39.1	4	3.1	22	17.2
Santa Rosa	31	13	41.9	11	35.5	0	0.0	3	9.7
Estelí	95	62	65.3	26	25.0	4	3.8	30	28.8
La Trinidad	42	22	52.4	19	57.6	4	12.1	4	12.1
San Juan de Limay	46	24	52.2	12	26.1	3	6.5	11	23.9
San Nicolas	32	31	96.9	22	68.8	2	6.3	8	25.0
TOTAL	**469**	**279**	**59.5**	**195**	**41.6**	**25**	**5.3**	**105**	**22.4**

1.1.4 Increased Skills and Knowledge of Teachers

Indicator 11. Number of teachers/educators/teaching assistants in target schools who demonstrate use of new and quality teaching techniques or tools as a result of USDA assistance.

Baseline result is zero.

Indicator 12. Number of teachers/educators/teaching assistants trained or certified as a result of USDA assistance.

Baseline result is zero.

Indicators assessing the capacity of teachers through CREAN's training and certification activities are both zero at baseline and will be measured through the project's on-going monitoring. Additionally, in support of the preparation for training activities and inputs required, the baseline survey asked teachers their level of training received. The results are shown in table 9 below, disaggregated by department, municipality and sex.

84.9% of teachers surveyed reported having been trained in a method to teach reading and writing. In León the result was 85.7% (108) and in Estelí was 84.3% (129). All municipalities reported greater than 80%, highlighting the municipality of El Jicaral with 100%. By gender, 84.7% female teachers and 87.1% male teachers have received training.

Teachers have been trained in the PAS Method (85.2%), followed by the method of a "Proper Name" (29.1%) and LPA strategy (Learn, Practice and Apply) (20.7%). Efforts have been made in recent years to unify a single method of literacy teaching as part of the MOE's strategy to improve the quality of education. Municipal delegates and cluster leaders expressed *"…teachers manage among 80% and 90% PAS method*", in which they are receiving training. Teachers were asked if they applied the

method of teaching in which they were trained; 97.9% responded positively, in León 99.1% and 96.9% in Estelí. Disaggregated by sex, 98.6% female and 92.6% male.

Table 9. Number of teachers trained, methods trained and application of, disaggregated by department, municipality and sex. Baseline Study CREAN Project. May, 2015.

Categories	Teachers who received training			Method or strategy trained in (n=237)				% teachers applying trained method (n=237)
	n	No.	%	Method proper name	Method PAS	Strategy LPA	Other	
Department								
León	126	108	85.7	34.3	86.1	30.6	19.4	99.1
Estelí	153	129	84.3	24.8	84.5	12.4	25.6	96.9
Municipality								
Achuapa	30	26	86.7	19.2	96.2	38.5	15.4	100.0
El Jicaral	15	15	100.0	26.7	93.3	33.3	6.7	93.3
El Sauce	62	50	80.6	44.0	82.0	32.0	28.0	100.0
Santa Rosa	19	17	89.5	35.3	76.5	11.8	11.8	100.0
Estelí	75	62	82.7	22.6	83.9	17.7	29.0	96.8
La Trinidad	33	28	84.8	17.9	82.1	7.1	28.6	96.4
San Juan de Limay	18	16	88.9	18.8	100.0	0.0	6.3	100.0
San Nicolas	27	23	85.2	43.5	78.3	13.0	26.1	95.7
Gender								
Teachers (female)	248	210	84.7	31.0	98.1	27.6	26.7	98.6
Teachers (male)	31	27	87.1	48.1	74.1	18.5	18.5	92.6
TOTAL	**279**	**237**	**84.9**	**29.1**	**85.2**	**20.7**	**22.8**	**97.9**

1.1.5 Increased Skills & Knowledge of School Administrators

Indicator 13. Number of school administrators and officials in target schools who demonstrate use of new techniques or tools as a result of USDA assistance.

Baseline result is zero.

Indicator 14. Number of school administrators and officials trained or certified as a result of USDA assistance.

Baseline result is zero.

MGD 1.2 Improved Attentiveness

Indicator 15. Percent of students that have improved attentiveness in classrooms identified by their teachers (data collected during a single day, on a quarterly basis)

Teachers were asked their perception of student's attentiveness and level of distraction in the classroom. Our baseline shows that on average **78.5%** of students pay attention while they are having class. The municipalities with the highest percentages are: Estelí with 82.9% and El Jicaral with 81.8%. Municipalities with lower percentages are Achuapa and Santa Rosa del Peñon, both with 74.4%, and El Sauce 75.5%. By gender, **83.4%** of boys were attentive and **73.9%** of girls, as seen in table 10 below.

MOE officials identified that multi-grade classrooms, where a single teacher teaches up to six grades simultaneously and in small spaces, is a contributing factor to inattentiveness.
"It is recognized that the methodology provides to teachers the right tool to keep the attention of children, however there are some situations as multi-grades with only one teacher and don't allow the right time to teach", Cluster member from León.

Table 10. Percent of students that have improved attentiveness in classrooms identified by their teachers, by department, municipality and sex. Baseline Study- CREAN Project. May 2015

Categories	Percent of school children who pay attention, identified by their teachers			Total of school children on classrooms		
	Girls	Boys	Both	Girls	Boys	Both
Department						
León	70.7	80.4	75.6	1,548	1,540	3,088
Estelí	76.7	86.3	81.1	1,791	1,565	3,356
Municipality						
Achuapa	71.2	77.7	74.4	371	368	739
El Jicaral	75.8	89.1	81.8	231	192	423
El Sauce	77.2	73.6	75.5	224	197	421
Santa Rosa	66.9	81.2	74.4	722	783	1,505
Estelí	79.5	86.8	82.9	1,082	937	2,019
La Trinidad	74.1	89.1	80.5	340	274	614
San Juan de Limay	72.7	86.3	79.2	154	139	293
San Nicolas	69.8	80.9	75.3	215	215	430
TOTAL	**73.9**	**83.4**	**78.5**	**3,339**	**3,105**	**6,444**

1.2.1 Reduced Short-Term Hunger

Indicator 16. Number of daily school meals (breakfast, snack, lunch) provided to school-age children as a result of USDA assistance
Baseline result is zero.

Indicator 17. Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance (male)
Baseline result is zero.

Indicator 18. Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance (female)
Baseline result is zero.

Indicator 19. Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance (new)
Baseline result is zero.

Indicator 20. Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance (continuing)
Baseline result is zero.

The baseline results for these five indicators to track the number of school children receiving daily school meals have a value of zero and will be measured through ongoing project monitoring.

MGD 1.3 Improved Student Attendance

Calculation of Attendance: The consultants were given access to the attendance register of children in each school provided by the Ministry of Education (teachers). The data was then reviewed and analyzed for simple reporting frequencies crossing variables by the number of school calendar days to determine the number of girls and boys that are attending 80% or more days of school.

Definition of the indicator: Number of male students and female students attending at least (80%) of the planned school year

The formula is: Number of female students or male students, attendance in 144 days*
The total enrollment of male and female students.

* 144 days is 80% of total (180) school days annually.

Indicator 21. Number of students regularly (80%) attending USDA supported classrooms/school (female)

Baseline is 13,918 female students.

Table 11 presents the number of (female) students regularly attending USDA supported classrooms in 2014. **13,918** students (**91.1%**) recorded regular (80% or more) attendance. Municipalities with a greater proportion of girls in regular attendance included: Estelí with 94%, San Juan de Limay with 93.9% and La Trinidad with 93.5%. Municipalities with less proportion were: El Sauce with 85.5%, Achuapa with 87% and Santa Rosa del Peñon with 88.1%.

Table 11. Number of students regularly (80%) attending USDA supported classrooms/school (female), 2014. By department and municipality

Categories	Final Enrollment (Year 2014)	Attended 80% or more days in class	
		Number	Percent
Department			
León	5,546	**4,809**	**86.7**
Estelí	9,727	**9,109**	**93.6**
Municipality			
Achuapa	1,440	**1,253**	**87.0**
El Jicaral	1,020	**903**	**88.5**
El Sauce	2,514	**2,149**	**85.5**
Santa Rosa	572	**504**	**88.1**
Estelí	7,421	**6,977**	**94.0**
La Trinidad	1,064	**995**	**93.5**
San Juan de Limay	771	**724**	**93.9**
San Nicolas	471	**413**	**87.7**
TOTAL	**15,273**	**13,918**	**91.1**

Indicator 22. Number of students regularly (80%) attending USDA supported classrooms/school (male)

Baseline is 14,970 male students.

Table 12 presents the number of (male) students regularly attending USDA supported classrooms from in 2014. **14,970** (**91.7%**) recorded regular (80% or more) attendance. Municipalities with a greater proportion of boys with regular attendance are: Estelí with 96.2%, La Trinidad with 94.5% and San Juan de Limay with 92.6%. Municipalities with less proportion were: El Sauce with 83.4%, Santa Rosa del Peñon with 86.2% and Achuapa with 86.7%.

Table 12. Number of students regularly (80%) attending USDA supported classrooms/school (Male) 2014. By department and municipality.

Categories	Final enrollment (Yr 2014)	Attended 80% or more days in class	
		Number	Percentage
Department			
León	5,820	**4,960**	**85.2**
Estelí	10,497	**10,010**	**95.4**
Municipality			
Achuapa	1,489	**1,291**	**86.7**
El Jicaral	1,013	**886**	**87.5**
El Sauce	2,709	**2,258**	**83.4**
Santa Rosa	609	**525**	**86.2**
Estelí	7,993	**7,687**	**96.2**
La Trinidad	1,145	**1,082**	**94.5**
San Juan de Limay	868	**804**	**92.6**
San Nicolas	491	**437**	**89.0**
TOTAL	**16,317**	**14,970**	**91.7**

It is worth noting that interviews during the baseline study revealed parents, students, teachers, and staff members of the MOE (at all levels) expressed school children currently have a high attendance rate. The main motivations contributing to this include: a) the delivery of the daily school feeding program through PINE, and b) a developed awareness by parents of the importance of education and children's retention in school.

1.3.5 Increased Community Understanding of Benefits of Education

Indicator 23. Number of parents in target schools who can name at least three benefits of primary education (collected through a survey)

Baseline is 252 parents.

Table 13 presents the number of parents who can name at least three benefits of primary education. **252** (**28.3%**) of the 889 parents interviewed were able to name at least three benefits of primary education for their children**.** Municipalities with the lowest percentage were San Nicolas 13.3%, El Sauce 16.7% and La Trinidad 19.8%, and the municipalities with the highest percent were El Jicaral 46%, Santa Rosa del Peñon 40.7% and Achuapa 38.6%.

Benefits of primary education most mentioned by parents included: improved education level of their children (66.8%), better opportunities for the future (61%), option to study in secondary school (53.8%), avoidance of child labor (4.3%), and assistance to organize the community (8.4%). Other benefits mentioned: to build a better country, make their family proud, be a better citizen, have better relationships, avoid pregnancy, support the family, be independent, and gain respect. An expression that captures this feeling is: *"…a child develops as a person and for the community too, for everyone needs to know how to read for a better future."* Father, San Jose, La Trinidad Municipality.

Table 13. Number of parents who can name three or more benefits of primary education. Base Line Study, CREAN Project. May 2015									
Categories	n	Name at least three benefits		Percent of named benefits					
		No.	%	Better education for Boys and girls	Option to study secondary	Better opportunity for the future	Avoid child labor	Help to organize the community	Other
Department									
León	384	**147**	**38.3**	78.9	52.1	65.4	5.7	12.8	11.7
Estelí	505	**105**	**20.8**	56.8	55.0	57.6	3.2	5.1	3.8
Municipality									
Achuapa	88	**34**	**38.6**	65.9	51.1	45.5	11.4	22.7	27.3
El Jicaral	50	**23**	**46.0**	72.0	64.0	86.0	4.0	0.0	6.0
El Sauce	42	**7**	**16.7**	76.2	35.7	71.4	2.4	9.5	7.1
Santa Rosa	204	**83**	**40.7**	86.8	52.9	67.6	4.4	12.3	7.4
Estelí	221	**52**	**23.5**	57.9	56.6	57.0	5.0	4.5	5.9
La Trinidad	121	**24**	**19.8**	58.7	57.9	59.5	1.7	2.5	3.3
San Juan de Limay	73	**17**	**23.3**	58.9	45.2	65.8	0.0	11.0	1.4
San Nicolas	90	**12**	**13.3**	54.4	55.6	50.0	3.3	5.6	1.1
TOTAL	**889**	**252**	**28.3**	**66.8**	**53.8**	**61.0**	**4.3**	**8.4**	**7.2**

1.2.1.1, 1.3.1.1 Increased Access to Food (School Feeding)

Indicator 24. Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance (female)

Baseline result is zero.

Indicator 25. Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance (male)

Baseline result is zero.

Indicator 26. Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance (new)

Baseline result is zero.

Indicator 27. Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance (continuing)

Baseline result is zero.

Indicators to track the number of beneficiaries participating in productive safety nets through USDA funding has a value of zero and will be measured through ongoing project monitoring.

1.4.4. Increased Engagement of Local Organizations and Community Groups

Indicator 28. Number of Parent-Teacher Associations (PTAs) or similar "school" governance structures supported as a result of USDA assistance.

Baseline result is zero.

Indicator 29. Number of public-private partnerships formed as a result of USDA assistance

Baseline result is zero.

Indicator 30. Value of public and private sector investments leveraged as a result of USDA assistance.

Baseline result is zero.

The baseline values of the above indicators will be zero, with ongoing monitoring of project activities to measure results. However, the baseline study inquired to the existence and functionality of the PTAs to understand better the organizational level set in schools and the process linked with the distribution of daily school feeding. The participation of parents and community leaders in the school was found to be of vital importance to the educational process and activities, in attendance, retention and learning quality. It was felt that the PTA's worked well when following these guidelines: a) being organized, b) meeting at least once a month, and c) establishing and following a work plan. Results are seen below in table 14.

In general, 96.6% of schools have a PTA organized and 83.2% hold meetings in a systematic way at least once a month. However, only 36.6% of PTAs responded to having a working plan.

Table 14. Number of schools that PTAs are organized and working. Disaggregated by department and municipality. Base Line Study, CREAN Project. May 2015

Categories	n	School with PTAs and working		Schools that fulfill with PTAs activities						PTA´s members	
				PTA organized		PTA that have meeting at least once a month		PTA with working plan			
		No.	%	No.	%	No.	%	No.	%	Teacher	Parent
Department											
León	254	**90**	**35.4**	247	97.2	207	83.8	111	53.6	406	1,264
Estelí	215	**54**	**25.1**	206	95.8	170	82.5	55	26.7	462	1,434
Municipality											
Achuapa	60	**23**	**38.3**	58	96.7	50	86.2	28	48.3	94	291
El Jicaral	35	**10**	**28.6**	34	97.1	26	76.5	16	47.1	55	149
El Sauce	128	**45**	**35.2**	126	98.4	107	84.9	53	42.1	204	679
Santa Rosa	31	**12**	**38.7**	29	93.5	24	82.8	14	48.3	53	145
Estelí	95	**14**	**14.7**	87	91.6	72	82.8	15	17.2	225	537
La Trinidad	42	**22**	**52.4**	41	97.6	39	95.1	22	53.7	108	458
San Juan de Limay	46	**5**	**10.9**	46	100	31	67.4	5	10.9	71	217
San Nicolas	32	**13**	**40.6**	32	100	28	87.5	13	40.6	58	222
TOTAL	**469**	**144**	**30.7**	**453**	**96.6**	**377**	**83.2**	**166**	**36.6**	**868**	**2,698**

MGD SO2. Increased Use of Health and Dietary Practices

Feeding practices of school children were measured by asking them to identify the different groups of food that they had consumed the day before the survey, including the times of food consumption

(breakfast, lunch and dinner, and snack during morning and afternoon). Minimum meal frequency and the diversity of food intake (Minimum Dietary Diversity) with the combination of these two indicators are obtaining the Minimum Acceptable Diet that was assessed for the school children, disaggregated by sex.

Indicator 31. Percent of school-age children receiving a minimum acceptable diet (female)
Baseline is 81.5%.

Table 15 presents the percentage of **female** school-age children (**81.5%**) receiving a minimum acceptable diet. The municipalities with lower percentages are Achuapa 70.2%, La Trinidad 74.8% and Santa Rosa del Peñon 76.3%. The municipality of El Jicaral presented the highest percent, reaching 95.8%.

97.7% of (female) children have an acceptable food frequency, indicating an acceptable number of times eating during the day. 82.4% have Minimum Dietary Diversity, which indicate that not all (female) children consume diverse food groups required for good nutrition.

Table 15. Percent of (female) school-age children receiving a minimum acceptable diet, in regards to Minimum Meal Frequency and Minimum Dietary Diversity, by department and municipality. Base line study, CREAN Project, May 2015

Categories	n	Minimum Meal Frequency		Minimum Dietary Diversity		Minimum Acceptable Diet	
		No.	%	No.	%	No.	%
Department							
León	498	486	97.6	412	82.7	407	**81.7**
Estelí	629	615	97.8	517	82.2	512	**81.4**
Municipality							
Achuapa	114	108	94.7	82	71.9	80	**70.2**
El Jicaral	72	72	100.0	69	95.8	69	**95.8**
El Sauce	253	248	98.0	216	85.4	213	**84.2**
Santa Rosa	59	58	98.3	45	76.3	45	**76.3**
Estelí	294	288	98.0	257	87.4	255	**86.7**
La Trinidad	135	132	97.8	103	76.3	101	**74.8**
San Juan de Limay	83	80	96.4	71	85.5	71	**85.5**
San Nicolas	117	115	98.3	86	73.5	85	**72.6**
TOTAL	**1127**	**1101**	**97.7**	**929**	**82.4**	**919**	**81.5**

Indicator 32. Percent of school-age children receiving a minimum acceptable diet (male)
Baseline is 76.6%.

Table 16 presents the percent of **male** school-age children (**76.6%**) receiving a minimum acceptable diet. The municipalities with lower percentages are Santa Rosa del Peñon 60.5% and San Nicolas (65.3%). The municipality of El Jicaral presented the highest percent, reaching 96.2%.

97% of (male) children were have an acceptable food frequency, indicating an acceptable number of times eating during the day. 77.2% of (male) children have Minimum Dietary Diversity, which indicate that not all (male) children consume diverse food groups required for good nutrition.

Table 16. Percent of school-age children receiving a minimum acceptable diet (male), in regards Minimum Meal Frequency and Minimum Dietary Diversity, by department and municipality. Base line study, CREAN Project, May 2015							
Categories	n	Minimum Meal Frequency		Minimum Dietary Diversity		Minimum Acceptable Diet	
		No.	%	No.	%	No.	%
Department							
León	438	431	98.4	357	81.5	356	**81.3**
Estelí	626	601	96.0	464	74.1	459	**73.3**
Municipality							
Achuapa	120	116	96.7	91	75.8	91	**75.8**
El Jicaral	53	53	100.0	51	96.2	51	**96.2**
El Sauce	222	219	98.6	189	85.1	188	**84.7**
Santa Rosa	43	43	100.0	26	60.5	26	**60.5**
Estelí	273	262	96.0	218	79.9	214	**78.4**
La Trinidad	164	160	97.6	117	71.3	117	**71.3**
San Juan de Limay	71	63	88.7	52	73.2	51	**71.8**
San Nicolas	118	116	98.3	77	65.3	77	**65.3**
TOTAL	**1064**	**1032**	**97.0**	**821**	**77.2**	**815**	**76.6**

MGD 2.1 Improved Knowledge of Health and Hygiene Practices

Indicator 33. Number of students (and parents) in target schools who can identify at least one local source of information on good health practices (e.g. community health clinic).

Baseline is: 1,048 female students, 1,122 male students, 666 mothers, 75 fathers.

Table 17 shows the number of students who can identify at least one local source of information on good health practices. **2,170** (99%) **were able to identify at least one local source of** information on good health practices; **98.5%** girls and **99.6%** boys.

Table 17. Number of students (male and female) in target schools that can identify one local source of information on good health practices. Disaggregated by department and municipality. Base Line Study, CREAN Project, May 2015									
Categories	Female Students			Male Students			Total Students		
	n	No.	%	n	No.	%	n	No.	%
Department									
León	498	497	99.8	438	438	100	936	**935**	**99.9**
Estelí	629	625	99.4	626	610	97.4	1255	**1235**	**98.4**
Municipality									
Achuapa	114	114	100	120	120	100	234	**234**	**100**
El Jicaral	72	72	100	53	53	100	125	**125**	**100**
El Sauce	253	252	99.6	222	222	100	475	**474**	**99.8**
Santa Rosa	59	59	100	43	43	100	102	**102**	**100**
Estelí	294	290	98.6	273	264	96.7	567	**554**	**97.7**
La Trinidad	135	135	100	164	158	96.3	299	**293**	**98.0**
San Juan de Limay	83	83	100	71	71	100	154	**154**	**100**
San Nicolas	117	117	100	118	117	99.2	235	**234**	**99.6**
TOTAL	**1064**	**1048**	**98.5**	**1127**	**1122**	**99.6**	**2191**	**2170**	**99.0**

Table 18 presents **741** (83.4%) **Number of parents who can identify at least one local source of information on good health practices**; **84.5%** of mothers and **74.3%** of fathers. The municipalities with the lowest percentage was Estelí 78.7%, Santa Rosa del Peñon (81%) and El Sauce (82.4%).

Table 18. Number of parents in target schools who can identify at least one local source of information on good health practices, disaggregated by department and municipality. Base Line Study, CREAN Project, May 2015.

Categories	Mothers			Fathers			Total		
	n	No.	%	n	No.	%	n	No.	%
Department									
León	341	292	85.6	43	31	72.1	384	**323**	**84.1**
Estelí	447	374	83.7	58	44	75.9	505	**418**	**82.8**
Municipality									
Achuapa	71	64	90.1	17	12	70.6	88	**76**	**86.4**
El Jicaral	46	41	89.1	4	4	100.0	50	**45**	**90.0**
El Sauce	188	157	83.5	16	11	68.8	204	**168**	**82.4**
Santa Rosa	36	30	83.3	6	4	66.7	42	**34**	**81.0**
Estelí	197	157	79.7	24	17	70.8	221	**174**	**78.7**
La Trinidad	113	96	85.0	8	7	87.5	121	**103**	**85.1**
San Juan de Limay	62	57	91.9	11	8	72.7	73	**65**	**89.0**
San Nicolas	117	117	100	15	12	80.0	90	**76**	**84.4**
TOTAL	**788**	**666**	**84.5**	**101**	**75**	**74.3**	**889**	**741**	**83.4**

Chart 1 provides the types of information sources children mentioned. The information source with highest utilization is the school or teacher (87.5%), followed by the family (78.5%) personnel or health unit (47.8%) and media (47.2%).

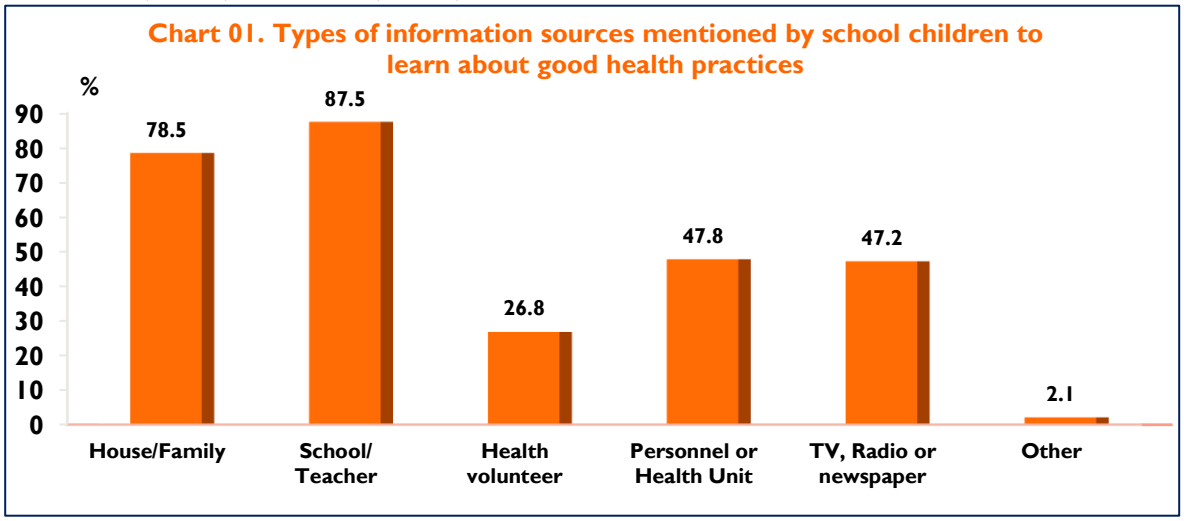
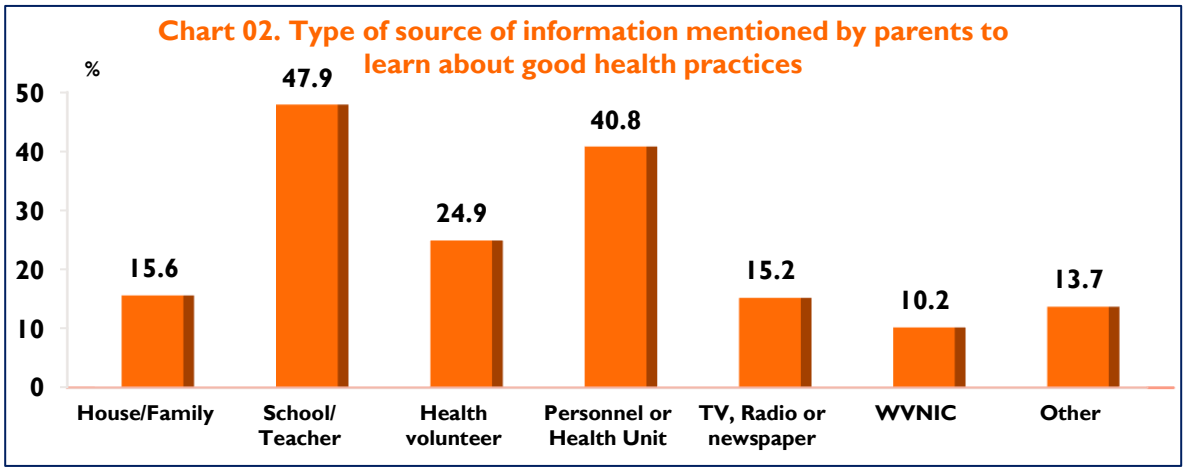


Chart 2 provides the types of information sources the parents mentioned. 47.9% parents refer to school or teacher as a first source of information, second is personnel or health unit (40.8%), followed by a health volunteer or brigadista that belong to the community (24.9%), the media (15.2%) and WVNIC (10.2%).



Indicator 34. Percent of students in target schools who achieve a passing score on a test of good health and hygiene practices

Baseline is 56.8%.

Table 19 presents the percentage of students in targets schools who achieve a passing score on a test of good health and hygiene practices. The baseline study found **56.8%** of students practice hand washing using soap and water at two key moments: before eating and after using the bathroom. The municipalities that had the lowest percent were: San Juan de Limay with 28.6 %, Santa Rosa del Peñon with 40.2%, La Trinidad with 43.5% and Estelí with 49.4%. The municipalities with the highest percent were Achuapa with 84.6% and El Sauce with 74.3%.

Table19 Percent of students who achieve passing score on hand washing, disaggregated by department and municipality. Base Line Study, CREAN Project May 2015

Categories	n	Percent of Children who wash their hands before eating			Percent of Children who wash their hands after using the bathroom			Children who achieve a passing score on hand washing	
		Water and soap	Just water	Don't wash hands	Soap and Water	Just Water	Don´t wash hand	Number	%
Department									
León	936	75.3	22.3	2.4	81.0	17.3	1.7	665	71.0
Estelí	1255	51.4	40.2	8.4	53.1	39.9	6.9	580	46.2
Municipality									
Achuapa	234	88.0	11.5	0.4	91.0	9.0	0.0	198	84.6
El Jicaral	125	61.6	34.4	4.0	66.4	32.8	0.8	73	58.4
El Sauce	475	79.6	19.8	0.6	84.2	15.4	0.4	353	74.3
Santa Rosa	102	43.1	44.1	12.7	60.8	26.5	12.7	41	40.2
Estelí	567	54.9	43.2	1.9	57.1	41.4	1.4	280	49.4
La Trinidad	299	48.8	31.8	19.4	51.2	33.8	15.1	130	43.5
San Juan de Limay	154	34.4	58.4	7.1	34.4	59.1	6.5	44	28.6
San Nicolas	235	57.4	31.5	11.1	58.3	31.5	10.2	126	53.6
TOTAL	**2191**	**61.6**	**32.5**	**5.8**	**65.0**	**30.3**	**4.7**	**1245**	**56.8**

Indicator 35. Number of parents in target schools who can identify at least three important health/hygiene practices (e.g. use of latrines)

Baseline is 348.

Table 20 presents the number of parents in target schools who can identify at least three important health/hygiene practices, including: hand washing (68.5%), cleaning house (44.3%), where to dispose of trash (46.7%), keep farm animals outside of the house (16.9%), use of latrine/toilet (19.3%) and use of safe water (32.8%).

Three hundred and forty eight (**39.1%**) of parents mentioned at least three important practices. San Nicolas 31.1%, El Sauce 33.3%, and Estelí 33.9% municipalities observed the lowest percentages, and Santa Rosa 49.5%, San Juan de Limay 45.2% and El Jicaral 40% acquired slightly higher percentages.

Table 20. Number of parents in target schools who can identify at least three important health/hygiene practices. Base Line Study- CREAN Project. May 2015

Categories	Name at least three practices			Percentage of health and hygiene practices named (n=348)					
	n	Number	%	Hand Washing	Keep clean kitchen	Trash in a right place	Farm animals outside of the house	Use latrine/ toilet	Use of safe water
Department									
León	384	**170**	**44.3**	76.3	46.9	46.4	18.0	21.6	40.9
Estelí	505	**178**	**35.2**	62.6	42.4	46.9	16.0	17.6	26.7
Municipality									
Achuapa	88	**35**	**39.8**	68.2	36.4	42.0	15.9	19.3	34.1
El Jicaral	50	**20**	**40.0**	78.0	42.0	36.0	20.0	18.0	46.0
El Sauce	204	**101**	**33.3**	79.9	53.4	53.9	20.6	25.0	45.1
Santa Rosa	42	**14**	**49.5**	73.8	42.9	31.0	7.1	14.3	28.6
Estelí	221	**75**	**33.9**	61.1	44.3	48.0	11.8	14.9	22.2
La Trinidad	121	**42**	**34.7**	58.7	41.3	43.8	18.2	16.5	29.8
San Juan de Limay	73	**33**	**45.2**	67.1	35.6	53.4	26.0	30.1	35.6
San Nicolas	90	**28**	**31.1**	67.8	44.4	43.3	15.6	15.6	26.7
TOTAL	**889**	**348**	**39.1**	**68.5**	**44.3**	**46.7**	**16.9**	**19.3**	**32.8**

MGD 2.2 Increased Knowledge of Safe Food Prep and Storage Practices

Indicator 36. Number of food preparers in target schools that can identify at least three key practices aimed at safe food preparation

Baseline is 621 food preparers.

Table 21 presents the number of food preparers that can identify at least three key practices aimed at safe food preparation. The baseline assessment was done through surveys given to randomly selected parents who prepare school food. Key practices include: hands washing (79.5%), taking off rings and bracelets when preparing food (8%), use of hair cap (12.1%), washing kitchen utensils (69.9%), food washing (75.6%), appropriate food storage (43.3%) and the use of safe water (35.8%).

Six hundred and twenty one (**69.9%**) parents identified three of the seven key practices. The municipalities of El Sauce (82.8%) and El Jicaral (72%) show the highest percent of knowledge; in contrast, the municipalities with the lowest percent are located in Estelí, San Nicolas with 56.7% and La Trinidad with 61.2%.

Table 21. Number of food preparers in target schools that can identify at least three key practices aimed at safe food preparation. Disaggregated by department and municipality. Baseline Study CREAN Project. May 2015

Categories	n	Identify at least three key practices		Key safe food preparations						
		Number	%	Hand Washing	Do not use rings, bracelets in the hands	Use of hair cap	Wash kitchen utensils	Food Washing	Food Storage	Use safe water
Department										
León	384	**294**	**76.6**	81.3	11.7	12.0	69.0	77.3	48.2	40.1
Estelí	505	**327**	**64.8**	78.2	5.1	12.3	70.5	74.3	39.6	32.5
Municipality										
Achuapa	88	**61**	**69.3**	80.7	13.6	20.5	53.4	63.6	54.5	37.5
El Jicaral	50	**36**	**72.0**	72.0	6.0	8.0	76.0	84.0	54.0	36.0
El Sauce	204	**169**	**82.8**	84.8	13.7	10.3	74.0	82.4	48.5	46.1
Santa Rosa	42	**28**	**66.7**	76.2	4.8	7.1	69.0	73.8	26.2	21.4
Estelí	221	**152**	**68.8**	77.8	7.7	10.0	72.4	76.5	41.2	33.9
La Trinidad	121	**74**	**61.2**	77.7	5.0	15.7	68.6	75.2	32.2	29.8
San Juan de Limay	73	**50**	**68.5**	82.2	0.0	13.7	75.3	82.2	46.6	28.8
San Nicolas	90	**51**	**56.7**	76.7	3.3	12.2	64.4	61.1	40.0	35.6
TOTAL	**889**	**621**	**69.9**	**79.5**	**8.0**	**12.1**	**69.9**	**75.6**	**43.3**	**35.8**

Indicator 37. Number of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage.

Baseline is 593 food preparers.

Table 22 presents **593** food preparers (**66.7%**) achieved a passing score for the preparation of safe food. The municipalities with highest percentages are El Sauce (76.2%), San Juan de Limay (74%), El Jicaral (72%) and San Nicolas (51.1%). The municipalities with the lowest percentages were Achuapa (51.1%), Santa Rosa del Peñon (56.9%), Estelí (62.4%) and La Trinidad (65.3%).

Indicator 38. Number of individuals trained in child health and nutrition as a result of USDA assistance (female)
Baseline result is zero.

Indicator 39. Number of individuals trained in child health and nutrition as a result of USDA assistance (male).
Baseline result is zero.

Table 22. Number of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage. Disaggregated by department and municipality. Baseline Study CREAN Project. May 2015			
Categories	n	Food preparers who met 5 approved criteria	
		Number	Percent
Department			
León	384	258	67.2
Estelí	505	335	66.3
Municipality			
Achuapa	88	45	51.1
El Jicaral	50	36	72.0
El Sauce	42	32	76.2
Santa Rosa	204	116	56.9
Estelí	221	138	62.4
La Trinidad	121	79	65.3
San Juan de Limay	73	54	74.0
San Nicolas	90	45	51.1
TOTAL	**889**	**593**	**66.7**

MGD 2.3 Increased Knowledge of Nutrition

The baseline for number of individuals trained in child health and nutrition as a result of USDA assistance is zero and will be assessed through ongoing project monitoring.

Table 23 presents the percentage of parents who reported receiving training on child health and nutrition prior to the start of CREAN's project activities, disaggregated by department and municipality and role. 40.2% of total parents interviewed reported having received training. The municipalities with the highest percent were El Jicaral (50%), Achuapa (46.6%), La Trinidad (43.8%), San Juan de Limay (42.5%) and San Nicolas (42.2%). The municipalities with lower percentage were El Sauce (38.2%), Estelí (35.3%) and Santa Rosa del Peñon (31%)**.** By gender, 41% mothers received training and 33.7% of fathers.

Table 23. Parents who have received training on child health and nutrition, Disaggregated by department and municipality. Baseline Study CREAN Project. May, 2015.									
Categories	Mothers			Fathers			Total		
	n	No.	%	n	No.	%	n	No.	%
Department									
León	341	143	41.9	43	14	32.6	384	157	40.9
Estelí	447	180	40.3	58	20	34.5	505	200	39.6
Municipality									
Achuapa	71	33	46.5	17	8	47.1	88	41	46.6
El Jicaral	46	24	52.2	4	1	25.0	50	25	50.0
El Sauce	188	73	38.8	16	5	31.3	204	78	38.2
Santa Rosa	36	13	36.1	6	0	0.0	42	13	31.0
Estelí	197	71	36.0	24	7	29.2	221	78	35.3
La Trinidad	113	50	44.2	8	3	37.5	121	53	43.8
San Juan de Limay	62	27	43.5	11	4	36.4	73	31	42.5
San Nicolas	75	32	42.7	15	6	40.0	90	38	42.2
TOTAL	**788**	**323**	**41.0**	**101**	**34**	**33.7**	**889**	**357**	**40.2**

MGD 2.4 Increased Access to Clean Water and Sanitation Services

Indicator 40. Number of schools using an improved water source

Baseline is 178 schools.

Table 24 shows the number of schools using an improved water source. Schools were identified with: 1) a water source, 2) an improved water source with treatment, and 3) the type of treatment, chlorine or filter. The study looked at the source of the water and the condition of the water facility, such as a pipe system, well or rain water catchment. **178** schools (53.8%) have an improved water source and were also receiving treatment (chlorination/ purification). The municipalities with fewer schools with water sources that receive treatment are, El Jicaral (36.8%), San Juan de Limay (22.9%), Santa Rosa (39.1%), and La Trinidad (40.6) Municipalities that have a greater amount of schools with treated water sources are: El Sauce (59.4%), Estelí (64.4%) and Achuapa (68.6%).

Table 24. Schools with water source and treatment received, Disaggregated by department and municipality. Baseline Study CREAN Project. May 2015

Category	n	Schools with water source		Schools w improved water source. Having treatment (n= 331)		Type of treatment that receive (n=178)	
		No.	%	No	%	Chlorination	Filter
Department							
León	254	173	68.1	**97**	**56.1**	93	4
Estelí	215	158	73.5	**81**	**51.3**	73	7
Municipality							
Achuapa	60	35	58.3	**24**	**68.6**	23	1
El Jicaral	35	19	54.3	**7**	**36.8**	6	1
El Sauce	128	96	75.0	**57**	**59.4**	55	2
Santa Rosa	31	23	74.2	**9**	**39.1**	9	0
Estelí	95	73	76.8	**47**	**64.4**	42	5
La Trinidad	42	32	76.2	**13**	**40.6**	12	0
San Juan de Limay	46	35	76.1	**8**	**22.9**	8	0
San Nicolas	32	18	56.3	**13**	**72.2**	11	2
TOTAL	**469**	**331**	**70.6**	**178**	**53.8**	**166**	**11**

Indicator 41. Number of schools with improved sanitation facilities.

Baseline is 200 schools.

Table 25 presents the number of schools with improved sanitation facilities. Schools were observed to identify sanitation facilities, conditions of and what kind of rehabilitation was needed, specifically physical conditions of the latrines (doors, walls, roof, seat, and bowl). **200** schools (47.1%) were found to have sanitation facilities in good condition.

MGD 2.6 Increased Access to Requisite Food Prep and Storage Tools and Equipment

Indicator 42. Number of target schools with improved food prep and storage equipment.

Baseline is 30 schools.

Schools were observed to identify: 1) designated food storage location (table 26), 2) condition of the food storage (table 27), and 3) availability of food preparation utensils (table 28).

Table 25. Schools with sanitation facilities and their physical condition, disaggregated by department and municipality. Baseline Study CREAN Project. May 2015

Category	n	Schools with sanitation facilities		Schools with sanitation facilities in good condition (n=425)		Percent of the sanitary component in good condition					
		No.	%	No.	%	Door	Wall	Roof	Seat	Bowl	Tank and accessories
Department											
León	254	224	88.2	**105**	**46.9**	56.1	56.1	61.4	64.9	66.7	1.8
Estelí	215	201	93.5	**95**	**47.3**	54.5	66.7	66.7	72.7	78.8	6.1
Municipality											
Achuapa	60	57	95.0	**24**	**42.1**	56.1	56.1	61.4	64.9	66.7	1.8
El Jicaral	35	33	94.3	**16**	**48.5**	54.5	66.7	66.7	72.7	78.8	6.1
El Sauce	128	107	83.6	**58**	**54.2**	65.4	63.6	63.6	66.4	66.4	7.5
Santa Rosa	31	27	87.1	**7**	**25.9**	51.9	48.1	55.6	48.1	55.6	11.1
Estelí	95	93	97.9	**41**	**44.1**	61.3	64.5	65.6	72.0	81.7	29.0
La Trinidad	42	35	83.3	**18**	**51.4**	62.9	71.4	71.4	82.9	77.1	31.4
San Juan de Limay	46	42	91.3	**22**	**52.4**	61.9	78.6	90.5	100.0	97.6	7.1
San Nicolas	32	31	96.9	**14**	**45.2**	74.2	61.3	71.0	67.7	74.2	6.5
TOTAL	**469**	**425**	**90.6**	**200**	**47.1**	**61.6**	**64.0**	**67.3**	**71.5**	**74.6**	**13.4**

Table 26 summarizes schools' food storage locations, both at the school (229) and at the household (155); only 32% of schools (74) with storage locations have a kitchen. In the municipalities El Jicaral, Santa Rosa del Peñon, Estelí, La Trinidad, San Juan de Limay and San Nicolas, food storage locations are at the school, in the municipalities of El Sauce and Achuapa food is stored in the household. The study found there is a preference to storing food at the schools, providing better transparency, greater accountability for proper distribution and limit any jealousy parents may develop with each other from storing food in their homes. In this regard, a mother explains:

> "*We have someone responsible for food storage which is distributed daily to parents who are responsible for cooking the next day. They are vigilant that the teachers distribute the measures accurately*." **Mother from El Tamarindo, El Jicaral**

Table 27 presents how the study identified seven basic criteria to understand the conditions of where food is being stored: 1) space, 2) use of wooden pallets and plastic tarps, 3) ventilation, 4) walls in good condition, 5) clean floor or ground, 6) roof in good condition, and 7) if the location was only being used to store food. Results, presented in table 27, show **206** schools meet the minimum acceptable storage.

Table 26. Number of target schools with a space or place to storage food, disaggregated by department and municipality. Baseline Study-CREAN Project. May, 2015							
Category	n	Location where food is stored in the school			Location where food is stored outside of the school		
		Classrooms	Storage-Kitchen	Administration	Family House	Teacher House	Neighboring House or leader
Department							
León	254	122	25	6	102	3	3
Estelí	215	107	49	6	53	1	2
Municipality							
Achuapa	60	26	5	3	28	0	0
El Jicaral	35	24	6	2	2	1	0
El Sauce	128	48	13	1	67	2	3
Santa Rosa	31	24	1	0	5	0	0
Estelí	95	40	30	2	21	1	2
La Trinidad	42	24	11	2	5	0	0
San Juan de Limay	46	22	3	1	20	0	0
San Nicolas	32	21	5	1	7	0	0
TOTAL	**469**	**229**	**74**	**12**	**155**	**4**	**5**

Table 27. Number of target schools with locations to store food, disaggregated by department and municipality. Baseline Study-CREAN Project. May 2015										
Category	n	Conditions for food storage locations							Meets all the conditions	
		Space	Use pallets and plastic	Has venti-lation	Just for food	Walls in good conditions	Clean floor or ground	Roof in good condi tion	No.	%
Department										
León	254	151	128	174	46	218	211	238	**17**	**6.7**
Estelí	215	127	78	155	40	181	155	187	**9**	**4.2**
Municipality										
Achuapa	60	40	36	43	8	49	50	54	**5**	**8.3**
El Jicaral	35	15	26	18	2	34	29	34	**1**	**2.9**
El Sauce	128	73	59	87	33	107	104	121	**10**	**7.8**
Santa Rosa	31	23	7	26	3	28	28	29	**1**	**3.2**
Estelí	95	63	35	65	13	75	64	78	**4**	**4.2**
La Trinidad	42	31	25	34	13	39	41	40	**1**	**2.4**
San Juan de Limay	46	14	4	34	4	40	24	42	**1**	**2.2**
San Nicolas	32	19	14	22	10	27	26	27	**3**	**9.4**
TOTAL	**469**	**278**	**206**	**329**	**86**	**399**	**366**	**425**	**26**	**5.5**

Table 28 summarizes basic materials used in schools for food preparation include: pans, pails, buckets, cooking spoons, ladle, and knives. **73** schools currently have these basic utensils for food preparation.

Table 28. Number of schools with utensils for food preparation, disaggregated by department and municipality. Baseline Study-CREAN Project. May, 2015.										
Category	n	School with utensils	Number of schools with specific utensils for cooking meals							
			Pan	Pail	Bucket	Cooking spoon	Ladle	Knife	Cover	Pot
Department										
León	254	29	6	3	2	3	1	29	4	29
Estelí	215	44	21	4	15	13	5	44	9	44
Municipality										
Achuapa	60	7	1	1	1	1	0	7	0	7
El Jicaral	35	9	0	0	0	0	0	9	0	9
El Sauce	128	12	4	2	1	2	1	12	4	12
Santa Rosa	31	1	1	0	0	0	0	1	0	1
Estelí	95	24	11	2	8	8	4	24	6	24
La Trinidad	42	6	4	2	4	2	1	6	1	6
San Juan de Limay	46	9	3	0	0	1	0	9	0	9
San Nicolas	32	5	3	0	3	2	0	5	2	5
TOTAL	**469**	**73**	**27**	**7**	**17**	**16**	**6**	**73**	**13**	**73**

The preparation of the daily school meals is made at the homes of parents. Coordinators from NER (rural schools) recognize that the organization lies on the Comte de Alimentación Escolar (CAE). Parents are responsible for the transfer, safety, preparation and distribution of food to the children. Teachers and principals list the guidelines of who (parent or member of the CAE) is responsible on each day to coordinate the preparation and distribution in the classrooms. Schedules are displayed in the classrooms and children transmit information to the parents.

V. CONCLUSIONS

Improved Literacy of School-Aged Children: The results of the EGRA Test show 3rd grade students demonstrate low levels of literacy measured through fluency of reading comprehension; male school demonstrate a lower level than female school children. In León department the literacy level is lower than in Estelí department.

Comparison of two indicators that assess literacy (fluency and reading comprehension), demonstrate that children are not developing the ability to understand all that they are reading.

Other results (as shown in table 3) on school children's literacy deficiencies:

- **Letter recognition** (phonemic awareness): on average second grade children recognize 6 and 6.1 of 10 sounds; in third grade the recognition is 5.6 for boys and 6 for girls
- **Letter-sound knowledge**: in both grades and sex, students had the same knowledge of the letter name, third grade (boys 18.6, girls 20.1) and second grade (boys 19.1, girls 20.4)
- **Familiar word reading**: in third grade performance (boys 44 cwpm), girls (49.4 cwpm) and in second grade (boys 35.8 cwpm), (girls 38.2 cwpm)
- **Oral Comprehension**: in third grade (60.7% for boys, 59.7 % for girls), in second grade (59.1% for boys and 55.3% for girls). In both grades and sex, students showed better results in oral comprehension that in reading comprehension
- **Dictation**: third grade performance (44.1% for boys, 54.3% for girls) is better than second grade (39.5% for boys, 42.1% for girls)

Teachers demonstrate improved literacy instruction: A high percentage of teachers have received training in literacy teaching methodologies, specifically in the PAS method that is utilized by the MOE. When the teachers and supervisors were consulted, they expressed that they do not have proficiency of the method. It is a new methodology for multi-grade schools and is more difficult to apply as there is not enough teaching supplies for its implementation.

Access to School Supplies: There are school supply limitations such as: basic text books and expendable supplies used in the classroom (notebooks, pencils, cardboard, and flipchart paper). These supplies are important to implement the PAS Method.

School attendance: Baseline findings show school children, both boys and girls, have high attendance rates. One of the main elements identified that have facilitated the school attendance is the implementation of the PAS method and the delivery of the daily school feeding program.

Community awareness on the benefits of education: Baseline findings show that parents have little awareness regarding the benefits of their children completing primary school. Only 3 in 10 parents could name three benefits (see table 13). The greatest benefits recognized were: personal growth, further education and better opportunities for the future.

Engagement of Local Organizations and Community Groups: CAEs are organized in almost 100% of all target schools, however not all CAEs work properly (lack of a work plan and do not meetings frequently). In general, CAE members understand the role and responsibilities for the implementation of the school feeding program and there is good coordination between the parties. Participation of parents is limited to the food preparation during classes.

Healthy Eating Practices: A high percentage of students eat the right amount during the day, however not all consume from the required food groups for a healthy nutrition. Therefore decreasing the

percentage of students who have a minimum acceptable diet. In general, male students have a lower percentage of minimum acceptable diet than female students.

Knowledge of Health and Hygiene Practices: Parents and school children all have knowledge of where to find information on good hygiene practices. Both groups identified the school environment (school and teachers) as the main source of information on topics of health and hygiene, which can contribute as a model for the school community and be profitable for the implementation of initiatives to improve health and nutrition.

- Less than half the schools enforce the proper practice of hand washing at key moments: before eating and after using the bathroom. One of the elements that considerably influence this is the lack of basic inputs (soap and water) at schools, which is not always available.

- Less than half (39%) of parents identified good practices of hygiene and sanitation.

Knowledge of Safe Food Preparation and Storage Practices

- Few parents (40%) responsible for preparing the school meal report having received training related to handling or preparing food. There is little knowledge about what kind and how to get the best variety of foods, to improve the consumption and the biological utilization.

- A high percent of parents know the practices suitable for food preparation (70%), however not all of them put in practice that knowledge (two-thirds approved best practices), demonstrating a need to promote behavior change that will facilitate the integration of knowledge and became a daily practice.

Access to Clean Water and Sanitation Services: Water and sanitation facilities in schools are essential for promoting good hygiene practices and the wellbeing of children, however, most schools observed do not have these services or they are in need of repair. Just a third of the schools have public service "pipe line systems" as a source of water; the majority of schools' source of water comes from what the children bring to school daily. Just over half of schools with other water sources receive treatment (mainly chlorination).

Most of the schools have a sanitation facility (90%), however, more than half have some type of deterioration and are in need of rehabilitation, mainly in the doors, walls and roof.

Access to Requisite Food Preparation and Storage Tools and Equipment: The following are limitations found to the safe preparation and distribution of school meals:

- Local available food storage containers do not meet the minimum suitable conditions. There are schools that have limited availability of poles or plastic to protect food, as well as the practice of not storing with other products.
- Few schools have materials / utensils for food preparation (pans, pots, ladle, and buckets).
- There is minimal supervision of food preparation, mainly because preparation is performed in the parents' homes and teachers do not have time to supervise.

VI. RECOMMENDATIONS

Literacy skills of School-Aged Children: Considering the results in the baseline process, it may be necessary to design an accompanying strategy that allows the project to better develop literacy skills in boys and girls in an integral way with community learning opportunities.

Teaching Skills: It is recommended in training workshops to raise the issue of management and transition of print to cursive letter writing, which is a component of the PAS method. It is recommended to leverage institutional spaces (coordinate with NER and TEPCE (Evaluation & Planning Educational Workshop)) and the use of spaces that MOE has designated to provide technical assistance focused on proficiency of the teaching methodology. It is important to consider a wide coverage of program (geographical area and school amount) likewise the availability of technical resources. It is also recommended to include into the project improvement a capacity building component, both hiring human resources (to supplement the structure that already exists), and strengthen the existing coordination spaces.

Access to School Supplies and Materials: It is strongly recommended to prioritize the municipalities and schools where the study identified the largest deficit of materials, didactic, textbooks, interchangeable and supplementary supplies for promoting reading.

Students Attentiveness in the classroom: To improve attentiveness in the classroom requires that teachers have knowledge and skills of participatory techniques, so it is recommended to incorporate these techniques as part of the training plan.

Community awareness about the benefits of education: It is recommended to leverage PTA spaces with CAE and others to provide technical assistance to parents in topics linked to education benefits for their children, emphasizing benefits listed in the survey results.

Community and Family Engagement: It is recommended to strengthen the structure of the CAE as the fundamental space where it organizes and develops the school meal. It would be especially important to develop training for CAE members, in organization and management, to assist in planning and fulfilling their functions and assigned role. It is also recommended to utilize opportunities which provide parents engagement in the preparation of the school meal.

Healthy Eating Practices: It is recommended that the training for food preparation plan incorporate issues related to leveraging food and its diet diversity in the school garden – complementary food to increase diet diversity that is attuned to the existence or variety of foods available in the territories. It is also recommended to include a component to the project for family gardens as provision of food supplements, since school gardens are oriented to a learning process and not necessarily to the disposition of their products for food. This type of initiative could help to diversify the consumption, both in the school meal program as at home and thus strengthen the indicators of minimum dietary diversity (MDD) and minimum acceptable diet (MAD).

***Knowledge of Health and Hygiene Practices*:** it is recommended to target trainings to parents and school children in health and hygiene practices where they have detected poor knowledge, so that there may be a real change and assume best practices. It is also recommended to prepare and implement a strategy for behavior change in definition of specific behaviors where the project wants to make the greatest impact. Additionally, to really have an effect on the proper practice in personal hygiene and sanitation it is required to have the appropriate materials. In this regard, CREAN should also ensure the provision of water sources and soap for hand washing, as well as the supplies and materials for the safe preparation of food.

Access to Clean Water and Sanitation Services, Food Prep and Storage Tools and Equipment: it is important to define investment priorities in the physical improvement of schools health services (differentiated between staff and students, girls and boys), local storage and supplies/utensils for food preparation. The infrastructure component requires greater investment of time and effort throughout the applicable administrative process. The recommendation is to establish a calendar of planned activities and systematically monitor accomplishments. This component also requires budget, for which is also recommended to clearly define the support to be given through the project designated to rehabilitation of sanitation infrastructure. This component is a good opportunity to establish partnerships with both the public sector (Municipal Mayors, Water Supply Company (ENACAL)), and the private sector, who can provide support through specialized technical assistance for structural diagnosis, delivery of materials for rehabilitation and kitchen equipment.

VII. BIBLIOGRAPHY

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VIII. ANNEX

Annex I to 7: Data Collection


Annex 1 EGRA Test.pdf


Annex 2. Survey students.pdf


Annex 3 sruvey teachers.pdf


Annex 4 survey parents.pdf


Annex 5. PTA guide.pdf


Annex 6 observation guide.pdf


Annex 7 MOE guide.pdf

Annex 8. Indicator Summary Table

RESULTS BY INDICATOR, CREAN PROJECT
BASELINE STUDY May, 2015

No	INDICATOR	BASELINE RESULT
MGD SO1	***Improved Literacy of School-Aged Children***	
1	*Percent of students who, by the end of two grades of primary schooling, demonstrate that they can read and understand the meaning of grade level text (female)*	*35.5% 3rd grade*
		17.6% 2nd grade
2	*Percent of students who, by the end of two grades of primary schooling, demonstrate that they can read and understand the meaning of grade level text (male)*	*23.8% 3rd grade*
		13.7% 2nd grade
3	*Number of individuals benefiting directly from USDA-funded interventions (female)*	*0*
4	*Number of individuals benefiting directly from USDA-funded interventions (male)*	*0*
5	*Number of individuals benefiting indirectly from USDA-funded interventions*	*0*
6	*Number of individuals benefiting directly from USDA-funded interventions (new)*	*0*
7	*Number of individuals benefiting directly from USDA-funded interventions (continuing)*	*0*
MGD 1.1	***Improved Quality of Literacy Instruction***	
8	*Number of teachers in target schools who demonstrate improved literacy instruction as identified by supervisors, mentors, or coaches.*	*0*
Result 1.1.2	***Better Access to School Supplies and Materials***	
9	*Number of textbooks and other teaching and learning materials provided as a result of USDA assistance*	*0*
Result 1.1.3	***Improved Literacy of Instructional Materials***	
10	*Number of target schools with supplemental reading materials available to students*	*0*
Result 1.14	***Increased Skills and Knowledge of Teachers.***	
11	*Number of teachers/educators/teaching assistants in target schools who demonstrate use of new and quality teaching techniques or tools as a result of USDA assistance.*	*0*
12	*Number of teachers/educators/teaching assistants trained or certified as a result of USDA assistance*	*0*
Result 1.1.5	***Increased Skills & Knowledge of School Administrators***	
13	*Number of school administrators and officials in target schools who demonstrate use of new techniques or tools as a result of USDA assistance*	*0*
14	*Number of school administrators and officials trained or certified as a result of USDA assistance*	*0*
MGD 1.2	***Improved Attentiveness***	
15	*Percent of students that have improved attentiveness in classrooms identified by their teachers (data collected during a single day, on a quarterly basis)*	*78.5 (total)*
		73.9 (girls)
		83.4 (boys)
Result 1.2.1	***Reduced Short-Term Hunger***	
16	*Number of daily school meals (breakfast, snack, lunch) provided to school-age children as a result of USDA assistance*	*0*
17	*Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance (male)*	*0*
18	*Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance (female)*	*0*

No	INDICATOR	BASELINE RESULT
19	Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance (new)	0
20	Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance (continuing)	0
MGD 1.3	**Improved Student Attendance**	
21	Number of students regularly (80%) attending USDA supported classrooms/school (female).	13,918 (91.1%)
22	Number of students regularly (80%) attending USDA supported classrooms/school (male)	14,970 (91.7%)
Result 1.3.5	**Increased Community Understanding of Benefits of Education**	
23	Number of parents in target schools who can name at least three benefits of primary education (collected through a survey) (n=889)	252 (28.3%)
1.2.1.1,1.3.1.1	**Increased Access to Food (School Feeding)**	
24	Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance (female)	0
25	Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance (male)	0
26	Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance (new)	0
27	Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance (continuing)	0
Result 1.4.4	**Increased Engagement of Local Organizations and Community Groups**	
28	Number of Parent-Teacher Associations (PTAs) or similar "school" governance structures supported as a result of USDA assistance	0
29	Number of public-private partnerships formed as a result of USDA assistance	0
30	Value of public and private sector investments leveraged as a result of USDA assistance	0
MGD SO2	**Increased Use of Health and Dietary Practices**	
31	Percent of school-age children receiving a minimum acceptable diet (female)	81.5%
32	Percent of school-age children receiving a minimum acceptable diet (male)	76.6%
Result 2.1	**Improved Knowledge of Health and Hygiene Practices**	
33	Number of students (and parents) in target schools who can identify at least one local source of information on good health practices (e.g. community health clinic)	
	Students (female) (n=1064)	1048 (98.5%)
	Students (male)s (n=1127)	1122 (99.6%)
	Mothers (n=788)	666 (84.5%)
	Fathers (n=101)	75 (74.3%)
34	Percent of students in target schools who achieve a passing score on a test of good health and hygiene practices. (n=2191)	56.8%
35	Number of parents in target schools who can identify at least three important health/hygiene practices (e.g. use of latrines) (n=889)	348 (39.1%)
Result 2.2	**Increased Knowledge of Safe Food Prep and Storage Practices**	
36	Number of food preparers in target schools that can identify at least three key practices aimed at safe food preparation (n=889)	621 (69.9%)

No	INDICATOR	BASELINE RESULT
37	*Number of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage. (n=889)*	*593 (66.7%)*
Result 2.3	***Increased Knowledge of Nutrition***	
38	*Number of individuals trained in child health and nutrition as a result of USDA assistance (female)*	*0*
39	*Number of individuals trained in child health and nutrition as a result of USDA assistance (male).*	*0*
Result 2.4	***Increased Access to Clean Water and Sanitation Services***	
40	*Number of schools using an improved water source*	*178*
41	*Number of schools with improved sanitation facilities*	*200*
	Number of school with sanitary facility	*425*
Result 2.6	***Increased Access to Requisite Food Prep and Storage Tools and Equipment***	
42	*Number of target schools with improved food prep and storage equipment*	*30*
	Number of school with appropriate accessory to storage the food. (purlins and plastic)	*206*
	Number of school with utensils to prepared food	*73*