Associate Award under the Feed the Future Innovation Lab for Collaborative Research on Grain Legumes

AID-EDH-A-00-07-00005

YEAR 3 REPORT: OCTOBER 2015 – SEPTEMBER 2016

With the collaboration of

1. Introduction

This annual report of the MASFRIJOL project covers the period from October, 2015 through September 2016. MASFRIJOL has devoted significant time to the establishment of community seed depots (CSD) as well as forwarding the nutrition education agenda with very positive results. As the project starts its four year, FY 2016 was used wisely to set up the closing ramp. Key activities were (a) dissemination of seed of improved bean varieties to new beneficiaries and a second wave of dissemination to households that experienced crop failure in the past; (b) Strong emphasis on the establishment of CSD for local seed production; (c) the completion of the nutrition assessment data collection conducted on beneficiary families with children under 5 years of age; and (e) crosscutting education sessions and technical assistance to directly support the areas of work with strong emphasis on women participation. It has been encouraging for the implementing team to achieve most of the project indicators at 80% or more. Although some indicators have lagged to make room for priorities with CSDs, we remain confident that we will reach all of the project goals and enhance the impact of this initiative in the last months of the project.

In numbers, the accomplishments for the period October 1, 2015 to September 30, 2016, are highlighted below.

- **47 CSDs** were established and 36 already harvested production during the first planting season of 2016. These CSDs were established in an equal number of communities in the target five WHIP departments. The experience of these CSDs has been highly positive.
- **4,094 pounds of improved seed varieties** were produced and commercialized in the target communities by CSDs, with which 40.9ha can be planted, some in the second planting season and some later in 2017. The amount of seed available from CSDs is poised to increase as MASFRIJOL continues to expand on this community-based seed production model.
- **8,008 bags of seed of improved bean varieties** have been delivered to partners for distribution to the same number of new beneficiary families, representing nearly 33,000 families that have received improved bean seed since the onset of the project. With an original goal of benefitting 25,000 families, this means we surpassed this indicator by 32%.
- **352 hectares** cultivated this year with improved black bean varieties.
- **Yield per hectare surpassed from a target of 465kg/ha to 779kg/ha.**
- **7135 children under five years of age** reached through this intervention.
- **5,383 women participating** in MASFRIJOL project activities.
- **441 households** have improved bean storage capacity as a result of MASFRIJOL-introduced technologies.
- **65 technicians** from the ministries of Agriculture and Health as well as from collaborating projects in the WHIP area were trained in the fourth cross-training program (Agriculture and Nutrition) organized by MASFRIJOL and FANTA III.

- **15 producers and 8 technicians** were instructed during the second CSD model training course were seed production strategies, methods and best practices were imparted. The course is required for aspiring CSD participants.
- **2,312 beneficiaries** were trained on improved agronomic practices for bean production. With this, MASFRIJOL reached 80% of the goal of 12,000 beneficiaries trained.
- **5,383 beneficiaries** participated in at least one nutrition education/training sesion. This brings us to 100% of the project goal to reach 12,000 beneficiaries during the life of the project. The work will continue during the rest of the project as many communities have not been reached and we continue to build momentum with the participation of MSPAS health educators to reach more families.
- **721 beneficiaries participated** in bean recipe demonstration sessions teaching families to enhance their diets with more bean consumption. With this number, MASFRIJOL has reached 108% of the goal of 2,000 beneficiaries for the life of the project.

Detailed tables providing evidence of communities reached and partners involved are offered in the following sections. The project team based at the Legume Innovation Lab and in Quetzaltenango is proud to plan for FY 2017 with these results as a strong platform. In addition to this report, ad hoc reports on the CSD experience will be prepared in late February to outline the impact of this initiative which has the capacity to increase seed availability to many remote communities in the FTF area in Guatemala.

2. Administrative Results

During the period of this report, the MASFRIJOL project decided to strengthen its technical team field office, in order to maintain the momentum of activities in the localities covered by the project, and thereby ensure that the project indicators continue reaching according to programmed into the Performance Monitoring Plan (PMP for its acronym in English). This decision involved the hiring of four new auxiliary technicians, so the team MASFRIJOL in each department is currently made by Ing. Agr. Extension (team leader) and two Technical Assistants.

During the period of this report, the MASFRIJOL project strengthen its technical team in order to maintain the momentum of activities in the localities covered by the project. Our goal is to meet Performance Monitoring Plan (PMP) indicators beyond expectation and focus on the legacy of the project to the communities. Part of the team that supported our field activities are Peace Corp Response Volunteers (PCRV). During the first part of this reporting period we counted on significant contributions by Ms. Rachel Uffer. Ms. Uffer left in August after a six-month volunteering period, but we have successfully acquired the services of Ms. Dorothia Vieira. Ms. Viera, a new PCRV,will be supporting MASFRIJOL for a period of 12 months offering training and experience especially in nutrition-related activities.

3. Seed Dissemination Activities

The dissemination seed varieties adapted to the conditions of the target region for the project is one of the most strategic activities to demonstrate the difference in yields associated to improved seed. As farmers corroborate differences in higher productivity, we build a sustainable environment for CSD to produce and market their seed in the short, medium and long term. The following table illustrates the results of seed dissemination during this period which targeted new beneficiaries within the target communities and brought a second chance to families that had experience crop failure in the past due to climate-related problems.

Figure 1. Bean seed delivery to beneficiaries, Las Granadillas, San Juan Ostuncalco, Quetzaltenango.

Table 1. Seed Dissemination Activities with Partners FY 2016

Table No 1. Seed delivered by Department (Date, Institution, Destiny and Variety) during FY 2016. MASFRIJOL.

SEED DELIVERED FY 2016 - HUEHUETENANGO DEPARTMENT-							
DATE (Delivery)	INSTITUTION	DESTINY	SEED DELIVERED APRIL-SEPTEMBER 2016				
			ICTA S. Chiva	ICTA Altense	ICTA Hunapu	ICTA Ligero	TOTAL
6/10/2016	ASODIME	La Estancia, Municipio de Huehuetenango	25	0	25	0	50
7/5/2016	Grupos de evalucion nutricional	Varios comunidades de Huehuetenango	140	70	70	0	280
7/12/2016	ASOCUCH-CHIANTLA	Chiantla, Departamento de Huehuetenango	310	100	0	0	410
7/12/2016	ADIMAM	Cuilco	30	0	15	30	75
8/2/2016	FUNCAFE/ANACAFE-HUEHUETENANGO	Cuilco y Barillas	52	52	106	52	262
8/8/2016	MAGA	HUEHUETENANGO	50	0	0	150	200
8/10/2016	Cuilco-ADIMAM	Cuilco	50	75	0	0	125
8/15/2016	Municipalidad de San Miguel Ixtahuacan	San Miguel Ixtahuacan, Depto. San Marcos	335	0	0	0	335
8/15/2016	MSPAS	Nuevo Progreso, Depto. San Marcos	0	0	0	200	200
8/17/2016	Pastoral Social Caritas-San Marcos	Tajumulco, San Lorenzo y Sibinal	402	340		30	772
8/26/2016	Municipalidad de San Miguel Ixtahuacan	San Miguel Ixtahuacan, Depto. San Marcos	0	330	0	0	330
9/9/2016	MAGA	San Antonio H, Huehuetenango	0	0	0	100	100
9/30/2016	SOSEP, Huehuetenango	San Sebastian Huehuetenango, La Libertad, La Democracia, San Antonio Huista, Jacaltenango	250	0	0	250	500
TOTAL			1644	967	216	812	3639
SEED DELIVERED FY 2016 - SAN MARCOS DEPARTMENT-							
6/29/2016	Beneficiarios-MASFRIJOL	Sibinal, San Miguel Ixtahuacan	0	0	12	0	12
7/4/2016	Municipalidad de San Miguel Ixtahuacan	San Miguel Ixtahuacan, Depto. San Marcos	175	0	150	0	325
7/8/2016	Pastoral Social Caritas-San Marcos	Tajumulco, San Lorenzo y Sibinal	0	0	514	0	514
7/18/2016	Grupos de evalucion nutricional	Varias comunidades	0	0	55	0	55
7/18/2016	Ruvelsi Sanchez, anacafe,	Aldea El Colmito Sn Miguel Ixtahuacan	45	0	0	0	45
7/18/2016	Parcelas Andolino Lopez Castañon	Caserio Sibinnal, SM. Ixtahuacan	38	0	0	0	38
7/25/2016	FUNCAFE	San Marcos, Varios	75	0	0	325	400
8/4/2016	FUNCAFE/San Miguel Ixtahuacan	San Miguel Ixtahuacan, Depto. San Marcos	67	0	0	0	67
8/10/2016	FUNCAFE	Varias comunidades San Marcos	8	81	50	0	139
8/15/2016	Grupos de evalucion nutricional	Varias comunidades	0	0	0	80	80
TOTAL			408	81	781	405	1675
SEED DELIVERED FY 2016 - EL QUICHE DEPARTMENT -							
6/6/2016	MSPAS	Uspantan, Quiche	0	40	0	0	40
7/4/2016	Grupos de evalucion nutricional	Varias comunidades	0	82	0	0	82
7/5/2016	Chel, The Ripple Effect, Inc.	Chajul, El Quiche	25	0	25	0	50
7/5/2016	Batzchocola, ECA, COCODE	Nebaj	0	70	0	0	70
7/12/2016	MSPAS	Sacapulas, Cunen,	0	65	75	0	140
7/19/2016	Grupos de evalucion nutricional	Varias comunidades	0	30	0	0	30
7/19/2016	MSPAS	El Quiche	0	0	60	0	60
7/19/2016	MSPAS	El Quiche	0	0	20	50	70
7/25/2016	Grupos de evalucion nutricional	varias comunidades	0	0	15	100	115
8/9/2016	MSPAS	Uspantan	0	30	0	0	30
8/9/2016	COCODE-PASANEP ALTO, Sacapulas	Pasanep Alto, Sacapulas	0	58	0	0	58
8/9/2016	COCODE-XICALVITZ, Nebaj	Xicalvitz,Nebaj	0	48	0	0	48
8/9/2016	La Laguna Batzchocola, COCODE.	La Laguna Batchocola.	0	13	0	0	13
8/9/2016	Visicuchun, Chajul, COCODE	Visicuchun, Chajul	0	12	0	0	12
9/9/2016	Municipalidad de Uspantan	Uspantan	0	200	0	0	200
9/9/2016	MSPAS	Uspantan	0	110	0	0	110
9/12/2016	MSPAS	USPANTAN	0	21	0	0	21
TOTAL			25	779	195	150	1149
SEED DELIVERED FY 2016 - TOTONICAPAN DEPARTMENT -							
6/30/2016	Municipalidad Santa Maria Chiquimula	Santa Maria Chiquimula, Totonicapan	0	75	75	0	150
7/4/2016	Gregorio Perez,	San Bartolo Aguas Calientes	0	0	8	0	8
7/4/2016	Grupos de evalucion nutricional	Varias comunidades	0	45	0	0	45
7/4/2016	Almacenes de Semilla	San Bartolo Aguas Calientes	0	0	2	0	2
7/5/2016	Municipalidad San Bartolo Aguas Calientes,	San Bartolo Aguas Calientes Totonicapan	300	0	200	0	500
7/11/2016	CRS/SEGAMIL para ADIPO	Santa Lucia La Reforma, Santa Maria Chiquimula	105	0	70	0	175
7/11/2016	Municipalidad de San Miguel Ixtahuacan	Subchal, Maquivil, Chilive, Salitre, Alen,	0	100	0	150	250
7/12/2016	Rosa Cuyuch Sontay APEDER	Rachoquel, Momostenano, toto	0	0	45	0	45
7/26/2016	MASFRIJOL	Sicalbe, Momostenango	0	0	9	0	9
9/21/2016	Municipalidad San Bartolo Aguas Calientes,	San Bartolo Aguas C. Totonicapan	0	100	0	0	100
9/21/2016	MAGA-Momostenango	Momostenango, Totonicapan	50	50	0	0	100
9/22/2016	MAGA-Santa Lucia la Reforma	Santa Lucia la Reforma	75	75	0	0	150
TOTAL			530	445	409	150	1534
SEED DELIVERED FY 2016 - QUETZALTENANGO DEPARTMENT -							
8/9/2016	Grupos de evaluacion nutricional	varias comunidades	11	0	0	0	11
TOTAL			11	0	0	0	11

Table 1 shows the institutions and/or partners who have so far received seed to be distributed to beneficiaries. As can be seen, 45% of the seed was distributed in Huehuetenango, while San Marcos has received 20.9%, Totonicapán 19.2%, Quiche 14.4%, and only 0.14% in Quetzaltenango. The low level of dissemination in Quetzaltenango during this period is that most of the beneficiaries in the target municipalities of that department have been reached. Table 2 further illustrates the seed dissemination effort by variety which provides a strong view of the importance of targeting areas with high altitude with the right genetic materials. ICTA Ligero is the only variety disseminated with resistance to yellow mosaic virus, typically a strong pest in production areas up to 1500meters and therefore more widely disseminated in the low valleys of Huehuetenango.

Table No 2. Seed delivered Summary by Department during FY 2016. MASFRIJOL

SEED DELIVERED SUMMMARY BY DEPARTMENT DURING THE PERIOD APRIL TO SEPTEMBER 2016					
DEPARTMENT	SEED DELIVERED FY 2016 (inclusive)				
	ICTA S. Chiva	ICTA Altense	ICTA Hunapu	ICTA Ligero	Total
Huehuetenango Department	1,644	967	216	812	3,639
San Marcos Department	408	81	781	405	1,675
Quiche Department	25	779	195	150	1,149
Totonicapan Department	530	445	409	150	1,534
Quetzaltenango Department	11	0	0	0	11
TOTAL	2,618	2,272	1,601	1,517	8,008

4. Community Seed Depots (CSD)

The MASFRIJOL team is proud to present solid results on the CSD experience. The strategy of promoting and supporting CSDs is another activity that generates positive results for the improvement and sustainability of bean production in the WHIP region. The activities involved in the ACS aim to produce and supply the communities with quality-declared bean seed demanded by producers that know the advantages of the MASFRIJOL-disseminated varieties. When produced locally, farmers can see the crop performance, learn about improved production practices and buy seed at affordable prices. Table 4 below shows the consolidated report of obtained results from the 36 CSDs that were established and harvested during the 1st season of the 2016 agriculture cycle.

Figure 2. Seed depot of Mr. Juan Agripino Alba. El Pino, Chiantla, Huehuetenengo. 2016.

Table 3. Information of Seed Depots that already Harvested (Primera Planting Season2016)

No	Farmer Name	Department	Municipality	Community	Altitude masl	Area (m^2) ++	Improved Variety Planted*	Total yield (pounds by 437m^2 = 1 Cda.++)	Seed yield (pounds by 437m^2 = 1 Cda.++)	Grain yield (pounds by 437m^2 = 1 Cda.++)	Seed Price (US $)+ got per pound
1	Francisco Aquilino Perez Mendez**	San Marcos	S. M. Ixtahuacan	El Salitre	1,760	350.0	Altense	56.2	0.0	56.2	-
						350.0	Ligero	79.9	0.0	79.9	-
2	Miguel Estanislao Cinto Bamaca	San Marcos	S. M. Ixtahuacan	EXIAL	2,287	200.0	S. Chiva	218.5	120.2	98.3	1.00
						200.0	Altense	231.6	137.7	94.0	1.00
3	Carlos Camerlino Dominguez Gonzales	San Marcos	S. M. Ixtahuacan	Tierra Blanca	1,520	200.0	Ligero	218.5	174.8	43.7	1.00
						200.0	Altense	174.8	120.2	54.6	1.00
4	Jose Bamaca Sales**	San Marcos	S. M. Ixtahuacan	Siete Platos	1,624	220.0	Hunapu	Totally lost because critic pest damages			
5	Ricardo Benito Gonzalez	San Marcos	S. M. Ixtahuacan	Chisnan	2,087	220.0	Altense	298.0	198.6	99.3	1.13
6	Hector Modesto Bravo Lopez	San Marcos	S. M. Ixtahuacan	Maquivil	2,194	340.0	Altense	251.9	132.4	119.5	1.25
7	Edgardo Anastacio Diaz Domingo	San Marcos	S. M. Ixtahuacan	Las Escobas	2,473	400.0	Hunapu	262.2	218.5	43.7	1.25
						400.0	Altense	234.9	163.9	71.0	1.25
8	Leoncio Gumercindo Gonzalez Ajpop	San Marcos	S. M. Ixtahuacan	Alen	2,076	350.0	Hunapu	117.4	62.4	54.9	0.88
9	Elpidio Lopez Figueroa/Jose L. Figueroa	Huehuetenango	Chiantla	Al. El Carpintero	1,916	416.0	Hunapu	15.8	Considered lost because pest damages		
10	Jesus Ramirez	Huehuetenango	Concep. Huista	Yichoch	2,002	482.4	Hunapu	138.6	102.4	36.2	0.63
11	Bartolo Hernandez Diaz	Huehuetenango	Concep. Huista	Petatan	1,158	504.5	Hunapu	86.6	0.0	86.6	-
12	Juan Agripino Alba Cifuentes	Huehuetenango	Chiantla	El Pino	2558	819.3	Hunapu	320.0	213.4	106.7	?
13	Eulalio Veasquez Cano	Huehuetenango	Concep. Huista	Trapichitos	1,142	342.6	Hunapu	229.6	191.3	38.3	0.75
14	Carlos Enrique Rodriguez Lucas	Huehuetenango	San Ant. Huista	Can. Reforma	1,095	303.4	Hunapu	252.1	165.6	86.4	0.75
15	Francisco Sanchez Miguel	Huehuetenango	Jacaltenango	Pelbipam	751	356.0	Ligero	184.1	110.5	73.7	0.75
16	Artemio Ortiz Martinez	Huehuetenango	Todos S. Cuchumat.	San Martin	2,028	745.3	Hunapu	164.2	105.5	58.6	0.80
17	Ernesto Martin Pablo	Huehuetenango	Jacaltenango	Chapaltelaj	1,495	294.3	Hunapu	259.9	222.7	37.1	0.75
18	Alberto Carmelino Hernandez Quiñonez	Huehuetenango	Jacaltenango	Hunta	750	398.0	Ligero	109.8	76.9	32.9	0.75
19	Gildardo Fredy Herrera Jimenez	Huehuetenango	San Ant. Huista	Las Galeras	1,016	432.1	Hunapu	207.3	119.3	88.0	0.88
20	Pedro Lopez Martinez	Huehuetenango	San Ant. Huista	Nojoyá	995	612.9	Hunapu	189.0	142.6	46.3	0.75
21	Angel Otoniel Castillo Castillo	Huehuetenango	Jacaltenango	Pelbipan	744	711.0	Ligero	94.7	49.2	45.5	0.75
22	Benito Ramos Matías	Huehuetenango	Concep. Huista	Yulá	1,745	475.4	Hunapu	170.0	137.9	32.2	0.75
23	Gaspar Garcia Ulan	El Quiche	Sacapulas	Chutinimit	1,442	437.0	Hunapu	74.0	53.0	21.0	0.63
24	Victor Yat Jimon	El Quiche	Zacualpa	Chixocol	1,578	315.0	Hunapu	106.8	55.5	51.3	0.75
25	Santiago Lux Garcia**	El Quiche	Zacualpa	La Vega	1,469	874.0	Hunapu	Totally lost because farmer personal problems			
26	Manuel Hernandez Garcia	El Quiche	Zacualpa	Tunajá I	1,618	437.0	Hunapu	136.0	16.0	120.0	0.63
27	Francisco Tun Riquiac	El Quiche	Zacualpa	S. Ant. V Centro	1,793	874.0	Hunapu	221.5	52.5	169.0	0.63
28	Felino Morales Lopez	El Quiche	S. Miguel Uspantan	Chotom	1,631	437.0	Hunapu	183.0	146.0	37.0	0.63
29	Froilan Noriega Ramirez	El Quiche	S. Miguel Uspantan	Xolalbarda	1,405	874.0	Hunapu	200.0	50.0	150.0	0.63
30	Juan Lopez Chivalan	El Quiche	Sta. Maria Cunen	Los Planes	1,774	437.0	Hunapu	145.0	70.0	75.0	0.63
31	Victor Ines Samayoa Velasquez	El Quiche	Sta. Maria Cunen	Rio Blanco	1,580	437.0	Altense	112.0	80.0	32.0	0.73
32	Elena L. Velasquez/Juana B. Velasquez**	Quetzaltenango	S. J. Ostuncalco	Agua Blanca	2,041	545.0	Altense	160.4	0.0	160.4	-
33	Modesta Barrera Ajcá	Totonicapan	Momostenango	S. Jose Siguila (S	1,906	530.0	Hunapu	189.6	131.9	57.7	1.00
34	Santos T. Garcia Vargas/Rony Garcia	Totonicapan	Momostenango	Xequemeya (Par	1,790	241.0	Hunapu	344.5	253.9	90.7	0.63
35	Obispo Barrera	Totonicapan	Momostenango	San Jose Siguila	1,868	500.0	S. Chiva	166.1	122.4	43.7	1.00
36	Miguel Tojin	Totonicapan	Sta. L. La Reforma	San Luis Sibila	1,686	540.0	Hunapu	145.7	97.1	48.6	1.00
	TOTAL					17,801.2		6,734.2	4,094.2	2,640.1	
						1.78 ha		3.1 Ton	1.9 Ton	1.2 Ton	

TABLE NOTES: * Improved varieties: ICTA Hunapu, ICTA Super Chiva, ICTA Altense e ICTA Ligero. / ** Seed Depot declared lost mainly for mantainance reasons.
+ Curency exchange Q8.0 = US$1.0.; / ++ 437 m^2 = 1 Cuerda = 0.044 Ha = 0.062 Maz.

Of the 36 harvested CSDs, eight (22.2%) of these were established in the department of San Marcos, 14 (38.9%) in Huehuetenango, nine (25.0%) in Quiché, 1 (2.8%) in Quetzaltenango and 4 (11.1%) in Totonicapán. The total planting area was of 17801.2 m2 (1.78 ha = 40.7 cuerdas of 437.0m2). It is noteworthy that not all of the CSDs succeeded in producing seed. Of the 36 CSDs, one located in San Marcos (No. 4 in Table 3 above), one in Huehuetenango (No. 9 in Table 3 above), and one in Quiche (No. 25 in Table 3 above) were disqualified for seed production as there was severe pest damage or climate-related factors that did not let farmers reach a good crop. Subtracting these three CSDs, the effective total area of 16,291.2 m2 was successful in producing seed, equivalent to 91% of the total area planted.

Total production in the 33 harvested CSDs (without taking into account the three CSD lost) represents an estimated average yield of 180.0lb/cuerda (one cuerda = 437 m2), equivalent to 4.1 MT/ha or 28.8 quintals per manzana (one manzana = 7,000 m2). Total seed production is calculated by subtracting the rejected bean (broken, shapeless, pale, etc.) after the harvest is conditioned or cleaned. The total cleaned seed amounts to 4094.2lb while the total rejected

harvested used for home consumption is 2640.1lb. This is equal to a conditioned seed yield of 60.8% for the 33 CSDs. Some CSDs had very low rejection thanks to best threshing practices than others. This is an area where more training will be provided.

It is important to outline that, at the time of writing this report, more than 77.8% of total seed produced in CSDs was sold as seed by CSD owners directly to other farmers identified in the community. In some cases, the seed was sold to individuals and organizations that were not fully identified, but research is ongoing to complete the picture of where the seed ended. Depending on the destination of sales, these were made in small amounts (1-5 pounds), or, in some cases in larger bulk quantities. In a few cases, farmers sold their total seed yield in a single sale to seed retailers. MASFRIJOL cannot impose a way to market seed as we are not all the time with farmers. It is encouraging, though, that farmers themselves have built trade relationships within and outside the community.

In terms of impact for area planted with CSD-produced seed, assuming that 5.0lb are required to plant an cuerda of land (437 m2), total seed produced by CSDs already harvested has been enough to plant approximately 818.8 cuerdas (35.8 ha = 51.2 manzanas), which is a considerable amount of land for the type of land tenure in the highlands region of Guatemala. This planting also results in an estimated increase in grain production for family consumption, and thus contributes to improve the nutrition of all the members of these families.

Bean yields and seed selling prices are important for CSD owners to be motivated and continue working with seed production. Table 4 below shows average yield data obtained for CSDs where it is observed that the total harvested yield (includes pre-conditioned seed) average was obtained in Totonicapan with 211.5 lb cuerda. The lowest was obtained in Quiché with 147.3lb/cuerda, but it is still very good. A similar yield performance was observed for grain production. The information available at the time of preparation of this report indicates that, on average, the seed was sold at US $0.85lb, the average lower selling US $ 0.66/lb obtained in Quiché and the highest price of US $ 1.08 was fetched in San Marcos, though we still need to finish selling the seed in some CSDs. Based on the average selling price of the seed that has been sold so far (US $ 0.85/lb) and the monetary value of total seed produced by CSDs amounted to US $3480.1 (approx. Q27,840.6 quetzales). Important to outline is that, in broad terms, CDSs are selling the seed at twice the price of grain, ergo an important motivation to keep producing high quality-declared seed.

Table 4. Average data of Seed Depots-MASFRIJOL by Department

Department	Area (m2) ++	Total yield (pounds by 437m^2 = 1 Cda.++)	Seed yield (pounds by 437m^2 = 1 Cda.++)	Grain yield (pounds by 437m^2 = 1 Cda.++)	Seed Price (US $)+ got per pound
San Marcos	285.8	194.9	147.6	74.1	1.08
Huehuetenango	492.4	185.1	136.4	59.1	0.76
Quiche	569.1	147.3	72.4	81.9	0.66
Quetzaltenango	545.0	160.4	-	160.4	-
Totonicapán	452.8	211.5	151.3	60.2	0.91
	469.0	179.8	126.9	87.1	0.8512

Table Notes: + Currency exchange Q8.0 = US$1.0.;
++ 437 m2 = 1 Cuerda = 0.044 ha = 0.06mz.

While these 33 CSDs have provided a combined success story and we have managed to learn much from the three CSDs that did not harvest seed, it is encouraging to report that 19 new CSDs are in the process of planting for the Second planting season of 2016. Table 5 below shows the details of where these CSDs are located. MASFRIJOL is convinced that CSDs are a true contribution to the improvement of the bean seed system in remote communities as farmers now can buy high quality seed within a short distance from their homes.

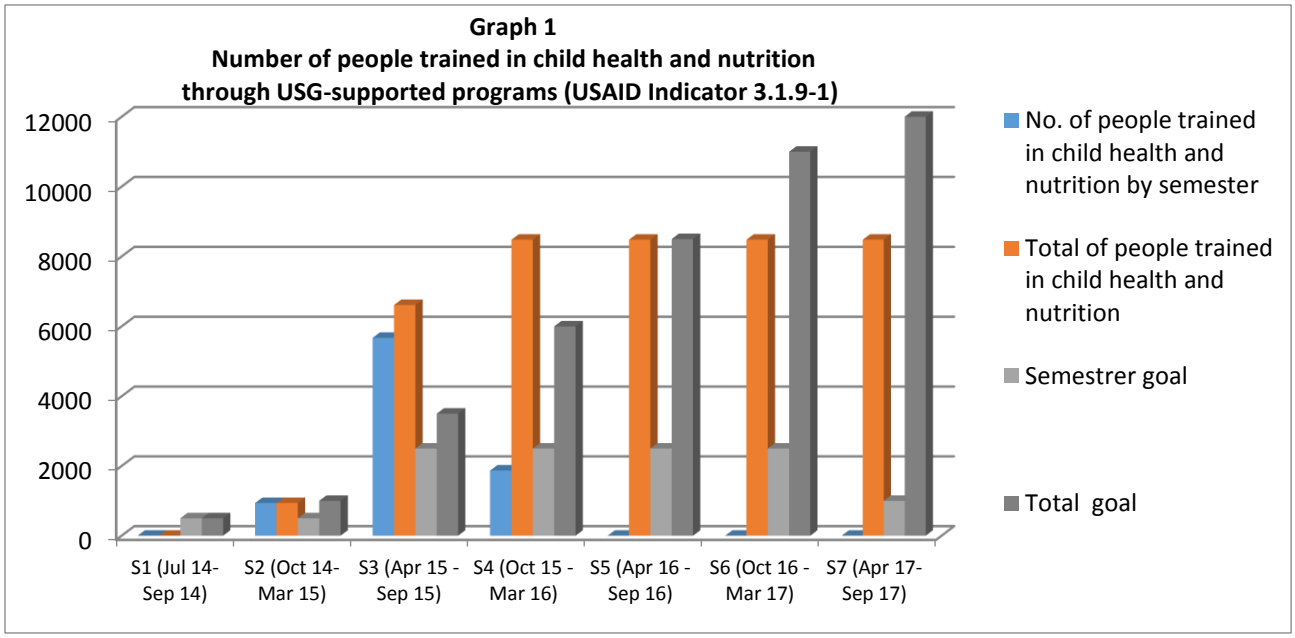
Table 5. Information of Seed Depots even Unharvested or Expected Planting-MASFRIJOL Project (Second Cycle Year 2016)*

No	Farmer Name	Department	Municipality	Community	Altitude masl	Area (m^2) ++	Improved Variety Planted**	Planting Date (or expected)	Observations
1	Manuel Calel Castro	Totonicapan	Sta. M. Chiquimula	Xalcata	1,883	400.0	S. Chiva	30-05-2016	Expected harvest during October 2016
2	Marcos Lux Tiu	Totonicapan	Sta. M. Chiquimula	Chichic	2,057	560.0	S. Chiva	04-08-2016	Expected harvest at end of Nov. 2016
3	Sara Castro Chic/Isabel Chacaj	Totonicapan	Sta. M. Chiquimula	Xebe	2,324	237.0	Altense	24-05-2016	Expected harvest during October 2016
4	Antonio Tzoy	Totonicapan	Sta. L. La Reforma	S. Luis Sibila	1,587	498.0	Altense	27-07-2016	Expected harvest at end of Nov. 2016
5	Laura Milagrosa Pu	Totonicapan	Sta. L. La Reforma	Ctro. S. L. Sibila	1,730	324.0	Altense	01-08-2016	
6	Leonzo Lux	Totonicapan	Sta. L. La Reforma	Ctro. S. L. Sibila	1,742	708.0	Altense	01-08-2016	
7	Gregorio Peres	Totonicapan	S. Bart. A. Calientes	Centro S.B.A.C.	2,041	400.0	Hunapu	01-08-2016	
8	Felipa Isabel Herrera Lopez de Orozco	Quetzaltgo.	S. J. Ostuncalco	Las Barrancas		874.0	Hunapu	18-10-2016	
9	Lucia Leticia Crisostomo Matias	San Marcos	Comitancillo	Taltimiche	2,310	441.0	Hunapu	17-05-2016	Expected harvest during October 2016
10	Baudilio Santos Lopez Perez	San Marcos	Tajumulco	El Malacate	1,818	882.0	S. Chiva	19-09-2016	
11	Hilda Chilel Lopez	San Marcos	Tajumulco	Monte Perla	2,430	441.0	S. Chiva	21-09-2016	
12	Hermeregildo Margarito Lopez Martin	San Marcos	Tajumulco	Monte Perla	2,232	441.0	S. Chiva	20-09-2016	
13	Carlos Cruz de La Cruz	Quiche	Zacualpa	Chichaj		874.0	Hunapu/Altense	10/10/2016	
14	Salomé Tavico Noriega	Quiche	San M. Uspantán	Chocox		874.0	Hunapu/Altense	15/10/2016	
15	Francisco Tiú	Quiche	Sacapulas	Chacagüex		437.0	Hunapu	02/11/2016	
16	Nicolás Pú Tojín	Quiche	Sacapulas	Cuesta del Águila		437.0	Hunapu	25/11/2016	
17	Santiago Mejía Tojín	Quiche	Sacapulas	Rancho de Tejas		874.0	Hunapu/Altense	02/12/2016	
18	José María Reyes	Quiche	San M. Uspantán	Palquí		437.0	Altense	02/12/2016	
19	Lucas Hernández Dubón	Quiche	Sta. María Cunén	San Luís		874.0	Hunapu/Altense	02/12/2016	
	TOTAL					11,013.0			
						1.10 ha			

TABLE NOTES: * Some other Seed Depots would be still expected to be planted during 2016. / ** Improved varieties: ICTA Hunapu, ICTA Super Chiva, ICTA Altense e ICTA Ligero. /
++ 437 m^2 = 1 Cuerda = 0.044 Ha = 0.062 Maz.; / ++ 437 m2 = 1 Cuerda = 0.044 Ha = 0.062 Maz.

5. Enhancing the Nutritional Quality of Diets

Over the past year, MASFRIJOL has delivered a number of nutritional education sessions in the five WHIP departments sometimes in partnership with MSPAS and MAGA. By October 1, 2016 the MASFRIJOL team trained 3483 beneficiaries who had participated in at least one training session. Most of the participants (82.2%) were women and 17.78% were men. This total indicates that the project has achieved 100% of its goal to benefit 12,000 households with nutritional education during its lifetime **(Graph 1).**



There are seven MASFRIJOL nutritional education lessons that focus on: 1) raising awareness about the consequences of chronic malnutrition; 2) the importance of high quality protein to reduce stunting; 3-4) complementary feeding from 6-11months and then 11-24 months—frequency of feeding, consistency of porridge and adding beans to porridge; 5) how to eat a balance diet that includes beans during pregnancy and lactation; 6) nutritious, delicious and economical recipes using beans; and 7) eating more vegetables and fruits. It is important to note that each lesson emphasized the importance daily bean consumption for good health. These nutritional lessons were delivered using dynamic activities and motivational videos designed especially for the WHIP population's native culture and resources. Simple one item and visual pre-post tests were used with the first five lessons to evaluation change in knowledge about beans and health.

One of the MASFRIJOL strategies that was best received by beneficiaries was the preparation of bean-based recipes. Both women and men learned easy recipes to diversify the way they prepare beans to feed their families, always with the principle of mixing beans with cereals such as corn to create a high quality protein. This hands-on activity triggered engaged discussions among the beneficiaries, wherein they created or modified the recipes according their preferences and inspired ideas.

The bean based recipes that haven been taught so far were:

Torta de frijol y hojas verdes

Ensalada de frijol y maíz,

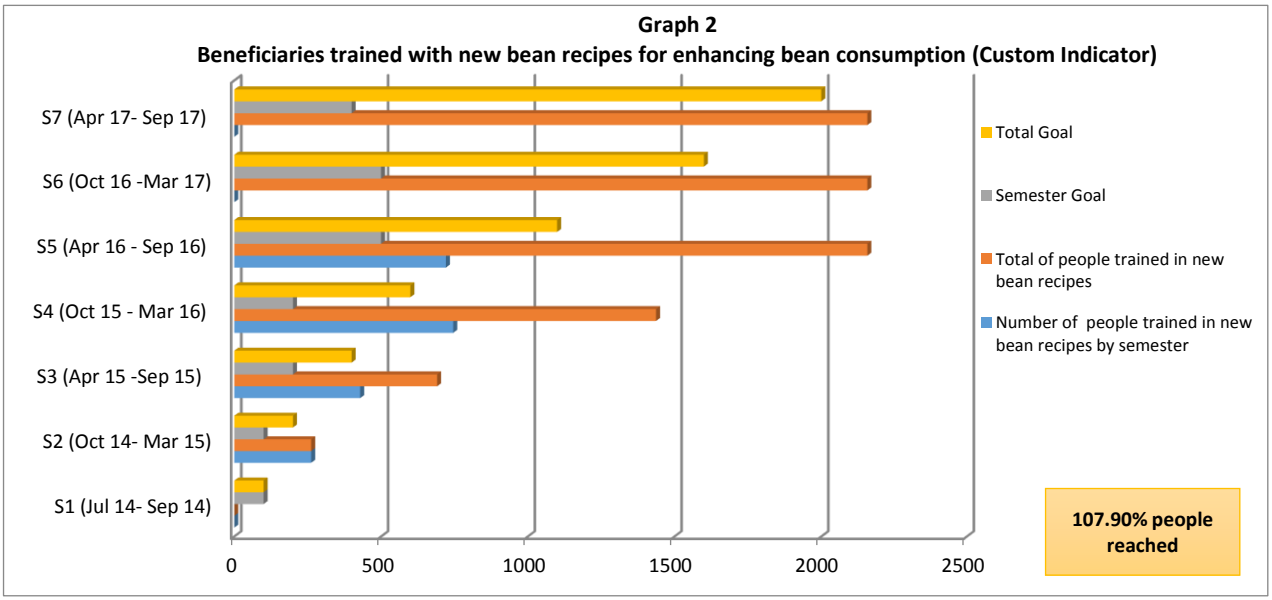
Ceviche de frijol y protemás

Caldo de frijol y camote

Papilla de frijol y papa

Mixtas de frijol.

In FY 2016 MASFRIJOL team trained 721 beneficiaries who participated in at least one recipe demonstration session. Graph 2 presents a timeline of progress achieved in providing education using the recipes listed above. This total indicates that the project has achieved the 108 % of its goal to benefit 2,000 households. The MASFRIJOL team will continue with this activity, however, because of its good acceptance in the rural communities.



Nutritional Evaluation

According to the PMP, MASFRIJOL will evaluate possible changes in bean consumption at the household level and in nutritional status of women and children under five years old of 700 families. This strategy involves three different steps.

1. Pre-Nutritional Evaluation, wherein the data gathered from families includes anthropometric data of children under five years, weekly bean consumption in the household, dietary diversity scores for women, pregnant women and children under two years old.
2. Intensive educational sessions with these 700 families, all of whom receive the nutritional lessons plus seven lessons on bean agronomy.
3. Post-Nutritional Evaluation, wherein the same data will be collected as in the pre-nutritional evaluation.

Selection of the communities for this nutritional evaluation was made randomly from a list of beneficiary communities reported by MASFRIJOL team and its partners across the 30 municipalities in the five departments in WHIP. Participation in this evaluation was voluntary. By October 2016, MASFRIJOL finished the pre-nutritional evaluation reaching 817 families in the different communities listed in Table 6. MASFRIJOL has already begun the second step the intensive education, and the progress of this intervention to date is also shown in Table 1.

Table 6. MASFRIJOL Nutrition Evaluation Coverage

Department	Municipality	Community	No. Families	% Progress Nut/Ag Education
San Marcos	Concepción Tutuapa	La Laguna	10	40
		La Unión	7	40
		Santo Domingo	7	40
		Sochel	3	40
		Tuichuná	10	40
	San Miguel Ixtahuacan	Cabajchum	7	100
		Chilive	7	40
		Chininhuitz	6	100
		Chisnan	6	100
		Exial	7	100
		La Estancia	8	40
		La Peña	13	40
		Las Escobas	10	100
		Legual	13	40
		Maquivil	7	100
		El Salitre	6	100

		Shanshegual	9	20
	San Pablo	El Tocache	12	20
		El Trapiche	14	60
		La Joyita	26	60
		Santo Domingo II	14	60
	Nuevo Progreso	Pueblo Viejo	13	20
		La Conquista	14	20
		Nuevo Porvenir	10	0
		Emanuel	10	0
		Ixcahuin	12	20
		La Suiza	11	20
		San Ignancio	7	20
	San Rafael Pie de la Cuesta	El Naranjo	9	60
		Las Palmas	14	20
		Nueva Libertad	11	60
		Nuevo San Rafael	10	60
TOTAL			**323**	
Huehuetenango	Concepción Huista	Ajul	6	100
		Cabic	4	100
		Cantón Unión, Mendez, Pozo	7	100
		Petatán	5	100
		Secheu	8	100
		Trapichitos	10	100
		Tzuná	9	100
		Tzunhutiz	6	100
		Yichoch	6	100
		Yulá	5	100
	Barillas	Recreo C	14	0
		El Quetzal	11	0
	Las Libertad	Santo Domingo	9	100
	Chiantla	Chichalum	9	0
	San Antonio Huista	Las Galeras	7	80
		Nojoyá	7	80
	Todos Santos Cuchumatan	Villa Alicia	11	40
		San Martín Cuchumatán	9	40
		Chicoy	8	40
		Las Lajas	10	40
	San Sebastian Huehuetenango	Mapá	9	80
		Palajachuj	10	80
		Sipal	11	80

		Sujal	8	80
		Tojchec	7	60
TOTAL			**206**	
Quetzaltenango	San Juan Ostuncalco	Lagunas Cuaches	6	100
		Las Victorias	2	0
		Los Alonzos	10	100
		Monrrovia	5	20
	Concepción Chiquirichapa	Barrio San Marcos	2	0
		Duraznales	5	80
		Excomuchá	1	0
		Telená	6	100
		Tuipox	6	80
TOTAL			**43**	
Quiché	Chajul	Ixlaj	5	100
	Cotzal	Pamaxan	3	100
	Cunen	Bellas Flores	7	100
		Chiul	4	100
		El Paraiso	5	100
		El Pericón	8	100
		Pozo Verde	11	100
		San Luis	5	100
		Sausucuché	6	100
		Xetzac	9	100
	Nebaj	Batzchocolá	6	100
	Sacapulas	Chacaguex	9	80
		Chibuc	8	40
		Chimux	6	40
		Chuitinimit	10	100
		Cuesta del Aguila	5	80
		Guantajau	3	40
		Pasanep Alto	10	40
		Rancho de Teja	10	80
	Zacualpa	La Vega	7	20
		Tierra Blanca	4	20
		Potrero Viejo II	9	20
	Uspantán	Chitapol	5	100
		Chocox	6	80
		Cholá	8	100
TOTAL			**169**	
Totonicapán	Momostenango	Racaná	11	40

		Rachoquel	10	100
		San Vicente Buenabaj	9	100
		Tierra Colorada	9	100
	Santa Lucía la Reforma	Paquit	8	100
		Pabur	12	60
		Pamaría	8	60
		San Luis Sibilá	9	100
TOTAL			**76**	

The pool of 817 families contained 891 children. Of these, 23% of children were less than 1 year of age, 27.8% were 1<2 years old, and finally 49.2% were from 2<5 years old. These children were measured for height and weight and the data were analyzed using the WHO ANTRO software. Findings from the pre-nutritional evaluation showed that 60.4% of children evaluated had chronic malnutrition. Of these, approximately 35.6% showed moderate delay (<2 Z score Ht/age) in growth while 24.8% had a severe delay in growth (<3 Z score Ht/age). Table 7 shows the details for the USAID indicator ("Indicator 3.1.9-11 Prevalence of stunted children under five years of age") reported for each of the MASFRIJOL target departments.

Table No. 7
Height for Age Standard deviation in measured children by Department in the Pre-Nutritional Evaluation
Indicator USAID 3.1.9-11 "Prevalence of Stunted children under five years of age"

Department	**Total Children measured**	**Normal Height**	**Chronic Malnutrition**		
		# Children **% HAZ Normal**	# Children **% HAZ <-2 Moderate Stunting**	#Children **% HAZ < -3 Severe Stunting**	# Children **% Total Chronic Malnutrition**
Quetzaltenango	**51**	15 **29.42%**	21 **41.17%**	15 **29.41%**	36 **70.58%**
Totonicapán	**83**	29 **34.94%**	22 **26.50%**	32 **38.55%**	54 **65.06%**
San Marcos	**332**	157 **47.29%**	127 **38.25%**	48 **14.45%**	175 **52.71%**
Huehuetenango	**227**	99 **43.61%**	70 **30.84%**	58 **25.55%**	128 **56.39%**
Quiché	**198**	53 **26.77%**	77 **38.88%**	68 **34.34%**	145 **73.23%**

HAZ= Height for Age Z score

Anthropometric data were also analyzed for the USAID Indicator "3.1.9-12 Prevalence of wasted children under five years of Age," where it was found that 4.4% of children had acute malnutrition (low Wt/Ht). Of these, 2.9% had moderate-acute malnutrition (<2 Z scores Wt/Ht) and 1.5% had severe-acute malnutrition (<3 Z scores Wt/Ht). Because severe malnutrition can be life threatening, MASFRIJOL coordinated with the Health Minister technicians (MSPAS) so that MSPAS could provide treatment.

It is important to mention that 1.7% of children were overweight and 0.3% obese according to their weight for age. Despite this small portion of overweight and obesity, nutritional strategies should begin to address this problem in the Western Highlands of Guatemala.

Table 8 shows the data for the USAID Indicator 3.1.9-12 Weight for Height Z scores in each of the five departments.

WHZ= Weight for Height Z score

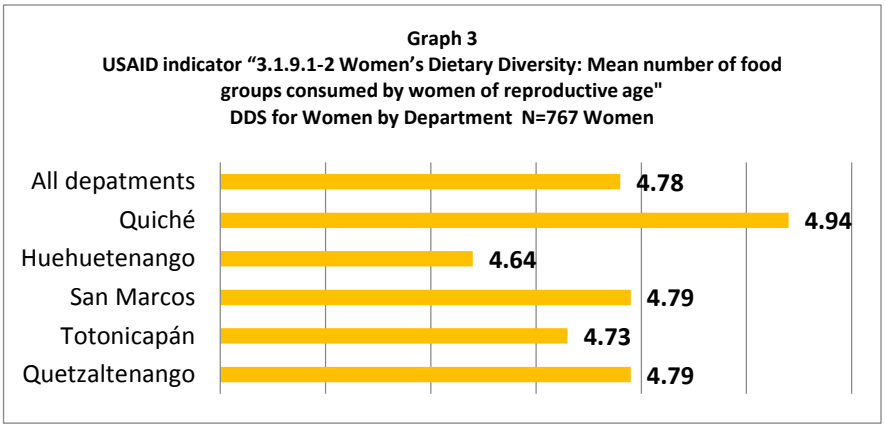
Table No. 8
Weight for Height standard deviation in measured Children by Department in the Pre-Nutritional Evaluation

Department	# Children measured	Normal Weight	Acute Malnutrition			Overweight and Obesity		
		# Children **% WHZ Normal**	# Children **% WHZ <-2 Moderate**	#Children **% WHZ < -3 Severe**	# Children **% Total Acute Malnutrition**	# Children **% WHZ >+2 Overweighed**	#Children **% WHZ >+3 Obesity**	#Children **% Total Overweight and Obesity**
Quetzaltenango	**51**	50 **98.04%**	0 **0%**	0 **0%**	0 **0%**	1 **1.96%**	0 **0%**	1 **1.96%**
Totonicapán	**83**	76 **91.56%**	4 **4.76%**	3 **3.57%**	7 **8.33%**	0 **0%**	0 **0%**	0 **0%**
San Marcos	**332**	310 **93.37%**	10 **3.01%**	6 **1.81%**	16 **4.82%**	6 **1.81%**	0 **0%**	6 **1.81%**
Huehuetenango	**227**	212 **93.39%**	7 **3.08%**	3 **1.32%**	10 **4.41%**	2 **0.88%**	3 **1.32%**	5 **2.20%**
Quiché	**198**	186 **93.94%**	5 **2.52%**	1 **0.51%**	6 **3.03%**	6 **3.03%**	0 **0%**	6 **3.03%**

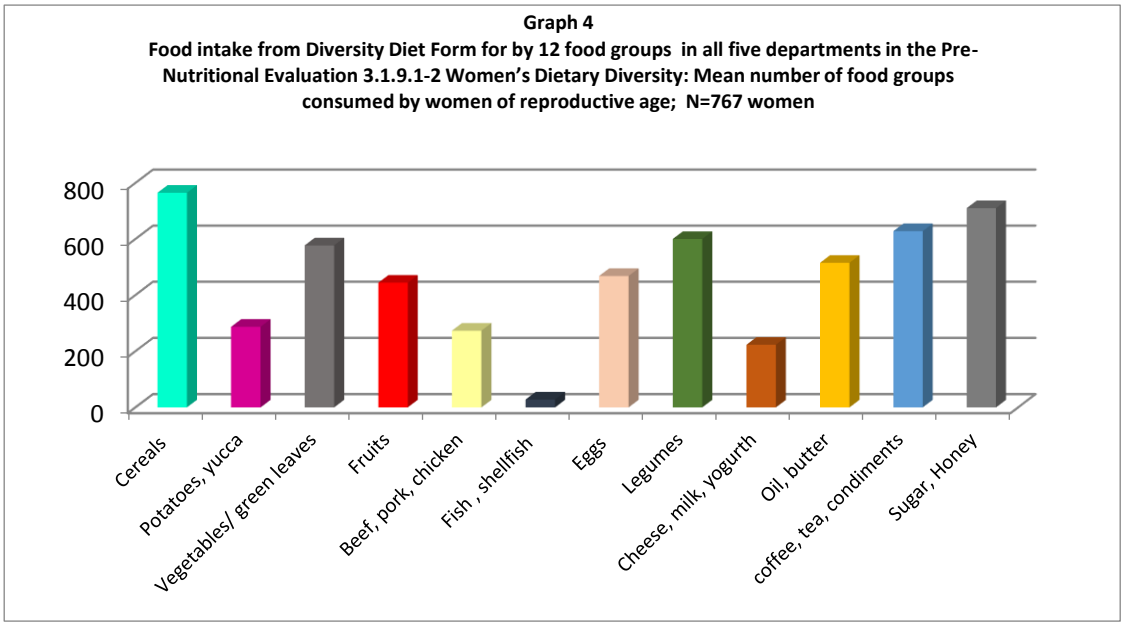
MASFRIJOL will be assessing possible changes in bean consumption at the household level with the families from this sample. The MASFRIJOL team has recovered 649 bean consumption forms from the 817 needed. We are now analyzing the bean consumption data and it will be presented in the next report.

Dietary Diversity of Women and Children

Women. MASFRIJOL evaluated dietary diversity in the nutritional evaluation for the USAID indicator "3.1.9.1-2 Women's Dietary Diversity: Mean number of food groups consumed by women of reproductive age." Graph 3 shows the mean number of food groups by the five WHIP department using the FANTA III scale for the first 9 different groups of food. The women in all five target departments averaged 4.7+1.5 food groups consumed.



Graph 4 displays the frequency of intake by food group in the pre-nutritional evaluation. The three most consumed food groups were: cereals; sugar or honey; and coffee, tea or condiments. Most women (n=600) reported consuming some kind of beans—white, red or black. The three least consumed groups were: dairy; fish or shellfish; and poultry. MASFRIJOL also queried the women about consumption of 'junk food' or those low in nutrients. Some women (n=191) consequently reported regularly consuming foods like Tortrix, Ramen noodles, etc.



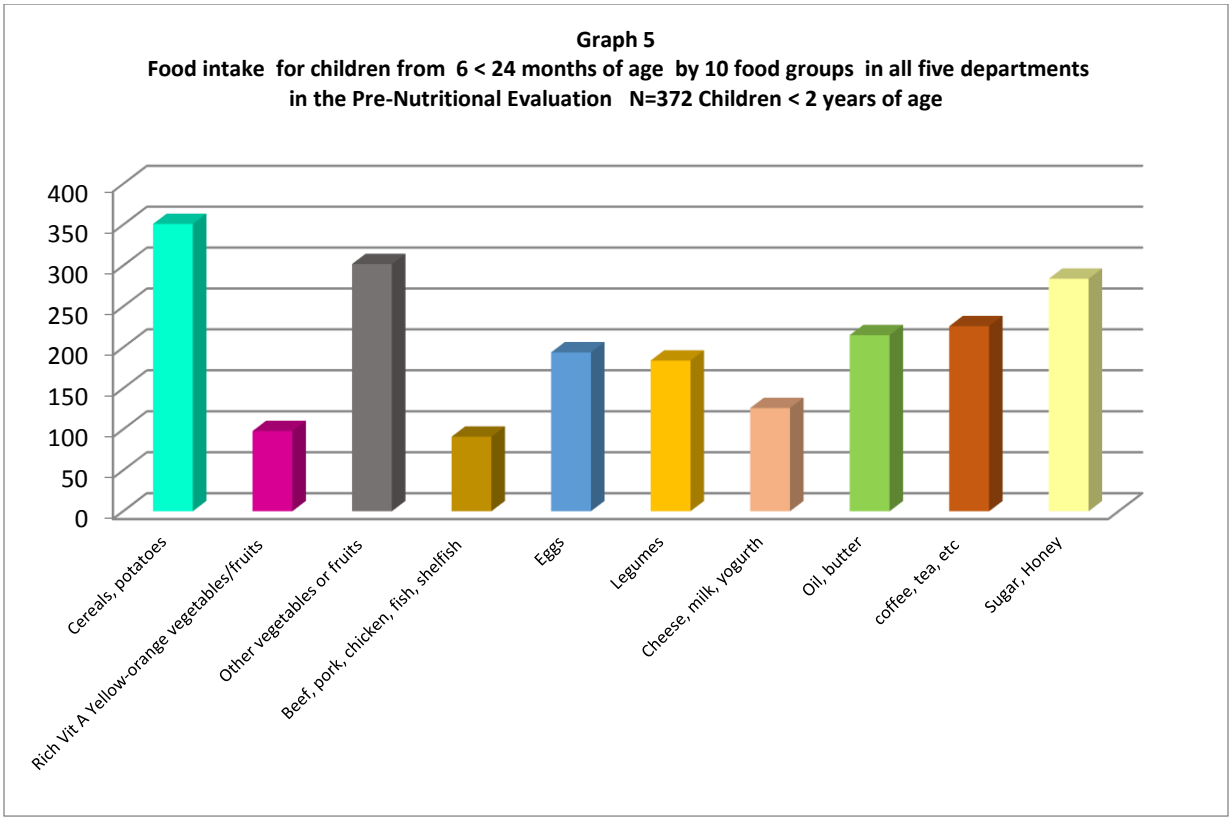
Children. MASFRIJOL evaluated the diversity diet score of children from 6 to less than 24 months of age using the FANTA III scale based on 8 food groups[1], however, to calculate minimum diet diversity, MASFRIJOL used the WHO guidelines of 4 or more of the first 7 food groups[2] . **Graph 5** displays the frequency of food group consumed the day before the evaluation.

[1] Swindale A, Bilinksy P. Puntaje de diversidad dietética en hogar Versión 2, WDC: FANTAIII, 2006.
[2] Arimond M, Deitchler M. Indicators for assessing infant and young child practices, part 2. Malta: WHO, 2010.

Like their mothers, children most frequently consumed cereals, especially corn. Other vegetables and fruits were the secondly most consumed. For children under 2 years, it is most important to consume fruits and vegetables rich in Vitamin A, but only 98 children consumed this group. Only 52% of the children achieved minimum dietary diversity. Three babies were only breastfed and ate no solid foods.

Several mothers reported that their children consumed beans the day before, but upon probing the MASFRIJOL team found that mothers were feeding children only the broth from beans. Because the broth has mostly carbohydrates and ash with very little protein, we did not count the water in which beans were cooked as legumes.3 Consequently less that the 50% of children consume the whole beans.

MASFRIJOL queried mothers about reasons for not feeding beans to children less than 2 years. Mothers reported fear of flatulence and stomach irritation in their babies. Also mothers did not know how nutritious beans were for their babies. For this reason, the MASFRIJOL lessons on complementary feeding include a demonstration of thick porridge made from corn and beans. These findings highlight the importance of continued parental education on the high quality, affordable protein from beans and on ways to prepare beans to decrease flatulence.



[3] Braham JE, Bressani R. Effect of bean broth on the nutritive value and digestibility of beans. J Sci Food and Agr. 1985; 36:1028-1034.

6. Success Stories (featuring Huehuetenango)

MASFRIJOL Beans at a Convenience Store

Mrs. Marina Victoria Geronimo Calmo, is a resident of Villa Alicia, Todos Santos Cuchumatan and a community leader. To supplement her income, she owns a small convenience store that carries all kinds of grocery products most of which are highly processed foods. Marina has also been involved in MASFRIJOL in her village from the beginning of the project, and two years ago she received ICTA Super Chiva bean seed. Since then, she has been successfully planting and harvesting this variety. The first time she tried it, she was impressed with the high yields and loved the taste.

Because of her continued success growing and harvesting more than enough beans for family consumption, she decided to channel her bean surplus into her store and thus adding a nutrient-packed product. Now, other community residents don't have to go too far to get this important staple. As an innovator and entrepreneur adopting this high-yielding bean variety, Mrs. Geronimo is making it possible for beans to be available and accessible to everyone else in Villa Alicia.

Her example growing, eating and selling beans makes it more likely that other residents will follow her example. As a respected leader, there's no doubt that Marina is not just reaping the benefits of her involvement in this project for herself, but really leveraging her MASFRIJOL knowledge and resources for the benefit of others in her community.

New Attitudes

In 2016, MASFRIJOL selected Najoya and Las Galeras, two communities in San Antonio Huista as part of a group of communities participating in targeted nutrition education sessions. During the first sessions, it was not unusual to observe arriving participants and children consuming calorie-dense snacks and highly processed foods. Consumption of these kinds of food was seen as normal in these groups. However, by the third nutrition education session, a difference became noticeable when children would arrive eating some kind of fruit or incaparina.

During the last nutrition education session and also the time for bean seed distribution, a new mother, who had not participated in the prior nutrition education sessions, arrived together with her child who was holding a bag of chips. Seeing what the child was eating, other women in the group who had attended prior nutrition education sessions quickly approached the incoming mother with advice that eating chips was not healthy for her child and suggesting instead eating fruits and beans as alternatives to processed foods.

These examples illustrate how education and peer pressure can influence changes in attitudes and related food-eating behaviors.

7. PMP Indicators Cummulative up to FY 2016

Pending and will attach to final version when revised.

INDICATOR NUMBER AND TITLE	UNIT OF MEASURE	DATA SOURCE	Baseline	FY 2014		FY 2015		FY 2016		FY 2017	LOP	COMMENTS
				Target	Actual	Target	Actual	Target	Actual	Target	Target	
GOAL LEVEL STATEMENT: Improved Levels of Economic Growth and social Develo						FR 2016						
PURPOSE LEVEL STATEMENT: Broad Based Economic Growth and Food Security Improved												
OUTPUT 1. LEVEL STATEMENT: Agricultural Productivity and Rural Employment Expanded												
4.5.2-2 Number of hectares under improved technologies or management practices as a result of USG assistance	Hectares	Implementing Partner: Sample survey to assess seed utilization										Improved bean seed.(ICTA-Superchiva, ICTA-Altense, ICTA-Hunapú, ICTA-Ligero). The original objective of the PMP was to disseminate 25,000 bags of seed to 25,000 farmers that are equivalent to 1100 ha. Because this target (1,100 ha) was accomplished early but demand for seed continued, seed for an additional 5,000 was produced for new beneficiaries and existing beneficiaries who experienced crop failure in prior years due to uncontrolled factors (e.g., lack or excess of rain). These new 5000 farmers would cover 220 new ha of beans (each planting an average 440m2) . To clarify, the target for 2016 includes the original 440 ha plus the additional 220 ha to meet demand of new beneficiaries.
• Technology type												
• New			0	220.00	361.37	440.00	743.028	440.00	352.35	220.00	1320.00	
• Continuing				NA	NA	NA	NA	NA	NA	NA	NA	
• Sex (decision maker) Male				NA	NA	NA	NA	NA	NA	NA	NA	
• Sex (decision maker) Female				NA	NA	NA	NA	NA	NA	NA	NA	
• Sex (decision maker) Association				NA	NA	NA	NA	NA	NA	NA	NA	
4.5.2-5 Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance	Number. Please include disagregation by WHIP partner in tab 4.5.2-5	Implementing Partners										In Y2 MASFRIJOL already reached the target of 25000 families with improved varieties. However, some HH experienced crop failure due to lack of rain. The project plans to produce more bean seed to reach those families and expand this target by 5000 new families. This brought the target number of families to 30,000. From ths point forward the project will not expand on the target of families or communities reached, but return to communities to identify challenges with the seed made available and promote further dissemination of improved varieties through
• New			0	5,000	8,213	10,000	16,887	10,000	8,008	5000	30,000	
• Continuing				NA	NA	NA	NA	NA	NA	NA	NA	
• Male				NA	NA	NA	NA	NA	NA	NA	NA	
• Female				NA	NA	NA	NA	NA	NA	NA	NA	

4.5.2-7 Number of Individuals who have received USG supported short-term agricultural sector productivity or food security training	Number of **individuals** receiving training	Implementing Partner: Field training signing-up sheets, summary reports by the mobile unit assigned to each depatment										At the same time the HH received the bean seed they also received general informationn about agricultural management of the varieties, then they start trainning about the bean productivity.
				5,000	8,213	10,000	16,887	10,000	8,008	5000	30,000	
• Producers			0	NA	NA	NA	NA	NA	NA	NA	NA	
• People in government				NA	NA	NA	NA	NA	NA	NA	NA	
• People in private sector				NA	NA	NA	NA	NA	NA	NA	NA	
• People in civil society				NA	NA	NA	NA	NA	NA	NA	NA	
• Male				NA	NA	NA	NA	NA	NA	NA	NA	
• Female				NA	NA	NA	NA	NA	NA	NA	NA	
Custom Indicator: Number of AC established and functioning	Number	Implementing Partner: List of established ACs	0	10	0	30	0	30	47	28	75	Of the 47 AC established by MASFRIJOL the harvest of three AC did not qualify for seed due to differents management factors. During Yr2016 MASFRIJOL started the Seed Depots strategy due to the approval of the EMPR, thast's why the actual for this year is higer than the target.
NEW									47			
CONTINUE									0			
Custom Indicator: Total increase in community seed production	Tons	Implementing Partner: List of established Acs and their production	0	0	0	0	0	0	1.9	2.43	0	From 47 AC established only 36 have harvested during this reporting period. The amount harvested is 3.1 tons from which 1.9MT qualified as seed and the rest (1.2MT) for home consumption or for sale.
4.5.2-13 Number of rural households benefiting directly from to USG interventions.	Number of HH using GrainPro	Implementing Partner	0	3,000	0	15000	800	2000	441	18759	20,000	GrainPro technology has been delayed as a project management decision to focus on establishment of AC. Emphasis on this indicator will be placed in the next six months of the project as grain harvesting season takes place in the last quarter of 2016.
4.5-10 Total increase in installed (bean) storage capacity	Kg. and cubic meters at HH level	Implementing Partner: Seed Form, GrainProForm, Education Form & GrainPro Follow-up Form. "How	0	150	0	750	40	100	22	937.95	1,938	The storage capacity for each family is 2 GRainPro Bags (25kg/bag). GrainPro technology has been delayed as a project management decision to focus on establishment of AC. Emphasis on this indicator will be placed in the next six months of the project as grain harvesting season takes place in the last quarter of 2016.
4.5.2-39 Number of technologies or management practices in one of the phases of development:	Number	Implementing Partner/seed delivery form										MASFRIJOL is a project dedicated to technology dissemination and behavior change towards more consumption of beans. We are not developing new technologies or practices; therefore please we ask to eliminate this indicator from the matrix.
• Phase I: Under research			0	NA	NA	NA	NA	NA	NA	NA	NA	
• Phase II:Under field testing			0	NA	NA	NA	NA	NA	NA	NA	NA	
• Phase III: Made available for transfer			0	NA	NA	NA	NA	NA	NA	NA	NA	
Custom Indicator: Yield per hectare of beans (adjusted for intercropping when needed)	Kg/Ha	Sample: harvest form		464.77	769.09	464.77	789.09	464.77	779.09	464.77	NA	Estimates provided based on received information through harvest forms and AC 2016 yields.

OUTPUT 3. LEVEL STATEMENT: Resiliency of Vulnerable Communities and Households Increased												
3.1.9-1 Number of people trained in child health and nutrition through USG-supported programs	Number of training participants	Implementing Partners	0	1,000	0	5,000	6,603	5,000	5,383	1000	12,000	HH with educational sessions in health and nutrition. MASFRIJOL has been focused in nutritional education because one of the strategies for the nutritional evaluation with the sample MASFRIJOL needs to reach people with the 5 nutritional lessons in each community.
• Male					0		1379		4322			
• Female					0		5224		1061			
3.1.9-1-1 Prevalence of children 6-23 months receiving a minimum acceptable diet	%	Implementing Partner: Child feeding form/Baseline and end of project	0	NA	0	NA	0	Na	52.42	Na	0	MASFRIJOL already finished the pre-nutritional evaluation where 372 children less than two years of age were evaluated with the diversity diet score developed by FANTA III. This data represent the baseline, because MASFRIJOL will ealuate the same indicator in the post- evaluation.
• Male									NA			
• Female									NA			
3.1.9.1-2 Women's Dietary Diversity: Mean number of food groups consumed by women of reproductive age	MEAN	Implementing Partner: Baseline and end of project	0	NA	0	NA	0	NA	4.78	NA	NA	MASFRIJOL already finished the pre-nutritional evaluation where 767 women were reached with the diversity diet score developed by FANTA III. These data represent de baseline,because MASFRIJOL will ealuate the same indicator in the post-evaluation.
• Male												
• Female												
3.1.9-11 Prevalence of stunted children under five years of age	%	Implementing Partner: Baseline and end of project	0	NA	0	NA	0	NA	60.5	NA	NA	MASFRIJOL already finished the pre-nutritional evaluation where 891 children less than five years of age were measured from which 539 are stunted. These data represent the baseline because MASFRIJOL will ealuate the same indicator in the post- evaluation.
• height for Age												
• Male									31.2			
• Female									29.3			
3.1.9-12 Prevalence of wasted children under five years of age	%	Implementing Partner: Baseline and end of project	0	NA	0	NA	0	NA	4.4	NA	NA	MASFRIJOL already finished the pre-nutritional evaluation where 891 children less than five years of age were measured and 39 children appear to be wasted. These data represent the baseline because MASFRIJOL will ealuate the same indicator in the post-
*Weight for height												
• Male									2.8			
• Female									1.6			
3.1.9-15 Number of children under five reached by USG-supported nutrition programs	Number	Implementing Partner: Seed delivey data base		Na	10679	Na	8736	Na	7135	Na	Na	Number of children per household benefitted by MASFRIJOL will change when all the data is collected for the different seed dissemination seasons.
• Male			0	Na	Na	Na	Na	Na		Na	Na	
• Female				Na	Na	Na	Na	Na		Na	Na	

4.5.2-14 Number of vulnerable households benefiting directly from USG assistance	Number	Implementing Partners										MASFRIJOL target 30,000 HH who will benefit from the project's assistance to improve their food and nutrition securtiy.
• New				5,000	8,213	10,000	16,887	10,000	8,008	5000	30,000	
• Continuing				NA	NA	NA	NA	NA	NA	NA	NA	
• Adult Female no Adult Male (FNM),				NA	NA	NA	NA	NA	NA	NA	NA	
• Adult Male no Adult Female (MNF),				NA	NA	NA	NA	NA	NA	NA	NA	
• Male and Female Adult (M&F),				NA	NA	NA	NA	NA	NA	NA	NA	
Custom Indicator: Knowledge assessment		Implementing Partner: Quantitive nutritional knowleged test pre and post	0	0	0	200	234	300	529	300	800	This indicator represents the number of pre and post evaluation that is done in each nutritional lesson. With th objetive of quantify the kwnoledge of key concepts of each lesson.
Custom Indicator: Number of current methods for preparing beans	Number	Implementing Partner: Nutritional Education Form	0	NA	NA	NA	NA	NA	NA	NA	NA	We understand that this indicator is more like a baseline and not and indicator, whit the Community Need Assessment we could find that they eat beans in three way; parados, colados and caldo de frijoles.We would like to drop this indicator
Custom Indicator: New methods used by Households	Number	Implementing Partner: Nutritional Education Form and Qualitative reports of new information,	0	2	3	2	2	2	2	2	8	Yr1: Ceviche de Frijol y protemás, Torta de Frijol y Hojas Verdes, Caldo de Frijole y Camote Yr2: Tortillas de Chipilin y frijoles, Papilla Fanta III: Papilla salada niños 6-meses a 2 años de frijol y vitacereal YR3: Mixtas de Frijol, ensalada de frijol y maiz
Custom Indicator: Women's dietary divesity scores, use of exclusive breast feeding, age for height, weight for age, weight for heigt	Percentage	Implementing Patner: Child feeding form, women's dietary diversity index and measurements	0	NA	0	NA	0	NA		NA	NA	We would like to eliminate this custom indicator as we already reported womens dietary diversity, but we have no data collected for use of exclusive breast feeding neither gathering anthropometric data for women. Reported already in the stándar indicator 3.1.9.1-2
CROSS CUTTING ISSUES: GENDER												
GNDR-2 Proportion of female participants in USG assisted program designed to increase access to productive economic resources (assets, credit, income or employment)	Number	Implementing Partners										Please see proportion of men and women indicated.
TOTAL number of participants			0	1,000	0	5,000	6,603	5,000	5,383	1000	12,000	
Number of female participants							5224		4322			
Number of male participants							1379		1061			