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# Learning from a Mid-Term Evaluation of FONHDAD in Haiti

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**Learning from a Mid-Term Evaluation of FONHDAD in Haiti**

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**Degree Expected: May, 2017**

**A Practitioners Report**

**Submitted to the faculty of Clark University, Worcester, Massachusetts, in partial fulfillment of the requirements for the degree of Master of Arts in the department of International Development and Social Change**

**And accepted on the recommendation of:**

**Dr. Jude Fernando, Chief Instructor**

## **Abstract**

### **Learning from a Mid-Term Evaluation of FONHDAD in Haiti**

**Kelsey Hopkins**

This is a mid-term evaluation for FONHDAD's REFERANS project in the communes of Ganthier and Croix-des-Bouquets, Haiti. The process of this collaboration with FONHDAD is outlined in a reflection which begins this report. The evaluation is based on a review of project documents including performance indicator reference sheets, indicator performance tracking tables, attendance records, work plans, activity reports, and numerous other project documents. Recommendations for better data management practices and the thoughtful inclusion of women in all project activities are included.

Jude Fernando, Ph.D.  
Chief Instructor

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**Date: May, 2017**

**Baccalaureate: Bachelor of Science in Community Health**

**Source: Worcester State University**

**Date: May, 2014**

## **Acknowledgements**

I wish to thank Professor Jude Fernando for guiding me through Haiti Field School where this report began. His support of this practitioner's report and his patience and guidance throughout the process have greatly contributed to my learning experience. I also wish to thank Professor David Bell for his support and insight in the final stages of this report.

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## List of Acronyms

CBO	Community-Based Organization
CRDD	Rural Center for Sustainable Development
FONHDAD	Haitian Foundation for Sustainable Agricultural Development
IPTT	Indicator Performance Tracking Table
MOU	Memorandum of Understanding
PIRS	Performance Indicator Reference Sheet
REFERANS	Project to strengthen the agricultural production in the communes of Ganthier and Croix-des-Bouquets
RAA	Required as Applicable
RiA	Required if Applicable Indicator
USG	United States Government
WOG	Whole of Government Indicator

## Reflection

In March 2016 I traveled to Haiti along with Professor Jude Fernando and fellow students from Clark University. While in Haiti we stayed at the CRDD at Bas Boen and worked closely with FONHDAD director, Kenel Cadet. During the trip, I visited various communities many of which are engaged in FONHDAD's programs. There I spoke with community members about resiliency and livelihoods, much of which focused on agriculture.

Through one of the community conversations, we learned that the master farmers were trained by FONHDAD at the CRDD with the intention of sharing their knowledge with their communities. However, we discovered that the improved farming practices were not always being implemented by the farmers in the communities. Various factors account for this discrepancy including extreme weather events and changes in weather patterns, unwillingness of master farmers to share new techniques (competitive advantage), resistance to change, and hierarchical challenges within the communities between master farmers and community members.

During the course of the trip, partnership opportunities between FONHDAD and Clark students were discussed. Kenel was interested in working with a student to develop a proposal for additional programming. Intrigued by the idea, I agreed to work with Kenel on a proposal. While still in Haiti I talked with Kenel about his vision and ideas for this proposal which included the expansion of input stores and agricultural extension services in general. At that time Kenel was able to provide me with a few REFERANS related documents, but unable to share the majority of reports due to confidentiality concerns.

Over the next six months Kenel was able to provide some, but not many additional documents about the REFERANS project. The limited access to information about REFERANS led to a deep sense of confusion as I tried to navigate Kenel's request for a grant proposal for a future project. Without a solid understanding of the work that had already been done and the work currently being done, I struggled to conceptualize this new proposal.

In October 2016, based on a review of the documents provided and conversations with Kenel, I realized that a monitoring and evaluation project about REFERANS was needed more immediately than a grant proposal for a new project. When I discussed this with Kenel he asked for a memorandum of understanding, MOU, between FONHDAD and Clark University. Once Professor Fernando was able to arrange the MOU, Kenel shared all project documents with Professor Fernando and I in November 2016. Unknown to me, the MOU was one of the barriers to receiving the necessary documents to complete this project. The MOU eliminated the confidentiality concerns because a formal agreement regarding the evaluation was established. The MOU is something that could have been arranged months prior had there been better communication about the scope of the project and the need for an MOU.

Once I received and reviewed the documents, I was able to better understand the work that is currently being done by FONHDAD regarding REFERANS. Some of the summary reports including the indicator performance tracking table, IPTT, and the performance indicator reference sheet, PIRS, documents are in English, but the majority of the documents including

attendance records and partnership information is in French. Luckily, the documents in English provided me enough context about REFERANS to understand the project. I was then able to use google to translate some of the key terms from French to English to assist in my analysis. However, my inability to read French was definitely a challenge that I struggled with throughout the course of this report.

In the future, I would like to be more clear in my requests for access to the information that I need to work effectively. Reflecting on this process, I realize there were many times when I could have asked more clarifying questions and requested more specific information or documentation. I did not truly understand the REFERANS project until reviewing all the documents in November despite beginning this work seven-months earlier in March. This is just one indicator of the communication challenges that were evident throughout this process.

## **Introduction**

The Republic of Haiti is located in the Caribbean on the island of Hispaniola to the west of the Dominican Republic. Haiti is home to approximately 10.4 million people, 33% of whom are ages 0-14.<sup>1</sup> Haiti was inhabited by the native people, first colonized by the Spanish, and later colonized by the French. Under French rule, enslaved Africans expanded the forestry and sugar industries in Haiti for French profits. Ultimately, the enslaved people revolted against France and won their independence in 1804 under the leadership of Toussaint L'Ouverture. As the first post-colonial black-led nation Haiti faced many challenges. And to this day, Haiti is still the poorest country in the Western Hemisphere.

The government and political system in Haiti has always been and continues to be unstable. The country is led by a popularly elected president and their appointed prime minister. Various other branches of government exist, but elections can be and often are delayed for a plethora of reasons. This means that term limits are not always followed sometimes resulting in mistrust between the government and the people.

In Haiti the climate is tropical and the terrain primarily rough and mountainous however, 66% of land is used for agriculture including arable land, permanent crops, and permanent pasture.<sup>1</sup> Haiti encounters unique environmental challenges due to past natural disasters and current agricultural situations. In 2010 Haiti experienced a devastating earthquake which claimed 300,000 lives and displaced hundreds of thousands more.<sup>2</sup> Hurricane Sandy in 2012 coupled with Hurricane Matthew in October 2016 has led to widespread soil erosion which is one of the

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<sup>1</sup> Pallardy, Richard. "Haiti earthquake of 2010." Encyclopædia Britannica. Encyclopædia Britannica, inc., 18 Aug. 2016. <<https://www.britannica.com/event/Haiti-earthquake-of-2010>>.

<sup>2</sup> "The World Factbook: HAITI." Central Intelligence Agency. Central Intelligence Agency, 12 Jan. 2017. <<https://www.cia.gov/library/publications/the-world-factbook/geos/ha.html>>.

major environmental and agricultural challenges in Haiti today. Additionally, deforestation by Haitians for farming activities and fuel and the lack of access to clean water are further environmental challenges.<sup>1</sup>

The Haitian Foundation for Sustainable Agricultural Development, FONHDAD, is a non-profit organization in Haiti which aims to modernize Haiti's agriculture by introducing new techniques, fertilizers, seeds, and equipment. This grand task is done in collaboration with partnership with universities, private entities, and other non-profits. FONHDAD utilizes the Rural Sustainable Development Center, CRDD, facility located in Bas Boen for research, demonstrations, trainings, and introducing farmers to new techniques and equipment. The CRDD land belongs to and partially managed by the Ministry of Agriculture, of the Natural Resource and of Rural Development.

FONHDAD currently implements the USAID funded REFERANS (Project to strengthen the agricultural production in the communes of Ganthier and Croix-des-Bouquets) project which provides agricultural support to farmers in two communes both located less than 30 kilometers from Port-au-Prince. The project began in September 2015 and will be completed in October 2017. The primary beneficiaries are farmers from these communes with the goal of reaching 2,000 individual farmers and 50 farmers' associations who will participate in agricultural training and technical assistance efforts.

The objectives of REFERANS are to:

- improve the working conditions, and
- increase the income of farmers in Ganthier and Croix-des-Bouquets

The chart included in Appendix A outlines a more detailed set of results that REFERANS hopes to achieve in order to meet these objectives.

REFERANS began in September 2015 and as stated in the work plan the general strategy includes the incorporation of female farmers with a focus on encouraging female integration and empower them to be future leaders of farmers' associations. Additionally, FONHDAD will use a participatory approach to intervention including beneficiary involvement in preliminary planning discussions through the final stages. This strategy ensures the preservation and sustainability of project outcomes after the end of the project.

From conversations while visiting FONHDAD, I learned that one of the major strategies for the inclusion of women is a training session for female farmers only. Female farmers gathered at the CRDD for a day of agricultural training because of the REFERANS project. However, any further efforts or quantitative targets for the inclusion and empowerment of women are not specifically outlined in the work plans.

## **Evaluation Objectives**

The purpose of this external evaluation is to determine progress towards the REFERANS project objectives at the mid-point of the project's lifecycle. The first year of the project was completed in September 2016 and the data became available in November. The information from this evaluation will assist FONHDAD in their decision-making process for the second year of REFERANS as well as help FONHDAD to reconcile contradictory information and data.

## **Methodology**

This evaluation was conducted using project documents provided by FONHDAD. These documents included work plans, IPTTs, PIRS, and attendance records among other documentation. In the original work plan 14 performance indicators were identified to assess progress towards REFERANS project objectives and outcomes. These same performance indicators were used to measure progress for this mid-term evaluation. An in-depth analysis has been conducted on indicators where sufficient information was provided. However, for indicators where further analysis is not possible, a summary is included.

## **Data Limitations**

As described in the methodology section, the evaluation was based on documents provided by FONHDAD. One of the major challenges of this evaluation was the discrepancies in the data between various project documents particularly between the IPTT and the PIRS. This posed a challenge in assessing the actual outcomes of the various indicators. An additional limitation of the data was a lack of reporting altogether on some indicators.

Baseline information was collected by the Society for Study and Training in Strategic Information located in Tabarre, Haiti and completed on June 7, 2016. They collected baseline data for some of the performance indicators. This baseline data can be used to determine target outcomes for each performance indicator. However, for many indicators target outcomes have not yet been determined.

## **Performance Indicator Analysis**

The performance indicators were identified by FONHDAD as markers of progress of the REFERANS project. At the mid-term the progress towards some of these indicators is difficult to measure due to the data limitations. In the first year of REFERANS implementation the focus was placed on training master farmers, pest management, supporting existing input stores, an agricultural campaign, and training the beans producers' network. The indicators are designed to measure progress towards these efforts. Table 1 below is a comprehensive illustration of the performance indicator data. Fields without data indicate that the data was not available for analysis.

Indicator Code	Indicator	Category	Baseline Value	Target Value	Actual Value
PL-1	Yield (tons) per hectare for selected crops in the targeted area of intervention (T/Ha)	Beans	0.56	1.2	
		Corn	0.55	3.5	2.66
		Sorghum	0.84	3.5	1.97
PL-2	Average increase in yield for selected crops in the targeted area of intervention due USG Assistance (% increase)	Beans	0.56 (T/Ha)	536%	
		Corn	0.55 (T/Ha)	114%	384%
		Sorghum	0.84 (T/Ha)	317%	135%
EG.3.1-2, 4.5.1-28, or 5.1-28	Hectares under new or improved/rehabilitated irrigation or drainage services as a result of USG assistance (Ha)			1,500	1,958
4.5.2-2	Number of hectares of land under improved technologies or management practices as a result of USG assistance (Ha)			700	591.58
4.5.2-5	Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance			500	978 or 988
4.5.2-7	Number of individuals who have received USG supported short-term agricultural sector productivity or food security training			500	627,623, or 634
4.5.2-11	Number of food security private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations receiving USG assistance	Civil Society		20	23
		Private Sector		15	13
4.5.2-13	Number of rural households benefiting directly from USG interventions			2,000	1,584 or 1,062
4.5(16,17,18)	Gross Margin per hectare, animal or cage of selected product (USD/Ha)	Beans	\$597	\$475.60	
		Corn	\$149.80	\$199	\$361 or \$331
		Sorghum	\$192	\$332	\$190
4.8.2-6	Number of people receiving training in global climate change as a result of USG assistance			170	74
PL-3	Number of individuals with better access to grain processing services				
PL-4		Beans	32,849.25		
		Corn	9,308.89		

	Average increase in agricultural income for beneficiary households due to USG (Haitian gourdes)	Sorghum	10,925.25		
4.5.2-42	Number of private enterprises, producers organizations, water users associations, women’s groups, trade and business associations and community-based organizations that applied improved technologies or management practices as a result of USG assistance			30	13

Table 1: Performance Indicators

**PL-1 Yield (tons) per hectare for selected crops in the targeted area of intervention**

**Summary**

The crop yield is a measurement of the amount of crop that was harvested per hectare of land. The crops to targeted for intervention and measurement through the REFERANS project are sorghum, beans, and corn. The yield is a measure of production which is directly linked to farmers’ incomes. REFERANS has worked to improve agricultural productivity and increase income.

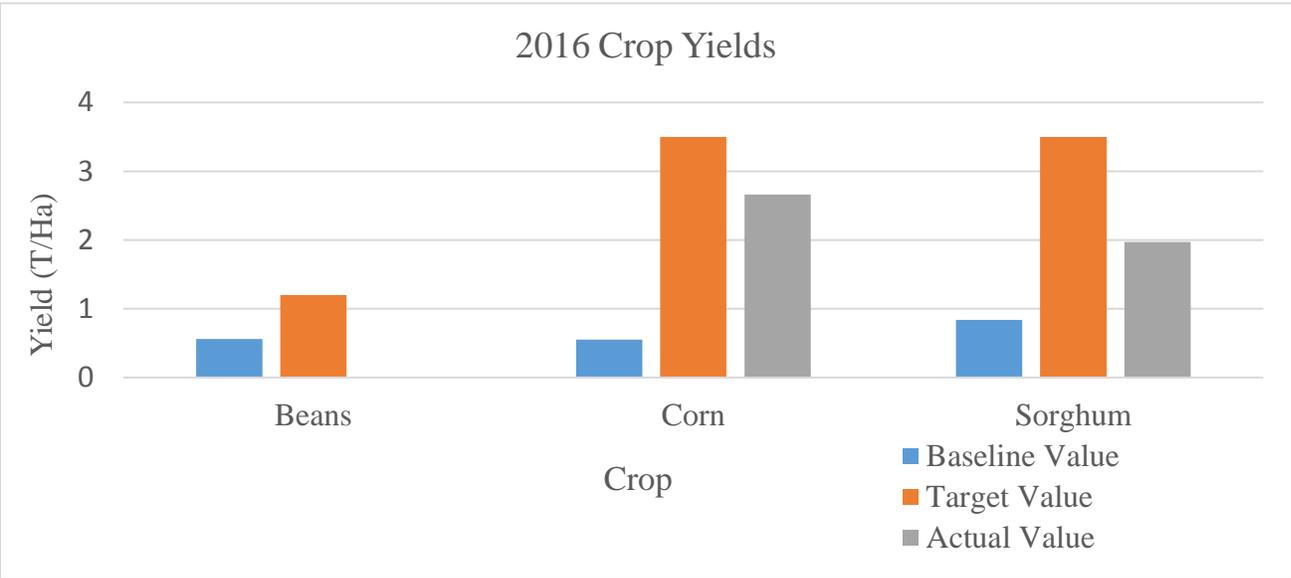


Figure 1

The target yield was not achieved for sorghum or corn, but an increase from the baseline is evident for both crops as shown in Figure 1. The data is not available to analyze the actual yield of beans in 2016.

## Gender Summary

In 2016, 36 females cultivated a combined 7.14 hectares of corn which produced an average yield of 2.73 T/Ha while 291 male counterparts cultivated a combined 67.92 hectares of corn producing an average yield of 2.59 T/Ha. Women comprised 11% of the farmers that received agricultural intervention related to corn.

Regarding sorghum in 2016, 55 women combined cultivated 11.19 hectares which produced an average yield of 2.06 T/Ha. Meanwhile 528 men cultivated a combined 132.27 hectares and produced an average yield of 1.89 T/Ha. Women made up 9% of the farmers that received agricultural intervention related to sorghum.

The raw numbers illustrate that women produced greater yields than men, and the average land size was smaller for women than men. However, the cause of this can not be determined due to the significant difference in the amount of women participants compared to the number of male participants for both crops. This may indicate that women were better able to cultivate their land because they produced better yields on less land than their male counterparts.

## PL-2 Average increase in yield for selected crops in the targeted area of intervention due USG Assistance

### Summary

The average increase in yield for the selected crops of sorghum, corn, and beans in Croix-des-Bouquets and Ganthier due to USG assistance is a measure of percent change of yields. This indicator is linked to farmers' production and income.

In order to calculate the average increase in yield both the baseline value and the actual yield value are needed. There were significant increases in the yields for both sorghum and corn, however there is insufficient data to analyze the bean crop yields as shown in Table 2.

Crop	Baseline (T/Ha)	2016 Actual Yield (T/Ha)	Percent Increase
Sorghum	0.84	1.97	135%
Corn	0.55	2.11	384%
Beans	0.56		

Table 2

Additionally, the actual sorghum average increase in yield was much below the target, however there was a significant increase from the baseline. Meanwhile, the corn yield far exceeded the target value as illustrated by Figure 2.

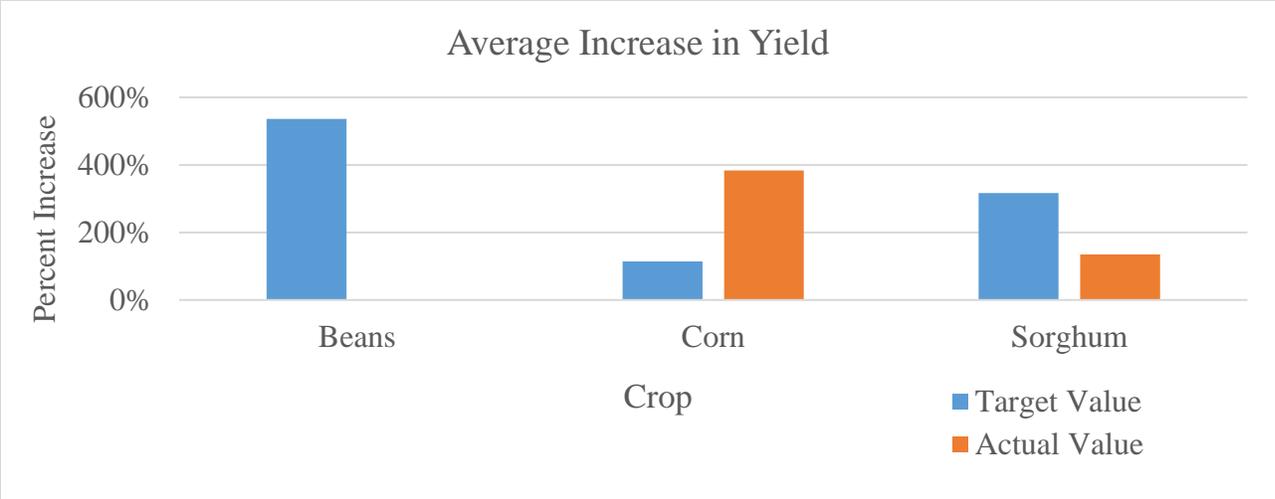


Figure 2

**EG.3.1-2 or 4.5.1-28 or 5.1-28 Hectares under new or improved/rehabilitated irrigation or drainage services as a result of USG assistance (RAA) (WOG)**

**Summary**

This indicator is designed to measure the number of hectares of irrigation and drainage services that are new, improved, or rehabilitated as a result of USG assistance. Irrigation and drainage services impact the water flow and removal of water from farm land. Improvements include timing, quantity, quality, and cost for farmers. Rehabilitation involves improved or repaired infrastructure that functions more efficiently than before. Improved irrigation increases agricultural productivity.

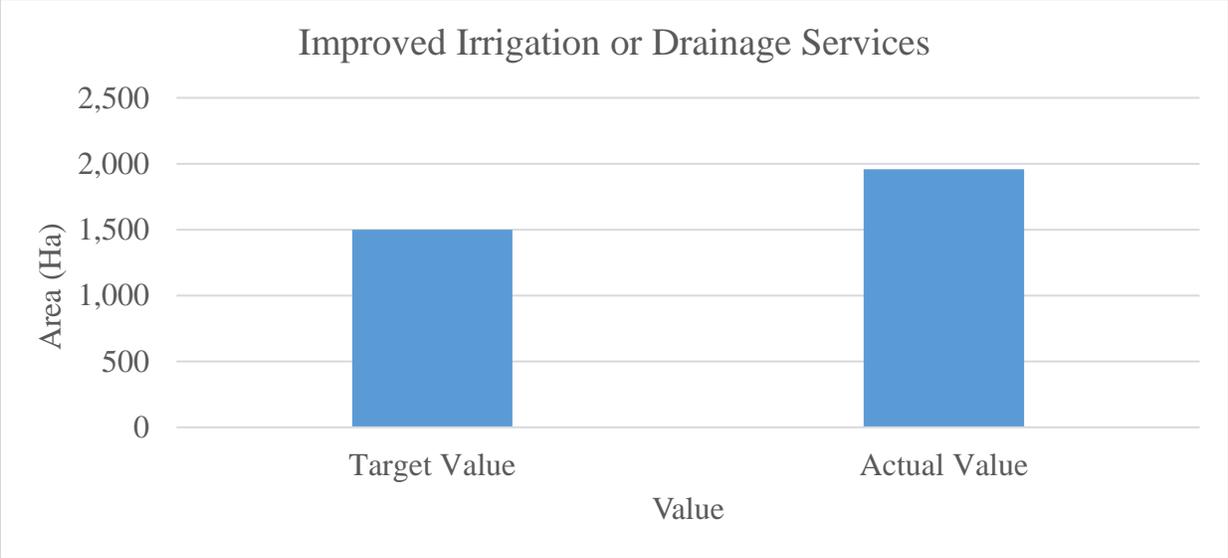


Figure 3

As Figure 3 illustrates the actual increase exceeds the target for this indicator which is evidence of sufficient progress in this activity. This indicator is labeled differently across various project documents and reconciliation is needed to ensure consistency and accuracy of data.

### **Beneficiaries**

Beyond the hectares of land with new or improved irrigation or drainage services are the farmers and communities that are impacted by the improved irrigation or drainage services. 1,178 farmers from 8 different farmer’s associations will benefit from the new, improved, or rehabilitated irrigation and drainage services.

### **4.5.2-2 Number of hectares of land under improved technologies or management practices as a result of USG assistance (RiA) (WOG)**

#### **Summary**

This indicator is a measure the hectares of land that have been cultivated using USG funded technologies or management practices during the project year. Agricultural technologies, land-based technologies, and climate change innovations can be included in this calculation. Significant improvement in existing technology can also be included in this figure. This indicator serves to track the application of technology and management practices in order to improve agricultural productivity, agricultural water productivity, sustainability, and resilience to climate change impacts.

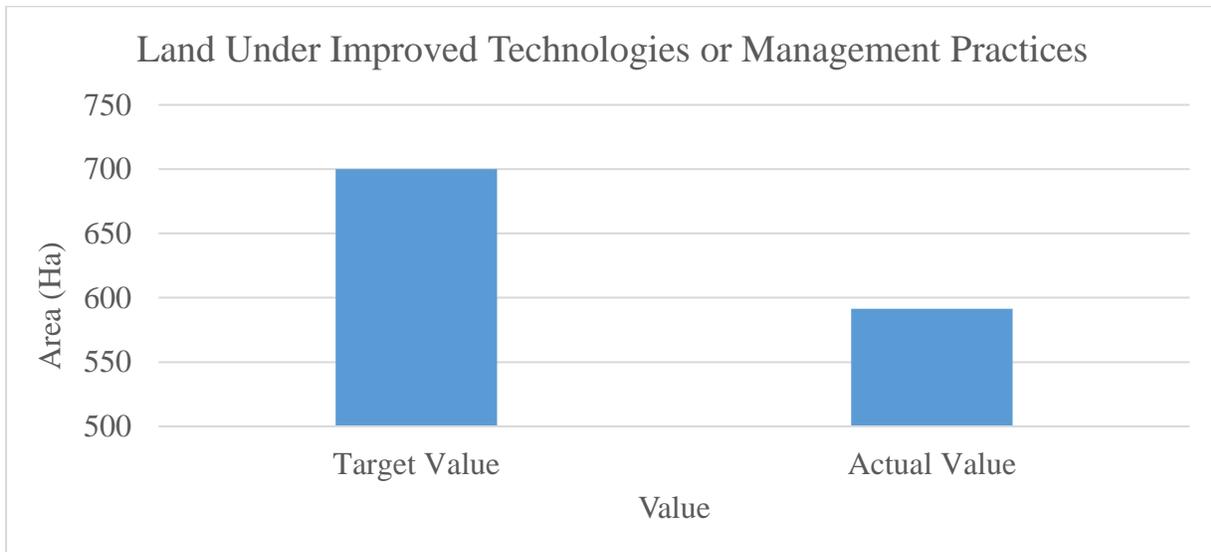


Figure 4

As shown in Figure 4, the target value of 700 hectares of land under improved technologies or management practices was not achieved.

### **Method of Intervention**

There were four primary technologies and management practices that were incorporated by farmers in 2016. These technologies include genetic crops, pest management, land preparation, and cultural practices. The crop genetics technique included bean and corn plot demonstrations. A targeted pest control campaign influenced 244 hectares including seven crop cooperatives and farmers in the Cul-de-sac Plain. Information about land preparation techniques was directly distributed to farmers and crop cooperatives. While the cultural practices strategy targeted only the corn and sorghum producers.

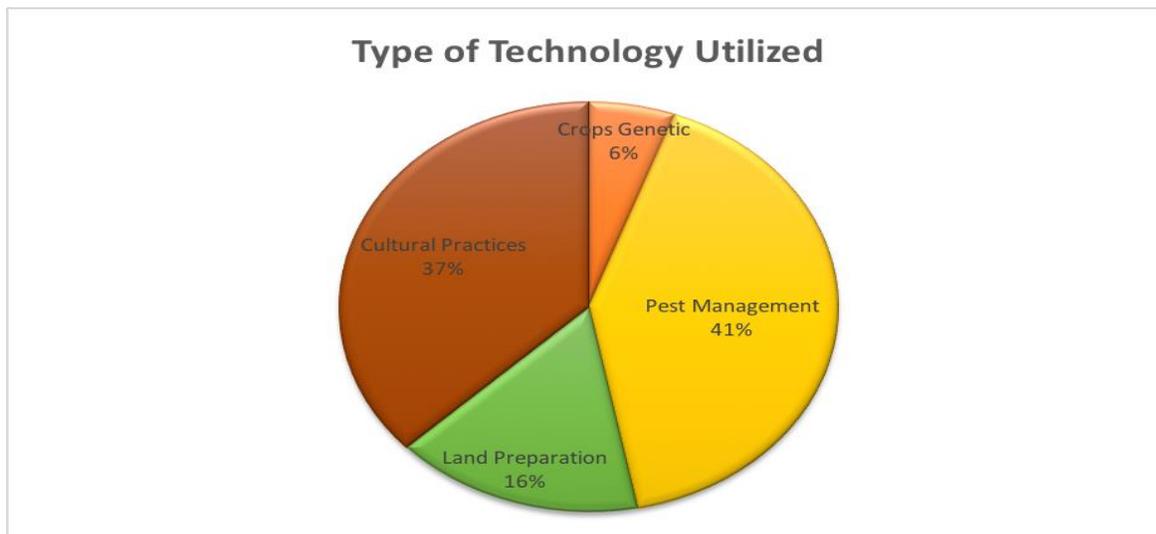


Figure 5

Pest management and cultural practices were used on 41% and 37% of the hectares of land that utilized improved technologies and management practices. Land preparation and genetic crops were used at much lower rates as illustrated in Figure 5.

### Gender Summary

Additionally, of the close to 600 hectares that employed new technologies or management practices just 22 hectares or 3.7% was cultivated by women. Female farmers were a minimal portion of the population that used improved technology or management practices.

### 4.5.2-5 Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance (RiA) (WOG)

#### Summary

The total number of beneficiary farmers, other producers, individual processors, rural entrepreneurs, traders, and natural resource managers that applied improved technologies within the food and fiber system are counted. Significant improvement to existing technology is also included. The adoption of technological agricultural changes by various members of the agricultural supply chain is essential in increasing agricultural productivity.

The target identified for 2016 is 500 individuals. The actual 2016 data indicates that 978 or 988 farmers and others applies improved technologies or management practices. Again this data is different between the PIRS and the IPTT.

The actual number of individuals who applies improved technology or management practices in 2016 far exceeded the target. However, the data should be consistent in the various project documents.

The target for 2017 differs among different project documents the PIRS from September 2016 indicates that the 2017 target is 500 individuals while the IPTT indicates that the target is 1,000 individuals.

### Method of Intervention

There are five primary types of improved technologies and management practices that were employed by farmers and others in 2016. These technologies include crop genetics, pest management, land preparation, cultural practices, and value added processing. Crop genetics included bean and corn plot demonstrations to 33 farmers. The pest control campaign was shared with 129 farmers while land preparation practices impacted 72 farmers and crop cooperatives. 34 individuals benefited from value added processing through the use of post harvest materials for crop cooperatives. The technology that impacted the most amount of individuals was cultural practices which assisted 832 producers of sorghum, corn, and beans. The visual representation is included in Figure 6.

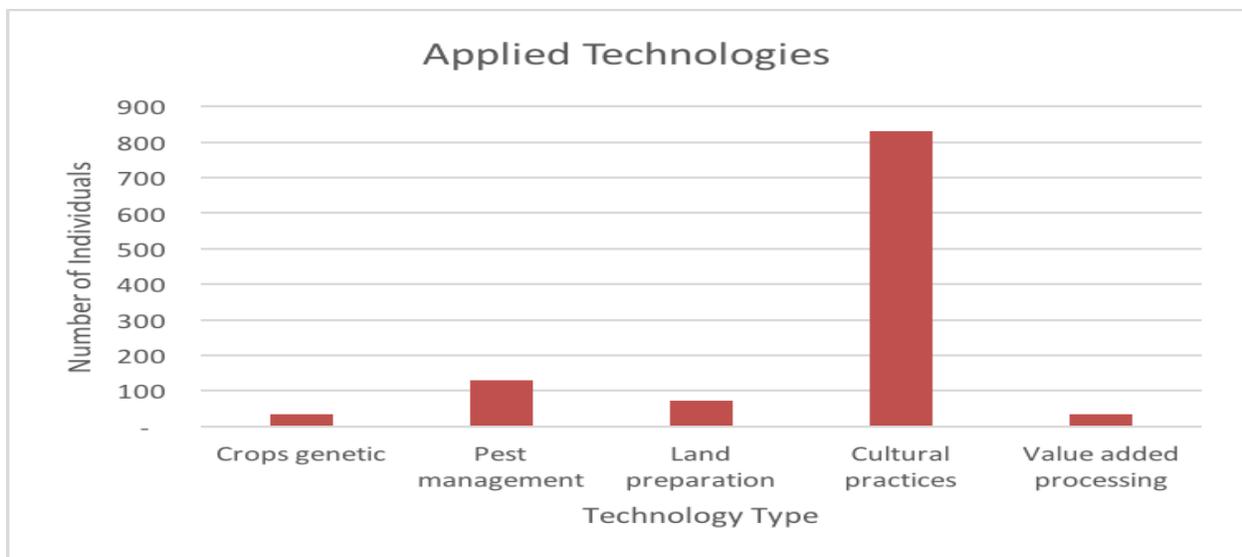


Figure 6

### Gender Summary

There were 988 farmers that applied improved technologies or management practices through the REFERANS project. 10% of participants or 99 individuals were female farmers.

#### **4.5.2-7 Number of individuals who have received USG supported short-term agricultural sector productivity or food security training**

##### **Summary**

This indicator measures the number of individuals who have received significant knowledge or skills that have been intentional, structured, and for the purpose of imparting knowledge or skills. The indicator includes primary sector producers, rural entrepreneurs, processors, managers, and traders. This purpose of this indicator is to track private sector and civil society changes to increase agricultural sector productivity.

The identified target for both 2016 and 2017 is 500 individuals each year.

The actual number of individuals for 2016 was reported at 627, 632, and 634 individuals. Again this data differs between the PIRS and the IPTT.

In 2016, the target was exceeded, however the actual number of participants should be confirmed and reconciled with the attendance records.

##### **Demographic Summary**

Throughout the first year of REFERANS, approximately 627 individuals were trained which included 357 male farmers and 270 female farmers. In regards to short-term agricultural and food security trainings 43% of trainees were female.

All of the participants were part of the Feed the Future program and 150 of those participants were also involved in the TraiNet program.

##### **Types of training**

The records differ about the types of training provided however, the trainings included topics such as the diagnosis of agricultural pests, sorghum production techniques, techniques for the multiplication of bean seeds and bean production techniques, technical assistance with corn, bean, and sorghum production.

#### **4.5.2-11 Number of food security private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG assistance**

##### **Summary**

The total number of food security organizations that received USG assistance in the year are included in this count. Included organizations should be those which implementing partners made a targeted effort to build capacity or improve organizational functions. This indicator is concerned with tracking the number of groups trained not individual farmers. The purpose of this

indicator is to track USG involvement in civil society organizations (including CBOs, research and academic institutions) which works towards capacity building, part of the effort to increase agricultural productivity.

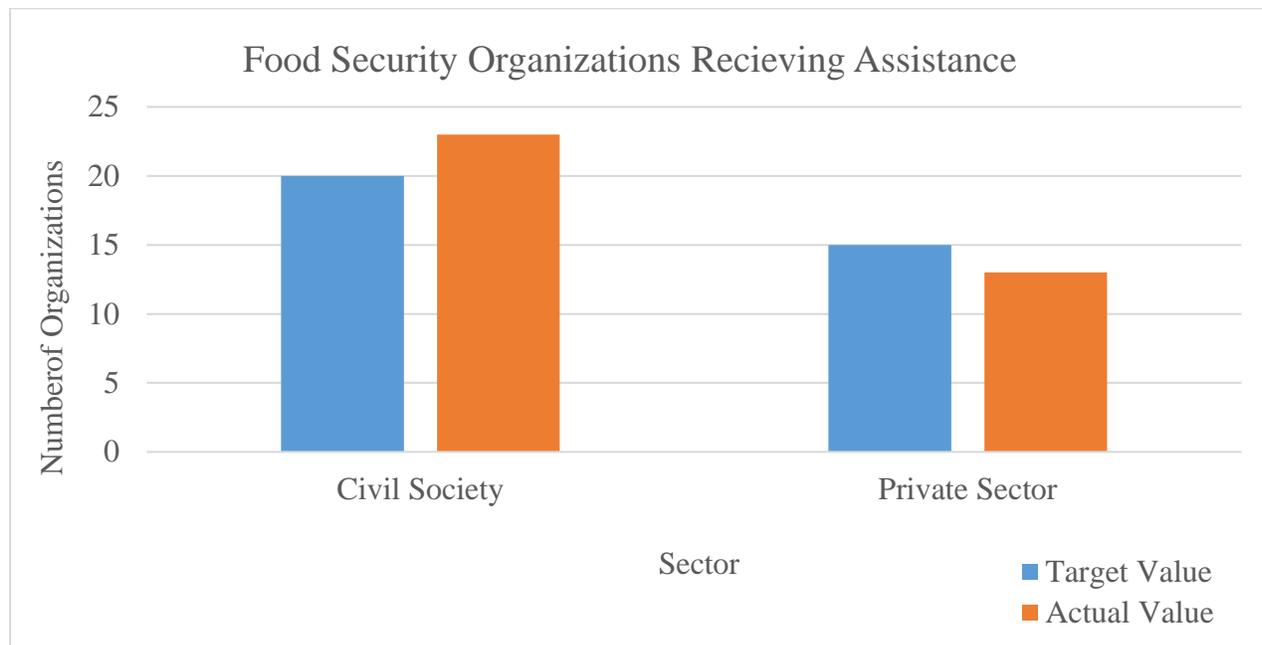


Figure 7

As illustrated in Figure 7, the overall target of 30 organizations was met and slightly exceeded, however the disaggregated target for people in the private sector was not met.

### Organizations

Throughout the first year of REFERANS a total of 23 CBOs and 13 crop cooperatives received significant food security related USG assistance. Of the 23 CBOs, 16 of those organizations are located in Ganthier while 7 are located in Croix-des-Bouquets (2 located specifically in 10<sup>e</sup> Oranger.)

The activities conducted with the crop cooperatives included post harvest support for all participating cooperatives. Additionally, phytosanitation support or plowing support was provided to many of the crop cooperatives based on their needs.

The activities conducted with the CBOs primarily included training activities. However, mill and irrigation activities were conducted with a few organizations.

### Performance Indicator Summaries

A summary is provided for the following six indicators there was not enough data available for analysis on these objectives. The summary is included to show the extent of the information available and highlight gaps in data.

#### **4.5.2-13 Number of rural households benefiting directly from USG interventions**

For this indicator household is defined as a beneficiary if one or more people from the residence is a beneficiary. To be a beneficiary an individual must participate in a project activity or directly engage with the interventions provided by REFERANS. Regular and consistent participation is required and those with non-recurring participation are not included in the count for this indicator. Furthermore, rural is defined by the national statistical service and can include vulnerable households if they are in rural areas.

The 2016 and 2017 targets are 2,000 rural households each year directly benefiting from USG intervention.

The 2016 actual number of rural households is 1,584 or 1,062. There are differences in the data between the PIRS and the IPTT. In 2016 the target number of rural households was 2,000 and this was not achieved.

#### **Gender Summary**

The gender disaggregated data shown in Figure 8 indicates that female led households make up almost a quarter of the households that benefited from the REFERANS project.

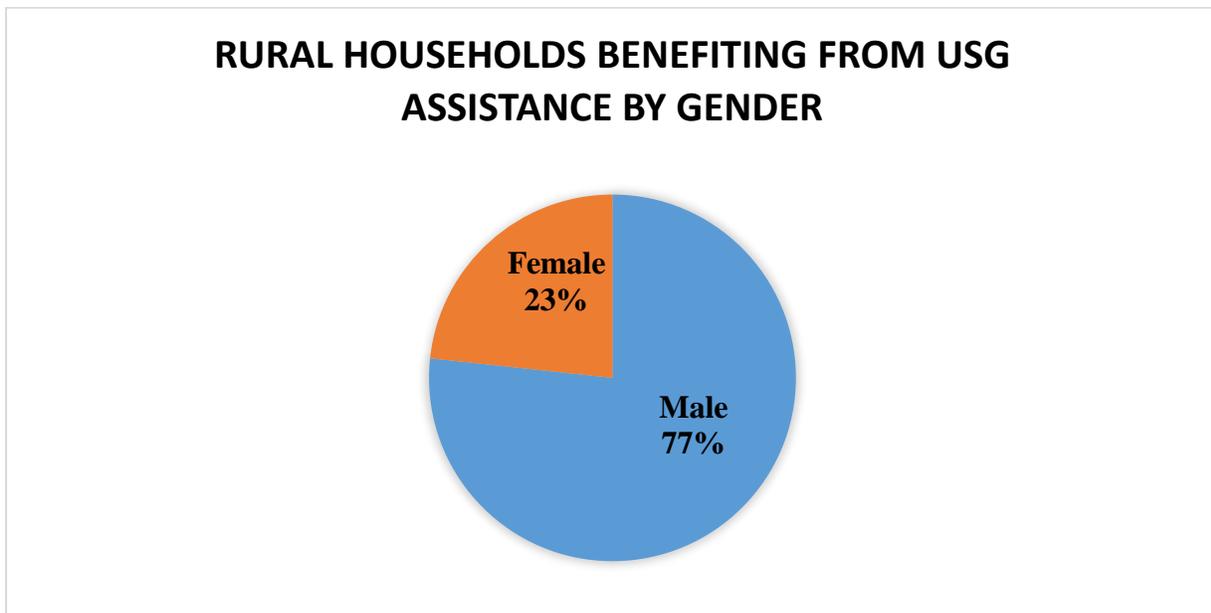


Figure 8

#### **4.5(16,17,18) Gross Margin per hectare, animal or cage of selected product (RiA)**

## Summary

The gross margin is defined as the difference between the total value of the agricultural production and the cost of producing the that product divided by the total number of units of production. An increase in the gross margin for farm products will increase income, increase the agricultural GDP, and improve production therefore reducing poverty.

The gross margin per hectare of sorghum and corn was calculated for this indicator and is shown in Figure 9 below. Data was not available to analyze the gross margin by animal or cage or the gross margin for beans.

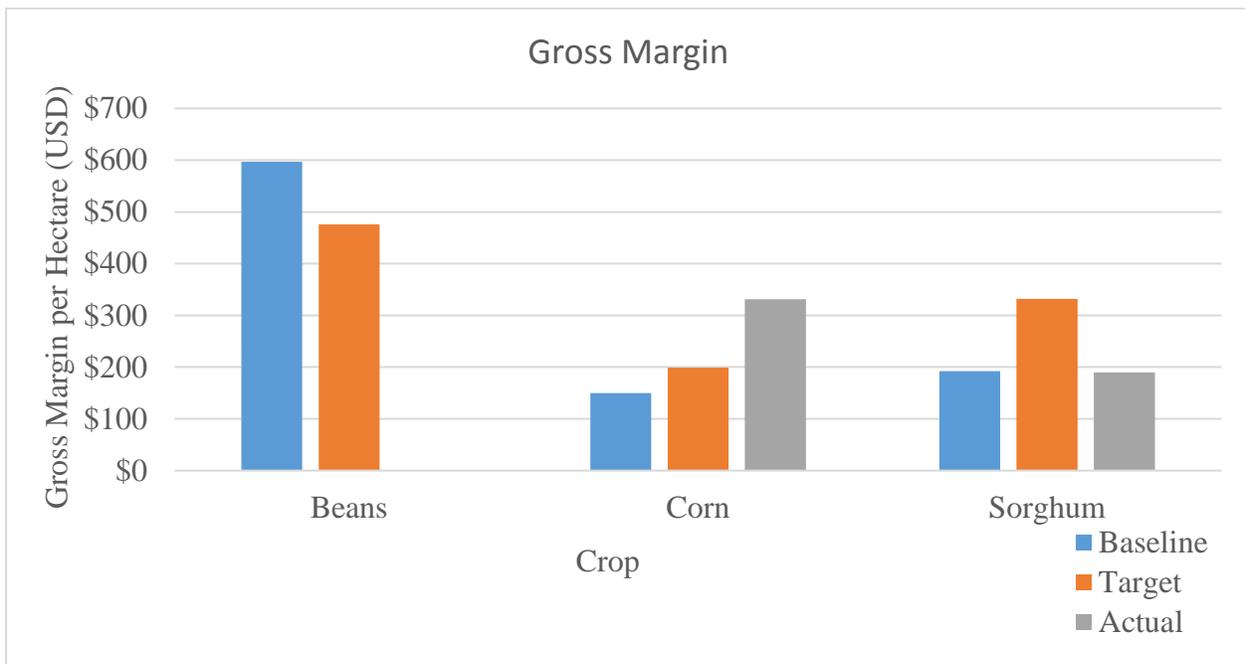


Figure 9

There are discrepancies between the PIRS and IPTT documents for the actual values of corn. It is also noted that for sorghum the actual gross margin is less than the target because pests reduced the yield.

Meanwhile, corn exceeded the target gross margin per hectare for 2016 which indicates satisfactory progress towards the REFERANS objectives.

### 4.8.2-6 Number of people receiving training in global climate change as a result of USG assistance

## Summary

Training is broadly defined as any learning activity for participants and can include both short-term and long-term learning activities. The trainings counted for this indicated are ones that USG

funded. Training is measured because it strengthens capacity and promotes partnerships. Individuals that completed multiple trainings are counted for each training they attend. Trainings help to ensure that these partners continue with interventions long after USG assistance.

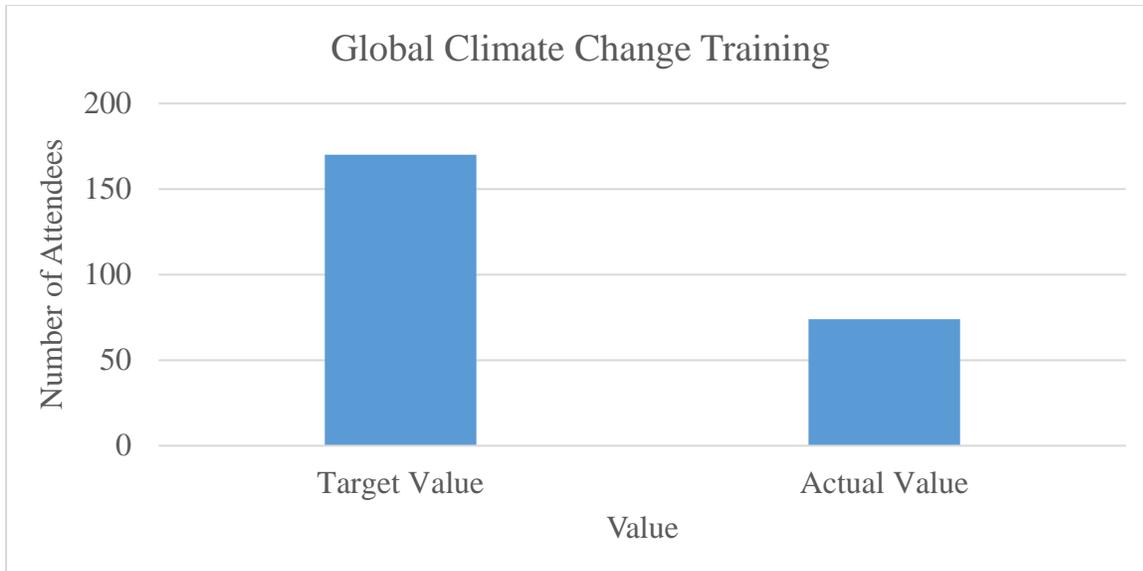


Figure 10

As shown in Figure 10, the target number of people trained in global climate change in 2016 was not achieved.

### Gender Summary

Of the individuals that were trained in global climate change this year, 53 were male and 21 were female which means that 28% of the population trained in global climate change were women.

### PL-3 Number of individuals with better access to grain processing services

#### Summary

The purpose of this indicator is to measure the amount of individuals, primarily sorghum and corn merchants, who utilize the mills for grinding crops. Use of grain processing services indicates the strength of the agricultural markets.

There are neither targets nor actual 2016 numbers of individuals reported for this indicator.

### PL-4 Average increase in agricultural income for beneficiary households due to USG

#### Summary

The agricultural income is the net value of the crop production which is either sold or consumed by the household. The indicator measures the change in income as a result of agricultural campaigns, commercialization, and processing post-harvest. This indicator will monitor the change in farmers' income as a result of agricultural production of sorghum, beans, and corn.

There are neither targets nor actual 2016 average agricultural income increases available for this indicator. The baseline revenues for beans, corn, and sorghum is shown in Table 3. It is noted that the baseline value is based on 804 male and female adults and only includes income from these three selected crops.

<b>Crop</b>	<b>Baseline Revenue (gourdes)</b>
Beans	32,849.25
Corn	9,308.89
Sorghum	10,925.25

Table 3

The 2016 actual average income data is needed to calculate the average increase in income due to USG assistance.

#### **4.5.2-42 Number of private enterprises, producers organizations, water users associations, women's groups, trade and business associations and community-based organizations (CBOs) that applied improved technologies or management practices as a result of USG assistance (RiA) (WOG)**

##### **Summary**

This indicator tracks the number of entities that adopted improved technology or management practices within the reporting year. Entities can only be counted once per year even if multiple practices are adopted by the organization. It is possible to report organizations as continuing in year two if they continue with the same practice. However, if the organization adopts another new practice they would be counted as new again in year two. This indicator serves to track behavior changes in private sector and civil society to increase agricultural sector productivity.

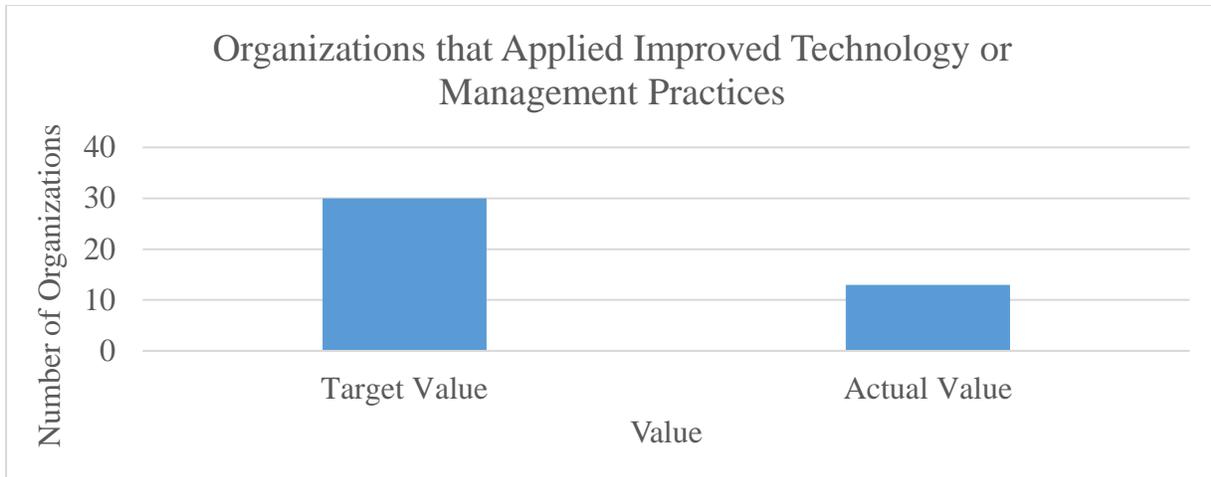


Figure 11

As shown in Figure 11, the target was not met in 2016.

## Recommendations

### Data Management

It is recommended that FONHDAD take the following actions to improve their data management systems. It is necessary to reconcile data discrepancies and indicator labeling issues for consistency across various tracking documents including the various IPTT and PIRS document. Another minor yet important detail that should be included in all documents is the date in which the document was last updated. This will prevent confusion regarding multiple versions of the same document with differing data.

### Crop Information

It is recommended that FONHDAD conduct an additional evaluation for the following two areas based on the most accurate data available. An evaluation of bean crop yields including the gross margin per hectare is needed to better understand the scope of the REFERANS project in its first implementation year. Establishing actual bean values for 2016 will also help with the development of target values and a strategy for beans in the next implementation year.

Additionally, it is recommended that an analysis of the pest control campaign is conducted. The goal of this inquiry would be to determine if the individuals who participated in the pest control campaign are the same individuals who were negatively influenced by sorghum pests. If so, it would be worth looking into the pest control campaign to identify areas for improvement. If those individuals that received new knowledge avoided pest problems, FONHDAD should review their strategy so that the pest management campaign can be shared with those in sorghum pest effected areas, if possible. In general, more information is needed regarding both beans and sorghum pests in order to evaluate these activities; it is recommended that this data is shared and an evaluation is conducted.

## **Target Values**

Since the baseline values have been determined, target values should be established for all indicators. Ideally, target values are established once the baseline has been completed and before the actual results are recorded. The purpose of the target is to be an attainable goal to work towards throughout the period of implementation. The targets have less significance if they are determined after the actual results are recorded.

## **Gender**

Based on the performance indicators it is recommended that a clear strategy is defined to incorporate women in all REFERANS activities. In the past year women participated in training activities at higher rates and than other REFERANS activities. The incorporation of females in agricultural interventions should be increased because the few women who participated in these activities were very successful in 2016. Women had greater yields for both corn and sorghum than men while cultivating an average plot size that was smaller than for men. This indicates that the incorporation of the women at even higher rates has the potential increase yields which has the potential to significantly increase the the income of farmers in this case specifically female farmers. This will meet a direct goal of the REFERANS project.

## **Conclusion**

In summary, the evaluation was primarily based on the production of corn and sorghum since the data was provided by FONHDAD to adequately assess the progress towards the targets for these two crops. The data was not available for analysis of beans in 2016 which made it impossible to evaluate the effectiveness of the bean related activities.

A pest management strategy was utilized throughout the first year of REFERANS which included a targeted pest control campaign. Nonetheless, pests negatively influenced the yield of sorghum. Data is not available to truly understand the extent of the pest control campaign and if it targeted sorghum or not.

In the REFERANS work plan FONHDAD identified the incorporation of female farmers as one of their priorities, with their goal being to ensure proper integration and empowerment of women as future association leaders. The available gender data was included throughout the evaluation to highlight progress towards this goal of including women in project activities. According to FONHDAD's website 30% of certified farmers are women. However, the performance indicator data shows varying levels of female inclusion. In terms of increasing yield women made up just 11% and 9% of individuals that applied corn and sorghum interventions respectively. Individuals who applied improved technology of management practices included 99 females or 10% of individuals. Furthermore, of the combined total of hectares employing new technologies or management practices just 3.7% were cultivated by these same women.

Fortunately, the rates for female training were higher than for other activities. Women are 43% of the individuals who have received USG supported short-term agricultural productivity or food security training and 28% of the individuals trained in global climate change are women. In order

to move forward, FONHDAD should consider examining their gender strategy to ensure that women targeted for inclusion in all project activities not just training activities.

In conclusion, the first year of REFERANS established baseline data, conducted agricultural interventions and trainings, and impacted over 1,000 rural households. The major area for improvement is the data management strategies which should be improved to reduce inconsistencies and gaps in the available data. This evaluation highlights four major recommendations which includes areas for FONHDAD to continue evaluating the project as they continue into the second implementation year.

## References

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## Appendix A

**Objective: improve the working conditions and increase farmers' Agricultural income in the communes of Croix-des-Bouquets and Ganthier**

Result 1

Agricultural Productivity Increased

IR1.1: Knowledge and Availability of Production Technologies improved

IR1.2: Access to Mechanical Agricultural Equipment increased

IR1.3: Access to Inputs increased

IR1.4: Agricultural Extension service Strengthened

IR1.5: Irrigation and Drainage services improved

Result 3

Agricultural markets strengthened

IR3.1: Improved Transformation infrastructure improved

IR3.2: Access to Storage improved