



Purdue University

**Farmer-to-Farmer in Colombia's Orinoquia Region
PDP-2014-2**

**Final Report
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Contents	Page
I. Executive Summary.....	3
II. Program Objectives.....	5
Activities / Volunteers	
Results	
How it supports food hub development	
Recommendations for future development efforts	
III. Targets and Indicators	11
IV. Lessons Learned.....	12
Annex 1: Indicator Tables.....	14
Annex 2: Volunteer Assignments.....	26
Annex 3: Host Impacts.....	31
Annex 4: Success Stories.....	39
Annex 5: Outreach.....	46
Annex 6: Food Production Impact by F2F.....	51
Annex 7: Small Farms Conference.....	59
Annex 8: PERSUAP Compliance	69
Annex 9: GAO Recommendation	72
Annex 10: Certification	73

I. Executive Summary

The main goal for the Farmer-to-Farmer (F2F) project in Colombia's Orinoquia Region under RFA No. AID0AA-13-00053 was to promote rural development to support sustainable and economically equitable peace in the region, through integrated volunteer technical assistance. The project focused on the Meta region of the Orinoquia, known for its diverse ecological landscapes. Specifically, Purdue and its in-country partner, Unillanos (University de los Llanos) focused on two areas in the Meta department (state): the Altillanura and Ariari regions. These areas have high exposure to extensive cattle ranching and low-input agriculture¹ and are home to 46 protected indigenous groups as well as families that are recipients of land grants from the Colombian government who had been displaced by armed conflict. A recent surge in development of infrastructure, industrial-scale agriculture, and the hopes of a lasting peace agreement between the Colombian government and the Revolutionary Armed Forces of Colombia (FARC), led to the need for an increased focus on rural development. The project sought a balance between assisting small farms that use sustainable agricultural practices and larger agro-industries in the region.

The overarching strategy used to achieve this goal was to help build sustainable local food value chains. In order to accomplish this, decades of farmers' perceptions and practices in marketing their products needed to be addressed. They had long been accustomed to selling products to intermediary markets where they were often paid nominal fees, while the intermediaries enjoyed the profits. The local food value chains, which are also referred to as "food hubs", look different in each of the two focus regions. According to the USDA, the definition of a food hub is a "value-based supply chain". Essentially, that means from farmer (or producer) to consumer the entire supply chain and production thereof is completely transparent. The development of value chains/food hub concepts was tailored to meet the differing needs of each of the focus areas for this project.

Altillanura

When the Farmer-to-Farmer project began in September 2014, the small- and medium-sized farmers in the Altillanura region had little contact with markets and few value added agricultural or food products were produced for self-consumption. The region was characterized by the use of land mainly for extensive livestock grazing. Production and processing of fruit, vegetable, cereal, medicinal and aromatic plants were minimal at best. Most of the farmers who were interviewed or contacted by the project team during the initial survey stated the low fertility of the soil, combined with a high degree of acidity, made cultivation difficult and the only option for income was livestock grazing. Much of the region has been settled by families who were displaced by the armed conflict in Colombia. Many grow products for subsistence, so the focus for the F2F project in this region was to provide training that would allow them to transition to growing/raising

¹ <http://ciatblogs.cgiar.org/soils/ecosystem-signposts-in-orinoquia/>

products for the market as well. The food hub model in Altillanura focused on improving production and opening a regional store featuring products from local farmers.

As a result of the F2F project, beneficiary farmers and organizations are beginning to realize a surplus in products which they are able to market. They are also developing new value added products for F2F supported newly formed farmers markets in Puerto López, Puerto Gaitán, and elsewhere. Although many beneficiary farmers still depend on renting their land for livestock grazing, their sources of income are now diversified due to the efforts of Purdue's F2F project.

In the Altillanura region, project estimations show that 23.5 hectares of land were brought under food production (not counting areas improved by technologies such as electric fence and improved livestock management) due to recommendations made by F2F volunteers and efforts of the local team. Compared to the initial survey, the food production area has been increased by one hectare on each of the participating farms. An increase in the area of food production is still important in a relatively difficult zone².

Ariari

The Ariari region was also chosen as a focus because it is considered a primary food producer in the Meta region and has a strongly developed system of agricultural markets, generally linked to intermediary operations. In contrast to Altillanura, the Ariari region has crop/market systems for products such as citrus, guava, papaya, banana, cassava, cocoa, rice and corn, along with an increasing production of dual-purpose cattle. In order to provide producers an alternative market for their products, the food hub model in Ariari focused on preparing farmers for, and laying the foundation of, an online marketplace where they would be able to sell their products without an intermediary - called PROTON Market for Life. This food hub focuses on sustainable food production and providing safe, quality foods to the marketplace linked to responsible consumption. Farmers must have their production methods vetted to meet the sustainability requirements of PROTON. Commercial fruit farmers in particular have shown great interest in the development of the online food hub due to its business model and potential reduced dependence on market intermediaries. There currently are 30 farmers ready to participate.

Livestock and the development and promotion of agro-tourism were also focuses in Ariari, which resulted in 6.5 hectares transformed. The project also impacted production issues, such as: integrated production systems, organic soil management, green vegetable production, and biodigesters.

In both Altillanura and Ariari, according to the analysis of the local team, the key factors that impacted food production and product diversification were: adoption of key technologies (encouraged by F2F volunteers), greater awareness among farmers about the opportunity and value of their products, and growth of demand and consumption

² The families of small and medium farmers in the Altillanura area have an average of 24 hectares of land each. They mainly depend on family labor and simple tools for farm work. They have limited access to capital for hiring labor or investing on farm equipment and machinery. In general, each family raises food crops on 1 or 2 hectares.

trends of organically grown products associated with particular farms. Additionally, the local team found smallholder farmers needed support to increase production through environmentally sustainable farming practices. There was a need to build better relationships with local consumers (individuals, businesses and institutions), enhance the capacity of farmers to market their products, and organize and lobby local government for sustainable agricultural development. Three project objectives were designed to provide a framework necessary to create and support local food value chains. These objectives were: 1) improved agricultural productivity through sustainable agricultural practices and natural resource management; 2) a strengthened regional agricultural economy through value-added processing and sustainable innovations along the value chain; and 3) new and strengthened networks to support small farms and markets for local food systems.

II. Program Objectives and Results

The core focus of the project was to create and support local food value chains. Forty volunteers were fielded over a period of three years.

Objective 1): Farm productivity to increase yields: Improved agricultural productivity through sustainable agricultural practices and natural resource management. Volunteers will work with smallholder farmers to enhance their knowledge and ability to cross train others in the community.

Volunteers / Activities

Fourteen (14) volunteers worked with eight (8) separate hosts to support this objective. The majority of the volunteers worked in the Attilanura area, specifically with smallholder farmers who are land grant recipients. Program staff discovered the pH level of the soil was not conducive for sustainable crop production and portions of the land were being rented for cattle grazing, leading to further depletion of soil fertility. Due to these conditions, many farmers were not able to produce enough crops to support their family, thus limiting their ability to enter into a marketplace and generate additional income. Therefore, this area needed to be developed from the ground up for sustainable agriculture.

Activities to improve the soil were focused on water conservation, intercropping, wastewater management through the implementation of biodigesters, soil conservation and organic soil management. The benefit of composting to add needed nutrients back into the soil was demonstrated and taught using various composting methods. To help ameliorate the effects of over-grazing and improve livestock feeding and fodder quality, volunteers demonstrated the use of electric fences to prevent overgrazing and rotating grazing areas. The economic benefits of raising pigs outdoors were explored. Pigs are efficient in controlling weeds and pests. The manure can improve soil fertility and pig meat is a good source of nutrition and generates needed income for farmers.

In order to improve the overall productivity it was necessary to introduce the horticultural component. Volunteers taught farmers and hosts: quality seed saving techniques, how to

identify and control plant diseases and organically manage crop pests, organic vegetable production, and finally, proper grain storage techniques to decrease pest infestation and control moisture (reducing potential aflatoxin contamination).

Results

Some of the most impactful recommendations that were adopted include the use of biodigesters, soil conservation techniques and water harvesting. Program staff observed that the use of biodigesters resulted in reduced firewood gathering and thus rejuvenation of forested land. Staff also measured that biodigester use led to improved environmental management of wastewater from the pig production facility, and reduced the use of propane gas and fertilizers. Additional results were the implementation of water harvesting, soil conservation, and intercropping. Manure from dairy cows was applied to pastures during the dry season to enhance soil fertility. Trees and other live barriers were planted to prevent soil erosion. Farmers harvested rainwater, created micro-catchments around plants and shrubs to conserve water, and adopted techniques of micro water harvesting. Intercropping systems and outdoor pig production, as well as rotational grazing were also implemented. All of these efforts will improve local farms, resulting in better quality and more production of fruits and vegetables, for which there is a demand in the market.

One of the best examples of the results obtained from the F2F initiative on this objective is the story of Eloisa Aguirre. Eloisa is a land grant recipient in the Altillanura region. At the beginning of the F2F project, the soil was so poor on Eloisa's farm she was unable to provide for her family. Through the training and support from F2F volunteers and Unillanos, three years later Eloisa is now raising livestock and growing vegetables, fruits, and coffee.

How it supports the food hub

The focus for this objective is to teach the smallholder farmers and hosts how to increase production of livestock, fruits, and vegetables in a sustainable and organic manner. Increased production will lead to an excess, which can then be sold into to the market place.



Eloisa Aguirre on her farm with Jorge Clavijo Velez from Unillanos (2017), which is now flourishing thanks to F2F

Recommendations for future development efforts

Continued support in working with the smallholder farmers and hosts is vital. The F2F project has laid the foundation through education on techniques that can be economically and easily implemented to improve the sustainability of their farms by using organic methods sourced from local materials. Many of these farmers have realized notable improvements because of this project. Future support from volunteers or other experts would cement the learning from F2F and ensure they become a way of life in the region. Ongoing technical support will also help farmers overcome years of cultural stigma so

they can begin to openly collaborate, educate, and support one another.

Objective 2): Processing and Markets: Strengthened regional agricultural economy through value-added processing and sustainable innovations along the value chain. Volunteers will provide technical assistance in agricultural processing, product innovation, and marketing.

Volunteers/ Activities

This objective fielded 18 volunteers visiting 14 host organizations as well as smallholder farmers and various small businesses. Three of the volunteers focused on youth development and youth organizations. There has been a marked decline in the younger generation taking over the farms. The future of the rural farms is dependent upon the youth becoming re-engaged, also they often have a greater awareness and comfort level with new technologies that can be used to help market products.

Three other volunteers completed a month-long joint assignment to teach students how to build a versatile utility vehicle, the AgRover, to assist with both increasing production processes on the farms, and in getting those products to the marketplace. The AgRover is an innovative vehicle that has been used in other countries and can be modified to serve various functions on the farm, such as a grinder that allows farmers to grind corn into flour as soon as it is harvested. In addition, it can act as an intermediary mode of transportation to help farmers get their products to market by transporting them over what would otherwise be virtually inaccessible roads. All the parts are locally sourced to further support the local economy and sustainability of the AgRover (*See Annex 4: Success Stories*). Another volunteer worked with hosts on cocoa, specifically roasting techniques and how to develop new products. Additional assignments focused on: beekeeping, healthy eating, pork processing, milk production, mature cheeses, and how to build and use solar dryers to produce marketable products. It should be noted, 62 smallholder farmers were trained on how to build and use the solar dryers.

To support marketing, volunteers worked with smallholder farmers, host organizations, and small businesses to teach organizational capacity and planning, account management, how to start a cheese store business, a farmers' store, and sustainable tourism. Volunteers worked with farmers and small businesses to identify and create market niches. In addition, there was a large amount of work with nine (9) separate small businesses to help develop marketing and media strategies to increase market presence.

Results

- Solar dryers are currently being used for moringa, pineapple, mango, banana, plantain, and chilies.
- Host organization CEP helped support and develop a new product, Christmas baskets. Local farmers and small businesses collectively gather various goods and products and place them in decorated baskets to sell at Christmas. This proved to

be successful in 2017 and will continue.

- The beekeeping assignment resulted in a host producing honey for the first time in December. Shortly, their beehives will be producing enough honey to market.
- Technologies such as the AgRover and solar dryers helped train students and increase the capacity of professors and technical staff. These items were manufactured using locally sourced materials to increase local capacity and ensure procurement of parts needed to maintain these products.
- New types of cheese were developed.
- The cocoa assignment led to a new product, chocolate with honey.
- The healthy eating assignment also resulted in new products; banana flour, coconut milk drinks, chocolate and yogurt.
- Host SENA was trained in pork slaughtering and processing, including the preparation of meat cuts. An additional eighteen (18) small producers were also trained. The SENA instructors, who received the training, are incorporating the information into their curriculum for new students.

Concepts were developed to link smallholder farmers to the tourism industry by linking farm experiences with the natural beauty of the countryside. For example, one farm may allow tourists to make their own cheese and is exploring options related to bird watching. Many smallholder farmers see agritourism as a legal way to supplement income from their farms and promote the conservation of natural resources. Strategies were identified to market the development of a sustainable tourism industry. This was done through social media, event promotions, and marketing strategies.

The volunteers conveyed the importance of GAP (good agricultural practices) and GMP (good manufacturing practices) and how they can be economically feasible for the farmers. They taught farmers and small business owners' proper processing techniques to produce better quality products, which in turn will be more valued in the consumer market. One challenge was addressing concerns regarding the future of farms, with the increasing age of farmers and a large population of the youth leaving rural areas and migrating to the cities. It is too early to predict impact the volunteers may have had on youth, but some of them did express renewed interest in agriculture to the volunteers.

How it supports the food hub

The implementation of many activities under this objective directly supported the development of a food hub system. In order for farmers and small businesses to participate in a food hub, many were provided with training on business development. Training was also provided on value-added processing (as well as GAP and GMP), which leads to better quality products, which increases consumer demand. New products were created, which also creates consumer demand and may fill a niche market space. Farmers learned how to collaborate with other farmers as well as small businesses to leverage resources to create products that fulfilled consumer demand. Training on stronger financial processes (setting prices for profitability, sound recordkeeping), as well as on how to market products helped farmers participate more fully in a food hub system.

Recommendations for future development efforts

Continued work with the farmers and host organizations is needed to build on the business processes implemented. Farmers are not accustomed to record keeping and developing the financial plans needed to run a business or sell products. GAP and GMP should also be fully integrated into future training. Additional support from future F2F or other projects would help to improve this process. Several of the host organizations were excited to learn improved techniques and manufacturing practices but lacked the capital to implement. Perhaps in the future the identification of funding sources to support the volunteer's recommendations could be incorporated into the volunteer's report.

Tourism is a complex and competitive business requiring significant capital investments that most of the hosts do not have access to. It also benefits from relationships with all levels of government as potential sources for funding to help offset the large startup costs. Relationships with related tourism industries also need to be developed to operate successfully and provide support services- i.e. Ground Operators. Marketing tourism beyond a local environment/community is not practical without dedicated staff. A long-term funding plan is required, plus market research on all competitive offerings of tourism from the area. Then, the economic impact of new tourism for the region can be projected to solicit funding.

Objective 3): Enhanced Networks: New and strengthened networks support small farms and markets for local food systems.

Volunteers / Activities

Eight volunteers were fielded to support this objective, supporting ten (10) host organizations and various small business owners. Although this objective had the fewest volunteers, much work was accomplished. Volunteers developed a marketing plan on responsible consumption, and held working groups with 60 small farmers, local government representatives, and NGOs in two regions to provide input into the development of annual small farms conferences (see Annex 7) and the development of food system awareness. In 2017, our partner organization, Unillanos, held the first small farms conference with nearly 60 farmers directly impacted by the F2F project in attendance. The conference was a unique opportunity for the farmers to collaborate on the recommendations and implementations from the project that led to improved sustainable farming activities. The farmers visited some of the impacted farms to showcase the results and reiterate how the utilization of the recommendations from the F2F project can benefit the farmers' ability to produce goods.

On the last day of the conference, a total of 100 participants from various government organizations, NGOs, farmers and researchers attended. The group discussed sustainable food production, the economic efficiency of small and medium farms, and the impacts of the F2F project along with some of the main recommendations that have been implemented. The purpose of an open forum aimed to boost collaboration among farmers and other organizations, and to encourage participation in rural development.

PROTOS Market for Life, an online food hub concept was patterned after the existing Hoosier Harvest Market and was introduced after the launch of this project. Alvaro Ocampo Duran, the lead for in-country partner, Unillanos, visited the U.S. and after seeing the demonstration of Hoosier Harvest Market and its success, encouraged the implementation of the same in Colombia. As a result, we focused on the Ariari region for the implementation of PROTOS since, as mentioned above, this region already had established food markets and linkages to intermediary operations. Meetings were held with farmers, local authorities, institutions, and organizations to explore the interest in an online market. Volunteers educated producers on the concept of the online food hub, identified consumer needs, conducted feasibility studies, willingness to pay studies, and conducted market research. In addition, we built a financial plan, developed a business plan, and identified funding sources and e-commerce platforms (Shopify, Square Space, etc.) for the online platform. From the producers' perspective, each producer must meet a strict set of quality standards where their products are sustainably and organically produced. To date, we vetted 30 suppliers who are currently meeting the high quality standards required to participate in the food hub, and identified 25 more interested suppliers.

Results

- In the Altillanura region local farmers have opened a Farmer's store (*see Appendix 4: Success Stories*). The store is wholly owned by the farmers and sells meat, fruits, and vegetables. In less than six months of operation, it has already been profitable. Currently the farmers are reinvesting the profits into the store.
- Training from two volunteers in strengthening business and marketing strategies resulted in host Chocoartesano realizing a 25% growth in sales in 6 municipalities in the Meta region. They also signed new commercial agreements with distributors in Villavicencio.
- Both of the regions (Ariari and Altillanura) have begun to hold a unified small farms conference. The small farms conference is a means to connect farmers from different regions, share ideas, and create networks.
- The PROTOS Market for Life online food hub is nearing completion. The groundwork for the online food hub has been developed. Unillanos needs to collaborate with an IT company who can support the internet platform of the food hub, and secure the proper funding. Initial funding opportunities were declined because the IT company, who was identified to be a partner, did not have the capital outlay required by the Colombian government. Once Unillanos can identify a new IT company that meets the financial requirements, funding can be obtained. They will then need to contract with a warehouse and local distribution channels, and then begin to market the idea to draw traffic to the website.

How it supports the food hub

The small farms conferences have led to stronger networks among farmers. By conducting the small farm conferences jointly with both regions, it has also increased the awareness of a food hub system. Farmers collaborated on how to further develop a food

hub system within each of their respective regions. The creation of the Farmer's store in Altillanura is the culmination of a number of F2F volunteer assignments that helped small farmers move from subsistence farming to producing products for sale, and it has given them a final market for their produce. The PROTOS Market for Life has brought together larger farmers from Ariari to raise their production standards to meet the sustainability requirements of a transparent value chain.

Recommendations for future development efforts

Hosts had a wide range of business skills, but minimal skills related to marketing and media. For small farmers to develop networks and collaborate further on food hubs, they need to be more familiar with these aspects as well as how internet platforms (i.e. social media) can play a major role in marketing for little to no capital outlay. This is where youth engagement could potentially play a role in moving farmers into having an online presence.

III. Targets and Indicators

	Persons Trained			No. of Persons Directly Assisted		
	Male	Female	Total	Male	Female	Total
FY 2015	253	200	453	477	330	807
FY 2016	179	207	386	258	303	561
FY 2017	209	235	444	307	261	568
LOP	641	642	1283	1042	894	1936
Targets (revised 4/12/2017)	733	736	1496	1248	1143	2391
Deviation from Target (%)	(13%)	(13%)	(14%)	(16%)	(22%)	(19%)

The project focused on the Altillanura and Ariari regions, which are two very different regions with respect to the environment, social and economic processes. In the Altillanura region, the project largely worked with organizations and farmers who were land grant recipients displaced by the country's history of violence. In this region, recipients were eager to learn and improve their way of life. As a result, we were able to assist more people than originally expected.

In the Ariari region, the project initially began working with farmers located close to the Ariari River and municipalities where most of the food is produced in the Orinoquia region. Half way through the project the peace agreement with the FARC was implemented in this area, which opened up additional areas of opportunities within the Ariari region. Farmers and local organizations within the new areas were cautiously optimistic to

receive support from the F2F project, however, the lingering history of violence fresh in their lives, made the farmers reluctant to participate in trainings or meetings. For this reason, the overall target of people trained was less than anticipated.

A total of 40 volunteers were fielded, of which 14 were females; 570 volunteer days completed, valuing \$267,900 U.S. dollars of time leveraged and 186 recommendations made. The estimated value of volunteer time leveraged was \$13,752. The project worked with a total of 22 host organizations. The impact realized for the host organizations was 5,296 total beneficiaries; annual net income from all organizations over the life of the project was \$123,798. Forty-three hectares of area under improved environmental/natural resource management was impacted. A total of 69 outreach activities were conducted with value of resources leveraged for the life of the project totaling \$41,600.

IV. Lessons Learned

- A more focused effort on fewer hosts or better vetting of hosts may have led to a greater impact. The life-of-project target number for host organizations was 12 groups - Purdue's project achieved this goal and continued to develop relationships with potential organizations (concluding with assistance to 22 hosts). The intent on increasing the number of host organizations was to have a broader impact. However, in the process, some of the hosts may not have been fully vetted in regards to having the financial capability of implementing the volunteer recommendations. By proper vetting and keeping the number of host organizations smaller, volunteers could have concentrated on those hosts to make a greater impact.
- Staff could have spent more time understanding the operational capacity of hosts in order to plan more efficient volunteer efforts. Better communication with hosts prior to volunteer visits would help to manage expectations.
- Recruit more local volunteers who are knowledgeable about the region, history, challenges, and are passionate about making a change. Local volunteers will increase the stability and sustainability of F2F program ideals beyond the life of the project. Due to their proximity, they are more aptly able to train the trainers and ensure new techniques are understood and implemented properly.
- Help identify funding sources to implement ideas. Some of the host organizations could benefit from volunteer recommendations, but lack the funding source to implement them. It could be desirable to send volunteers trained in grant proposal preparation to train a select group of hosts in effective communication strategies and preparation of proposals that meet the expectations of local and central government funding agencies and the private sector.
- The F2F project allowed the Purdue team to learn a great deal about Colombia and the Llanos region. This empowered Purdue to explore another project entitled "Opportunities for Agriculture and Tourism in the Orinoquia Region of Colombia" which was funded by the Colombian government. The aim of this project was to provide the Colombian national government, departments and municipalities the analysis and research-based tools to understand the economic and development opportunities related to agriculture and tourism in

the Orinoquía region. This project coupled nicely with the F2F project and connections and results from the Orinoquia Initiative project allows farmers and government entities to be able to run statistical modeling to determine the best methods for farmers to utilize their land (livestock, crops, and percentages of each).

- Through this project, Purdue learned that Colombian local labor laws related to hiring, tax and employee management can be complicated. This process helped Purdue ensure the employees hired and managed in-country remained in compliance with Colombian laws.
- Extension Educators who volunteered on this project learned a great deal about tropical agriculture, sustainability of small scale farms, cultural diversity and economic realities of Meta region. The lessons learned by each volunteer will assist them in other potential F2F volunteer opportunities in that region.
- International Programs in Agriculture office learned valuable lessons in program management, working in a conflict region in Colombia. For example, due to the past history of violence in these regions, farmers have a reluctance to change or trust new ideas and outsiders for fear of future retaliation from FARC. The area also holds a long history of intermediary markets. Assisting farmers in building direct markets requires the farmers to overcome years of being suppressed.

Annex 1: Indicator Tables

Farmer-to-Farmer Program Standard Indicator Reporting Tables

Table 1: Volunteer and Assignment Data

Project and Assignment Data											Number of Persons Trained			Number of Persons Directly Assisted			Number of Volunteer Recommendations Made						Host(s)				
Assignment	Name	State	County	Race/Ethnicity	Age	Gender	Type	Country	Project	Scope of Work	Start Date	End Date	Number of Volunteers	Value of Volunteer Hours	Estimated Value	Male	Female	Total	Male	Female	Total	Economic		Organic	Environment	Financial	Total
VP-01	Tallal Khan	M	NA	S	AS	N	T	F	Colombia	Small Farms and Regional Food Systems	3/8/2015	3/22/2015	15	\$7,050	\$566	28	17	45	68	44	112	2	0	8	0	10	IACL - AGROEMPARI - CEP - ASOPAR
VP-02	David Roberts	M	NY	G	W/N	Y	T	F	Colombia	Small Farms and Regional Food Systems	4/12/2015	4/26/2015	15	\$7,050	\$558	26	19	45	60	37	97	2	0	8	0	10	AGROEMPARI - CEP - ASOPAR
VP-03	Anne Dare	F	IN	E	W/N	N	T	F	Colombia	Small Farms and Regional Food Systems	4/12/2015	4/26/2015	15	\$7,050	\$0	26	19	45	60	37	97	0	0	7	0	7	AGROEMPARI - CEP - ASOPAR
VP-04	Michael Morrow	M	IN	C	W/N	N	E	M	Colombia	Small Farms and Regional Food Systems	5/17/2015	5/24/2015	8	\$3,760	\$98	11	1	12	57	24	81	1	3	0	0	4	AGROEMPARI - MPTSP
VP-05	Matilde Paimo	F	IN	E	W/N	Y	T	F	Colombia	Small Farms and Regional Food Systems	6/8/2015	6/21/2015	14	\$6,580	\$533	23	17	40	43	33	76	2	0	2	0	4	AGROEMPARI - CEP - ASOPAR
VP-06	Cristian DeRusha	M	IN	S	W/N	N	O	S	Colombia	Small Farms and Regional Food Systems	6/8/2015	6/21/2015	14	\$6,580	\$300	33	14	47	53	30	83	0	2	0	0	2	CEP - ASOPAR
VP-07	Carmen DeRusha	F	IN	E	W/H	N	O	S	Colombia	Small Farms and Regional Food Systems	8/9/2015	8/23/2015	15	\$7,050	\$293	9	36	45	9	36	45	0	6	0	0	6	ASOPAR - CEP - ASOPROCAULE - AGROEMPARI - AMARU
VP-08	Andrew Martin	M	IN	E	W/N	N	E	P	Colombia	Small Farms and Regional Food Systems	8/16/2015	8/30/2015	15	\$7,050	\$1,010	19	19	38	19	19	38	4	0	0	0	4	AGASANUAN - AGROLECHEROS
VP-09	Marissa Bentle	F	NC	E	W/N	N	T	F	Colombia	Small Farms and Regional Food Systems	9/13/2015	9/27/2015	15	\$7,050	\$380	39	29	68	54	35	89	0	3	2	0	5	ASOPAR - CEP - AGASANUAN - AGROLECHEROS
VP-10	Steve Engleking	M	IN	E	W/N	N	T	F	Colombia	Small Farms and Regional Food Systems	9/16/2015	9/27/2015	12	\$5,640	\$0	39	29	68	54	35	89	2	2	1	0	5	AGASANUAN - AGROLECHEROS
	FY15 Counts												138	\$64,860	\$3,738	\$253	\$200	453	477	330	807	13	16	28	0	57	
VP-11	Tommy Creswell	M	IN	E	W/N	N	T	S	Colombia	Small Farms and Regional Food Systems	10/11/2015	10/25/2015	15	\$7,050	\$416	5	9	14	5	9	14	3	0	0	0	3	UML
VP-12	Lina Rodriguez	F	IA	E	W/H	N	T	S	Colombia	Small Farms and Regional Food Systems	10/11/2015	10/25/2015	15	\$7,050	\$0	5	9	14	5	9	14	0	3	0	0	3	UML
VP-13	Michael Morrow	M	IN	C	W/N	Y	O	M	Colombia	Small Farms and Regional Food Systems	10/25/2015	11/4/2015	11	\$5,170	\$300	2	2	4	21	35	56	0	3	0	0	3	MPTSP
VP-14	Alexander Cardona	M	NY	P	W/H	N	O	M	Colombia	Small Farms and Regional Food Systems	10/25/2015	11/4/2015	11	\$5,170	\$0	2	2	4	21	35	56	0	3	0	0	3	MPTSP
VP-15	Amanda Dickson	F	IN	E	W/N	N	O	F	Colombia	Small Farms and Regional Food Systems	3/27/2016	4/10/2016	15	\$7,050	\$133	15	22	37	15	22	37	1	4	0	0	5	AGROEMPARI - CEP
VP-16	Silvana Pietrosemoli	F	NC	E	W/H	Y	T	F	Colombia	Small Farms and Regional Food Systems	4/10/2016	4/24/2016	15	\$7,050	\$133	14	20	34	55	50	105	1	5	2	0	8	AGROEMPARI - CEP - ASOAGRICOLA
VP-17	William Nichols	M	MA	P	W/N	Y	E	M	Colombia	Small Farms and Regional Food Systems	5/1/2016	5/15/2016	15	\$7,050	\$367	1	5	6	1	5	6	1	1	0	2	4	MPTSP
VP-18	Leah Joyner	F	NC	C	W/N	N	I	C	Colombia	Small Farms and Regional Food Systems	5/30/2016	6/11/2016	13	\$6,110	\$990	24	18	42	24	18	42	3	5	1	0	9	CORTURISMO - CLTSIA

Farmer-to-Farmer Program Indicator Reporting Tables

Table 1: Volunteer and Assign

Assignment	Name	Sex	Race/Ethnicity	Age	Type	Country	Project	Scope of Work	Start	Scope of Work	Number of Volunteers	Value of Volunteer Service	Estimated Value	Number of Persons Trained			Number of Persons Directly Assisted			Number of Volunteer Recommendations Made					Host(s)	
														Male	Female	Total	Male	Female	Total	Economic	Organizational	Environment	Financial	Total		
VP-19	Jonathon Day	E	W/N	N	1	O	S	Colombia	Small Farms and Regional Food Systems	5/30/2016	6/11/2016	13	\$6,110	\$0	24	18	42	24	18	42	2	3	0	0	5	CORTURISMO - CLTSIA
VP-20	Michelle Fried	P	W/N	N	1	C	F	Colombia	Small Farms and Regional Food Systems	7/10/2016	7/24/2016	15	\$7,050	\$383	23	30	53	23	30	53	0	3	0	0	3	AGROAVIH - CEP
VP-21	James Young	P	W/N	N	1	C	F	Colombia	Small Farms and Regional Food Systems	7/10/2016	7/24/2016	15	\$7,050	\$0	23	30	53	23	30	53	0	5	0	0	5	AGROAVIH - CEP
VP-22	Matthew Rubin	P	W/N	N	1	T	P	Colombia	Small Farms and Regional Food Systems	7/31/2016	8/9/2016	10	\$4,700	\$1,115	6	9	15	6	9	15	2	5	0	0	7	Chocoatesano - AGROAVIH
VP-23	Andrew Crecelius	P	W/N	N	1	E	M	Colombia	Small Farms and Regional Food Systems	8/14/2016	8/28/2016	15	\$7,050	\$79	10	12	22	10	12	22	2	5	0	0	7	CORTURISMO - COAGROLAM - Chocoatesano - CEP - CLTSIA
VP-24	Heather Fabries	E	W/N	Y	1	E	M	Colombia	Small Farms and Regional Food Systems	8/21/2016	9/4/2016	15	\$7,050	\$0	2	1	3	2	1	3	1	2	0	1	4	MPTSP
VP-25	Richard Becknet	E	W/N	N	1	T	F	Colombia	Small Farms and	9/11/2016	9/24/2016	14	\$6,580	\$194	23	20	43	23	20	43	1	3	1	0	5	AGROAVIH - CEP
FY16 Counts											207	\$97,290	\$4,050	179	207	386	250	303	561	17	50	4	3	74		
VP-26	Jorge Lugo	G	W/H	Y	1	C	F	Colombia	Small Farms and Regional Food Systems	1/22/2017	2/4/2017	14	\$6,580	\$77	23	11	34	23	11	34	1	0	2	0	3	CEP - Vereda La Cabaña
VP-27	Jeffrey Stuart	E	W/N	N	1	T	S	Colombia	Small Farms and Regional Food Systems	3/28/2017	4/9/2017	13	\$6,110	\$316	29	27	56	29	27	56	0	0	1	0	1	CEP - Vereda Cacayal
VP-28	Ricky Foster	E	W/N	N	1	T	F	Colombia	Small Farms and Regional Food Systems	3/26/2017	4/9/2017	15	\$7,050	\$0	29	27	56	29	27	56	0	0	2	0	2	CEP - Vereda Cacayal
VP-29	Jerry Shafer	E	W/N	N	1	E	M	Colombia	Small Farms and Regional Food Systems	4/23/2017	5/7/2017	15	\$7,050	\$33	6	4	10	8	6	14	6	2	0	0	8	CLTSIA - CORTURISMO - CEP - Chocoatesano
VP-30	Lucas Roosa	P	W/N	N	1	T	P	Colombia	Small Farms and Regional Food Systems	6/18/2017	7/2/2017	15	\$7,050	\$567	29	47	76	29	47	76	1	6	0	0	7	SENA - IACL
VP-31	Ellen Geisler	E	W/N	Y	1	T	F	Colombia	Small Farms and Regional Food Systems	6/26/2017	7/9/2017	14	\$6,580	\$233	12	9	21	12	9	21	0	3	0	0	3	Vereda La Cabaña
VP-32	David Wilson	E	W/N	Y	1	T	P	Colombia	Small Farms and Regional Food Systems	7/24/2017	8/3/2017	11	\$5,170	\$500	4	8	12	36	16	52	0	1	0	0	1	MPTSP
VP-33	John Lunkes	E	W/N	Y	1	T	P	Colombia	Small Farms and Regional Food Systems	7/30/2017	8/9/2017	11	\$5,170	\$0	4	8	12	36	16	52	0	1	0	0	1	MPTSP
VP-34	Tyler Anselm	P	W/N	Y	1	T	P	Colombia	Small Farms and Regional Food Systems	7/23/2017	8/27/2017	36	\$16,920	\$2,500	4	8	12	36	16	52	0	1	0	0	1	MPTSP
VP-35	Brian Grear	E	W/N	N	1	O	S	Colombia	Small Farms and Regional Food Systems	9/10/2017	9/24/2017	15	\$7,050	\$167	19	22	41	19	22	41	0	4	0	0	4	Plataforma Jovenes Lejanias - Yachakisy
FY17 Counts											159	74730	4393	159	171	330	257	197	454	8	18	5	0	31		

Farmer-to-Farmer Program Sticator Reporting Tables

Table 1: Volunteer and Assignm

Assis tants	Name	cup	Race/ Ethnic	Age	Sex	Type	Type	Count	Count by Region	Scope of Work	Scope of Work	Numb er of Volun	Value of Volun	Estima ted Value	Number of Persons			Number of Persons			Number of Volunteer Recommendations					Host(s)
															Trained			Directly Assisted			Made					
															Male	Female	Total	Male	Female	Total	Econo mic	Organ izatio	Enviro nment	Educa tional	Total	
VP 36	Bradley Smith	E	WN	N	1	O	P	Colombia	Small Farms and Regional Food Systems	11/6/2017	11/12/2017	7	\$3,290	\$12	14	11	25	14	11	25	0	3	0	0	3	IACL-Vereda la Cabaña - AGROAVIH
VP 37	Trisha Wagner	E	WN	Y	1	T	F	Colombia	Small Farms and Regional Food Systems	11/12/2017	11/26/2017	15	\$7,050	\$327	9	22	31	9	22	31	0	7	0	0	7	IACL-AGASANUAN-AGROLECHEROS
VP38	Stephanie Montalban	P	WH	N	1	T	P	Colombia	Small Farms and Regional Food Systems	11/12/2017	11/26/2017	15	\$7,050	\$402	9	22	31	9	22	31	0	6	0	0	6	IACL-AGASANUAN-AGROLECHEROS
VP39	Tiffany Stone	E	WN	N	1	O	S	Colombia	Small Farms and Regional Food Systems	11/27/2017	12/10/2017	14	\$6,580	\$159	6	4	10	6	4	10	0	3	0	0	3	Plataforma de Jovenes de Lejanias
VP 40	Tyler Anselm	P	WN	Y	1	T	P	Colombia	Small Farms and Regional Food Systems	12/3/2017	12/17/2017	15	\$7,050	\$471	12	5	17	12	5	17	0	5	0	0	5	NPTSP-IACL
	FY18 Counts											66	\$31,020	\$1,571	50	64	114	50	64	114	0	24	0	0	24	
Counts:		Totals:									570	267900	13752	641	642	1283	1042	894	1936	38	108	37	3	186		

Table 1. Volunteer and Assignment Data

17

Farmer-to-Farmer Program Standard Indicator Reporting Tables
Table 2: Host Data (Baseline)

Host	Country	Country F2F Project	Date of Baseline Assessment	Host Gender	Institution Type	Members/Owners	Employees	Clients & Suppliers	Family Members	Total	Area of Potential Production (ha)	Annual Gross Sales (Revenue) (US\$)	Annual Net Income (US\$)	Area Potentially Under Improved Environmental/Natural Resource Management (ha)	Financial Services Indicators	Organizational Indicator
Fiscal Year 2015																
JACL	Colombia	Small Farms and Regional Food Systems	3/10/2015 F		C	20	-	-	60	80	560	-	-	200	-	1.0
CEP	Colombia	Small Farms and Regional Food Systems	7/23/2015 F		C	20	-	20	120	160	500	3,500	1,225	100	-	3.0
ASOPAR	Colombia	Small Farms and Regional Food Systems	7/23/2015 F		C	21	-	21	126	168	400	3,500	1,225	105	-	2.0
MPTSP	Colombia	Small Farms and Regional Food Systems	12/15/2015 N/A		E	-	7	51	174	232	-	-	-	-	-	3.0
AMARLE	Colombia	Small Farms and Regional Food Systems	7/31/2015 F		C	52	-	-	156	208	1,040	-	-	260	-	2.0
AGROEMPARI	Colombia	Small Farms and Regional Food Systems	3/16/2015 M		C	22	-	30	156	208	400	49,500	2,475	110	-	2.0
ASOPROCAULE	Colombia	Small Farms and Regional Food Systems	2/5/2016 M		C	25	-	-	75	100	150	-	-	25	-	1.0
AGASANTUAN	Colombia	Small Farms and Regional Food Systems	11/12/2015 M		C	25	2	20	141	188	375	40,000	20,000	125	-	3.0
AGROLECHEROS	Colombia	Small Farms and Regional Food Systems	12/14/2015 J		C	10	20	246	828	1,104	800	\$ 1,120,000	\$ 56,000	200	-	3.0

Farmer-to-Farmer Program Standard Indicator Reporting Tables																				
Table 2: Host Data (Baseline)																				
Host	Country	Country F2F Project	Date of Baseline Assessment	Host Gender	Institution Type	Potential Beneficiaries						Economic Indicators				Environmental Indicator	Financial Services Indicators			Organizational Indicator
						Members/Owners	Employees	Clients & Suppliers	Family Members	Total	Area of Potential Production (ha)	Annual Gross Sales (Revenue) (US\$)	Annual Net Income (US\$)	Area Potentially under Improved Environmental/Natural Resource Management (ha)	Annual Value of Rural/Agricultural Lending (US\$)		Number of Rural/Agricultural Loans Issued Annually	ODI Rating		
Fiscal Year 2016																				
UNL	Colombia	Small Farms and Regional Food Systems	12/15/2015	N/A	E	-	3	200	609	812	-	-	-	-	-	-	-	3.0		
	Colombia	Small Farms and Regional Food Systems	5/20/2016	M	C	80	3	100	549	732	90	50,000	2,500	82	-	-	-	3.0		
AGROAVIH	Colombia	Small Farms and Regional Food Systems	8/12/2015	M	C	20	-	-	60	80	200	-	-	40	-	-	-	2.0		
	Colombia	Small Farms and Regional Food Systems	1/23/2016	F	P	20	3	10	99	132	150	8,000	3,000	20	-	-	-	2.0		
Chocoartesano	Colombia	Small Farms and Regional Food Systems	2/6/2016	M	P	12	-	30	126	168	2	16,666	5,760	30	-	-	-	3.0		
	Colombia	Small Farms and Regional Food Systems	3/21/2016	F	C	20	3	-	69	92	650	-	-	100	-	-	-	3.0		
COAGROLAM	Colombia	Small Farms and Regional Food Systems	3/21/2016	N/A	G	9	-	-	27	36	-	-	-	-	-	-	-	2.0		
	Colombia	Small Farms and Regional Food Systems																		

Farmer-to-Farmer Program Standard Indicator Reporting Tables																			
Table 2: Host Data (Baseline)																			
Country	Country F2F Project	Date of Baseline Assessment	Host Gender	Institution Type	Potential Beneficiaries						Economic Indicators				Environmental Indicator	Financial Services Indicators			Organizational Indicator
					Members/Owners	Employees	Clients & Suppliers	Family Members	Total	Area of Potential Production (ha)	Annual Gross Sales (Revenue) (US\$)	Annual Net Income (US\$)	Area Potentially under Improved Environmental/ Natural Resource Management (ha)	Annual Value of Rural/ Agricultural Lending (US\$)		Number of Rural/ Agricultural Loans Issued Annually	ODI Rating		
Fiscal Year 2017																			
Vereda La Cabaña	Colombia	Small Farms and Regional Food Systems	1/30/2017	J	F	15	-	1	48	64	210	36,000	7,200	45	11,333	3	2.0		
	Colombia	Small Farms and Regional Food Systems	3/24/2017	J	F	15	15	10	120	160	120	33,120	11,120	30	-	-	1.0		
SENA	Colombia	Small Farms and Regional Food Systems	6/12/2017	J	E	18	-	-	54	72	8	-	-	-	-	-	2.0		
	Colombia	Small Farms and Regional Food Systems	10/21/2016	J	C	14	-	-	42	56	-	-	-	-	-	-	1.0		
Yaaliakaisy	Colombia	Small Farms and Regional Food Systems	N/A	E	E	32	-	-	96	128	1	-	-	1	-	-	2.0		
Productores Cumaral	Colombia	Small Farms and Regional Food Systems	7/5/2017	N/A	F	15	-	10	75	100	28	2,312	1,387	18	-	-	1.0		
Total:						465	56	749	3,810	5,080	5,684	1,362,598	111,892	1,491	11,333	3			

Farmer-to-Farmer Program Standard Indicator Reporting Tables
Table 3: Host Data (Outcomes/Impacts)

Farmer-to-Farmer Program Standard Indicator Reporting Tables Table 3: Host Data (Outcomes/Impacts)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Farmer-to-Farmer Program Standard Indicator Reporting Tables
Table 3: Host Data (Outcomes/Impacts)

Farmer-to-Farmer Program Standard Indicator Reporting Tables

Table 4: Outreach and Leverage

Implementing Partner Name	Fiscal Year	Number of Press Releases	Number of Media Events	Number of Group Presentations	Total Number of Outreach Activities	Value of Resources Leveraged by Grantee and Volunteers in the U.S. (U.S.\$)	
Purdue	FY15	9	24	7	40	\$ 13,870	
	FY16	0	15	3	18	\$ 16,820	
	FY17	0	11	9	20	\$ 10,910	
Total To-Date (Date):		9	50	19	69	41,600	

Annex 2: Volunteer Assignments

1. **Tallal Hassan (Harvesting, storage, and efficiency of water usage).** The assignment focused on training in rainwater harvesting systems, water storage, distribution and efficient use in production systems.
2. **Dave Roberts (Integrated Agricultural Production Systems)** For this topic, voluntary work in training on the various techniques of integrating systems such as intercropping, forestry, agroforestry, integrated production systems and farm animals was done.
3. **Anne Dare (Management of Waste water)** This assignment trained farmer organizations in the management of wastewater, such as bio-digesters, bioremediation, reuse in irrigation, seeking to reduce the impact of production processes on the resource and increase efficiency in their use.
4. **Michael Morrow (Marketing Community Supported Agriculture)** Promotion of a local food system, investigation of feasibility, and recommendations on steps for establishing a direct to consumer local market system for small farmers and processors.
5. **Mathilde Paino (Soils and the Nutrient Cycle)** Worked on issues of cycles of decay and transformation of soil nutrients, biomass production and its use for different purposes within the farm.
6. **Cris Derusha (Youth Agriculture Clubs and Opportunities)** This assignment developed local youth leadership potential for agriculture and food production.
7. **Carmen Derusha (Agricultural producer organizational capacity and planning)** This assignment was to work with the host organizations to motivate new organization and planning process from the perspective of local capacities and intergenerational inclusion to ensure that organizations develop basic planning schemes.
8. **Andrew Martin (Mature cheese)** The objective for Andre's assignment was to work with farmers to identify needs in the milk production system in order to make mature cheeses. Teach basic techniques for the mature cheese production according to the context of small farmers of the area.
9. **Marisa Benzle (Soil Organic Management and Food Production)** To promote sustainable family farm production, teach people how to identify the bio-indicators, to the health of the agro-ecosystem. The focus on horticulture should promote options for diversifying horticultural vegetable and herb production, considering tomato, onion, basil, cilantro, carrot, and other potential crops for family consumption (added nutrition) and for sale, to increase income.
10. **Steve Engelking (Small Farms Conference Planning and Livestock Management)** Steve focused on best practices and issues in planning for a small farms conference. Assessing farmers' livestock practices.
11. **Tommy Creswell (Plant Disease Diagnostic Capacity)** Taught participants procedures and lab techniques to identify plant diseases. It was a strategic contribution by the project to improve the capability in the region and to generate a network between professionals linked to plant pathology diagnostics.
12. **Lina Rodriguez (Plant Disease Diagnostic Capacity)** Taught participants procedures and lab techniques to identify plant diseases. It was a strategic contribution by the project to improve the capability in the region and to generate a network between

professionals linked to plant pathology diagnostics.

13. **Michael Morrow (Market Assessment for Local Food Chain)** Michael worked with Alexander Cardona. His objective was to support the logistical planning of PROTOS, based on his experience with the Hoosier Harvest Market. Michael helped PROTOS by drafting the project and work plans.

14. **Alexander Cardona (IT Platform for Small Farmers Food Hub)** The objective of this assignment was to improve the capacities of those individuals working with the Unillanos Microbiology Lab for plant disease diagnostics. Tom and Lina worked with samples of local diseases in order to support the local farming community. Based on the volunteers' recommendations, new equipment was purchased and lab workers improved their techniques for identifying fungi and working with equipment.

15. **Amanda Dickson (Information & Account Management for Small Farms)** The objective of this assignment was to encourage farmers to keep account records of their farms. She worked with 37 farmers and taught them basic concepts of record keeping, incomes, expenses, outcomes, costs and investments records. The challenge for this assignment was that though the farmers are interested in account management, they are used to keeping their accounts in their head and have little education.

16. **Silvana Pietrosevoli (Outdoor Pig Production)** - Silvana Pietrosevoli worked with several farmers to improve/increase the use of pigs in other farm processes (manure as fertilizer and soil tillage with pigs). Silvana visited farms to show them examples of outdoors pig productions design. Also, Silvana explained the importance of local forage for animal nutrition. On this last point, several farmers have adopted Silvana's recommendations. They are planting new crops or increasing the amount of area for farmed for feed. The farmers are also using pig manure to grow their crops.

17., **William Nichols (Business & Financial Plans)** William worked with the F2F team to develop a business and financial plan for PROTOS. During his assignment, William worked with the F2F team, master's students, farmers and municipal leadership.

18. **Leah Joyner (Agrotourism)** The objective of this assignment was to improve the use of natural resources in the agritourism practices of the area's farmers. Leah worked with farmers on their farms to teach them concepts and practices to improve their agritourism services without damage the environment.

19. **Jonathon Day (Agrotourism)** This assignment worked on agritourism planning. Jonathon worked with farmers, municipal representatives, and local institutions. He visited several farms with agritourism activities and he taught them how to organize the tourism and their services, based on sustainable principals.

20. **Michelle Fried (Healthy Foods)** Michelle Fried conducted a healthy foods workshop, highlighting the use of local foods, biodiversity and natural resources to human nutrition and health. Several farmers are starting to use new plants in their cooking—such as Bore (*Alocasia macrorrhiza*) and leaves of plants like yucca (Cassava)—that they did not previously known were edible.

21. **James Young (Seed Saving)** The objective of this assignment was to improve the techniques of seed saving and to increase the use of local seeds in the farms. James worked with producers to explain the basic concepts of pollination and seed formation as well as types of seeds. James demonstrated several treatments for seed saving—hot water, winnowing, and quality selection.

22. **Matthew Rubbin (Cocoa)** Matt taught farmers the principals and basic techniques of

adding value to cacao. Matt taught both a theoretical session—where he explained the characteristics of cacao beans and the differences between varieties—and worked in the kitchen. The last two days of his assignment, Matt gave hands on demonstrations about quality control and how to add value to cacao. As a result of this training Chocoartesano has improved their production process by including a filter and changing their roasting and milling process.

23. **Andres Crecelius (Market Niches)** The objective of this assignment was to develop the rural businesses' connection to market opportunities. Andrew conducted a workshop about market niches and related concepts—such as business plans, marketing strategies, etc. The majority of his time was spent working directly with the farmers to teach them the basics of marketing plans and business plans.

24. **Heather Fabries (Responsible Consumption)** With a draft business plan and a partial financial plan, Heather worked to strengthen the PROTOS business plan and finish the financial plan. She also developed the outline of a marketing plan after working with stakeholders and farmers.

25. **Richard Beckort (Organic Vegetable Production)** The objective of this assignment was to encourage the use of organic techniques in vegetable production. Richard worked with farmers that had some experience with vegetable production to address the common problems of pests, diseases and plant nutrition.

26. **Jorge Lugo (Soil Conservation)** The objective of this assignment was to educate the farmers on soil conservation, and soil diagnostic techniques to identify soil conditions. Jorge Lugo held two three-day workshops; one in Puerto López and one in Lejanias. The workshops were hands on field work and demonstrations testing soil pH, identifying soil resources, and how to take soil samples. The outcome with soil conservation efforts will lead to increased crop production, sustainability, and market value.

27. **Jeffrey Stuart (Pest Control)** The objective of this assignment was to educate the farmers on how to identify pests and beneficial insects on their farm, how to control pests without the use of harsh chemicals, and how to implement pest-monitoring systems. The assignment recommended the development of communication and training material distributed to farmers to educate them on the pesticides, usage, safety, etc.

28. **Ricky Foster (Pest Control)** The objective of this assignment was to educate the farmers on how to identify pests and beneficial insects on their farm, how to control pests without the use of harsh chemicals, and how to implement pest-monitoring systems. The assignment recommended the development of communication and training material distributed to farmers to educate them on the pesticides, usage, safety, etc.

29. **Jerry Shafer (Market Strategies for responsible Consumption)** The objective of this assignment was to visit numerous smallholder farmers and local food networks to strengthen their relationships and devise a marketing method to support PROTOS. Jerry visited many different smallholder producers and potential tourism destinations. Nine different producers were visited ranging from tourism destinations to small-scale production of specialty cakes, chocolate, and natural yogurt. The recommendation for each site differed based on their needs and capabilities (economic and technologic). Jerry further recommended action items for the producers as a whole to move towards an online marketing strategy (PROTOS).

30. **Lucas Roosa (Port Processing)** The objective of this assignment was to educate farmers and local meat processors on food safety practices and environmental

cleanliness in both the raising of pork and the manufacturing facilities. Recommendations were made on how to keep work environments clean, best practices for manufacturing such as testing meat temperature to ensure no biological contamination, proper methods to prepare and cut the meat for increased tenderness and flavor, and the importance of proper refrigeration and a clean water supply.

31. **Ellen Geisler (Beekeeping)** The objective of this assignment was to educate and train the farmers on proper beekeeping activities and help to improve the production of honey for market. Ellen held hands on sessions in each of the areas, but those in the La Cabaña are more knowledgeable in practice and thus felt more at ease. A concern is the smaller farmers may not be able to afford the necessary equipment (protective clothing, harvesting equipment, etc.) and therefore may not be as successful, unless they form an association and share cost and equipment.

32. **David Wilson (PUP Manufacturing)** The objective of the assignment was to assist Unillanos to develop prototypes and strategies to equip smallholder farmers with the technology and equipment to increase agricultural productivity. Tyler, David, and John spent a month in country on the assignment to build a prototype AgRover.

33. **John Lumkes (PUP Manufacturing)** The objective of the assignment was to assist Unillanos to develop prototypes and strategies to equip smallholder farmers with the technology and equipment to increase agricultural productivity. Tyler, David, and John spent a month in country on the assignment to build a prototype AgRover.

34. **Tyler Anselm (PUP Manufacturing)** The objective of the assignment was to assist Unillanos to develop prototypes and strategies to equip smallholder farmers with the technology and equipment to increase agricultural productivity. Tyler, David, and John spent a month in country on the assignment to build a prototype AgRover.

35. **Brian Greer (Youth Organizational Development)** The objective of this assignment was to promote host organizational and leadership by promoting youth engagement in agriculture. Brian visited two separate sites and discussed the importance of agriculture and the “big picture” it plays in the economic growth of the community. He also encouraged the youth to form organizational agriculture communities, such as 4-H.

36. **Bradley Smith (Good Storage Practices)** The focus of this assignment was to teach the farmers the importance of the humidity and crop moisture during the storage (corn, cocoa and coffee). Bradley worked to support the farmer in the use of basic technologies like hygrometers or other basic techniques available locally, and also explained to them the basic rules and conditions for good crop storage (materials, hermetic conditions, light, temperature, environment humidity, etc.).

37. **Trisha Wagner (Best Practices to increase milk quality)** The objective of this assignment was to explain to the farmers the relationship between milk production factors and the quality of the milk. Trisha also worked to help farmers improve their milking practices, as well as demonstrate simple indicators of milk quality and the understanding of general milk quality indicators.

38. **Stephanie Montalban (Cheese production and milk quality)** This volunteer was fielded and worked hand-in-hand with Trisha Wagner’s assignment on milk quality. Together, they stressed the importance of the quality of milk affects the quality of cheeses. They educated producers on sanitary improvements that comply with regulations and recommended improvements to their infrastructure and helped to develop the technical knowledge for the organizations to develop new types of cheeses.

39. **Tiffanie Stone (Youth Engagement – Organizational Development)** This assignment was developed to promote host organizational and leadership development, improve host capacity to develop workable plans and support hosts to create plans for agriculture related projects. Tiffanie held interviews with youth groups to discuss leadership issues and conducted team-building and leadership activities. They held discussions how to develop platforms to use for engaging the rural youth.

40. **Tyler Anselm (Solar Dryers)** The objective of this assignment was to improve the knowledge of farmers on solar drying and drying techniques, and help build solar dryers with the participating farmers. Tyler taught the farmers how to build a solar dryer using locally sourced materials and how to properly dry various products, such as fruits.

Annex 3: Host Impacts

The F2F project in Colombia was led by committed assignments of volunteers and the involvement of 22 organizations or groups in country. Local organizations were comprised of cooperatives and associations (54%), as well as schools, geographic communities, groups of individuals, private companies and public sector agencies or organizations.

This report depicts a broad picture of the F2F project impact on hosts/organizations based on the information collected in the annual evaluations and the follow-up visits. The local project team assessed the project impact by two strategies. First, an annual evaluation using a questionnaire was utilized during meetings/interviews with members of host organizations. Information about implementation of recommendations and their impact, and additional need for new volunteer assignment/projects were collected. The second strategy was follow-up visits to a select group of hosts to evaluate the implementation and impact of recommendations on the farm and community.

Junta de Accion Comunal Leonas (JACL)

This community-based organization manages projects for the inhabitants of the Leonas village and organizations of local producers. As a direct result of F2F volunteers, the



Illustration 2 dehydrated products with solar dryer built with F2F volunteers. F2F Source

organization is currently participating in campesino (farmer's) markets of Puerto Gaitán and Puerto López through a group of members developing different products. Another impact of the F2F project has been the development of new products. With the training in cheese making, the host's entire cheese production process was improved, including sanitary conditions and processing techniques. Locally built solar dryers helped in drying technology and training, and added value to different local products such as: Moringa, pineapple, mango, banana, sagú, plantain and chili.

Because these two trainings were conducted towards the latter part of the project, we can only provide estimated value of the sales of these products; COP \$4,860,000 (\$1620 USD) per year in cheeses, and COP \$2,000,000 per year (\$667 USD) for dehydrated products, during the summer season.

Corporación entre pueblos (CEP)

Founded in 2012, this organization actively promotes community empowerment and sustainable agriculture in the Altillanura region. CEP was the organization that received the most volunteers during the project. The impact of F2F in this organization falls under three main areas:

Adaptation of sustainable production technologies: The biodigesters, multiple crops, outdoor pig production, electric fences, rotational grazing and micro water harvesting are some of the most important technologies adopted by CEP members.



Illustration 3. Biodigester built with the support of a F2F team trained by volunteers. F2F Source

Improvement and development of new products: The F2F project and its volunteers motivated and guided the organization to adopt innovative production techniques, such as biodigesters and organic gardens, leading to better production of fruits and vegetables. The volunteers also worked with CEP to find innovative marketing strategies, including product presentation, prototype development, and implementation of new sales strategies.

Income generation: An increase in the value of sales is attributed to the new product development and effective marketing strategies. CEP started a farmer's store and implemented the idea of Christmas baskets. These developments were supported and promoted by F2F volunteers and the local project team.



Figure 4. Some of the products improved through the work of the F2F project

Asociación De Parceleras Del Rodeo (ASOPAR)

This organization has 20 active female members whose focus is on generating income for rural women.

The identified impacts of F2F project relate to agricultural production recommendations from volunteers. Among the applied technologies are water harvesting, biodigesters, channeling and basic treatment of gray water, interculture of crops, composting and planting of medicinal plants. These technologies were adopted in small areas by the host but the organization lacks the capacity to replicate these technologies in wider areas.

Asociación de Mujeres del Ariari por la Reconciliación de Lejanías (AMARLE)

The organizational structure of this host became critical with tax debts and a serious administrative and financial crisis. Senior leadership refused to continue with the organization and there is no clear plan to move forward. According to their president, this year the organization will face liquidation.

This organization only received one volunteer from F2F. To date the organization is defunct and there is no record of impacts of the F2F project. Working with AMARLE was challenging.

Master Program in Tropical Sustainable Production (MPTSP)

MPTSP worked with the F2F volunteers in two areas; a) development of capacity of students, professors, and workers related to technologies such as the Agrover and solar dryers, b) strengthening of local food markets. Currently, the Agrover is supporting the production processes of the university and the education of students in areas related to agricultural machinery. The solar dryer is being used to dehydrate products from the Unillanos farm. Sixty-two people were trained in these technologies.

The second focus of MPTSP was to collaborate with F2F project volunteers in the development of PROTOS and strategies to support the local food market. As a result of this work, the following accomplishments are highlighted:

- With the support of volunteers, the drafting of the business plan, and a marketing plan for PROTOS was finalized.
- Work agreements were reached with local organizations such as the Chamber of Commerce of Villavicencio and Gobernación del Meta, the agreements consist of support for the search of resources.
- Based on the training received by the volunteers, the F2F and MPTSP teams supported the development of small food marketing initiatives and local food markets. This important initiative provided technical support to the development of business plans, accounting, product design and marketing issues.



Illustration 9 Local food market organized by MPTSP.

Asociación de Agro empresarios del Ariari (AGROEMPARI)

Eight F2F volunteers worked with this host. The impacts of the project include a) improvement of production capacity, b) implementation of biodigesters and c) planting techniques such as intercropping.

Producers and other organizations interested in learning about the technologies developed and implemented in coordination with the F2F project frequently visit their model farm. As an example, visitors can learn about operation of a biodigester, vegetable cultivation, terrace systems, composting and earthworm-culture.

Asociación de Productores de Caucho de Leonas (ASOPROCAULE)

ASOPROCAULE participated in an assignment on organizational development from F2F, but according to the information provided by its leaders, they have not adopted any recommendations.

The organization does not have clear plans for its operation and several of the members are not committed to the development of the project, do not generate products as an association, and there are no records of sales of services.

Asociación de Ganaderos de San Juan de Arama (AGASANJUAN)

This organization's objective is to improve the marketing of milk produced by its associates. They had built a milk collection center with the expectation to expand into



dairy processing.

One impact from F2F volunteers was improved management of natural resources. Key recommendations were to avoid contamination of water sources by protecting rivers, lakes and other bodies of water with live barriers and the use of enclosures to prevent unregulated access to water by cattle.

Figure 13 Milking practice at La Esperanza farm, member of AGASANJUAN

This organization has also made notable milk by implementing

improvements in the quality of F2F volunteer recommendations. They report a trend of increasing milk quality. Due to lack of capital, they are not yet able to build a cheese-processing unit or produce cheese for sale. Due to the inability to properly support the chilling of the milk, the organization no longer manages the milk collection center and has no sales recorded in 2017.

Agrolecheros

This organization is a milk collection and cooling center. One impact is the production of a new type of cheese incorporating candied fruits. Also, as result of F2F recommendations, Agrolecheros has changed its cheese milk policy and currently uses high quality milk from its suppliers for cheese production.

Unillanos Microbiology Lab (UML)

This is a unit of the faculty of agricultural sciences and natural resources of the University of the Llanos. UML supports education, extension and research of the faculty. They received two F2F volunteers specializing in identification and control of phytopathogens. Because of the F2F volunteers, protocols and training material were developed for the identification of pathogens and other laboratory procedures.

Asociación Agroproductiva de Familias Guarda Bosques de Vista Hermosa (AGROAVIH)

AGROAVIH assists in the production of eggs, honey, cocoa, and tobacco, pineapple, beans, yucca and banana. They are also involved in cocoa processing and production of chocolate. Notable impacts from F2F were in the area of production and value added products including organic production of vegetables (2 hectares), preparation and use of organic fertilizers, and biopesticides.

The F2F project had significant impacts on cacao processing and value addition by focusing on input quality and roasting techniques. Based on the recommendations of volunteers, Agroavih is designing a new product: chocolate with honey. Another group of young members of this organization, inspired by a F2F volunteer, have developed new products using local resources to promote healthy eating. Currently they produce banana flour, coconut milk drinks, chocolate and yogurt.

Asociación de Pequeños Productores Agrícolas (ASOAGRICOLA)



Illustration 19 Biodigester installed with advice from the local F2F team in one of the farms of the members of Asoagricola

This organization's objectives were project management, resource development and training farmers and its members in livestock production. The current focus of this organization is egg production and poultry.

Although ASOAGRICOLA hosted one F2F volunteer, their relationship with other hosts such as CEP and JACL helped in the transfer of knowledge and experiences, which allowed them to improve

their livestock operations. They actively adopted technologies such as raising pigs in the open field, use of local resources as pig feed, installation of biodigesters and polycultures. This had a two-fold impact on the group; reduction in production cost of pigs by using local resources and generation of methane gas and manure that led to reduction in propane gas consumption and fertilizer application.

Chocoartesano



Illustration 17 Chocolate produced by Chocoartesano

Chocoartesano is a family run business located in the municipality of Puerto Gaitán, which produces and processes cocoa for the production of specialty chocolate. Its aim is to expand markets, generate employment and support the development of small and medium-sized cocoa producers. Improvement of its production process and the development of new products are a priority for the company.

Through the recommendations and training received with F2F, Chocoartesano improved its chocolate production process by adopting the techniques taught by the volunteer Matt Rubin. Specifically, the quality selection of the cocoa beans and optimization of roasting time and temperatures and grinding. Based on the recommendations Chocoartesano has started the research and development of new products, chocolate flavors and cocoa chips. The main impact of this process has been the improvement of the quality of the final product and the generation of new products and improved production process.

The F2F volunteers, Andrew Crescelius and Jerry Shafer, provided training on marketing that helped Chocoartesano strengthen their business plan and sales strategies. During 2017, the company reached 32 million (COP) in sales, representing 25% growth in sales in 6 municipalities of Meta. The company has also created three new jobs and signed new commercial agreements with distributors in Villavicencio.

CORTURISMO

The goal of CORTURISMO is the creation and marketing of tourism products that involve local farms and the natural attractions of the region. This organization received 4 volunteers from the F2F project.

Notable impacts on local tourism from volunteers Leah Joyner and Jonathan Day included the establishment of trails linking natural landscapes with agricultural fields to highlight both nature and farm operations in the region. The design and display of appropriate signs on trails and farms and the development of environmental policies helped them to reduce solid waste and reforest 2 hectares and the protection of 5 more hectares of forested land. F2F volunteers, Andrew Crescelius and Jerry Shafer worked with hosts to develop effective business plans and create social networks including a Facebook profile to promote ecotourism.

Cooperativa Multiactiva Agrícola Y Pecuaria Del Meta (COOAGROLAM)

This cooperative is comprised of 20 partners with the objective of supporting and improving the process of production and processing of agricultural products of partners in the regional municipality (Mesetas).

F2F volunteer Andrew Crescelius trained this group to develop cheeses and dairy products for niche markets. However, based on the advise of the local F2F team and members of AGROEMPARI (another host of F2F), COOAGROLAM built a biodigester in one of the farms. This led to better environmental management of wastewater from a pig production facility. As a result, there was a noticeable reduction in the use of firewood, allowing the rejuvenation of at least 1 hectare of forested land. Application of manure from the biodigester reduced fertilizer use on one ha of banana and cassava.

Consejo Local de Turismo de San Juan De Arama (CLTSJA)

The CLTSJA serves an advisory role to the local government (Mayor of San Juan de Arama) in the planning, promotion and development of regional tourism. Their goal is to work with different entities in the tourism chain to create a tourism plan for the municipality.

The impacts of the project are the development of marketing and advertising strategies, and the identification of tourist opportunities in the area, resulting in an increased presence in virtual media and the organization of different events to promote local tourism (two of the recommendations of the volunteers).

Vereda La Cabaña.

"La Cabaña" is a group of 15 individual producers in the municipality of Lejanías. Their objective is to improve soil conservation practices on farms and develop new revenue channels through beekeeping, enhanced fruit production, and promotion of local tourism.



This organization hosted three volunteers who advised them on improved grain storage, a terrace system for soil conservation, and beekeeping. These efforts led to 1 hectare of terrace system of cropping and the

conservation of at least 1 hectare of forest land as well as the production of honey.

Since the volunteers were fielded towards the end of the project, data is lacking on economic impacts, however, it is anticipated the production and sale of honey and adoption of improved crop storage techniques will increase income and improve grain storage.

Illustration 23. Family of la Cabaña village during crop storage training, the producer shows in his left hand a part of his honey production, result of beekeeping F2F training.

Vereda Cacayal

This organization is composed of a group of fruit producers from the Cacayal village in the Lejanías municipality. The F2F project provided training and education on Integrated Pest Management to reduce pesticide application and improve fruit quality. One farmer is using color traps to reduce insect pressure and reduced application of chemicals.

Productores Cumaral

This organization is comprised of 15 individual producers. The F2F volunteers trained them in the basic concepts of beekeeping, including installation and handling of honeycombs. One of the producers is currently developing an apicultural production system, while another is improving an existing production system. The impact of F2F includes the conservation of 1 hectare of forest for beekeeping and the installation of beehives.

Plataforma de Jóvenes de Lejanías.

The Youth Platform of Lejanías is associated with National Network of Rural Youth, a national government program. The aim of this national network is to engage rural youth in public programs and development projects.

The F2F project developed appropriate trainings to increase knowledge in organizational culture, formulating objectives, scopes of activities, and execution of action plans. It is too early to measure its impact. However, there is evidence of a significant improvement in the planning of activities by the group.

Servicio Nacional de Aprendizaje (SENA)

El SENA is an education institution of the national government that provides free training services for thousands of Colombians. Its main objective is to improve income generation opportunities and create employment for young people. The F2F team worked in the SENA headquarters in Puerto Gaitán, to train 18 small producers in the area of food processing. The F2F volunteer, Lucas Roosa, trained them in pork slaughter and processing including the preparation of meat cuts.

SENA local instructors also received training on topics related to meat processing which is now included in the curriculum for new students.

Institución Educativa Yaaliakeisy

Yalliakeisy is a multi-ethnic school with 200 students in the rural municipality of Puerto López in which one of the courses focuses on agriculture. F2F trained 32 seniors on

career planning and encouraged them to explore employment opportunities in rural areas. Two of the students expressed their desire in farming and rural enterprise. This education program needs more time and support to convince rural youth to find gainful employment in rural areas.

Annex 4: Success Stories

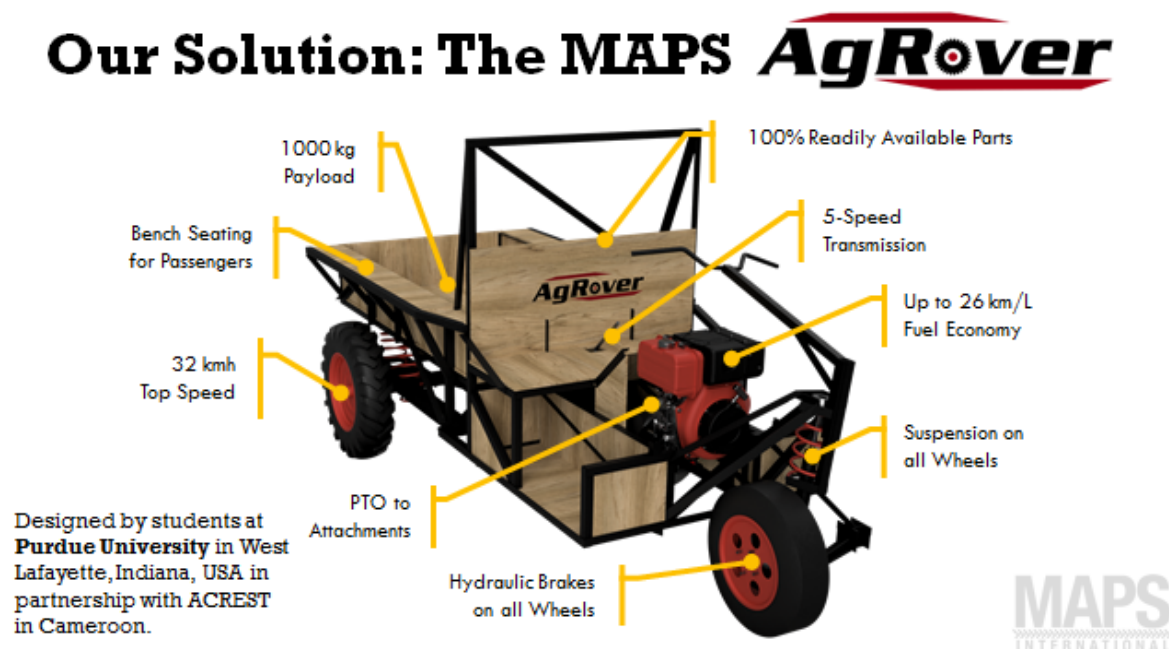
Success Story (1) : Purdue Utility Platform – PUP – The AgRover assignment for the Farmer-to-Farmer Project

AgRover for the Orinoquia

The Orinoquia region has poor quality secondary and tertiary roads, particularly those that connect farms to main roads. While improvement has been made to the main roads over the past decade, farmers continue to face challenges in transporting products from the farms to collection points or market. The AgRover is sturdy enough to withstand the poor road conditions, thus bridging the gap between the farmers and the collection points to get their products to the market or food hub. Practical and economically affordable transportation solutions are needed for small and medium producers, which can be used individually or collectively.

Based on the experience of the Purdue Utility Platform project in African countries, the Farmer-to-Farmer project was interested in finding a way to offer a solution for farmers in the Orinoquia. An assignment was designed to have the engineering team from Purdue University construct an AgRover at the University of the Llanos, while teaching students from local universities how to build and maintain it, in order to ensure future models can be reproduced and serviced.

During a four-week assignment, Purdue University engineers John Lumpkes, Tyler Anselm and David Wilson, working as volunteers for the F2F, constructed the Purdue Utility Platform - AgRover. All materials for the tool/vehicle were purchased in country to further boost the local economy and ensure all parts were locally available.



The AgRover is a practical and strong tool to face most of the requirements by farmers. It boasts a 1 ton carrying capacity. Apart from being able to transport goods, through its flexible engine system the AgRover is also capable of powering a variety of attachments and implements like water pumps, maize grinders, generators, threshers, plows, and planters and be used for small land preparation. The vehicle has been used in different African countries due to its practicality and efficiency in supporting farm activities and transportation needs.

Examples of uses of the AgRover for farmers are to: transport milk from the production site to the collection point; transport feed, wood, fruit, or other organic matter on the farm; to pump water or to use a pump for irrigation. The AgRover offers an efficient transportation solution for farms along with a number of other capabilities.

The comparative cost analysis between the AgRover or similar equipment in Colombia revealed that that local equipment cost twice as much and comparable transport services were not suited for farm work conditions. In this context, the AgRover offers real solutions to the farmers and meets the needs of either individual or groups of farmers.

The AgRover was tested at the Unillanos farm to collect and transport fruits and other harvested produce, and to transport equipment and materials to field activities. Below are some pictures showing construction and launch of the AgRover at Unillanos. Authorities of Unillanos, researchers, local and regional agricultural representatives took part in this activity.





The promotion of the AgRover has been extended to the Municipality of Puerto Lopez, where the Small Farm Conference supported by the Farmer-to-Farmer project was held, showing the farmers on field conditions the versatility of the vehicle and potential uses for farming activities. It was a positive experience with very enthusiastic comments by farmers of benefits that they may get with this type of equipment. The pictures below show some images of the experiences with farmers.





The AgRover was showcased at other seminars, such as an Aquaculture seminar organized by Unillanos, where it was explained and showed to fish producers who were considering introducing it to their fish farming activities. Unillanos continues to have meetings with different institutions, such as the Secretary of Agriculture of Meta department, to explore the chance to build more vehicles and make the AgRover more available for producers in the Orinoquia region.

Success Story (2): Farmer's store, marketing alternatives for small producers.

In the Meta region of Colombia, one of the main challenges faced by small agricultural producers is marketing, means of transportation, and communication. The only way to sell their products is



through intermediaries. This leads to many disadvantages for the farmers because the payment they receive for their products is extremely low, often times below the cost of production.

The government, institutions and other organizations responsible for providing support to small producers have focused their efforts on improving production, leaving aside marketing support.



To alleviate this problem, a group of farmers in the municipality of Puerto López has been actively implementing processes and recommendations from the Farmer-to-Farmer project. In July 2017, with the support of Bionergy, the Governor of Meta, and F2F volunteers, farmers decided to open a point of sale, where small producers could market their products without intermediaries, while offering competitive prices to the inhabitants of the region. The creation of this Farmers' store, is the first food hub in this region that is owned and operated by the farmers who grow the products.



Following the recommendations of the volunteers Amanda Dickson (farm accounts) and Jerry Shafer (Marketing and communications strategies for small agricultural producers), and with the support and advice of the local team, the store has managed to generate sales of approximately \$1,000/month. The profits generated by this venture have been reinvested in equipment and infrastructure and so far have managed to link approximately 10 producers to this market place.



envision using the profits to provide low interest loans to small scale producers in the area.

Success Story (3): New products, new strategies



Photo 1. The Volunteer Richard Beckort visiting a small vegetables garden in Puerto Lopez

Corporación Entre Pueblos (CEP) is an association that brings together 20 families from Leonas village in the municipality of Puerto López, east of the capital of Meta. It has had strong participation in the F2F project. During the last two years they have been working on the development of new value-added products derived from fruits and vegetables. They were also dealing with challenging, acidic soils that were degraded by continued livestock grazing. Interventions recommended by F2F volunteers allowed them to improve fertility and produce fruits and vegetables.

Now, the challenge for several families in the area is the marketing of their new produce

to generate income. Although some strategies such as farmer's markets and direct contacts with customers are developing, the low volume of production limits these opportunities. In 2017 one of the members of CEP presented an idea of selling Christmas baskets, which was further explored with the support of a F2F volunteer. Through assignment # VP 23 (Market Niches) *Andrew Crecelius* recommended making a list of new products and designed a marketing strategy. This was further explored under the VP25 assignment (Organic Vegetable Production) by volunteer Richard Beckort who noted that the vegetable gardens were very small and recommended the organization should pool



Photo 2. Member of CEP working on the baskets

resources and form a marketing association. Until then, CEP member farmers sold their products individually. In December they joined together to create Christmas baskets that included vegetables, fruits and other processed products from different farms.



Photo 3. One of the baskets sold by CEP

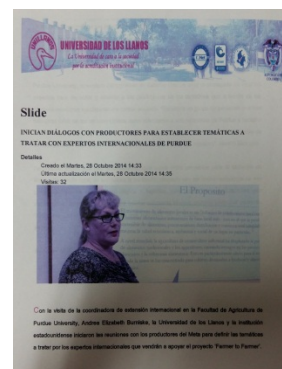
A design student who accompanied Andrew Crecelius during his assignment received training on marketing. The F2F field team worked with the student in designing a catalog of products; CEP gathered resources to purchase materials such as bottles and packaging, and finally their leaders were offering Christmas baskets for sale to local institutions! (In Colombia it is a tradition that companies or institutions give their employees Christmas baskets in December.) The local F2F team accompanied CEP leaders to some institutional government departments to offer baskets. CEP sold 50 baskets during Christmas season and sales reached USD \$ 830. This year, CEP members are

planning for more produce and more baskets, as they are making agreements with potential clients such as Meta governorate and Bionergy Company. In general, gathering produce, assembling and distributing baskets was a challenge for the group, with time and experience they are confident of succeeding in this venture.

Annex 5: Farmer-to-Farmer Outreach Activities

Since the agreement between Purdue University and Universidad de los Llanos was established, participating hosts in the region have leveraged Master degree students in Sustainable Tropical Production to promote the Farmer-to-Farmer program across the community, specifically for small and medium farmers. Through their work and the work of others, the following outreach activities were completed:

1. In September 2014, on Exitosa radio website, the alliance between Universidad de los Llanos and Purdue University was announced. It discussed the benefits of this alliance to small farmers of the Orinoquia region by promoting rural development and supporting the sustainable production. <http://exitosastereo.com/alianza-entre-unillanos-y-universidad-estadounidense-beneficiara-a-pequenos-productores-de-la-orinoquia/>
2. On October 28, 2014, University de los Llanos on the website entitled: "DIALOGUES WITH FARMERS STARTED TO ESTABLISH TOPICS TO INTERACT WITH PURDUE EXPERTS". It highlighted the visit of the Purdue coordinator Andrea Burniske. Her meetings with Meta farmers began to define the topics to be addressed by the international experts that will support the Farmer-to-Farmer program.
3. In October 2014, Meta newspaper published an article, "RESOURCES TO SMALL FARMERS", where it noted that Ariari, Lejanías and the Altillanura, will be receiving F2F volunteers to address 4 fundamental areas of importance to the region.



4. In a newsletter Number 19 published in November / 2014 from Universidad de los Llanos, an announcement highlighted the "PROJECT FARMER TO FARMER WILL BENEFIT SMALL FARMERS OF THE ORINOQUIA REGION" that cover 300 thousand hectares of small farms with an estimated initial investment of 1200 million COP over 3 years.





5. In the April 2015 edition, Meta newspaper announced the training conducted on the importance of water security in rural areas "APPROPRIATE USE OF WATER". The F2F volunteer Tallal Hassan Khan, visited different farms and proposed several useful methods for sustainable management of water systems.

6. The news report number 23 of Universidad de los Llanos described the training conducted by volunteers Anne Dare and Dave Roberts on wastewater and grassland management, tree planting, forest-pastures and integrated production systems, which would complement the work of volunteer Tallal Hassan Khan. <http://www.unillanos.edu.co/index.php/boletines-de-prensa>

7. Llano weekly newspaper, in the May 7, 2015 edition published an article on "A KNOWLEDGE THAT EXCEEDS FRONTIERS". It highlighted the work of volunteers Anne Dare and Dave Roberts, who exchanged ideas with farmers about wastewater and the sustainable balance between soil, plant and animals.

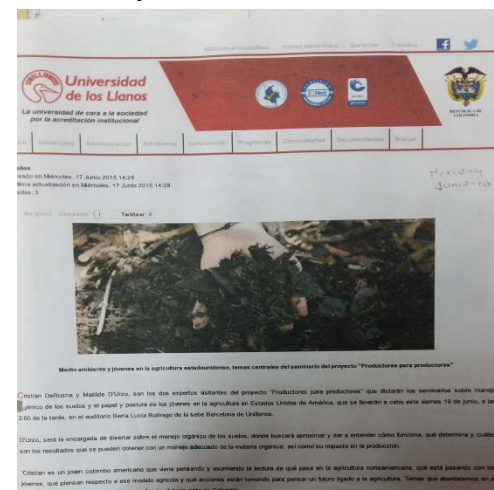


8. Universidad de los Llanos, on May 20, 2015, announced the "CONFERENCE ON REGIONAL MARKETS OF FOOD AND COOPERATIVE AGRICULTURE " to be held on May 22 by Dr. Michael Morrow. [http://documentacion.unillanos.edu.co/index.php/centro-de-](http://documentacion.unillanos.edu.co/index.php/centro-de-documentacion/doc_view/3308-boletin-de-prensa-nd-039-de-2015.html)

[documentacion/doc_view/3308-boletin-de-prensa-nd-039-de-2015.html](http://documentacion.unillanos.edu.co/index.php/centro-de-documentacion/doc_view/3308-boletin-de-prensa-nd-039-de-2015.html)



9. Universidad de los Llanos, on May 27, 2015, announced the project presentation on regional food markets and cooperative agriculture by Michael Morrow, manager of Hoosier Harvest Market and Professor Alvaro Ocampo Duran, project director at Universidad de los Llanos.



10. On the website of Universidad de los Llanos, on June 17, 2015 announced the seminar on environment and

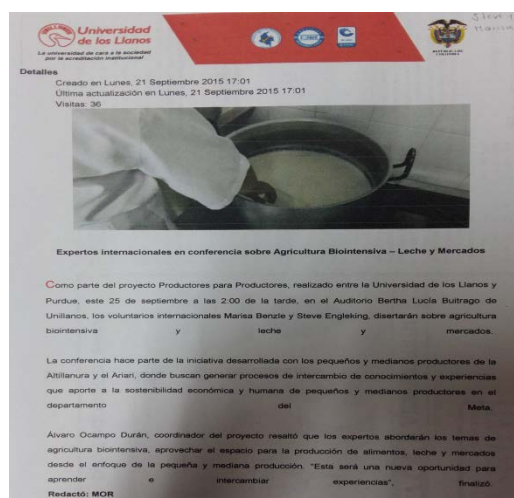
youth in American agriculture, to be held on June 19 by volunteers Cristian DeRusha and Matilde D'Urzo. These volunteers had completed 15 days of assignment in the Ariari and the Altillanura areas before the presentation.

11. In the publication of August 25, 2015, on the website of Universidad de los Llanos



focused on the participation of the farmers of Ariari in the workshop by Andrew Martin and Maria Cristina Hernandez on ripe cheese production. On this same date, another publication highlighted the workshops by Carmen DeRusha, on strengthen farmers associations of Altillanura and Ariari in which 50 farmers participated.

12. "INTERNATIONAL EXPERTS IN CONFERENCE ON BIOINTENSIVE AGRICULTURE-MILK AND MARKETS", was the title of a publication on



September 21, 2015 by Universidad de los Llanos. It reported on training by the volunteers Marisa Benzle and Steve Engleking under the Farmer-to-Farmer program.

13. On March-April 2016, Meta Newspaper, published an article on "LEARN TO BE FARMERS", which described project development, volunteer work and achievements of the project on biodigesters.

https://issuu.com/periodicodelmeta/docs/edicion_90_pdm_baja

14. On May 2016, Purdue University, published web article on "FARMER TO FARMER PROJECT IS A GREAT SUCCESS IN META". It acknowledged the funding from USAID through VEGA and described the service of volunteers from the United States making a difference to small farmers in the Meta. The ultimate goal of the project was to promote a sustainable system of local foods that benefits both farmers and consumers, while strengthening the local economy and preserving local culture.

<https://ag.purdue.edu/ipia/Pages/USAID-Farmer-to-Farmer.aspx>

15. Meta newspaper, March 2017, reported on "PROTOS, MARKET FOR LIFE", a virtual market platform for small and medium farmers to promote healthy foods in Meta developed by Universidad de los Llanos and the Purdue University under the Farmer-to-Farmer program.

https://issuu.com/periodicodelmeta/docs/edicion_134_febrero_23_a_marzo_1_de

16. On August 30, 2017, the website of NoticiasdeVillavicencio.com, posted the article: "THE FIRST AGROVER BUILT IN SOUTH AMERICA IS IN VILLAVICENCIO". It highlighted the importance of the Agrover for Universidad de los Llanos Colombian farmers. It is the first versatile vehicle built within Llanera's alma mater with the support of Purdue University (United States).

http://www.noticiasdevillavicencio.com/index.php?id=34&tx_news_pi1%5Bnews%5D=877&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=70e34a944ce2f0ea79e22ea4c2c0c27d

17. On September 21 Universidad de los Llanos, on its website, announced the "SMALL FOOD FARMERS AND TERRITORY LECTURE, YES, SMALL FARMERS FROM ALTILLANURA PRODUCE FOOD! to be held on September 29 in the municipality of Puerto Lopez.

<http://webcache.googleusercontent.com/search?q=cache:A2xclUnj4nAJ:www.unillanos.edu.co/comunicaciones/Conferenciapequen%25CC%2583osproductores.docx+&cd=1&hl=es&ct=clnk&gl=co>

Likewise, the Mayor's office of Puerto Lopez on its website, published "SMALL PRODUCERS TRAINED BY THE UNIVERSITY OF PURDUE AND UNIVERSIDAD DE LOS LLANOS IN TOPICS ABOUT" FOOD AND TERRITORY ", which highlighted the technical tours to farms of small and medium farmers, with the purpose of sharing experiences and knowledge about the advances made in this area of the country

<http://www.puertolopez-meta.gov.co/NuestraAlcaldia/SalaDePrensa/Paginas/Peque%C3%B1os-productores-capacitados-por-la-Universidad-de-Purdue-y-Unillanos-en-temas-de-alimento-y-territorio.aspx>

18. The media and communication unit of Universidad de los Llanos prepared different video clips about the work of the Farmer-to-Farmer volunteers. It described key training topics and interviews of volunteers about their experience in Colombia. The table below provides links the videos.

DESCRIPTION	LINK
F2F project presentation in Unillanos University	https://www.youtube.com/watch?v=-VCUWGREHSI
Tallal Hassam assignment	https://www.youtube.com/watch?v=T88k7W_Co10
Cris Derusha interview	https://www.youtube.com/watch?v=2Mo-30Sed8E

Matilde Paino Interview	https://www.youtube.com/watch?v=4TpohP4LBXc
Andrew Martin Interview	https://www.youtube.com/watch?v=60-w_80h4xA
Andrea Burniske interview	https://www.youtube.com/watch?v=uMBqep9ULgw
Silvana Pietrosevoli interview	https://www.youtube.com/watch?v=DHWKqbx3jFA
Agri tourism assignment clip	https://www.youtube.com/watch?v=5y4Au2KPw-k

19. In 2017, Corocora magazine of Universidad de los Llanos published an article written by the local Farmer-to-Farmer team on project objectives, plan of work and geographical location of the project in the Meta region. Reflection on challenges of rural extension in Colombia is included in this article.

20. The Farmer-to-Farmer project was recognized in a public event by the board of directors of Universidad de los Llanos as one of the best projects on social transformation at Universidad de los Llanos, during the board meeting held on November 23, 2016. The board of directors of the university presented an honorary merit certificate to Professor Álvaro Ocampo, principal investigator of the Farmer-to-Farmer project in Colombia.



Annex 6: Food Production Impact by F2F

IMPACTS OF THE FARMER-TO-FARMER PROJECT ON FOOD PRODUCTION

General Situation



Livestock management systems. 2015. This was the common scenario for small and medium farmers that still predominates. Strategies have been implemented to improve productivity.



Milk cattle industry in Ariari. 2015. It was common for small and medium farmers to sell milk, today with efforts of F2F project they are producing value added cheeses and yogurt.



Products of Altillanura farmers produced with the support of the project and marketed in the farmer Market organized by F2F in Nov. 2015



Production of cheeses in Ariari, 2015. With the support of the F2F project, dairy farmers learned to make mature cheeses.

To date, 48 project outcomes/improvements have been documented in the regions of Ariari and Altillanura with the support of F2F project. Table 1 provides details of project activity and number of outcomes/improvements.

Table 1. Number of outcomes/improvements resulted from the technical assistance provided by Farmer-to-Farmer project volunteers and local host.

Type of assistance	No. of products
Marketing: marketing, Niche Market , sales strategies	15

Production technologies: open-field pigs, integrated production systems, water re-use, efficient water use, organic soil management, biodigesters, organic vegetable production, electric fences	26
Organization: account management and organizational strengthening	7

Table 2. Impact of Farmer-to-Farmer project on food production and sustainability

Host	Activity	Impact on production / value addition	Activity lead
JACL Community action board "Las Leonas"	Yogurt	These activities received supported from F2F program. They advised on the design of labels, effective presentation and marketing.	F2F team
	Whisky cream liquor		
	Milk caramel		
Altillanura	Pig production	Promoted scientific ways of open field pig production, ways to incorporate organic matter and improve soil fertility was explored. Training on efficient management of pigs in open field conditions. Farmers were also encouraged to continue using local sources for feeding pigs. Two farms have adopted this production system and two more farms are beginning stages of implementing this production system.	VP16
CEP Entrepueblos corporation Altillanura	Milk caramel	All these products received support from the missions: Niche Market, Farm accounts, Marketing and investment. They were also supported by the local team of Farmer-to-Farmer team members to develop labels, improve the presentation of products, and in the development of sales strategies including the farmer's produce basket and farmer store. The support of the voluntary missions includes recommendations on tools of commercialization (promotion, publicity), presentation of the products and development of business plans and account management. As a result, number of products, sales and profit of farmers increased by opening new marketing channels and proper labeling (branding) of products.	VP15, VP23, VP29, F2F team
	Powdered turmeric		
	Cakes		
	Corn cookies		
	Jelly		
	Wine		
	Jamaican flower		
	Yogurt		
	Kumis		
	Pickles		
	Lemon juice		
	Arazá crop	These crops were improved through techniques of micro-capture of water and organic fertilizers. With these techniques crop productivity increased and impact of the	VP1 & VP5
	Lemon crop		

Host	Activity	Impact on production / value addition	Activity lead
		summer stress on the trees was reduced	
	Cassava crop	The cultivation of cassava and plantain, were improved through the use of organic fertilizers produced with farm resources and bio-mixtures from the manure of pigs and cattle generated through biodigesters. The increase in the area of production on the farm is directly related to the implementation of biodigesters. It also helped farmers to bring additional land into production by reducing production cost with organic nutrients produced on the farm. Leafy vegetable production was increased under organic vegetable production, farmers increased their awareness on orchard planning, production of compost to improve sanitary conditions, as a consequence of training and guidance obtained from F2F volunteers and local host.	VP2, VP3, VP5 & VP25
	Plantain crop		
	Green vegetables		
	Fish	Farmers receiving training and assistance from F2F and local teams on marketing, account management and business development opened a Farmer Store. In this store they sell mostly fish, pork, chicken, Creole chicken and eggs and seasonally agricultural products such as banana, cassava, pineapple, among others. So far, the result is increased sales and recognition for the farmer store.	VP15 & F2F Team
	Beef		
	Eggs		
Agroempari Lejanias	Milk	Based on the recommendations made in the missions on integrated systems of production, re-use of wastewater, organic management of the soil and the installation of biodigesters, the pastures and livestock rotation system were improved. The improved system of management increased milk production, enhanced availability of other sources of feed for livestock (cutting pastures mainly managed with effluents of the biodigester) and reduction in cost of management of pastures.	VP2, VP3, VP5 & F2F Team
	Corn Bean	The cultivation of corn and beans in Ariari, is conventionally done through the use of fertilizers and agrochemicals, from the training on the use of effluents of the biodigester, the farmers have begun to apply them on the farms. Use of organic nutrients reduced the use of commercial fertilizers and increased area of production.	VP2, VP3 & F2F Team
	Eggs	Through the training on farm accounts, farmers were able to analyze business models that lead to improved cost structure and competitive prices. The training on organizational strengthening improved the communication	VP7, VP15 & F2F Team
	Yogurt		
	Cheese		
	Panelitas		

Host	Activity	Impact on production / value addition	Activity lead
	(sugar cane candy)	among members of the organization, resulting in efficient delegation of responsibilities, task management and overall functioning of the organization.	
	Pigs	The installation of the biodigester led to the introduction of pigs to increase the production level of effluent and the expansion of the area under production of food for self-consumption and markets.	VP2, VP3 & F2F Team
	Green vegetables	Through training in soil conservation and the use of biodigesters, the planting of green vegetables has been increased for self-consumption and in some cases for marketing.	VP2, VP3, VP5, VP26 & F2F Team
	Cocoa	The use of effluents, organic fertilizers and soil conservation techniques (vegetable mulches) have improved production per unit of the cocoa crop.	VP2, VP3, VP5, VP26 & F2F Team
Asoagrícola Altillanura	Plantain crop	The use of pig manure for the production of effluents and generation of gas from the biodigester, has reduced the purchase cost of propane gas (on average they can be one hundred thousand COP per month) and chemical fertilizers. Cost savings has allowed them to increase production area and improve soil health and suppress the problem of termites in the field.	VP2, VP3 & F2F Team
	Sesame crop		
	Cassava crop		
	Papaya crop		
	Green vegetable		
Chocoartesanano Puerto Gaítan	Chocolate	The training in added value of cocoa, helped significantly improve the quality of chocolate produced by this organization, and encouraged the company to develop other types of products suggested by the volunteer. In some fairs the organization has launched new products inspired by the work with F2F project, such as chocolate with coconut, chocolate with pepper or lemon! Now they are evaluating the possibility of introducing them to broader markets. In addition, the support of the niche market missions and marketing under F2F program, resulted in the development of new advertising campaigns and strengthening of business plan of the company.	VP22, VP23 & VP29
Coagrolam	Plantain crop	The use of the effluent of the biodigester has allowed the increase in production area and the reduction in production	VP2, VP3 & F2F Team

Host	Activity	Impact on production / value addition	Activity lead
Mesetas	Cassava crop	costs due to reduced purchase of chemical fertilizers.	
Vereda la cabaña Lejanias	Honey	Through training in beekeeping, new apicultural beehives were installed that are expected to produce honey during the month of December. The farmers were trained in the basic management of beehives and alliances among beekeepers were created to share experiences and knowledge	VP31
Agroaviah San Juan de Arama	Green vegetable	Through training in organic vegetable production, this organization learned how to make bio-fertilizers and increased its planting area in vegetables.	VP25



October 2016: Construction of a biodigester in Mesetas with advice from the F2F group. This is one of the key recommendations that had impact on the food production.



October 2016: Organic vegetable garden in the Altillanura developed under the advice of the F2F project team. Based on volunteering on bio-intensive agriculture.

The group of milk producers from Ariari has been a focus of work for Purdue's F2F project. Due to volunteer efforts, the farmers have diversified their production and increased the planting area of food crops. Impacts have been identified in at least 14 products.

See Table 3 for further details.



Polyculture Vegetable garden of Bona Altillanura family. Sept. 2017: Livestock farmers today with techniques such as polycultures and organic fertilizers produce vegetables and other traditional crops.



Production of diversified food in Ariari. Farmer market in San Juan de Arama. 2016

Table 3. Key technologies for food production developed by the Farmer-to-Farmer project

Techniques / production technologies key F2F	Application Colombia	F2F
Biodigesters: It is a simple and economic technology that is based on the use of animal manure from pigs or cattle. Although any type of organic matter can be used, the manure of cows and pigs are more abundant and efficient for the purposes of the biodigester and the production of methane gas and organic fertilizers (effluents). Application of organic fertilizers results in increased nutrient availability and microbial activity of the soils thus increasing the productivity of crops. This has encouraged farmers to expand planting and reduce the dependence on commercial fertilizers.	7 farms have installed biodigesters with the support of F2F group, 5 in the Altillanura, 2 in Ariari, 4 benefited hosts. It is estimated that at least 1 hectare per farm can be impacted by the use of effluents.	
Water capture and soil cover: This practice seeks to conserve soil moisture. It consists of the construction of small ridges around the stem of the tree to retain rainwater or irrigation water and allow greater infiltration. Likewise, the use of mulch or live mulches to avoid bare soil and reduce the rate of evaporation is mainly used in fruit trees. This technique has increased the production of fruit trees such as lemon, arazá and cocoa, mainly during the dry season.	They are simple practices. It is estimated that 6 and 8 hectares have been impacted by this type of techniques and two Hosts are applying this technique.	

Techniques / production technologies key F2F	Application Colombia F2F
Electric fence / Rotational grazing: although it has been adopted slowly due to relatively high initial investment, it is a technology that improves the layout of pastures for livestock and helps soil conservation, resulting in better feeding and animal care, which leads to greater milk production.	There are 4 farms in Altillanura and 2 farms in Lejanias with this technology; an area covered by this technique is estimated range between 60 and 70 Hectares.
Biomixtures: a series of simple techniques based on the use of local plants and other materials readily available on the farm (e.g. ash), have been used for the preparation of fungicides, fertilizers and organic insecticides. This technique reduces spending on pesticides and makes products attractive for potential organic markets.	A fairly widespread technique currently used mainly for fruit crops and green vegetables. It is estimated that biomixtures are used in 20 and 25 hectares of land.
Composting: an old technique, which uses different types of organic waste for the production of fertilizers. It reduces the use of chemical fertilizers and improves soil health	Also widely appreciated by farmers. 4 farms have been identified with composting strategies and using it on 7 hectares.
Open-field pigs: a technique that takes advantage of the natural behavior of pigs for the improvement of soils, better rooting, the movement of soil and addition of nutrients into the soil. When properly managed, this technique positively impacts the health and welfare of animals. One must consider the weather conditions to guard the welfare of pigs.	2 farms in Altillanura adopted this technique, 3 hectares of land is impacted.
Vegetable garden: the production of vegetable gardens has been associated typically to temperate climates. However, the use of improved seeds, and recognition of the nutritional value of native plants (Tropical green vegetables) are the basis for the promotion of vegetable gardens among small and medium farmers. Good part of the production is directed to self-consumption. In the vegetable garden, farmers grow organic products and	Widely disseminated in Altillanura and Ariari, at least 25 hectares under this technique.

Techniques / production technologies key F2F	Application Colombia F2F
usually always have surplus produce for sale.	
Healthy food: more than a technique, this topic refers to knowledge and wisdom about the nutritional value of different local resources. This has encouraged the development of new products such as turmeric, or juices from local plants. Farmers have identified new potential products and opportunities in the market for this type of products.	Two farms produce turmeric and Jamaican flower in more than 1 hectare of land.
Polycultures: the use of companion plants or sowing different species in the same field, improves the availability of nutrients and at the same time reduces the incidence of pests and diseases. With this technique, farmers have reduced production costs and diversified crops.	Widely disseminated in both areas of the project, but more predominant in Altillanura. This technique, has been expanded to 7 and 10 hectares.
Terracing: a soil conservation technique designed for moderately sloping soils. It makes production of food possible in places subject to soil erosion and lack of moisture.	This technique was adopted only by a farm with less than 1 Hectare. More education is needed to popularize this technology.



Training: value added cocoa by F2F. August 2016. From simple transformation techniques. This mission significantly improved the quality of the products of one of the F2F Hosts.

In addition to the production issues, two other factors mentioned above are important for developing value-added products. In total there are 18 food products that were affected/advanced due to recommendations on value addition and organizational structure. The growing trend for healthy foods of a known farm/farmer origin is leading to opening of farmer markets in the municipalities served by the F2F teams. This also provides opportunities for the development of new products.

Annex 7: Small Farms Conference
SMALL FARMERS, FOOD AND TERRITORY CONFERENCE

Puerto
Lopez,

**CONFERENCIA PEQUEÑOS
PRODUCTORES
ALIMENTO Y TERRITORIO**
Puerto López, 29 de Septiembre 2017



**¡Si, los pequeños productores de la Altilanura
producen ALIMENTOS!**

Lugar: Auditorio Hotel Tío Pepe
Hora: 9 am

Información
Teléfono 6616800 Extensión 209

Con el Apoyo de



September 29th, 2017.
Yes, the small farmers from Altillanura produce food!
Place: Tio Pepe hotel auditorium
Time: 9am
SMALL FARMERS, FOOD AND TERRITORY CONFERENCE
YES, THE SMALL FARMERS FROM ALTILLANURA PRODUCE FOOD!

The three-day conference offered the farmers, host organizations, and out in country partner, Unillanos, the opportunity to share and celebrate the work done by the farmers from Altillanura and directly interact with them. There were three key activities: 1) tour of selected farmer's property with the farmers to learn and discuss about crops and farming practices; 2) the workshop where the farmers discussed their needs for legislation that supports farming interests; and 3) the public workshop where the farmers shared their ideas regarding sustainable food production, economic analysis and discussed recommendations made by the Farmer-to-Farmer volunteers. The property tours and workshop had about 50 participants, the activity was open to the public.

For the field workshops, we worked with 3 farms belonging to Altillanura's farmers, each one selected according to their achievements and success in the sustainable management of their property. These workshops allowed us to learn about the initial condition of the soil, the different processes and challenges that small farmers have had to overcome in order to successfully produce a wide variety of crops on their existing land. A comparative analysis of the initial conditions before implementing the recommendation of F2F were described along with the type of support offered to them by the F2F team to improve the system. This allowed the development of a sustainable tropical production approach in the Altillanura, with the support from Universidad de los Llanos and Purdue University through the Farmer-to-Farmer project and other entities that train and assist the small farmers in the Altillanura and the department of Meta.

Although there are several successful examples of sustainable tropical production in the Altillanura, 3 farms were selected in which key aspects of sustainable production are implemented for the analysis and discussion at the workshop. We heard from other farmers asking the question, "Why am I not doing it on my farm?"

The first farm visited was Villa Fortuna belonging to Alberto Bejarano and his son. It highlighted plant diversity, recycling of nutrients, use of organic fertilizers, and the processing of products with honey and its derivatives such as soap, repellent, lipstick, wine and others. In addition they use live fences and practice silvopastoral systems that were recommended by the project. An efficient rotational management of the grasslands to improve livestock productivity was also observed. Likewise, the proper management of water, its contents, and supply of clean water to animals were noted.

The second farm we visited was Marayal belonging to Saúl Quiroga, Rosa Corrales and children. Here family integration, water management, biodiversity, processing of honey

and its derivatives, and the successful adaptation of pigs for soil transformation were highlighted. The pigs were a big hit because of multiple benefits they offer in terms of weed control, soil improvement and nutrient addition by manure. We were impressed by the excellent examples of water harvesting and developing a high phreatic level area into ponds for fish farming, with an area protected by planting of Moriche palms (*Mauritia flexuosa*). The importance of the Boton de oro cultivation (*Tithonia diversifolia*) and its effect on soil fertility could be observed. This visit generated a healthy discussion on the farm about pastureland rotation and use of pigs to enhance fertility by recycling pig manure and rotating pigs to allow crop production.

The third farm we visited was Mi Fortuna which belongs to Wenceslao Tapiero and Rosalba Novoa. They highlighted management and conservation of water with planting of forest species, which increases plant species diversity and improves soil conditions. A visit to gallery forest and a lagoon for water conservation exemplified the importance of ecosystem management that was well appreciated by visitors. This farm is a unique example of integrating agroforestry concepts with crop production where in both systems benefit leading to a healthy community.

It is very important to emphasize that after visiting each farm two basic concepts were explored: What did we learn at the farm? What recommendations do we have for the owners? This led to a healthy discussion and useful suggestions to farmers and participants.

The second activity was held in the community hall of the village “El Toro”, where the “World Coffee” methodology was practiced. In this brain storming session 4 groups were formed and posed with questions to explore: 1) Who are we and what we do? 2) What is our importance as growers to society? 3) What do we need from public policy to strengthen food production? Responses from each group were compiled on a poster board and this input was used to prepare a memorandum by the farmers. This was publicly read on the opening day of the conference. The memorandum emphasized the importance of farm community not only in food production and protecting the environment, but also in formulating policies that are beneficial to small and medium farms and rural communities.

The last event of the conference was open to the public and Gobernación del Meta, the Municipality of Puerto López, CORPOICA, the Ministry of Agriculture, the Cosmopolitan Foundation and a greater number of farmers in the Altillanura were represented. In total, 100 people attended this event. The highlight of the event were the talks by Alberto Castro, Agroeconomic Development Secretary of the Department of Meta and engineer Eliana Rojas, Environment and Rural Development Secretary, on the programs to support small and medium-sized farmer business. Dr. Álvaro Ocampo Durán talked about sustainable food production in the Altillanura, Science magister candidate Constanza Yunda Romero explained the economic efficiency of food production by small and medium farmers in the Altillanura; Roberto Rodríguez from Cosmopolitana foundation talked about viable sustainable alternatives for small and medium farmers from the Altillanura and engineer Jorge Iván Clavijo presented the alternatives to improve the

sustainable production of food suggested by international volunteers of the Farmer-to-Farmer Project.

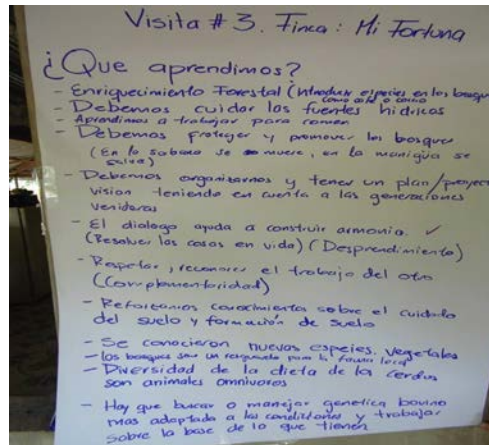
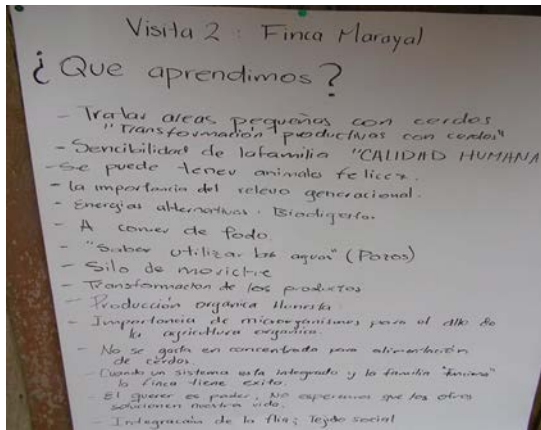
In addition to the talks mentioned above, the main event was the reading of the declaration made by the farmers to the policymakers. In summary, this document stated that for more than 10 years facing great difficulties, farmers work every day to produce food for their family and the community, while protecting water and natural resources. They work hard to guarantee the food they produce is nutritious, free from agrochemical contamination and aesthetically appealing. They do their best to impart traditional values to their children while realizing they have been excluded from development due to the armed conflicts and neglect from Colombian government. To alleviate long time suffering of farmers in the region they need public policies on: * Legalization of properties, * Incentives to access technologies and make them work for the organic agriculture, * Market protection policies, use and preservation of native seeds, * Programs for children and youth to affirm farming as a viable and profitable option, and policies to improve production of food and the quality of life of the farmers.

It is essential to highlight the participation of the people during the 3 days of the conference and prevailing interest to exchange knowledge and apply some lessons learned on their properties. The conference lived up to its theme and again affirmed that "YES, THE SMALL FARMERS FROM LA ALTILLANURA PRODUCE FOODS" in a sustainable manner affirming to local cultures while protecting the environment they call home.

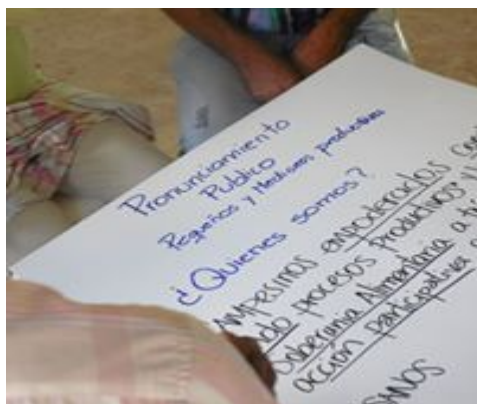
PHOTOGRAPHS OF THE ACTIVITIES

1) Territory tour.





2) Declaration preparation workshop



3) Open CONFERENCE to the public







29 September 2017

Public Declaration

(Altillanura farmers) we do produce food

"A country without farmers would be a country with hunger and misery"

Farmers from the area of Altillanura and some guests from the regions of Ariari and Macarena, we all meet in the context of the conference "Food and Territory are possible" made during 27th, 28th and 29th of September, 2017 in the municipality of Puerto López (Meta.) During this meeting we went through, analyzed and shared our experiences as small-scale food farmers. As a result of this exchange of experiences we presented the institutions, decision makers and other participants the following public declaration, prepared in a participatory manner by farmers attending this event. This declaration collects primary elements of our identity (who we are), what to do (what we do), our value and our approaches to the productive and social development of the farmers.

We are farmers in love and empowered by our land, who for more than 10 years we have been building productive processes, in a peaceful and on good terms to the environment. Despite the difficulties we have faced, nowadays we have hope in the present time and clear life plans for our future, which promote the production of healthy foods, which contribute to the food sovereignty of our nation.

Day by day, we work to produce, transform and commercialize food and make the countryside an ideal place to live in harmony with the environment, improving the link between man and countryside. Our wisdom and our culture educate our children, from sunrise to sunset, cows, crops, our tools and our effort, are the basis for teaching new generations, love for the countryside, nature and our culture.

We are an essential base in the supply of healthy food, product of a clean production, increasingly aware and committed to reducing the use of



agrochemicals, privileging organic management. We work to offer quality and good presentation food, produced with love, to feed the countryside and the city. Our families with their hands and tools transform, protect and conserve natural resources; we sow and produce diversity of crops and animals that are the basis of our income.

For years we have been apart from development, we have lived through the toughest conditions of the armed conflict and economic crises, the absence of the Colombian state and appropriate public policies to our conditions have limited our development. However, we continue forward with courage and pride. We recognize the value and importance we have for the society and the territory.

Based on our experiences, needs and projections, we consider vital the existence of public policies that strengthen and prosper our participation in the production of food, consolidate our link with the territory and allow the good living of our families and communities. Therefore, it will be essential that the policy for the field and the people, assume the following considerations and purposes:

- Legalization of the properties.
- Incentives to access appropriate and relevant technologies according to our soil conditions and production system.
- Promote a policy of protection at the market level, of the production of food produced on a small scale, favoring and making a fair market a reality.
- Programs so that children and young people have a greater option of personal development in the field.
- Education and training for agriculture and food processing.
- Rural housing programs and improvement of tertiary roads.
- Policies that promote the use, conservation and multiplication of native seeds.
- Economic and technological incentives for farmers who dedicate themselves to organic agriculture.



- Appraise the tax policy for the reduction of the property tax to small and medium farmers.
- Monitor and control regarding the application of environmental regulations, mainly to large companies and preventing any risk of cross contamination that may affect our food production and the health of our families.

Annex 8: PERSUAP Compliance

I. PERSUAP Implementation Experience – F2F Assignments:

Over the period covered by this report, the project has had experience in implementing the F2F PERSUAP, as reflected in the PERSUAP table below. This table lists all Type 1, 2, and relevant Type 4 volunteer SOWs that have been completed during the reporting period. Summaries of the volunteer assignment with a general description of activities with pesticides, key findings and recommendations on limitations/successes of F2F PERSUAP, and any recommendations to F2F for additional support needed to improve pest and pesticide management practices are found in the attachment summarizing volunteer assignments during the reporting period. All assignments not listed in this table are Type 3 assignments or Type 4 assignments that fall within the Type 3 category.

PERSUAP Reporting Table

Assignment (Trip) Number	Volunteer Name	Country	Country F2F Project	PERSUAP Assignment Type	Work Directly with USAID Mission or Mission-funded Project (Type 4) – Check for Yes	Training Syllabus Sent to F2F AOR/ Mission Environmental Officer (Type 1) – Check for Yes	Training Attended by USAID (Type 1) – Check for Yes
VP-11	Tom Creswell	Colombia	Colombia	Type 2	No	N/A	No
VP-12	Lina Rodriguez	Colombia	Colombia	Type 2	No	N/A	No
VP-20	Michelle Fried	Colombia	Colombia	Type 2	No	Yes	No
VP-21	James Young	Colombia	Colombia	Type 2	No	Yes	No
VP-25	Richard Beckhort	Colombia	Colombia	Type 2	No	Yes	No
VP-27	Jeffrey Stuart	Colombia	Colombia	Type 2	No	N/A	No
VP-28	Ricky Foster	Colombia	Colombia	Type 2	No	N/A	No

Regional program, country program, or country project area assignments or SOWs in IPM and pesticide safer use: The following volunteer SOWs in IPM and pesticide safer use were undertaken for the F2F regional program, country program, or country project area as a whole. These differ from the individual assignments addressing pesticide use with specific hosts, which should be included in the table above.
(None or list)

None

Needs for a PERSUAP amendment: The following needs for a PERSUAP amendment to add pesticides were identified during the reporting period.

None

II. Certifications of assignment and office compliance with PERSUAP guidelines:

A. PERSUAP Compliance – F2F Assignments

This certifies that all volunteers have received the F2F Environmental Brochure. For all PERSUAP Type 1, 2 and relevant Type 4 SOWs, and further certifies the following have been provided to and developed by the relevant volunteers:

	Type 1 SOWs ²	Type 2 SOWs ²
Provided to Volunteer	<ul style="list-style-type: none"> · F2F PERSUAP with Attachments A - H · SUAP briefing with F2F field staff · Implementing Partner F2F PERSUAP Questionnaire · List of any IPM practices and any tools, forms, protocols, plans from previous volunteers · Host country list of approved pesticides · Approved pesticide list from any other applicable PERSUAPs 	<ul style="list-style-type: none"> · F2F PERSUAP with Attachments B, C, F, H · SUAP briefing with F2F field staff · Implementing Partner F2F PERSUAP Questionnaire · List of IPM practices from previous volunteers
Developed/ Provided by Volunteer	<ul style="list-style-type: none"> · Syllabus for training event · Material Safety Data Sheets (filed in field office) · Any pesticides that the F2F program should be able to recommend/use which are included on an approved list · Limitations/successes of F2F PERSUAP · Recommendations for additional support on pesticide management practices · Recommendations/feedback on local IPM practices 	<ul style="list-style-type: none"> · Limitations/successes of F2F PERSUAP · Recommendations for additional support on pesticide management practices · Recommendations/feedback on local IPM practices

	<ul style="list-style-type: none"> · Highly Toxic Pesticides (Attachment E)/poor pesticide practices witnessed · Tools, forms, protocols, plans for implementation of pesticide-related recommendations 	
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B. PERSUAP Compliance – F2F Offices

This certifies that all F2F staff has reviewed the F2F Environmental Brochure for staff each fiscal year and that the following have been updated and kept on file:

	Home Office	Field Office
Documents Updated and on File	<ul style="list-style-type: none"> · F2F Environmental Brochure for staff · PERSUAP with Attachments A-I · Any USAID Mission- or sector-wide PERSUAP(s) for relevant country/sector 	<ul style="list-style-type: none"> · F2F Environmental Brochure for staff · PERSUAP with Attachments A-I · USAID Mission- or sector-wide PERSUAP(s) for relevant country/sector · Host country list of approved pesticides³ · Implementing partner F2F PERSUAP Questionnaire, with any volunteer additions · Material Safety Data Sheets for relevant pesticides⁴ · Tools, forms, protocols, plans developed by volunteers

Annex 9: GAO Recommendation

BACKGROUND CHECK COMPLIANCE

Per GAO recommendation, Purdue University is conducting reference checks on volunteers. This confirms that Purdue University:

- Does not engage in transactions with, or provide resources or support to, individuals and organizations associated with terrorism, including those individuals or entities that appear on the Specially Designated Nationals and Blocked Persons List maintained by the U.S. Treasury or the United Nations Security designation list. All potential volunteers are screened against these and other watch lists and this provision is included in all sub-agreements, including sub-awards and contracts issued under the F2F award.
- Carries out at least two reference checks on all potential first time F2F volunteers in addition to other required screening and carries out reference checks on all repeat F2F volunteers with regard to prior F2F assignments, and additional external references if no F2F assignments have been completed within the past 24 months.
- Immediately informs the USAID AOR of any negative F2F volunteer performance or behavior and provides information on such performance or behavior experiences to other F2F implementing organizations when contacted for reference checks on potential volunteers.

Annex 10: Certification

M & E CERTIFICATION

Purdue University confirms that we have: a) used established indicators and definitions; b) participated in regular (annual) workshops reviewing indicators and M&E systems; and c) trained field staff on indicators and data collection systems. The above mentioned training sessions include extensive instruction in the collection and reporting of indicators.