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QUARTERLY REPORT #11: JANUARY-MARCH 2013

DEZENVOLVE AGRICULTURA COMUNITÁRIA (DAC) PROJECT

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Quarterly Highlights

Farm sales of 59 m.t. from the SHAs generated \$50,938 during the quarter: The Liurai greenhouse group members received payments totaling \$19,119. Six communities from the expansion areas harvested for the first time for Kmanek Supermarket.

Totals of Vegetable Production from all SHAs January-March 2013		
	Kg	US\$
Outdoor Production Original	30,097	\$23,927
Outdoor Production Expansion	10,629	\$7,912
Greenhouse	18,311	\$19,119
Total	59,037	\$50,958

Production more than doubles compared to same period last year: Rainy season poses serious challenges to farmers from weather and pests during the January-March period, but in 2013 DAC farmers more than doubled production compared to their results in 2012. The “original” communities increased production 156% (from 11,714kgs to 30,097kgs) and incomes 188% (from \$8,304 to \$23,927) over the same period.

New buyer signs MOU and farmers negotiate higher prices: On March 9 Dilimart owner David Jong and 14 farmers from 2 communities signed their formal MOU. Negotiation resulted in price increases for 15 items and an overall price per kilo increase of 21%.

Ministry of Agriculture Ainaro and Manufahi Districts and Mercy Corps visit DAC: 23 farmers, MAF extension workers and Mercy Corps staff from the two Districts visited the the DAC project activities in Selo (outdoor production) and Sarin/Liurai (indoor production).

Farmers increase investments: DAC’s demonstration plots and Farming as a Business training resulted in 44 farmers (32% of total farmers that received training in 2012-2013) made investments in their farming activities that will increase their production and incomes in coming quarters.

DAC links farmers to microfinance: DAC linked farmers to the BNCTL, who provided credit to 10 farmers totaling \$2,700 to build plastic tunnels. DAC estimates that in one year, the increased production will add 14%-28% to farmers incomes.



Activities Year Three

This quarterly report follows the Year Three Workplan, describing activities and achievements in DAC's three main activities:

- 1) Assist SHA farmers to establish organizations that can successfully manage their commercial horticulture activities (*PEOPLE*)
- 2) Assist SHA farmers to improve horticulture technology and practices to meet market demand for product quantity and quality (*PRODUCTION*)
- 3) Assist SHA farmers and other value chain actors and stakeholders to develop a strong horticulture value chain that routinely increases sales volume and profits (*VALUE*)

This report also contains an updated Workplan Timeline, and a summary of project finance and administration for the quarter.

PLEASE NOTE: *Data reflected in this quarterly report may come from DAC's data collection process, or from our partners Kmanek Supermarket and Dilimart. Our partners may work with more farmers than DAC will work with directly, or with farmers that DAC has not yet entered into our data collection system. As the DAC project expansion scales up rapidly, DAC official monitoring and evaluation data collected for our indicator reporting may differ from the information in this report.*

Activity One: Assist SHA farmers to manage their commercial horticulture activities (PEOPLE)

DAC's work with PEOPLE focuses on developing sustainable ways for farmers and farming communities to manage the planning, production and sales of vegetables with their commercial buyer partners. This includes assisting farmers to develop the business skills necessary to transition from subsistence agriculture to farming as a business, helping farming communities to create the types of organizations that best meet their needs, and training group members and leaders in the management processes required for transparent and effective operations.

Activity 1A: Continued improvement in the current truck farming operations (managerial)

Improving the farmer groups' ability to manage the planning, production and sales of vegetables is important for individuals and groups. DAC provides specific, proven training and tools that will assist the farmers to master the transparent communication and operations tasks of planning, record keeping, decision making, and conflict resolution that are critical to their individual and group success.

Farming as a Business Training

DAC partner Timor Aid delivered the final seven sessions of the Farming as a Business training between March 14 and March 21 in the following communities:

- Buklelo, Remexio, Saburia, Dudato, Cassa Mou, Teblor: 58 farmers
- Sarin, Lequitura, Fatubossa: 47 farmers

Farming as a Business technical assistance

DAC Community Mobilization staff began working with individual farmers to assist them to implement the lessons they have learned in the Farming as a Business Training. In each community that received the training, DAC staff held a follow-up meeting and identified those farmers that were ready to consider investments, or that were interested in other types of business planning regarding their farming operations. With those farmers, DAC staff provided individual technical assistance to help with business planning and calculations, and to decide how farmers could finance their investments.

As a result, 44 farmers (32% of total farmers that received training in 2012-2013) made investments in their farming activities that will increase their production and incomes in coming quarters. 32 farmers purchased various types of fertilizers that DAC had demonstrated on our demo plots. 12 farmers purchased plastic to create their own plastic tunnels.



DAC linked farmers to a microfinance institution, the BNCTL, who provided credit for these investments. 10 farmers received credits totaling \$2,700 to build plastic tunnels. DAC estimates that in one year, the increased production will add \$125 - \$250 to their annual incomes – for an average farmer, that's a 14%-28% increase.



These activities mark a turning point in the DAC project and the Kmanek horticulture business – farmers beginning to truly consider their Farming as a Business!





AGRIKULTOR BELE HALO NEGÓSIU DIAK!
MAI ITA APRENDE LIU HUSI TREINAMENTU
“AGRIKULTOR NU'UDAR NEGÓSIU”





Se Mak Iha Interese ho Treinamentu Ne'e Bele Kontaktu ba no. teff. 331 2260

Business skills training for farmers and farmer groups

Empreza Diak and DAC staff continued follow up with the nine farmer groups that received the training in the previous quarter. The Empreza Diak designed recordkeeping system is

extremely popular with farmers, and there has been a significant improvement in the recordkeeping and payments for both farmers and Kmanek.

Organizational/managerial training – General

No activity in this quarter.

As Kmanek and DAC have changed the seed distribution system from a group based activity to an individual based activity, there is less need for group based training or decision making. The completion of the Empreza Diak recordkeeping activity has given every group a permanent solution for managing their finances. Future activities may focus on helping farmers to organize to make input purchases or to conduct mutually beneficial activities such as environmental protection or water management.

Organizational/managerial training for Associations in Sarin and Liurai

DAC staff worked together with Kmanek to support the farmers in the Liurai greenhouse group to follow through on their group decision regarding financial management. With full transparency among all farmer group members, DAC and Kmanek, the farmer group received a total payment of \$19,119. Each individual farmer received payment according to the number of days they worked in the greenhouse during the season. The farmers deposited \$2,970 in their group bank account for greenhouse maintenance expenditures. Remaining profits were divided equally.

Both groups have fulfilled their consensus decisions to put aside savings for the maintenance and repair needs of the greenhouses. The Sarin Association Betularan has saved a total of \$3705 and the Liurai Association Leudiak has saved a total of \$8000.

This is the second time that the farmers' profits were divided properly and that the maintenance funds were deposited according to their group consensus decision,— a sign of success for DAC activities to improve organizational/managerial competence and understanding for the Sarin and Liurai groups.

Activity 1B: Assistance to the original three communities during the preparation of a comprehensive long-term business plan

Develop business plans for Sarin and Liurai greenhouse associations¹

No activity in this quarter.

Activity 1B: The formation of a legal business entity

Registration of Sarin and Liurai Greenhouse Associations

¹ The third original community, Lequitura, no longer has a functioning greenhouse due to the negligence of the commercial owner. Therefore, a business plan for the community as a whole is not appropriate.

DAC staff continued to assist farmers to finalize paperwork to submit to the Ministry of Justice. All documents were completed and submitted to the DAC lawyer for filing with the Ministry of Justice.

Formation of District level horticulture organization

No activity in this quarter.

Activity Two: Assist SHA farmers to improve horticulture technology and practices to meet market demand for product quantity and quality (*PRODUCTION*)

DAC's work with PRODUCTION will transfer responsibility for greenhouse and outdoor production to the SHA farmer groups and their commercial buyer partners, as they develop together the structures and procedures for managing planning, production, and sales of vegetables. DAC will also use innovative training methods such as Farmer Field School to solidify agriculture skills and empower farmers to take full responsibility for the success of their small farming businesses.

Production Results

Outdoor production showed the impact of rainy season on farmers' production, as rain damaged crops and higher temperatures and humidity increased outbreaks of pests and diseases which reduce productivity. Production and incomes were down compared to the Oct-Dec period. However, compared to 2012 in the same period, the "original" communities increased production 156% and incomes 188%.

The Liurai greenhouse completed harvesting and the community worked to clean and sterilize the greenhouse and prepare planting media for the next season. Payment of \$19,119 was made to the Liurai community in March. The Sarin greenhouse was in full production throughout the quarter, and results/payments will be reflected in the next quarter.

In the expansion communities, Kmanek began purchasing from 9 new farmer groups in Fatubossa Aldeia 2, Tablor, Cassa Mou 1, Cassa Mou 2, Dou Dato, Saboria, Sarau, Fatulmau and Halibur.² Boklelo and Remexio continued to produce for Dilimart.

Overall, production decreased by 28% and incomes 23% over the last quarter. For the original DAC farmer groups (a consistent number of farmers), production decreased by 38% and incomes decreased by 33%. In the expansion areas (number of farmers is growing) production increased by 29% and incomes by 36%.

² Sarau, Fatulmau and Halibur previously sold to commercial buyers under a World Vision program, but are "new" to engagement with DAC

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Greenhouse	18,311	\$19,119
Total	59,037	\$50,958

Despite the negative impact of rainy season on production compared to dry season, DAC and our partners can celebrate a significant improvement of our operations compared to the same period in 2012. The “original” communities alone have increased production 156% (from 11,714kgs to 30,097kgs) and incomes 188% (from \$8,304 to \$23,927) during the same season, with the same challenges from the weather.

As shown below, the percentage increase in incomes is larger than the percentage increase in production. This is particularly important for the DAC/USAID development program – average earnings per kilo have increased 11% over last year. This increase is a result of DAC support to build the organization/management capacity of the farmer groups, and the resulting transparent and inclusive price negotiation held in February 2012 between Kmanek and the farmer groups.

Outdoor Vegetable Production Original Communities		
	Kg	US\$
January – March 2012	11,714	\$8,304
January – March 2013	30,097	\$23,927

Activity 2A: Continued improvement in the current truck farming operations (technical)

Sarin and Liurai Greenhouses technical assistance

DAC senior technical staff held weekly meetings with the Kmanek Greenhouse Manager and the farmer groups to give guidance and oversight of technical and managerial activities. Recommendations for action steps were sent to Kmanek management and followed up with DAC technical assistance staff as necessary.

With DAC continual support to the greenhouse groups, and the consistent, clear communication among farmers, Kmanek and DAC, the farmer groups have started to take more responsibility for the success of the greenhouse operations. Weekly meetings identify problems and solutions, with clear actions assigned to farmers, DAC or Kmanek. The clarity around the greenhouse maintenance fund has given the farmers the confidence to begin using those funds to make purchases necessary for the greenhouse. The Sarin group spent approximately \$300 on a new motor for their pesticide sprayer and a new faucet for the irrigation pipes. The Liurai group to date has several investments to be made next quarter (new water tank, replacement filters, replace concrete blocks, improve nursery).

Sarin, Liurai, Seloj & Lequitura Outdoor Production technical assistance

A summary of the workplans and DAC activities in this quarter is presented in the chart below.

Outdoor Production Technical Assistance Chart

Challenge	Solution	Activities this quarter
Farmers do not use all improved techniques to maximize production	Demonstration plots to motivate farmers to implement new technologies by showing the measurable improvements in production	Demo plots completed in 9 locations (all farmers will benefit from cross visits) using tunnels, mulch, raised beds, nurseries, drip irrigation, and 3 different types of fertilizer. First harvests were mostly complete.
Farmers do not use enough fertilizer	Demo plots to show measurable increase in production	DAC learned that the farmers are already often using urea to fertilize their plants, even if they are not using enough compost. However, in the demo plots test of three different fertilizers, compost was shown to be most effective followed by a commercially produced organic fertilizer from Indonesia.
	Assist farmers to understand the “business case” for this investment	“Farming as a Business” individual technical assistance provided
	Help farmers to organize to make group purchases	Assisted 32 farmers to purchase fertilizer of their choice
Pests and diseases	Improve farmer skills in IPM	DAC IPM Specialist provides on-site follow up trainings in pest/disease prevention in 3 communities (Fatubossa 1, Fatubossa 2, and Teblor).

	Facilitate farmer access to inputs by helping farmers and buyer/input suppliers to create safe storage locations near farmer fields	Discussed with farmer groups and Kmanek Identified location in each community Identified best type of storage container
	Farmer Field School emphasis on IPM for horticulture	No activity this quarter
Farmers don't have easy and sustainable access to best practice information	Best practice manual for cultivating the top ten vegetables	Manual contents completed
Environmental problems may impact future production	Environmental mitigation and enhancement including re-forestation	No activity this quarter
Farmers don't use enough water to maximize production	Train farmers on adequate use of water to maximize production	All demo plots used drip irrigation. Communities clearly saw the results from the correct or incorrect use of the equipment.
	Train farmers on use of drip irrigation and assist with investment in irrigation equipment	25 farmers received drip irrigation equipment and training in installation and use

Completion of Contract Farming Model

In Year Three, DAC will build the capacity of farmers, farmer groups, and the commercial buyers Kmanek and Dilimart to independently operate the entire contract farming process. This section of the report describes DAC support to Kmanek. DAC support to Dilimart is reported under Activity Four GDA Expansion. The key areas of capacity building and DAC activities in this quarter are described below.

Contract Farming Operation	Challenge or Capacity Building Need	DAC Quarterly Activities
Field Operations Management	<ul style="list-style-type: none"> • Hiring staff with right qualifications, particularly in role of Field Operations Manager • Supervision of Kmanek staff • Quality control and oversight of seed distribution, monitoring, data collection and entry, inventory management 	<ul style="list-style-type: none"> • Kmanek advertised for Field Operations Manager • DAC COP established performance management system for Kmanek staff, review performance weekly, assist with trouble-shooting/problem solving • DAC COP conducted weekly quality control on all aspects of Kmanek horticulture management system
Production Planning	<ul style="list-style-type: none"> • Set appropriate targets • Divide products into categories to simplify production, management and for IPM benefit • Assign categories to production areas 	<ul style="list-style-type: none"> • (complete) • (complete) • Provided site specific crop recommendations for rainy season based on prior categories
Production Planning Database	<ul style="list-style-type: none"> • Revise and improve database as needed • Learning to use database • Entering daily data 	<ul style="list-style-type: none"> • DAC STTA (from DAI IT department) made regular improvements to the database, as problems were identified during the live roll out • DAC COP provides regular technical assistance and quality control on use of database • DAC COP developed monthly summary reporting to Kmanek (to be transferred to Kmanek staff in next quarter) • DAC assists Kmanek to begin using information from database to review performance and make management decisions
Individual Seed	<ul style="list-style-type: none"> • Visiting each farmer group 2x per 	<ul style="list-style-type: none"> • DAC staff accompanied Kmanek staff during seed distribution throughout

Distribution	<p>month, and distributing seed directly to individual farmers</p> <ul style="list-style-type: none"> • Distributing seed only to farmers with good quality available seed beds • Distributing seed only to farmers that have already transplanted previous seed given 	<p>the quarter</p> <ul style="list-style-type: none"> • Notable improvement in seed distribution according to proper procedure • Additional technical assistance to Kmanek staff in discussions with farmers • Facilitated Leader Group Meeting with serious discussion with farmers about the new seed management system, particularly the large numbers of seeds distributed (~200,000 during Dec-Feb) not resulting in commensurate production. Following this meeting, notably better results from farmers planting all distributed seed
Production Monitoring (counting seedlings and predicting harvest)	<ul style="list-style-type: none"> • Data must be collected regularly and entered to database 	<ul style="list-style-type: none"> • DAC COP provides regular review of data collection, notable improvement in staff performance
Technical Assistance	<ul style="list-style-type: none"> • Use information from production monitoring to identify problems and help farmers to solve them • Identify pest/disease problems and deliver pesticide/fungicide if needed 	<ul style="list-style-type: none"> • DAC staff continue to play primary technical assistance role – this needs to be turned over to Kmanek during Year Three • DAC IPM Specialist coordinates with Kmanek staff about need for pesticide/fungicide in specific locations
Input Inventory Management	<ul style="list-style-type: none"> • Maintain updated inventory management spreadsheet • Place monthly orders based on inventory management spreadsheet 	<ul style="list-style-type: none"> • Provided technical assistance to review and organize seed order based on inventory management spreadsheet • Provided technical assistance to identify new seed companies and new varieties as needed

Training on Improved Production Planning & Management

DAC COP assisted Kmanek to develop a scope of work and advertisement for a senior level Field Operations Manager. To fill the gap before the right Operations Manager is hired, DAC COP provided on-going leadership, supervision and management of Kmanek horticulture operations, including greenhouse and outdoor production.

With DAC supervision and training to Kmanek staff, the DAC provided Production Planning Database is being used well, with data collected and entered properly. Regular supervision and review of Kmanek staff performance has resulted in regularly improving performance. Additional technical assistance is helping Kmanek to start using the database to assess staff and farmer performance, predict and evaluate production vs. targets, and make management decisions. DAC assisted Kmanek to develop a monthly summary format to be presented to Kmanek CEO.

DAC also assisted Kmanek to recruit one additional field staff member. With DAC assistance, Kmanek conducted a proper recruitment, interviewing three candidates before hiring Santiago Tilman, a farmer from the Sarin group. Kmanek is pleased with the performance of the Aileu farmers as field staff, a trend that will create employment opportunities for farmers – another important turning point for the program.

DAC staff accompanied Kmanek field staff as they distributed seed to individual farmers, making sure that Kmanek staff distribute seed according to the agreed upon individual seed distribution system (see chart above). Farmers are now familiar with the information Kmanek is collecting, and DAC will help Kmanek and the farmers to use this data to make decisions about farmers' individual production performance and goals.

Farmer Field School for IPM and Horticulture Production

No activities this quarter.

Short term technical assistance

Jeff Gucker, a horticulture technical specialist with over 20 years of experience in Indonesia and Timor Leste, continued delivering a scope of work to provide international best practice technical assistance on continuous vegetable production, with an emphasis on maintaining soil fertility and pest management. Mr. Gucker followed up on demonstration plots with training sessions with DAC staff and farmer groups in Fatubossa and Tabor focused on the results of improved soil management, outdoor production facilities (mulch, tunnels), and drip irrigation in the production of broccoli. He developed a Broccoli / Cauliflower Production Manual in Bahasa. He built a demonstration screen house – a modified plastic tunnel using screen as an insect barrier. He also conducted a soil fertility basics classroom training for DAC staff.

Activity 2B: Environmental Protection and Improvements

As described under Activity 2A, DAC developed a training on preventive approaches to pest and disease management. Prevention is key to enabling farmers to limit the use of agricultural chemicals while still effectively controlling pests and diseases.

Activity 2C: Identification of more communities interested in a truck farming venture³

Continued technical assistance to 5 communities in Selo
See Activity 2A.

Expansion to additional communities
See Activity Four “USAID/Conoco Phillips GDA Partnership Project Expansion”

Activity Three: Assist SHA farmers and other value chain actors and stakeholders to develop a strong horticulture value chain that routinely increases sales volume and profits (VALUE)

Strong organizations of farmers (Activity One) with strong horticulture production skills (Activity Two) must be integrated into a strong horticulture value chain (Activity Three).

Activity 3A: Horticulture Value Chain Stakeholders Seminar

Complete.

Activity 3B: Formation of / Participation in Horticulture Working Group

The Ministry of Agriculture did not convene the first Horticulture Working Group meeting as planned.

Activity 3C: Maintenance of diverse client base and continued improvement in sales volume

Kmanek: Kmanek is now working with 23 farmer groups in Aileu Villa sub-district, with a total of ~350 farmers.

Dilimart: Dilimart is now working with 3 farmer groups in Remexio and Laularan subdistricts, with a total of 23 farmers.

Sales volumes: Despite the negative impact of rainy season on production compared to dry season, DAC and our partners can celebrate a significant improvement of our operations compared to the same period in 2012. The “original” communities alone have increased

³ A related Year Three activity “Continued coaching of about two additional communities...” has been completed in Year Two resulting in five communities fully engaged with DAC project and contract farming model

production 156% (from 11,714kgs to 30,097kgs) and incomes 188% (from \$8,304 to \$23,927) during the same season, with the same challenges from the weather.

The relatively larger increase in incomes is particularly important for the DAC/USAID development program – average earnings per kilo have increased 11% over last year. This increase is a result of DAC support to build the organization/management capacity of the farmer groups, and the resulting transparent and inclusive price negotiation held in February 2012 between Kmanek and the farmer groups.

Outdoor Vegetable Production Original Communities		
	Kg	US\$
January – March 2012	11,714	\$8,304
January – March 2013	30,097	\$23,927

Activity 3D: Business development support to key actors in value chain

Input Supply

In this quarter, DAC worked with a potential new input supplier, Victoria Building Supply. DAC had previously sourced UV plastic from Victoria through a competitive procurement process. We met with Victoria owners to present the business opportunity in input supply. We worked with them over a 2 month period to explore this opportunity, and Victoria began to carry some inventory as a pilot. They were very interested once they experienced the farmers coming to their shop to purchase the UV plastic and irrigation equipment. Unfortunately, they were not able to identify the key technical staff necessary to operate an input supply business. Like Planet and other businesses, they correctly identify that the lack of human resources with education and training in agriculture production and inputs is a serious constraint to the development of the industry.

DAC has begun developing a basic training on agricultural inputs to be offered to all interested parties in the next quarter. This training will review the basic components of input supply, the basic information needed to make recommendations to farmers, and will provide DAC developed materials with key information, resources, and sources of wholesale supply in the region.

DAC has also begun more serious discussions with Kmanek about using their agricultural input supply license to open a retail shop in Aileu. DAC has demonstrated that with our value chain approach that addresses all constraints to production, farmers are actively purchasing inputs and increasing their production for Kmanek. The remaining constraint is a reliable source of inputs.

Traders/Wholesalers

No activity in this quarter.

Buyers

No activity in this quarter.

Activity 3E: Market Research

DAC continued to work on the analysis and report of the results. In the next quarter, we will distribute CD's with the market research database, the user's manual, and the survey instructions and tools. We will also work with the MAF to include the market research information on their website and possibly integrate it into their food security data collection and analysis.

Activity Four USAID/ConocoPhillips GDA Partnership Project Expansion

In Year Two, DAC and USAID finalized a contract modification that increased the budget and scope of work to expand to at least five new communities and 150 additional farmers. Funding for this expansion is provided through a Global Development Alliance partnership with ConocoPhillips.

Activity 4A: Engagement of at least 5 additional communities with at least 150 new farmers

New communities in sub-district Aileu Villa

DAC and Kmanek Supermarket continued to expand the horticulture operations to new communities and new farmers, as shown in the chart below

New communities in sub-districts Remexio and Laularan

DAC and DiliMart continued to work with 23 farmers in three communities:

- Boklelo
- Remexio
- Talitu (Balibar)

Expansion Communities	Total Farmers Prior Quarter			New Farmers This Quarter			Total Expansion Farmers		
	M	F	Total #	M	F	Total #	M	F	Total #
Total 15									
Fatubosa	14	6	20				14	6	20
Fatubosa Aldeia II	6	2	8				6	2	8
Saboria				8	0	8	8	0	8
Dou Dato							0	0	0
Teblor				4	4	8	4	4	8
Cassamau I				14	3	17	14	3	17
Cassamau II				10	0	10	10	0	10
Foin Mehi							0	0	0
Fo Liman ba Malu							0	0	0
Sarau							0	0	0
Fatulumau							0	0	0
Halibur							0	0	0
Boklelo	7	3	10				7	3	10
Remexio							0	0	0
Talitu (Balibar)							0	0	0
New farmers joining original groups				0	0	0	0	0	0
Total	27	11	38	36	7	43	63	18	81

Farm sales of 10.7 tonnes from the expansion communities generated \$7,912 during the quarter: In the expansion areas production increased by 29% and incomes by 36% compared to last quarter. However, this is mostly due to the increasing number of farmers joining the program, since the challenges of rainy season negatively impacted production and reduced incomes for the same farmers compared to the last quarter. Six communities held their first harvests and sales to Kmanek Supermarket.

Totals of Vegetable Production January – March 2013		
	Kg	US\$
Outdoor Production Expansion	10,629	\$7,912

Activity 4B: Assist farmers to manage their commercial horticulture activities (PEOPLE)

DAC's work with PEOPLE focuses on developing sustainable ways for farmers and farming communities to manage the planning, production and sales of vegetables with their commercial buyer partners. This includes assisting farmers to develop the business skills necessary to transition from subsistence agriculture to farming as a business, helping farming communities to choose and implement the types of organizations that best meet their needs, and training group members and leaders in the required skills.

Activity 4B-1: On-site training and technical assistance (managerial)

DAC will provide training and technical assistance to help farmers and farmer groups to learn how to manage the planning, production and sales of vegetables. DAC will provide specific, proven training and tools that will assist the farmers to master the transparent communication and operations tasks of planning, record keeping, financial management and decision making that are critical to their success as commercial farmers.

Farming as a Business Training

DAC partner Timor Aid delivered the final seven sessions of the Farming as a Business training in the following communities on March 14-15 and March 21:

- Buklelo
- Remexio
- Saburia
- Dudato
- Casamou
- Teblor
- Fatubossa

Farming as a Business technical assistance

DAC Community Mobilization staff began working with individual farmers to assist them to implement the lessons they have learned in the Farming as a Business Training. In each community that received the training, DAC staff held a follow-up meeting and identified those farmers that were ready to consider investments, or that were interested in other types of business planning regarding their farming operations. With those farmers, DAC staff provided individual technical assistance to help with business planning and calculations, and to decide how farmers could finance their investments.

As a result, 6 farmers from Cassa Mou community made investments in their farming activities that will increase their production and incomes in coming quarters. These farmers purchased various types of fertilizers that DAC had demonstrated on our demo plots.

Business skills training for farmers and farmer groups

No activity in this quarter

Organizational/managerial training – General

Kmanek Areas

No activity in this quarter.

Dilimart Areas

On March 9 DAC staff facilitated the first meeting between the entire group of farmers and Dilimart owner David Jong to revise and sign their MOU, discuss and agree on prices, and identify and solve other issues. 14 farmers signed the MOU. Prices were discussed, resulting in price increases for 15 items and an overall price per kilo increase of 21%. Dilimart also added 2 more vegetables and now is purchasing 25 different types. The main topic discussed was the problems with pests and disease. Dilimart, DAC and the farmers committed to better communication and problem solving to ensure timely pest control. DAC's IPM Specialist will make a special priority schedule for providing technical assistance in these areas.

Activity 4B-2: Integration of farmers into District Association

No activity this quarter.

Activity 4C: Assist SHA farmers to improve horticulture technology and practices to meet market demand for product quantity and quality (PRODUCTION)

DAC's work with PRODUCTION will identify potential new sites and new farmers, link them to commercial buyers, and provide the technical assistance required for them to produce consistent, year-round, quality and quantity of vegetables according to the buyers' requirements. DAC will also use innovative training methods such as Farmer Field School and exposure to international best practices to solidify agriculture skills and empower farmers to take full responsibility for the success of their small farming businesses.

Activity 4C-1: On-site training and technical assistance (technical)

Direct technical assistance

DAC technical assistance in the expansion communities is summarized in the table below. DAC demonstration plots in 7 new communities were harvested, allowing the farmers to see the results of using new technologies and management practices compared to their traditional production techniques. The 7 communities are:

- Fatubossa
- Dou Dato
- Boklelo
- Remexio
- Cassa Mou
- Saboria
- Balibar

Challenge	Solution	Activities this quarter
Farmers do not use all improved techniques to maximize production	Demonstration plots to motivate farmers to implement new technologies by showing the measurable improvements in production	Demo plots completed in 7 expansion locations (all farmers will benefit from cross visits) using tunnels, mulch, raised beds, nurseries, drip irrigation, and 3 different types of fertilizer. First harvests were mostly complete.
Farmers do not use enough fertilizer	Demo plots to show measurable increase in production	In the demo plots test of three different fertilizers, compost was shown to be most effective followed by a commercially produced organic fertilizer from Indonesia.
	Assist farmers to understand the “business case” for this investment	“Farming as a Business” individual technical assistance provided in Cassa Mou
	Help farmers to organize to make group purchases	Assisted 6 farmers to purchase fertilizer of their choice
Pests and diseases	Improve farmer skills in IPM	DAC IPM Specialist provides on-site follow up trainings in pest/disease prevention in 3 communities (Fatubossa 1, Fatubossa 2, and Teblor).
	Farmer Field School emphasis on IPM for horticulture	No activity this quarter
Farmers don’t have easy and sustainable access to best practice information	Best practice manual for cultivating the top ten vegetables	Manual contents completed
Environmental problems may	Environmental mitigation and enhancement including re-	No activity this quarter

impact future production	forestation	
Farmers don't use enough water to maximize production	Train farmers on adequate use of water to maximize production	All demo plots used drip irrigation. Communities clearly saw the results from the correct or incorrect use of the equipment.
	Train farmers on use of drip irrigation and assist with investment in irrigation equipment	25 farmers received drip irrigation equipment and training in installation and use

Farmer Field School for IPM and Horticulture Production

No activity in this quarter. The first training is prepared for April 2013.

International Training

Competitive procurement for training in Indonesia for 40 farmers from the new farmer groups was completed. The Value Chain Community in Bandung, Indonesia was selected as the organization that presented the best technical proposal at the lowest price. The first group of 20 farmers will depart for training in May 2013.

Training on Improved Production Planning

With DAC COP supervision and training to Kmanek staff, the Production Planning Database developed by DAC was being used well, with data collected and entered properly. Regular supervision and review of Kmanek staff performance has resulted in regularly improving performance. Additional technical assistance is helping Kmanek to start using the database to assess staff and farmer performance, predict and evaluate production vs. targets, and make management decisions. DAC COP assisted Kmanek to develop a monthly summary format to be presented to Kmanek CEO.

Dilimart, with a much smaller operation, has been effectively using the Production Tracking Database and Inventory Management System developed by DAC.

Introduction of Contract Farming Model

Complete.

Activity 4C-2: Assisting communities to develop agriculture assets

DAC will develop cost-sharing plans and partner with communities to construct facilities necessary to meet the market demand for consistent quantity and quality of produce.

Horticulture nursery facilities

All communities under the expansion in the Kmanek areas use the individual seed distribution model. DAC trained all new farmers on the correct design of an individual nursery, and provided a cost share for the construction. DAC provided plastic, and the farmers provided netting (to protect against pests), local materials and labor. In the expansion communities, 107 farmers constructed well designed nurseries. In the next quarter DAC will continue to focus on ensuring all new farmers are using a good quality nursery to maximize their production and incomes.



Forestry nursery facilities

No activity in this quarter.

Outdoor production facilities

DAC began to deliver materials and technical assistance to allow all new farmers to install outdoor production facilities appropriate for their own fields and production. DAC's goal is to provide either plastic tunnel or plastic mulch, and an irrigation solution such as drip irrigation, to at least 150 new farmers. The chart below shows distribution to date, and the number still to be distributed.

	Plastic Tunnel	Plastic Mulch	Drip Irrigation
New Farmers in New Groups	50	15	18
New Farmers in Original Groups	7	6	7
Total	57	21	25
Remaining to distribute	72		125

Activity 4D: Environmental Protection and Improvements

No activity in this quarter.

Administrative and Technical Management

Personnel

LONG TERM TECHNICAL ASSISTANCE:

In this quarter, DAC hired four young men from Aileu District in the capacity of Field Assistant. This is a non-technical position that will provide needed manpower to the DAC Production Team, while providing young people from Aileu District with the opportunity to gain employment experience and improve their agricultural skills.

- Cipriano Martins
- Luis Carceres
- Octoviano Rofino Colo
- Zaqueu do Amaral

SHORT TERM TECHNICAL ASSISTANCE:

- Ryan Talmage, a Produce Marketing and Export consultant, delivered a short term assignment from March 7-21 to assess the potential and develop a road map to exports to Singapore.
- Jeff Gucker completed his short term assignment on continuous vegetable production (soil fertility, pest/disease management, broccoli production) from February 17-March 3.
- TK May provided 3.5 additional short-term assistance hours from the United States to help DAC with improvements to the Production Tracking Database.

SIGNIFICANT EVENTS

- In March, a group of 23 MAF extension workers, farmers, and Mercy Corps staff from 2 Districts visited the DAC project activities in Selo (outdoor production) and Sarin/Liurai (indoor production). From Manufahi District 15 farmers from Daisua and Holarua sucos and from Ainaro District 8 farmers from Maununo and Cassa sucos participated in the event, along with 8 MAF extension workers and 7 Mercy Corps Community Mobilizers.
- On March 16, a 15 member delegation from the Chinese international development agency, along with representatives from the Chinese Ministries of Agriculture and Commerce, visited the DAC project as an example of USAID's agriculture development work in Timor Leste.

Annex 1

Updated Year 3 Workplan Timeline

See next two pages

DAC YEAR THREE WORKPLAN TIMELINE	2012				2013							
	September	October	November	December	January	February	March	April	May	June	July	August
Activity One: Assist SHA farmers to manage commercial horticulture												
<i>Activity 1A: Continued improvement in farming operations (managerial)</i>												
Farming as a Business Training												
Farming as a Business technical assistance												
Business skills training for farmers and farmer groups												
Organizational/managerial training for Associations (Sarin/Liurai)												
Develop business plans for Sarin and Liurai												
<i>Activity 1B: The formation of a legal business entity</i>												
Registration of Sarin and Liurai Greenhouse Associations												
Formation of Aileu District Horticulture Association												
Activity Two: Improve horticulture production to meet market demand												
<i>Activity 2A: Continued improvement in farming operations (technical)</i>												
Sarin and Liurai greenhouses technical assistance												
Sarin, Liurai, Selo, Leqitura outdoor production technical assistance												
Completion of contract farming model												
Training on improved production planning												
Farmer Field School training of trainers (IPM / horticulture production)												
Farmer Field School training (Aileu Villa)												
<i>Activity 2B: Environmental Protection and Improvement</i>												
<i>Activity 2C: Identification of more communities interested in DAC model</i>												
Continued technical assistance to 5 communities in Selo												
Expansion to additional communities												
Activity Three: Develop Strong Horticulture Value Chain												
<i>Activity 3A: Value Chain Stakeholders Seminar</i>												
<i>Activity 3B: Horticulture Working Group</i>												
<i>Activity 3C: Diversification of clientele</i>												
<i>Activity 3D: Business development assistance to key actors</i>												

DAC YEAR THREE WORKPLAN TIMELINE	2012				2013							
	September	October	November	December	January	February	March	April	May	June	July	August
Activity Four: USAID/ConocoPhillips GDA Partnership Project Expansion												
<i>Activity 4A: Engage at least 5 additional communities/150 new farmers</i>												
<i>Activity 4B-1: On site training and TA (managerial)</i>												
Farming as a Business Training												
Farming as a Business technical assistance												
Business skills training for farmers and farmer groups												
Introduce contract farming model												
<i>Activity 4B-2: Integrate farmers into District Association</i>												
<i>Activity 4C-1: On site training and TA (technical)</i>												
Direct technical assistance												
Farmer Field School training (Laularan/Remexio)												
International Training												
Training on Improved Production Planning												
Introduction of Contract Farming Model												
<i>Activity 4C-2: Assisting communities to develop agriculture assets</i>												
Horticulture nursery facilities												
Forestry nursery facilities												
Outdoor production facilities												
<i>Activity 4D: Environmental Protection and Improvements</i>												

Annex 2 Demonstration Plot Results

Location	Demoplot type	Date planting	Vegetables type	General Situation	Result
Lequitura	Mulching & drip irrigation	12-14 Dec 2013	Broccoli (atomic)	<ul style="list-style-type: none"> • The treatment use 3 type different fertilizers are compost made on-site, Raboek (commercially produced organic fertilizer), and liquid concentrated fertilizer jago tani. • Growing broccoli with distance 50 cm x 50 cm, 60 cm x 30 cm (1 seedling bed with two different distance) • Other 2 beds using distance 50 cm x 50 cm • Plants were growth near pond more growth well compare to other two beds • Use lime to neutralize soil Ph • Directly planting seedling following lime and mulch set up • Farmer not pay attention to monitor and control seedling condition when still growing 	<ul style="list-style-type: none"> • From 3 different treatment, compost with complete fertilizer are get harvest and more healthy compare to others • Plants not uniform growing, in compost treatment, upper and down healthier than middle. The reason is not enough water during growing, farmer thought during that time was rainy season and he doesn't watering from beginning. • Mulching and bed not set properly, • Total harvest <ul style="list-style-type: none"> - Compost 7 kg, (?) plants - Raboek 8 kg, 21 plants - Compost 4 kg, 6 plants
Fatubossa	Mulching & drip irrigation	19 Dec 2012	Broccoli (atomic)	<ul style="list-style-type: none"> • The treatment use 3 type different fertilizers are compost made on-site, Raboek (commercially produced organic fertilizer), and liquid concentrated fertilizer jago tani. • Growing broccoli with distance 50 cm x 50 cm, 60 cm x 30 cm (1 seedling bed) • Other 2 beds using distance 60 cm x 25 cm are growing well compare to other distance • Following lime application, let seedling bed open till a week than setting drip irrigation and mulching • Seedling planted following a week applied mulch 	<ul style="list-style-type: none"> • Condition of seedling more healthier • Compost are get harvest two weeks earlier compared to other fertilizer treatment • TOTAL PRODUCTION: <ul style="list-style-type: none"> - Jago tani 5,99 kg from 25 plants - Raboek 5,15 from 35 plants - Compost 19,65 kg from 69 plants

Tasonih	Tunnel and drip irrigation	10 Dec 2012	Kale (nova)	<ul style="list-style-type: none"> • Use 3 different fertilizer such compost, raboek and jago tani • Condition of vegetables almost not much different, no pest and diseases were attacked • Drip irrigation working well, easy to connected with solar system • 	<ul style="list-style-type: none"> • Total of production from 3 seedling beds are: <ul style="list-style-type: none"> - Compost: 18 kg from 180 seedlings - Raboek: 20 kg from 180 seedlings - Jago tani: 13 kg from 180 seedlings • Compare to outside tunnel result from 180 seedlings production are 36 kg
Dudato	Tunnel and drip irrigation	11Dec 2012	Broccoli (atomic) & red cabbage, drip irrigation	<ul style="list-style-type: none"> • The treatment use 3 type different fertilizers are compost made on-site, Raboek (commercially produced organic fertilizer), and liquid concentrated fertilizer jago tani. • In the seedling beds split for two part 7,5 m planted broccoli, 7,5 m planted red cabbage • Seedlings condition are growing well, farmer more attention to demoplot and made a weekly prevention • Watering twice a day depend on the climate 	<ul style="list-style-type: none"> • Broccoli was harvested, <ul style="list-style-type: none"> - raboek fertilizer got 9,5 kg (28 plants); - compost 4,5 kg (14 plants)& - jago tani 3 kg (12 plants) • Red cabbage used fertilizer <ul style="list-style-type: none"> - raboek 8,5 kg (20 plants), - compost 5,5 kg (15 plants), - jago tani 0 kg (no production) • Red cabbage growing condition are well, very slow to crop, because of temperature too hot during the night (better to planting during dry season)
Remexio	Tunnel and drip irrigation	12 Dec 2012	Head lettuce (general)	<ul style="list-style-type: none"> • The treatment use 3 type different fertilizers are compost made on-site, Raboek (commercially produced organic fertilizer), and liquid concentrated fertilizer jago tani. • Plants condition growing slow and couldn't crops because unsuitable weather, could be cropping during rainy season 	<ul style="list-style-type: none"> • Able to harvest but not getting a crop • Total of harvest from 3 different treatment are: <ul style="list-style-type: none"> - Compost 7 kg, 55 plants - Raboek 2,5 kg, 32 plants - Jago tani 5,5 kg, 48 plants

Buklelo	Tunnel and drip irrigation, and screen	12 Dec 2012	Cauliflower (sunny)	<ul style="list-style-type: none"> • The treatment use 3 type different fertilizers are compost made on-site, Raboek (commercially produced organic fertilizer), and liquid concentrated fertilizer jago tani. • In beginning condition are poor, following install screen became well cause no much pest were attacked • Tunnel frame were moldy, host for pest • Weeding and loose soil are main issue, because soil condition are clay need more attention for composting 	<ul style="list-style-type: none"> • Total harvest <ul style="list-style-type: none"> - Compost 3 kg, 8 plants - Raboek 0,45 kg, 5 plants - Jago tani 0,95 kg, 8 plants • Not finish yet for harvesting
Casamau	Red giant			<ul style="list-style-type: none"> • The treatment use 3 type different fertilizers are compost made on-site, Raboek (commercially produced organic fertilizer), and liquid concentrated fertilizer jago tani. • Growing well, no pest & diseases attacked, use screen tunnel • From different treatment, composting, reboek harvest earlier a week compared to jago tani fertilizer 	<ul style="list-style-type: none"> • Total harvest <ul style="list-style-type: none"> - Compost 24 kg, 120 plants - Raboek 13 kg, 102 plants - Jago tani---kg, ---.plants (not harvest yet)
Saboria	Spring onion	24 Sept 2012	Local	<ul style="list-style-type: none"> • The treatment use 3 type different fertilizers are compost made on-site, Raboek (commercially produced organic fertilizer), and liquid concentrated fertilizer jago tani. • In beginning growing are pale, because use local seeds and not use seed, direct planting seedlings • Less pest and diseases • Should watering frequently during planting to support plants for growing • 	<ul style="list-style-type: none"> • Total harvest <ul style="list-style-type: none"> - Compost 17 kg, 200 plants - Raboek 17 kg, 200 plants - Jago tani 14 kg, 200 plants
Balibar	Rock melon	5 Dec 2012	Action	<ul style="list-style-type: none"> • The treatment use 3 type different fertilizers are compost made on-site, Raboek 	<ul style="list-style-type: none"> • No harvest cause of pest and diseases attacked

				<p>(commercially produced organic fertilizer), and liquid concentrated fertilizer jago tani.</p> <ul style="list-style-type: none">• In beginning growing well, following transplanted condition become neatly and fresh• Before flowering condition not change, when started with flowering condition more less a bit pale, cause of raining and pest and diseases• After getting fruit, we use netting to protecting fruits, but it still get problems with white fly fruits become rotten.	
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