



An Evaluation of the Development Communities through Intensive Agriculture (DOCIA) / Dezenvolve Agricultura Comunitária (DAC) Project

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Prepared for USAID/Timor-Leste by

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The views expressed in this Evaluation Report are those of the authors alone and do not necessarily reflect the official views of the United States Agency for International Development

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Preface

The evaluation team carried out this mid-term evaluation of the United States Agency for International Development (USAID)/Development Alternatives Inc. (DAI); Development Communities through Intensive Agriculture Project/Dezenvolve Agricultura Comunitária (hereafter simply “DOCIA/DAC”) in Timor-Leste, May 8 – June 1, 2012, using the scope of work prepared by the USAID/Timor-Leste Economic Growth Office. The team traveled to the impacted regions (Annex A – List of Contacts) and interviewed beneficiary households (BH) that were involved in implementing either greenhouses, vegetable production tunnels, and/or open field vegetable production business activities promoted by the project; the principal buyer (Kmanek) staff; DOCIA/DAC Expatriate and Timorese project management staff, USAID staff and other donor personnel familiar with the project; and Government of Timor-Leste (GOTL) personnel familiar with the project.

The usual disclaimers apply. The evaluation team is responsible for any errors of fact or interpretation. The authors welcome feedback from readers at leeagcon1@verizon.net or amaral.acacio@gmail.com.

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Abbreviations

BH	Beneficiary households
COP	Chief of Party
DAC	Dezenvolve Agricultura Comunitaria
DAI	Development Alternatives Inc.
DCOP	Deputy Chief of Party
DOCIA	Development of Communities through Intensive Agriculture
DSP	Desenvolve Setor Privadu
EG	Economic Growth
GDA	Global Development Alliance
GOTL	Government of Timor-Leste
HH	Household
ILO	International Labor Organization
IPM	Integrated Pest Management
IQC	Indefinite Quantity Contract
LAC	Lee Agribusiness Connections, Inc.
MAP	Ministério da Agricultura e Pescas
MED	Ministry of Economic Development
SD	Sekolah Dasar (Primary School)
SHA	Special Horticulture Area
STTA	Short Term Technical Assistance
TBD	To be determined
UN	United Nations
UNTL	Universidade Nacional de Timor Lorosa'e
USAID	United States Agency for International Development
USG	United States Government
WV	World Vision

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I. Executive Summary

The Development Communities through Intensive Agriculture Project/Dezenvolve Agricultura Comunitária in Timor-Leste is a USAID-funded Contract, implemented by Development Alternatives Inc. (DAI) and hereafter referred to as “DOCIA/DAC” project. Through this project the intention is for DAI to complete implementation of a development model that improves the economic and social livelihood of members of households in a poor community in a way that distributes benefits fairly between people of different genders. This project follows on from an activity known as *Dezenvolve Setor Privadu* (DSP) which was an initiative that invested in growing green peppers and tomatoes to compete with produce imported from other countries.

The DOCIA/DAC project will achieve this by combining two things: (i) the introduction of technology, plant and equipment to a community of poor households and (ii) focused technical and management training of community members. In this way it is anticipated that the community can increase its income and the value of its assets by serving a demanding market that pays premium prices for selected products. And, through the increased material wellbeing will enable the community to improve its social and environmental status.

The project initially was to run for three (3) years from August 30th 2010 through August 31st of 2013. However, the project was recently extended to accommodate a Global Development Alliance (GDA) contribution from ConocoPhillips with matching support from USAID. Thus, the completion date is now expected to be August 31st of 2014.

The evaluation team believes without a doubt that the premises for the project’s effort continue to be valid. And, now after nearly twenty-one (21) months of implementation it is time to review progress.

Project Performance against Plan:

DOCIA/DAC has been actively pursuing the activities and based on discussion and reviews the evaluation team believes the project is on track to meet targets for 2012 by project year end of 2012. The project has progressed to the point where it has established Special Horticultural Areas ¹(SHA)s in all locations intended under the original contract. But, the contract has been extended and it calls for five additional SHAs to be established between now and project end in 2014 and, these SHAs still need to be established.

The DOCIA/DAC project team seems to have the ability to implement the project and honor its responsibilities and with more intense focus on training in accounting, and management the farmers will likely be able to manage in the context of the present integrator contract farming arrangement. However, much more training and development in management skills will need to be accomplished if the beneficiaries are to be in a position to manage themselves as either a cooperative, association or some other independent business form when the project ends in 2014.

¹ A Special Horticultural Area is the horticultural area implemented by a specific target group of farmers and generally each area has 15 to 25 members.

In fact, it is doubtful that the beneficiaries will be able to assume management responsibility and will likely need to have hired executive management if cooperatives, associations or some other independent business form is to be successful.

DOCIA/DAC has faced several challenges in carrying out their work. Some of the more significant challenges shared by project leadership and staff in the field included:

- The limited capacity of the farmer;
- The limited availability of technical assistance in horticulture in Timor-Leste;
- Poor infrastructure;
- Input supplies unavailable locally;
- Kmanek contract limits farmer sales;
- Inability to meet Kmanek targets in rainy season;
- Disease is a continual interference with production and requires better management;
- Farmers complain that some crops mature too slowly;

In an effort to overcome the challenges and difficulties DOCIA/DAC carries out several activities and interventions including those that impact on:

- Operational proficiencies;
- Technical proficiencies;
- Marketing and sales;
- Organizational and human resource competence;
- Compatibility between the business and community life;
- Legal entity status for future and;
- Building the overall horticulture value chain.

In most cases the project, through training of farmers in technical and management related matters, providing technical support in the field, and the establishment of a contract farmer relationship with Kmanek has introduced activities or interventions that have overcome many of the technical and management challenges. Infrastructure is still a problem and will continue to be but, by selecting proper locations to work the problem has been minimized. Bringing disease difficulties under control is an on-going concern because field staff and farmers still need to learn more with regard to recognizing diseases and understanding their control. How well these activities and interventions have performed can only be truly measured when it is determined that the SHAs, Kmanek and others involved in the value chain are operating profitably on a sustainable basis.

The technical activities carried out are being done according to lessons learned and good practices; i.e. innovative agricultural technologies tested by other organizations/companies that have implemented or are implementing horticultural programs in Timor-Leste or in the region. In fact, World Vision (WV) and ILO (International Labor Organization) are implementing similar activities based on the DOCIA/DAC model and believe it is a good model.

Presently DOCIA/DAC has adopted a “linking farmers to markets” management structure. It is basically an integrator model where a core company takes on the job of providing all the inputs to the farmers, provides technical guidance, and buys the product from the farmers and sells it on to the ultimate consumers. This is a strong model and is employed in many countries of the

world. In fact this model is used for fruits and vegetables in many other developing countries such as Kenya, Zimbabwe, Swaziland, Thailand, Malaysia to name a few. In the United States it is the principal model used by the poultry and swine industries.

Project Results and Impacts:

The DOCIA/DAC project accomplished or exceeded, according to reported project performance indicators its targets in 2011 (see Figure 1). In its second year DOCIA/DAC is working against the revised and approved 2012 work plan. The plan calls for the implementation of three major activities and thirteen sub-activities (see Table 2). The project has been actively pursuing the activities and management indicates they are on track to meet targets by project year end. It is the opinion of the evaluation team that this will most likely happen.

The project has faced many challenges and has put in place several initiatives in an effort to overcome the challenges. On whole the project has been successful and has produced positive results for participating farmers and Kmanek. The communities have benefited and many others are working to emulate the model used. The project seems to be on the right track and will keep confronting the challenges in the best way possible; but, it is critical to be sure all parties involved will be profitable when the project ends as this will determine sustainability.

Farmers reached by DOCIA/DAC are to be households (HH) of subsistence farmers because these farmers are most vulnerable having low incomes and instability with respect to food security. Through interview and observation the evaluation team confirmed that farmers participating in the project are subsistence farmers; and, have moved from producing self-sufficiency crops to producing crops for the commercial market. In fact, they have diversified the number of crops they produce; and, some farmer groups are producing as many as 42 different crops. They have improved their planting, cultivation, disease control, harvesting, sales, and other related practices. But, as always there are still things to learn especially with respect to disease control.

While the farmers listed many benefits from the project there was one noticeable surprise to the evaluation team, no farmer interviewed mentioned putting additional investments into tunnels so as to enhance their production during the rainy season. They did mention investing in pumps to ensure water but no real mention was made of investing in something that would have helped them expand their production, sales; and, incomes. When asked, the primary reason given for this was that their contract with Kmanek restricted them to producing to meet the Kmanek target because they had to sell product produced from Kmanek seed back to Kmanek. But, there is nothing that says they cannot buy seed on their own and produce more for sale to groups other than Kmanek.

With respect to the well-being of the beneficiaries the evaluation team asked them about the benefits they have realized. The most important response was when several farmers indicated they have increased incomes from \$20 to \$40/month/HH to \$160 to \$200/month/HH but, a more reasonable average is likely \$140/month (see discussion later in the report). In either case this is a substantial increase in income and DOCIA/DAC, and others involved with the project should be congratulated for the success. From the increased income the members of the SHAs indicated that they had reduced poverty and realized the following benefits:

- improvements to their houses, in some cases new houses;
- obtained clothes for children and were able to pay school fees;
- improved availability of food and better nutrition;
- sent children on to university in a few cases;
- bought cattle for organic fertilizer production; and, to permit traditional ceremonies;
- bought water pumps to help ensure that they have water for crops when needed;
- bought medications for the family when illness struck;
- bought motor bikes to provide access to the city for things they need;
- established small kiosks to sell goods to others in the local community

The evaluation team concluded that women do participate actively; but, men dominate on the membership roles of SHAs. However, the women do at least half of the work in the field and frequently more. It is difficult to know whether the women and men benefit equally but, if houses are being repaired and children are going to school women and men share in the benefits.

DOCIA/DAC has provided farmers with many opportunities to build their capacity and while most of the effort has been focused on the technical aspects of producing vegetables the project is embarking on providing 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 long term survival as a group. This has not been completed yet but it is expected to be done before the end of the present project year.

DOCIA/DAC has caused other Donor projects to review what they are doing and set up similar models. Two active followers are WV and IL O. Also, non-member farmers of the SHAs observe what members are doing and discuss practices with them and then emulate the production practices. Benefits have spread well beyond the farmers and other value-chain players that work directly with the project.

The MAP leadership nationally and in the Aileu district thinks highly of the project and look to it as a model for others to emulate. In fact, they admitted the work being done by the project is often better than their own work.

Sustainability

The project design is established to create change that will be self-sustaining beyond the life of this project. The present integrator approach is a viable “linking farmers to markets” approach and it will be sustainable as long as the integrator remains in business. The single most important strategy for continued success and maintaining sustainability is the one that ensures the overall operation is profitable. If the operation is a sound business generating profits for the various parties involved it will continue to be sustainable. The strategy of having a partner like “Kmanek Agriculture” as a key integrator is a good way to maintain profitability and should not be abandoned prematurely.

DOCIA/DAC seems to have several capacity building initiatives in place that relate to program sustainability and, include:

- Technical advisory assistance on a regular basis to farmers in the field;
- A series of training programs that address various management and technical needs that beneficiaries have;
- Establishing contracts with local or regional groups (Timor-Aid, FIELD, & Empresa Diak) to help with training that will build group leadership skills and dynamics; and,
- Kmanek helps to make beneficiaries aware of market concerns and opportunities

Local stakeholders such as MAP district, sub-district and Suco offices, local Suco administrative offices, MED's cooperative development coordinator, district administrative offices, and some donor NGO's (WV, ILO) are ready to "do what they **can**" to help sustain changes resulting from DOCIA/DAC's efforts.

The tunnel production and field production of vegetables will likely be maintained as farmers will be ready to handle this level of technology. If the partner (Kmanek Agriculture) stays committed to the integrator relationship the project should maintain an effective operation on into the future provided the enterprise is generating a profit for the integrator and farmers alike. Maintaining the effective operation of the greenhouses may be harder for farmers to manage on their own because the level of technical knowledge is more demanding and critical.

If farmers are to be put together into a cooperative or association it will need to be done soon and the cooperative or association should be prepared to hire good executive management because farmers are not ready to run the entire operation from farm to market at this time. Because associations are not generally organizations that work to be profitable this choice may not be the best.

Recommendations:

The evaluation team has reviewed weaknesses/gaps of the DOCIA/DAC Project throughout the report and the recommendations scattered throughout the report are summarized:

- USAID should continue to support the project as it is providing positive benefits for its beneficiaries. The enterprise (horticultural production) of the project is being carried out positively on behalf of the beneficiaries but, it is unclear as to the level of profitability because costs and returns are still not fully documented. It would be a good idea to include cost and returns measurements as one of the on-going indicators.
- Therefore, DOCIA/DAC should determine long term competitiveness of the operations to serve potential future local and export markets, primarily local markets. To do this it will require putting together transparent cost and returns information for the key participants of the value-chain. Until this is accomplished it is not possible to say that the project has reached the goal of establishing SHAs that will be sustainable when the project ends.
- The project is charged with establishing the SHAs as operational enterprises (cooperatives, associations, or other) that will carry on activities on a sound business basis. This is particularly true in the case of Sarin and Liurai where the USAID owned greenhouses need to be transferred to an owner. Unfortunately the evaluation team is

doubtful that the existing mix of farmers will be trained sufficiently to manage the enterprises without hired executive help. If greenhouses are to be turned over to Sarin and Liurai it is recommended that it be done only if the members agree to hire executive management for the organization established. The evaluation team does not recommend establishing more greenhouses at this time because managing the technology is not easy for farmers and it is not necessary at this time.

- The field technicians and at least one farmer from every SHA should be provided special on-going integrated pest management (IPM) training with the objective of helping to hone their skills in the recognition and control of various diseases that are likely to attack the different vegetable crops being grown. Perhaps a way to accomplish this would be through a contract relationship with a specialist, if one exists, in vegetable diseases from UNTL or MAP.
- To facilitate management of each SHA and the crops farmers produce it is recommended that the project consider reducing the number of vegetables that each SHA must grow (some grow as many as 42 now) so they can become more specialized in the problems of the crops they grow. Because different crops have different prices it will be necessary to provide each group with a mix of crops that is likely to yield similar revenue streams for each SHA.
- It is recommended that further review and refinement of scheduling be done. It should be possible to schedule the production of vegetable crops in such a way as to ensure each SHA is receiving revenue weekly and at the same time providing the buyer Kmanek, with what they need each week. A scheduling system is in place but, it seems that it could be refined further. Doing this requires taking into consideration the crops to be grown by each SHA and the rotation program necessary for each SHA to mitigate disease problems.
- It is recommended that, since Kmanek is willing to accept 288mt of product each year and in 2011 only 89mt was provided, the project should consider increasing the quota to farmers who meet or exceed their present quota and it should be done in a way that does not reduce the quota of farmers who are not yet meeting quota. This will help give farmers more incentive to expand activities and produce more.
- If SHAs are to be established as independent entities (cooperatives, associations or, others) it is recommended that the project work to help each separate enterprise determine how to identify and establish relationships with new buyers. Recognize it may be a risk to undertake this kind of assistance as it may cause Kmanek to be a less stable partner. It may be preferable to consider having one large cooperative, rather than one for each SHA, that will incorporate all SHA members and in this way it will be easier for farmers to hire the management that will be required at this stage of each SHAs development.
- Presently Kmanek sends a refrigerated truck to the field every day to collect vegetables and some days it returns partly filled. Perhaps, if Kmanek had a small cold storage

facility in Aileu it might be possible to use a local truck to assemble the product to the cold store. In this way the refrigerated truck might come every other day rather than every day and when it comes the truck could go to one point and pick-up its cargo, reducing cost due to fewer trips and less wear and tear on an expensive refrigerated truck.

- It is suggested that when DOCIA/ DAC enters into new communities they establish a baseline set of data with respect to selected demographic indicators such as: number of children going to school or to college, average income of the community group, how often vegetables are eaten, type of housing structures, etc., - so future surveys of the indicators can provide a measure of impact.
- It is recommended that when DOCIA/DAC establishes new SHAs, in addition to the criteria set for choosing locations criteria should be set for selecting the members. It should not be left totally to the Chief of the Aldeia as it appears to have been in the past. For example: each group member chosen should have/be: i) sufficient land available; ii) some horticultural experience; iii) a willingness to participate in a group; iv) a subsistence farmer; v) a family that is ready to participate.
- Since at the moment a large share of the market for many of the vegetables produced by DOCIA/DAC farmers is more for the expatriate community than for the Timorese community efforts should be made to introduce the non-traditional vegetables to the Timorese. Because the expatriate community may begin to shrink (with UN personnel leaving) in the near future it will be necessary to broaden the market base for the mix of vegetables or the farmers could be left without a good market in the future. And, by exposing Timorese consumers to a set of vegetables different than those normally eaten it could result in improved nutrition.

II. INTRODUCTION

a. Introduction:

The Development Communities through Intensive Agriculture Project/Dezenvolve Agricultura Comunitaria is a US AID funded contract implemented by Development Alternatives, Inc (DAI), and hereafter referred to as “DOCIA/DAC” Project. The project was initiated in August of 2010, when USAID signed a Contract with DAI for a three year project. Recently under a GDA agreement with ConocoPhillips the project was extended for an additional year to August 31, 2014. The DOCIA/DAC project is presently operating in one (1) District; with nine (9) SHA groups (Table 1) where technical advisory assistance and training of farmers is happening on a regular basis. In addition the project works with a private sector integrator (Kmanek Agriculture) that helps with input supplies, regular collection of produce from the SHA’s, and the marketing of all vegetable product produced by SHA’s. Also, the project operates out of its headquarters office in Dili where project leadership, monitoring/evaluation activities; and, administrative /financial management for the project is carried out.

Table 1: Project Program Areas Producing Horticultural Crops, SHA’s & HH

<i>Sucos</i> /where SHAs are operating	#HHs Involved		
	Men	Women	Group total
Liquitura	22	6	28
Sarin	13	12	25
Liurai	15	7	22
Hakiak Moris	10	2	12
Mudansa	10	8	18
Morris Foun	10	3	13
Tasonih	12	4	16
Foin Kaman	8	10	18
Fatubosa	8	2	10
	108	54	162

Through this project the intention is for DAI to complete implementation of a development model that improves the economic and social livelihood of members of households in a poor community in a way that distributes benefits fairly between people of different genders. This project follows on from an activity known as *Dezenvolve Setor Privadu* (DSP) which was an initiative that invested in growing green peppers and tomatoes to compete with produce imported from other countries. Products were distributed in Dili to institutional buyers, supermarkets and some large households by a Dili intermediary buyer. The intermediary owned a community-operated “horticultural complex” comprising a nursery, a greenhouse and some plastic “tunnels” that protect crops planted in the field. This truck farming venture and model, referred to by DSP as a “special horticultural area” (SHA), resulted in a substantial increase in cash income to members of the community. Based on the success of this earlier development model DOCIA/DAC was contracted to continue the good works and complete the efforts started.

The DOCIA/DAC project expects to achieve this by combining two things: (i) the introduction of technology, plant and equipment to a community of poor households and (ii) focused technical and management training of community members. In this way it is anticipated that the community can increase its income and the value of its assets by serving a demanding market that pays premium prices for selected products. And, through the increased material wellbeing will enable the community to improve its social and environmental status.

Now, after nearly twenty-one months of implementation, it is time to objectively review the activities of the project, measure progress made toward reaching its stated goals and objectives, as well as validate the project's assumptions and indicators in the light of experience to date.

b. Background

i. Project Context & Validity:

Timor-Leste is principally a subsistence agriculture economy and the majority (80%+) of people are employed in agriculture or related activities. The focus of the project is on poor beneficiaries from rural areas because it is believed that this group of people is most vulnerable to livelihood security issues, and lacks enough income to support a minimal livelihood. The observations of the team confirmed that the rural people being targeted by the project do fall into a vulnerable situation and are definitely in need of assistance to increase incomes and stability of life.

Even communities that are as close as Aileu do not have a broad knowledge of the world outside their district or sub-district. Any Timorese over thirty-six was born into a Portuguese colony, lived for a quarter century under the Indonesian army and, over the last decade, has seen the country run with significant and highly visible assistance from the UN and foreign donors. This history makes building community autonomy very difficult. Members of a community to change things must believe it is possible for them to run fairly complex operations. Also, they must believe that the advisors really intend to strengthen their capacity to achieve self-reliance.

Members of a community in the interior have their traditional ways of communicating among themselves in relation to personal, social, and political matters. However they have little experience in carrying on a mutually beneficial commercial activity that has at its core working effectively and in a manner of trust with a commercial group from outside their community. It is against this kind of background that DOCIA/DAC team must work to create profitable enterprise and effective community autonomy. It is a challenge.

The evaluation team believes without a doubt that the premises for the project's effort continue to be valid. A list of benefits resulting from successful implementation is praiseworthy:

- increased cash income for HHs;
- reduced poverty for HHs;
- improved nutrition in peoples diets;
- Marketing and sales competence;
- Organizational and human resource competence;
- strengthened ability for communities to organize one or more business where a balanced participation by gender is present;

- development of the ability within the community to carry on the technical management of a reasonably sophisticated truck farming operation while maintaining a sound community life;

ii. Project Objectives:

The objective of DOCIA/DAC is the completion of a development model that improves the economic and social livelihood of members of households in a poor community in a way that distributes the benefits fairly between people of different genders. It will achieve this by combining two things: (i) the introduction of technology, plant and equipment to a community of poor households and (ii) focused technical and management training of community members. In this way the community can increase its income and the value of its assets by serving a demanding market that pays premium prices for selected products. Increased material well-being will enable the community to improve its social and environmental status.

c. Objectives of Assignment:

The objective of this assignment is to carry out a Mid-Term Review of the DOCIA/DAC project, to determine the relevance, effectiveness, efficiency, potential impact and sustainability of the results achieved. Specifically, the evaluators will undertake a formative assessment of the project to gauge progress made in the implementation of planned activities toward reaching stated goals and objectives. Additionally, the evaluators will assess the wider project context to validate project assumptions and results indicators against the reality on the ground, based on actual DOCIA/DAC implementation experience to date. The latter should be done with a view toward making recommendations for adjustments and calibration of assumptions and results indicators, as warranted to enhance project implementation in the remaining period of the activity.

III. PROJECT PERFORMANCE

a. Overview on Performance

DOCIA/DAC's performance in 2011 can be seen in Figure 1. The findings of this review for each indicator are set out in Figure 1. As may be noted expected result D has not been achieved as it was not planned to be achieved in the first year of the project. The remaining DOCIA/DAC targets were achieved to levels above those set.

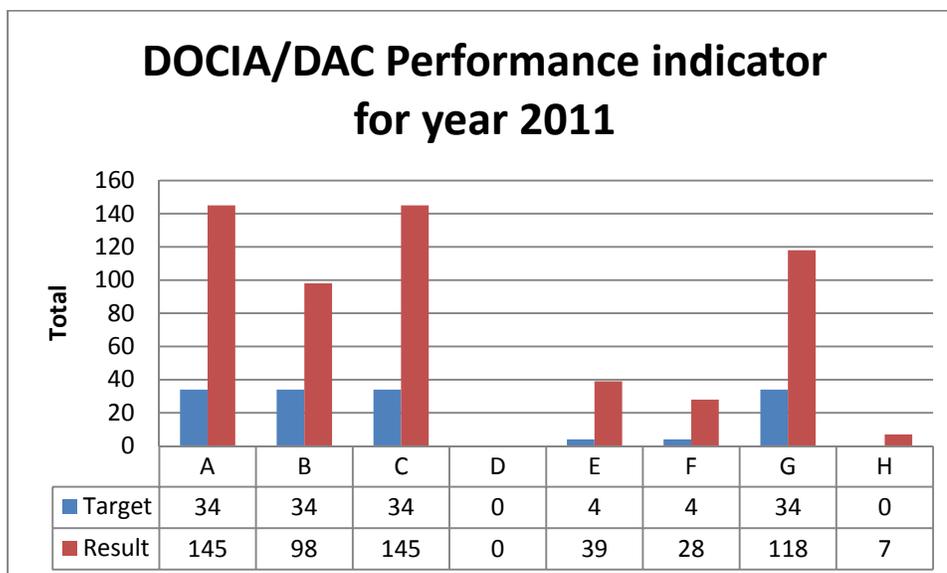


Figure 1: Overview of DOCIA/DAC project Performance for year 2011

A listing of each indicator shown in Figure 1 is set out to facilitate understanding of this chart.

- **Expected result A (formerly 1.8):** Number of farmer, processors and others who have adopted new technologies or management practices as a result of USG assistance.
- **Expected result B (formerly 2.2):** Number of firms receiving USG supported assistance to improve their management practices.
- **Expected result C (formerly 1.17):** Number of individuals who received short-term agricultural sector productivity training (USG assistance), disaggregated by gender (the target number of 34 was composed of 17 men and 17 women. The result of 145 is composed of 92 men and 53 women).
- **Expected result D (formerly 2.1):** Number of institutions/organizations that are mature/viable in the targeted competency areas as a result of USG assistance.
- **Expected result E (formerly 1.2):** Number of new technologies or management practices provided for transfer as a result of USG assistance.
- **Expected result F (formerly 1.1):** Number of new technologies or management practices being field tested.
- **Expected result G (1.4):** Number of rural households benefiting directly from USG interventions.

- **Expected result H (1.3):** Number of vulnerable households benefiting directly from USG assistance.

DOCIA/DAC, in its second year, is working against the revised and approved 2012 work plan. The plan calls for the implementation of three major activities and thirteen sub-activities. The project has been actively pursuing the activities and in most cases seems to be on track to meet targets. DOCIA/DAC reported in March 2012 the status of its activities against the second year work plan and the evaluation team worked, with help from the project team, to update the information to present. As can be seen from the information summarized in Table 2 several activities still need to be completed but, it has been indicated by the project team that they will be completed before project year end. These achievements and shortcomings are set out in Table 2.

Table 2: Performance compared with Activities Planned for year 2 (2012) by DOCIA/DAC Project

Components & Activities	Extent to which implemented	Comments
Activity 1. Assist SHA farmers to establish organizations		
Activity 1A. Improve the operation (managerial) of SHAs		
Business skills training for farmer groups Farming as a business	Not yet	Will be done by the end of August via Timor Aid sub-contract
Record keeping	Not yet	Contracting local group, Empresa DIAK to complete this by August. Will include capacity building for project staff as well.
Organizational/managerial training: general	Yes	It is a daily activity and it is on track for completion by the end of 2012
Organizational/managerial training: specific to organizational structure	Not yet	The focus is on Sarin and Liurai to develop their understanding about why they need it. Will be done by end of project.
Develop business plans for Sarin and Liurai	Not yet	Will work on this near the end of the project year
Activity 1B. The formation of a legal business entity		
Community decision making process	Not yet	DOCIA/DAC will work on this in June with Sarin & Liurai so a decision about the kind of organization to be can be made by end of August
Initiate formal registration process	Partly done	Sarin has started, Liurai will be worked on in June, July and established by August 2012
Community discussion of district level organization	Yes	On-going discussion
Activity 1C: Allocation of exclusive roles and rules	Yes	This is an on-going activity

Components & Activities	Extent to which implemented	Comments
for behavior		
Activity 1D: Recording of land claims (timing TBD)	Not yet	This depends on GOTL and the passage of the land law. As of 5/24/2012 no law has been passed
Activity 1E: Formal approach to local Government	Not yet	This is mainly informational and will happen before project year end
Activity 2: Improve horticulture production to meet demand		
Activity 2A: Improve the operation (Technical) of SHAs		
Ongoing technical assistance as needed (Sarin, Liurai and Selo).		
-DAC staff meetings with farmer groups	Yes	
-Monthly leader meetings	Yes	
-Sarin independent planting of green house	Yes	
- Liurai independent planting of green house	Yes	
Training on production planning for SHA groups	Yes	Ongoing technical assistance
Vegetables grading system/ handover to Kmanek	Yes	It has been turned over to Kmanek
Pest/disease control and management training - Pest/disease visual aid finalized	Not yet	Will be done by year end
Farmer field school training of trainers (IPM/Horticulture production)	Not yet	Sub-contracted group called "FIELD" will complete this by year end
Farmer field school training (Sarin/Liurai/Selo) (cont. into Year 3)	Not yet	Sub-contracted group called "FIELD" will start and it will run on into year 3
Activity 2B. Protection of springs, boundaries, and slopes	Yes	Done on regular basis
-Complete bamboo protection of stream in Sarin	Yes	Done
Activity 2C: Engagement of 5 additional communities	Yes	
Continued technical assistance to 5 communities in Selo	Yes	The 5community groups are: Hakiak Moris, Mudansa, Foin Kman, Tasonih, and Moris Foun
Expansion to additional communities	Yes	Expanded to Fatubosa and Leqitura
Activity 3: Develop strong horticulture Value Chain		
Activity 3A: Horticulture Value chain analysis	Not yet	Still in the process but have completed market study
Activity 3B: Value chain stakeholders seminar	Not yet	Gil Rangel, Horticultural Director of MAP plans this at MAP. DOCIA/DAC will have its people participate
Activity 3C: Horticulture working group	Not yet	This will be done after the seminar in Activity 3B and then will be carried on into year 3
Activity 3D: Diversification of clientele	On-going	Regularly meet with other buyers but, no other buyers have come forward yet

Components & Activities	Extent to which implemented	Comments
Activity 3E: Business development assistance to key actors	Yes	This is for groups other than farmers
Fresh produce inventory management	Yes	DAI consultant will work with Kmanek on this
Input supply inventory management	Yes	DAI consultant will work with Kmanek on this

b. Project Expenditures

The project is funded by USAID under an IQC contract and the total contract ceiling increased, under Modification 04 signed on February 24, 2012, by \$900,000 to \$6,579,087. At the end of the first quarter of 2012 the obligation was \$4,157,800. Expenditures under the contract through March 31, 2012 was \$2,688,029.51; thus leaving funds remaining vs. obligation at \$1,469,770.49 and, funds remaining vs. contract at \$3,891,057.49. Based on this information it appears that the project has had a burn rate of \$141,500/month. The project still has \$3,891,057.49 to spend between now and August 31, 2014 if all funds are obligated, and this will be at an average rate of \$134,000 per month. The project should be in a position to carry out its work without additional funding between now and August 31, 2014 if no major increases in cost are incurred resulting from adding five more SHAs and the project scales down during transition toward the end. Since the project has 11 technicians working in the field now and they plan to start weaning old SHAs of this field support it should be possible to add the five new SHAs without big increases in expenses.

c. Project Efficiency

Project efficiency involves performing activities in the best possible manner with the least waste of time and effort. In this section of the report a discussion of three broad topics will help provide insight into how efficient the DOCIA/DAC project has been. The topics to be discussed include:

- technologies employed and strengthened;
- challenges, difficulties and, solutions;
- management arrangements and structures.

i. Technologies employed and strengthened:

When the DOCIA/DAC project started in September of 2010 after having experienced a phase down from DSP and a three month hiatus before DOCIA/DAC initiated activities several technical challenges were confronted. During the hiatus when farmers experienced the withdrawal of support by DSP it was expected that farmers would experience problems because DSP did not have time to adequately assist and train farmers in technical and organizational matters before the project ended. In fact, as expected, problems did occur at Liurai and Sarin. And, at Leguitura DOCIA/DAC expected it would need to revamp marketing arrangements as well as refurbish production systems due to the breakdown in relationships between the farmers and Zero-Star (the buyer of product and the owner of the greenhouse). Thus, when

DOCIA/DAC started various technical and organizational challenges awaited because without guidance, the growers made modifications that greatly reduced optimal functioning of facilities.

With DOCIA/DAC assistance, the farmers completed the installation and initial operation of greenhouses and outdoor production technologies including those in tunnels and in the uncovered open field at Liurai and Sarin. For example, with assistance from the DOCIA/DAC technical team the farmers renovated the watering system at Sarin, and installed 3,300 drips during December 2010. Also, reconfiguration of the planting arrangement in the greenhouse at Sarin permitted the addition of about 800 plants. Both of these initiatives provided for expanded productivity in the greenhouse. In addition the project provided intensive training and technical assistance to improve the productivity of farmers in the SHAs. Some of the kinds of technological assistance and training included:

- The provision of intensive guidance (daily initially, but less frequently presently) to farmers via local technicians that have been trained in agriculture and agribusiness (by the USAID BACET project). In addition the technical leadership of the DOCIA/DAC provided specific training to the technicians in vegetable production and management; and, these technicians provide to farmers:
 - directions in developing nurseries from local materials and materials provided by the project so as to ensure proper production of seedlings;
 - the introduction of farmers to growing crops using high quality hybrid seeds;
 - directions in how to prepare seedling pots made from banana leaves at minimal cost to better prepare seedlings for transfer from the nursery;
 - help in the proper preparation of soil in raised beds;
 - guidance in how to transplant seedlings to raised beds;
 - guidance in the proper fertilization of plants after transplanting;
 - guidance in the proper methods of weed control;
 - guidance in the recognition of diseases/insects that can destroy the crop; and,
 - guidance in how to pack product for shipment to buyers
- Establishing a way (linkage with Kmanek) to ensure farmers would be able to obtain high quality seed, instead of continuing to use seed saved from the prior year's crop;
- Introducing the use of plastic tunnels to protect crops from heavy downpours during the rainy season and increase production substantially;
- Introducing new seed varieties that increased diversification in vegetable supplies to better serve the local premium markets of Dili;
- Development of an understanding of value-chain strengthening with a buyer that establishes durable commercial relationships;

Since technological support is an on-going task requiring close supervision of field activities DOCIA/DAC, as mentioned, hired a staff of field technicians to provide intensive extension assistance to growers. As the growers have gained competency the intensity of field assistance is being reduced. The project now has a team of 12 people, a lead supervisor and 11 technicians that provide technical assistance to growers. On this team two people specialize, one provides overall supervision to the technicians working in Selo and, one provides specialized support on integrated pest management (IPM) practices. This team is very likely larger than needed at the moment since the project is working to wean growers who have been with the project longest. It is necessary to reduce the intensive assistance because growers need to be able to manage on

their own and, by reducing assistance it will be possible to determine whether the farmers are ready for field management on their own. The large number of technicians has been maintained because there are plans, based on the recent GDA extension, to add five more SHAs to the program. It will be necessary to work closely with these new growers and the growers in the five Selo SHAs for some time yet.

The technical activities carried out are being done according to lessons learned and good practices; i.e. innovative agricultural technologies tested by other organizations/companies that have implemented or are implementing horticultural programs in Timor-Leste or in the region. In fact, WV and ILO are implementing similar activities based on the DOCIA/DAC model.

d. Challenges, difficulties and, solutions:

In projects of the type being implemented by DOCIA/DAC several challenges are confronted when working to organize efficient production from groups that have not experienced the use of new production techniques or facilities. Some of the significant challenges shared by project leadership and staff in the field include:

- **The limited capacity of the farmer:** In a large percentage of cases growers being worked with have limited education and have been working with technologies that have been passed down from parents and grandparents. Thus, if people cannot read or write it is necessary to show them what to do and demonstrate success that will convince them to adopt new ideas. For this reason the project has had a very intensive program of technical assistance via technicians in the field on a daily basis showing the growers what to do. Also, combined with this has been an intensive effort to train farmers via various kinds of demonstration programs.
- **Limited availability of technical assistance in horticulture in Timor-Leste:** Presently the pool of trained people in the field of horticulture is limited and this makes it very difficult to find the talent required to manage the technical operations the project is working to implement. The project was fortunate to have had a couple of good people in the beginning Mr. Bruno Benavente and Mr. William Bere-Ati. Mr. Benavente is of Portuguese background, had substantial horticultural experience, had lived in Timor-Leste for many years and spoke Tetum. Mr. William Bere-Ati is Timorese but, has had substantial experience in vegetable production in Indonesia and other countries of the region. Having these people from the beginning of the project, together with STTA help from outside Timor-Leste, has permitted the project to obtain and train local young people with agricultural and agribusiness backgrounds as employees. These young people with additional training have been able to provide the growers with necessary guidance. However, at the moment, with the departure of Mr. Benavente, the response from Timorese specialists to employment announcements for a senior person in the field of horticulture has proven that very little talent of the type needed is available in country because very few applications of quality have come forward. This is a problem for the expanded development of the industry.

- **Poor infrastructure:** Timor-Leste with its many mountains and limited resources finds itself with many roads that are very poor and under maintained and this makes it very difficult to get trucks to the locations where growers can be developed. Also, with no, or very limited, cold storage facilities in the rural towns of the interior it is difficult to harvest vegetables and bring them into central storage facilities for pickup by the buyers. Also, the supply of refrigerated trucks is limited and this causes the buyers to obtain their own refrigerated trucks that they then run to the fields to pick-up the vegetables directly from the growers on the farms. Kmanek, the principal buyer from DOCIA/DAC farmers runs such a truck every day to the field. This lack of infrastructure has been a challenge and it has caused the project to focus on farmers that can be accessed by truck with reasonable facility. But, to expand this business substantially this issue will need to be addressed.
- **Input supplies unavailable locally:** To obtain high quality improved seed; plastic and other materials required to construct tunnels, drip irrigation equipment, and many more items required to operate higher technology vegetable production operations they must be imported. Also, some equipment like refrigerated trucks cannot be obtained in country. The process of scheduling the importation of these items can be very frustrating leading to time periods of up to three months before seed will arrive once ordered. And, because the materials are not available locally it is very difficult for farmers to find these items on their own. Thus, the project has established a relationship with a buyer (Kmanek Supermarkets) that is taking the responsibility of arranging for seed and some other inputs. And, the project works to make arrangements for other inputs required. When the project ends, the buyer (Kmanek) will have to assume all the responsibilities for arranging needed inputs; or, work with a local supplier to help carry out obtaining the inputs. This has been a challenge for the project and it will be something that prevents expansion of the business if local suppliers cannot be established.
- **Kmanek contract limits farmer sales:** Farmers often complain that the arrangement with Kmanek limits their ability to expand their business beyond the business agreed to with Kmanek. The evaluation team is not convinced that this is a problem because the farmers are only obligated to supply Kmanek produce resulting from the seed that Kmanek supplies. Also DOCIA/DAC management indicates that Kmanek has agreed to buy up to 288mt/year. And in 2011 it is estimated that farmers only produced 89mt; thus, farmers still have room to expand sales substantially before they meet the Kmanek quota. If the farmers want to buy additional seed (local or imported) and produce more it does not appear that Kmanek prevents this. The main problem is the farmer's ability to obtain the seed they need. The growers at Sarin and Liurai apparently have been able to obtain seed because they have been selling product produced from seed other than that provided by Kmanek. Also, if they exceed the target and Kmanek does not want the product it appears as if the project has provided help to farmers to get their excess product to the local Aileu market.
- **Inability to meet Kmanek Targets in rainy season:** During the rainy season farmers do not always meet the Kmanek requirement for certain products because rain reduces productivity substantially. To help solve this challenge, as discussed earlier, the project

started to distribute plastic and other materials to farmers in order to let them construct tunnels that protect the crops from the rain. To date the project has distributed materials for many tunnels - 56 in Selo, 13 in Sarin, 9 in Liurai, and 28 in Leqitura. This solution has demonstrated substantial benefit as it has increased production during the rainy season.

- **Disease control:** Disease is a regular problem but, most intense during the rainy season – cauliflower, broccoli, bitter melon, Chinese cabbage, and others are often affected. This result occurs because farmers are not all adequately trained in the various diseases and how to recognize and control them. The project tries to provide close monitoring in an effort to identify diseases before they create major damage but, they have not always been successful. Additional work will be required to overcome this problem. The project has an IPM specialist but, this person cannot be everywhere each day so farmers and field technicians need to be able to recognize disease problems before they become serious.
- **Farmers complain that some crops mature too slowly:** Farmers often refuse to grow certain crops – broccoli, cauliflower – because they take too long to mature and they do not realize income soon enough. They prefer crops that mature quickly and result in revenues faster. To try and manage this complaint the project works to distribute seed to the farmers that are interested in producing the crop. Another thing that can be done is to schedule the production more effectively so as to get a continuous flow of product and revenue stream.

The project carries out interventions and perhaps there are ways that some of these intervention activities can be improved. Some areas of intervention and thoughts for improvement include:

- **Operational proficiency:** At the moment the farmers, Kmanek, and project team do not really have a good fix on the profitability of the overall venture. When the evaluation team asked about costs and returns information we were told that it was not developed. To determine whether the enterprise is operating proficiently it would seem that knowing costs and returns would be a strong measure of this. Thus, it is suggested that the project spend more time to try and quantify the costs and returns for the various players in the value-chain from farm to consumer. This involves developing a budget for each of the vegetable enterprises being promoted, establishing average yields for the product to determine revenues, and detailing the logistical costs of getting the product to market. The project recognizes this need but, has not yet completed the work. Further, to assess the efficiency more effort is likely required in training the team and farmers how to plan their production schedules to ensure a smooth stream of supply to the market and regular income to the players involved.
- **Technical proficiency:** The project, as discussed above is providing substantial technical assistance and it seems to be correctly focused support. This work should be continued and farmers should be gradually weaned from the support if they are to continue effectively after the project closes. One area that seems to still be a significant concern is the ability of the farmers and the technical team to notice disease problems quickly enough to bring them under control before major losses occur. In this area it may be

necessary to develop a relationship with a specialist in vegetable diseases, (in UNTL or MAP) that can provide additional training and help someone on each SHA team become the expert in disease recognition and control.

- **Marketing & Sales:** The project has been working effectively to “link farmers to markets” as they have established a relationship with Kmanek a leading supermarket group in Dili. Kmanek has taken on the role of providing inputs (mainly seeds, fertilizers, and pesticides) and is buying product, to target levels that are consistent with the quantity of seed that Kmanek provides, from the farmers at prices that have been agreed to by Kmanek and the SHAs. It was heard that Kmanek is actually paying prices that are higher than those paid in local street markets, approximately \$0.20 higher/kg. Recently DOCIA/DAC completed a market study in an effort to establish the size of the market in Dili. The initial estimate is that it is 18,000mt per year and certainly large enough to absorb much more than the present estimated 89mt produced by the project during year one. Also the 288mt that Kmanek is willing to buy represents a small percentage of the total market.

Thus, if the quality of the product continues strong the market should absorb the production from the target farms for some time to come. However, it should be mentioned that at the moment a large share of the market for many of the vegetables produced by DOCIA/DAC farmers is more for the expatriate community than for the Timorese community. Because the expatriate community may begin to shrink, due to a UN pullout, in the near future it will be necessary to broaden the market base for the mix of vegetables or the farmers could be left without a good market in the future. Therefore, efforts should be made to introduce the various vegetables to the Timorese in order to help build the local market for these products. Getting the Timorese exposed to a different group of vegetables than those they normally eat could result in helping to maintain or grow the market for a set of vegetables that could help improve nutrition.

If in the future a move to exporting product is to take place much more will likely need to be done with respect to post harvest handling. DOCIA/DAC may be able to help get legislation enacted for implementation of SPS legislation/ –regulations associated with fruit and vegetable certification for export but, it is not likely the farmers will be ready to export soon. However, with the ConocoPhillips and GOTL working agreement it may be possible to get the SPS certification in place for the future. The project team suggests that exports will not work at this time and, this is likely a correct decision given the size of the local market and, maybe the present cost of production for the vegetables being produced.

- **Organizational and human resource competence:** As has been mentioned previously the farmers dealt with by the project have limited education and, as a consequence they can learn many of the activities that go on in the field of production but, to manage the overall business it is not certain they will be ready to manage a cooperative, association or, some other form of business structure. They should be able to continue a relationship with a group like Kmanek as integrator if Kmanek continues to provide the services it provides now plus the services provided by DOCIA/DAC. If the farmers are to establish

a cooperative it is likely they will need executive management on a hired basis. Continued training of the farmers can go on to be sure they understand what they gain if they organize as a cooperative, an association, or some other appropriate business structure. A reason for this position by the evaluation team stems from the fact that the Sarin SHA has started the process of establishing a cooperative but; to date it has not been legalized because the members do not regularly contribute the five (5) dollars per month necessary for a period of six months. If the leadership of the group cannot get this to happen how will they manage the organization on their own? Thus, much more training work will need to be done by the project to improve the competency of the human resource they are working with if a business is to be managed properly.

- **Compatibility between the business and community life:** With respect to this particular intervention the evaluation team saw little evidence that there were problems as a result of the project operating in the community. And, when asked, local officials confirmed that there were no problems. In fact, other people in the community have observed what goes on in the SHAs and they work to emulate it in their production operations. Also, the SHAs seem to be open to have others join the group if they demonstrate an interest and ask.
- **Legal entity status for future:** Presently the SHA members are happy with the Kmanek integrator relationship. As long as Kmanek continues the relationship it is a good model and there is really no need for another model. The project has been exploring other business arrangements – cooperatives and associations – but to date the farmers have not seen the need; and, for a change to be successful the members of the SHAs need all to be committed. More work will be done under this initiative in an effort to help members of the SHAs understand why it is important to be organized as a cooperative or association because if they do not understand the benefits it will be difficult to convince them there is a need.
- **Building the overall horticulture value chain:** Another initiative being undertaken by DOCIA/DAC is reviewing and analyzing the entire value chain from producer to consumer. This is a positive initiative because it is important to understand the bottlenecks in the chain and the costs and returns at each level of the chain. To date the center piece of this work has been the detailed market study done for Dili; but more work is planned for the remainder of this project year.

The project has faced many challenges and has put in place several initiatives to work to overcome the challenges. On whole the project has been successful and has produced good results for the farmers and for Kmanek. The communities have benefited and many others are working to emulate the model used. We believe the project is on the right track and will keep confronting the challenges in the best way possible; but it is critical to be sure all parties involved will be profitable when the project ends as this will determine sustainability.

e. Management arrangements & structure:

Presently DOCIA/DAC has adopted a “linking farmers to markets” management structure. It is basically an integrator model where a core company takes on the job of providing all the inputs to the farmers, provides technical guidance, and buys the product from the farmers. This is a strong model and is employed in many countries of the world. In fact, this model is used worldwide in agriculture enterprises. For example it is used in the developing countries of Kenya, Zimbabwe, Swaziland, Thailand, and Malaysia to name a few. In the United States it is the principal model used by the poultry and swine industries.

In Timor-Leste the model DOCIA/DAC is using has evolved to the point where Kmanek is very committed to its continuation. Earlier in the project DOCIA/DAC management was not interfering in the Kmanek role so progress for solidifying the relationship between the farmers and Kmanek was left unclear. However, in the last few months it has become clear. Farmers know what Kmanek wants and Kmanek knows what farmers will provide. The present DOCIA/DAC management seems to be working closely with Kmanek to help them move to take over their integrator role on a more solid basis. Kmanek has started hiring staff trained by DOCIA/DAC and is beginning to assume some of the activities (identifying seed need and scheduling seed purchases, establishing better practices with respect to ordering seed and other inputs) that DOCIA/DAC was handling. Kmanek is beginning to think about providing the technical advice in the field. Kmanek still has work to do to ensure it has all the staff competencies (knowledge, strengths, and skills) required to effectively implement the program when DOCIA/DAC's role ends but, as mentioned Kmanek is starting to hire the skills it needs from DOCIA/DAC and DOCIA/DAC is working in support of this.

Given current competencies of Kmanek, organizational capabilities and capacities, it is believed the marketing competencies are adequate as the group controls supermarkets through which to sell the product. But, more will need to be added to improve the group's ability to support the technical side of the production process in the field. Also, it is likely that improvements in post harvest handling to improve efficiencies will be required. For example, at present Kmanek sends a refrigerated truck to the field every day and some days it returns partly filled. If Kmanek had a small cold storage facility in Aileu it might be possible to use a local truck to assemble the product to the cold store so that when the refrigerated truck comes from Dili it can go to one point and pick-up its cargo, reducing cost because there would be fewer trips to Aileu.



Figure 2: Kmanek refrigerated truck collecting and weighing vegetables

Also, financial control procedures should be established so Kmanek and farmers understand costs and returns in their operations. This will provide everyone with a clearer picture as to profits. And, after all profits is what will sustain this project as a business.

In addition to the development of management competencies at Kmanek DOCIA/DAC has been working to strengthen the technical and management skills of farmers but, farmer/community member organizational and business management capabilities and capacities are still very weak and much more will need to be done. As mentioned earlier in this report DOCIA/DAC has been looking into cooperative and association options as structures for a future entity to be managed by the SHAs Sarin and Liurai. Based on the present level of competence exhibited with respect to management of an operation more involved than their horticultural plots it is the evaluation teams opinion that the members of SHAs will not be ready to manage a cooperative or association on their own by the end of the project. In fact, until they get university educated members involved that have business training and organizational capability it is the evaluation team's opinion that if cooperatives or associations are chosen as a structure for the farmers it will be necessary to hire management to run the operations. And, this may not be a problem because the farmers may be able to earn sufficient income to make this a reality. In fact, most successful cooperatives, even in the US, are run by hired management teams and farmers make up the board of directors.

f. Project Effectiveness:

Having reviewed several items related to the efficiency of DOCIA/DAC it is time to turn attention to how effective the work has been and whether or not it has produced the results expected. In the beginning of this discussion related to project performance some overview information was provided that indicated the current situation with respect to project results achieved to date. That overview indicated DOCIA/DAC achieved its targets set for 2011 (see Figure 1) and, is on track for achieving targets in 2012 (see Table 2). Now a closer look at some of the achievements will follow.

Farmers reached by DOCIA/DAC are to be households (HH) of subsistence farmers because these farmers are most vulnerable having low incomes and instability with respect to food security. DOCIA/DAC is building off the work of a prior project – DPS and this prior project chose three locations (Lequitura, Sarin, and Liurai) with farmer members that were from a subsistence background. DOCIA/DAC started to work with these farmers whom were subsistence farmers but had been moved part way along the track from subsistence to commercial farmer status. In addition to these farmers DOCIA/DAC was to select subsistence farmers in five new locations and introduce them to the same basic model that had been used by DSP with the first three sets of farmers. This selection has been carried out and DOCIA/DAC is now working with the first three SHAs and five new SHAs in Suco Selo Kraik and Suco Selo Malere. In selecting locations DOCIA/DAC determined that three criteria are most important—access to water for irrigation, the presence of vegetable production experience in the community, and road access for input delivery and output access. Once the project had selected Selo and particular Aldeias for the new SHAs the chief of the targeted Aldeia selected the farmer beneficiaries. It seems that no specific criteria were specified by DOCIA/DAC for this selection but, from observation and interviews it is concluded by the evaluation team that subsistence farmers were selected.

Farmers have moved from self-sufficiency to commercial production of vegetables. The evaluation team visited SHAs in Aileu and Selo and confirmed that farmers have moved from producing self-sufficiency crops to producing crops for the commercial market. They have diversified the number of crops they produce, some producing as many as 42 different crops. The farmers have improved their planting, cultivation, disease control, harvesting, sales, and other related practices but, in some cases there is still more to be implemented correctly. For example, in one greenhouse an entire tomato crop was lost to disease because farmers as well as DOCIA/DAC field technicians did not identify the problem and make corrections soon enough. Thus, while great progress has been made toward bringing farmers to a commercial level some things still need to be completed.

Several expected results were set for DOCIA/DAC and as set out in Figure 1 DOCIA/DAC delivered, in the first year, positive results against these targets. From the data reported in the chart it can be seen that in most cases the expected results have been reached or exceeded. Without repeating this information again here it is asked that the reader return to Figure 1 and the description of items to have been achieved for a fuller review of the achievements. With respect to the well-being of the beneficiaries the evaluation team asked them about the benefits they have realized. The most important response was the one where several farmers reported that they have increased incomes from \$20 to \$40/month/HH to \$40 to \$50/week/HH and this would yield \$160 to \$200/month/HH. However, while this is likely being accomplished some weeks it is not yet likely happening every week. Based on project data for the year 2011 it was reported that farmers had sold about \$79,000 worth of product. It appears, based on information received from the project team that about 80% of these sales were from Sarin and Liurai. This being the case it means each member HH at Sarin and Liurai received about \$115/month or \$28.75/week. In addition to this Sarin and Liurai reported selling additional product (about 25% of the amount sold to Kmanek) to buyers other than Kmanek. If this is the case it would suggest additional revenue of \$25 to \$30 per month or \$6.25/week. Thus, while farmers reported making \$40 to \$50/week/HH it is more likely that a good average to date has been on the order of

\$35/week/HH. In any event farmers have experienced a substantial increase in income and DOCIA/DAC and those involved in supporting the project should be congratulated for this success. From the increased income the members of the SHAs indicated they had realized the following benefits:

- improvements to their houses, in some cases new houses;
- obtained clothes for children and were able to pay school fees;
- improved availability of food and better nutrition;
- sent children on to university in a few cases;
- bought cattle for organic fertilizer production; and, to permit traditional ceremonies;
- bought water pumps to help ensure that they have water for crops when needed;
- bought medications for the family when illness struck;
- bought motor bikes to provide access to the city for things they need;
- established small kiosks to sell goods to others in the local community



Figure 3: Improvement of farmer's house (showing before and after) DOCIA/DAC project

This list indicates some of the things the beneficiaries do with the increased incomes they receive. But, there was one noticeable surprise because no one mentioned putting additional investments into tunnels so as to enhance their production during the rainy season. They did mention investing in pumps to ensure water but no real mention was made of investing in something that would have helped them expand their production, sales; and, incomes. When asked, the primary reason for this was that their contract with Kmanek restricted their production to Kmanek targets because they had to sell product produced from Kmanek seed back to Kmanek. In fact, this should not be an excuse because if they buy their own seed, they can expand production.

Equality between women and men is an important consideration for DOCIA/DAC. The project is set up to benefit HHs and both men and women are represented as members. It was reported that for the nine SHA's combined a total of 162 members existed and, of this membership it was split between men and women 108 and 54 respectively (see Table 1). Clearly this is not equal representation but, when compared to women's roles in many countries of the developing world this is a strong representation by women. However, when asked, farmers of several SHAs reported that women featured more strongly in the day to day work than men. Women were very prominent in the work associated with the nurseries and tending the garden

plots; whereas, men were more prominent in the heavier work associated with preparation of the beds for planting. Often, in many societies, the resources of land; water for irrigation; financing for productive activities, technology and equipment are controlled by the men and this leaves women with a reduced ability to influence the production outcome. But, the evaluation team was told that while the men may have control of more of the assets the women generally manage household finances. Since the women are active in the field work and control much of the production they generally are well aware of the revenues to be made and gain a substantial share to maintain the household. Therefore, the evaluation team found that the women do participate actively and are being impacted equally. It is difficult to know whether the women are benefiting equally because the sharing of monies was not clearly shared. However, it was learned that many of the benefits are benefits that impact on men and women alike in the household. For example, houses are being built or repaired and children are going to school. These things benefit both the men and women nearly equally. The evaluation team did not observe situations that suggested men and women did not share in the benefits of their joint efforts.

The capacity of beneficiaries is being developed mainly through training efforts carried out by the project and via working together with project technicians that help provide them advice on a regular basis as the farmers manage their own plots and tunnels. The project team is building beneficiary capacity by introducing them to new production techniques and marketing strategies and many of the topics covered were listed under the prior section of this report. In addition to field training they are provided training programs on topics relevant to their business. And, the lessons learned by farmer group members is shared with other farmers via observation and by discussion between member and non-member farmers

In addition to developing the capacity of beneficiaries technically it is important to improve the ways by which they manage their businesses. They can continue to manage under the Kmanek model as contract farmers or they can choose some other form (cooperative, association, or other) of organization. DOCIA/DAC has an objective to help farmers establish an organization that can successfully manage their commercial horticulture activities into the future. This is based on the presumption that Kmanek will not be a stable support for the long term. This work involves developing sustainable ways for communities to independently manage the planning, production, and sales of vegetables. This includes assisting the farmers to choose and implement the type of organization that best meets their needs, and training the group members in the required skills to manage the chosen entity.

To date DOCIA/DAC has involved some legal assistance in trying to determine the best structural choice. And, one of the earlier established SHAs (Sarin) is in the process of establishing as a cooperative. They have been provided the training associated with becoming a cooperative and have established an account where each member is to deposit \$5 per month for six months without fail. If some members of the SHA do not deposit their monthly deposit the cooperative cannot be legalized. In Sarin's case some members have not made their deposits so the cooperative is not legalized and as such can not become operational. Deposits have not been made by some members because; perhaps, they do not see the need for establishing the cooperative. If this is the case the project team will need to do a better job of explaining why it is important to establish the cooperative and what it can do for them as the group grows and

expands into the future. It is the DOCIA/DAC plan to provide 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 long term survival as a group. This has not been completed yet but it is expected to be done before the end of the present project year.

The evaluation team, after having spent time with several of the SHAs, is doubtful that the people in the groups have the capacity, even with substantial training, to effectively manage a reasonably complex business operation. It is the evaluation team's belief that when the members of the SHAs decide on a business entity it will be necessary for them to hire a management team to run it. In this case, in the opinion of the evaluation team, it would be advisable to consolidate the SHAs into one large cooperative. There is no reason to form a cooperative for each SHA but, the individual SHAs could be managed as business units within the larger cooperative to which all members would belong. In this way each business unit would keep certain accounting records under the direction of a financial officer of the cooperative. This arrangement would bring together enough farmers so that the cooperative could hire a management team to run the business on behalf of the members. The management team could consist of a General Manager to oversee all operations, a technical manager to oversee all technical activities, a financial officer to oversee the finances and accounting activities, and a marketing manager to maintain and develop market linkages for the output of the cooperative (see Figure 4). A cooperative of this nature could maintain the contract farming relationship with Kmanek as well as begin to develop relationships with other groups if necessary. Each of the SHA business units would have a representative on the board of the cooperative and they would meet regularly to be informed about the activities of the cooperative and to approve or not various initiatives the management team might want to undertake.

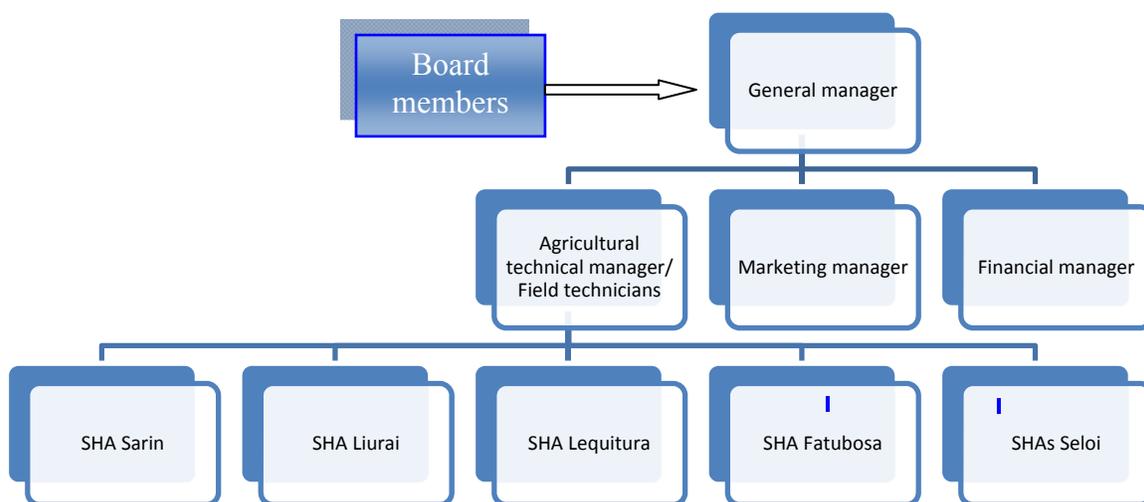


Figure 4: A representative organization Chart for Cooperative

National, District and local government officials have a positive perspective of DOCIA/DAC. DOCIA/DAC has been working with the national and district officials and works

to keep them informed of project activities. The project has held meetings with people in these departments to introduce the project and share ideas about how the project and ministry departments can work together. In addition, discussion of proposed partnership strategies has been held with District Administrators and the MAP Director of Aileu. Also, meetings with sub-district administrators, respected local elders, chiefs of villages and sub-villages in Aileu have been carried out. In addition to already established SHAs in Lequitura, Liurai, and Sarin the project has added SHAs in Selo (see Table 1) and, similar meetings to those held in the first districts with District and Sub-district Administrators, respected local elders, village and sub-village chiefs were carried out.

The evaluation team met with MAP officials from the Department of Horticulture in Dili and it was indicated that MAP was fully aware of the project and supported its activities. The MAP Director in Aileu was highly complementary of the project and indicated that because they only had one extension agent for every two Suco's they did not provide substantial technical assistance in the field. In addition, since there is limited horticultural experience in the country, it is questionable whether MAP field extension agents have the relevant knowledge, skills and experience required by farmers. Also, since the project is well staffed with technicians it was not necessary. However, MAP did indicate that they provided support with garden tractors in some places. They do what they can do. The project did not really ask for training help from MAP horticultural specialists because the project has its own team and its own way of carrying out field activities. In all cases the officials thought that the project was providing good and needed work. The officials support helping subsistence farmers to become commercial operations to insure well-being and food security. Also, MAP does have an interest in developing horticultural activities in Timor-Leste. The Aileu MAP Director said that the project work needs to keep going because it is doing things much more effectively than the ministry can do them with their limited staff.

Annex A: List of Contacts

- Agency/Company:** **USAID Project Responsible Team**
Mr. Ryder Rogers, Dili/EG/ Team Leader USAID
Mr. Candido da Conceicao (Dili/EG/USAID)
Ms. Angela Rodrigues Lopes da Cruz (DILI/EG/USAID)
Mr. Jessie Snaza, Ag. Officer (DILI/EG/USAID)
Mr. Carlos Peloi dos Reis (DILI/EG/USAID)
Contact Information: Tel: +670-723- 0579 (office)

Rua Sergio Vieira de Mello Rd
Farol, Dili, Timor-Leste
- Agency/Company:** **Ministerio da Agricultura e Pescas (MAP), Mr. Gil Rangel (Director of Horticulture)**
Contact Information: Address: Rua Nicolau Lobato No. 5 Comoro
Dili, Timor-Leste
- Agency/Company:** **DAI DOCIA/DAC Project/ Ms. Catherine Johnston (COP)**
Contact Information: Address: Rua Humberto da Cruz. Samping SD 3
Bidau – Akadiru Hun; Dili, Timor-Leste
- Agency/Company:** **Kmanek Agriculture/ Mr. Clarence Lim (Director)**
Contact Information: Address: #3 Rua Belarmino Lobo Lecidere
Dili, Timor-Leste
- Agency/Company:** **Ms. Amanda Brondy (DCOP), DAI**
Contact Information: Address: Rua Humberto da Cruz, Samping SD 3
Bidau-Akadiru Hun, Dili, Timor-Leste
- Agency/Company:** **CONOCOPhillips/ Mr. Jose Lobato Goncalves (Country Manager) ConocoPhillips Timor-Leste Pty Ltd.**
Contact Information: Address: Rua Bairo Gomes No. 40,
Bidau, Lecidere, Dili, Timor-Leste
P. O. Box 335
- Agency/Company:** **Ms. Dulce Gusmao, Program Manager, DAI**
Mr. Nilton Aniceto, Value Chain Coordinator, DAI
Contact Information: Address: Rua Humberto da Cruz, Samping SD 3
Bidau-Akadiru Hun, Dili, Timor-Leste
- Agency/Company:** **Mr. William Bere Ati, Agribusiness Advisor, DAI and field team:**
Roberto da Costa Magno (Deputy Manager)
Saulustiano Pinto (Committee Development Specialist)
Livia Napoleao (Community Development Assistant)

- Roberta Passos (Coordinador Area - Liurai & Sarin)
Laurentino Amaral (Coordinador Area, Fatubossa & Ligitura)
Juliana de Fatima (Nursery Manager)
Isolina Soares (Nursery Manager)
Vital Baros Morais (Coordinador Area)
Hermenegildo Lopes (IPM Specialist)
Alcina Mendosa (Greenhouse Trainer)
Contact Information: Address: Rua Humberto da Cruz, Samping SD 3
Bidau-Akadiru Hun, Dili, Timor-Leste
- Agency/Company:** **International Labor Organization (ILO), Ms. Jenny Ikelberg, Value Chain Development Expert**
Contact Information: Address: Ministerio da Economia e Desenvolvimento
Dili, Timor-Leste
- Agency/Company:** **SHA Liurai Group/Community, Izac Mau Rema (known as Alfonso), Head of Group and community leader**
Contact Information: Address: Rua Humberto da Cruz, Samping SD 3
Bidau-Akadiru Hun, Dili, Timor-Leste
- Agency/Company:** **SHA Sarin Group/Community, Marcelino Mouzino), Head of Group**
Contact Information: Address: Rua Humberto da Cruz, Samping SD 3
Bidau-Akadiru Hun, Dili, Timor-Leste
- Agency/Company:** **SHA Ligitura Group/Community (Upper), Thomas Almeida (Former Leader), Domingo's acting leader**
Contact Information: Address: Rua Humberto da Cruz, Samping SD 3
Bidau-Akadiru Hun, Dili, Timor-Leste
- Agency/Company:** **SHA Ligitura Group/Community (Lower), Jose Almeida (Head of Group)**
Contact Information: Address: Rua Humberto da Cruz, Samping SD 3
Bidau-Akadiru Hun, Dili, Timor-Leste
- Agency/Company:** **Chefe Suco Selo Malere, Jacinto Reberio Dias**
Contact Information: Address: Office of Suco Selo Malere, Aileu, Timor Leste
- Agency/Company:** **Chefe Suco Liurai, Domingos Rodrigues Pinhero**
Contact Information: Address: Office of Suco Liurai, Aileu, Timor Leste
- Agency/Company:** **MAP, District Agricultural Director, Gallieni Galhos**
Contact Information: Address: MAP Aileu Office, Aileu, Timor Leste
- Agency/Company:** **MED, District Coordinator for Cooperative Development**
Aileu, Laurantino da Costa Goveia

Contact Information: Address: Administration Office of the Aileu District, Aileu, Timor Leste

Agency/Company: **World Vision, District Manager, Kate Horwood & Jesuinho Gusmao (Agricultural Specialist)**

Contact Information: Address: World Vision Office, Aileu, Timor Leste

Agency/Company: **Kmanek, Fidelino Hornai, Aileu District Manager (Vegetable & seed supply officer)**

Contact Information: Address: DAC Office, Aileu, Timor Leste

Agency/Company: **SHA Hakiak Moris, Florindo (Project head was not there), Selo, other people in attendance were:**

Paulino Mendonca; Tereza da Conceicao; Celestino da Costa; Felizarda Sarmento; Paulina Dias; Maria Soares

Contact Information: Address: Hakiak Morris, Selo, Aileu, Timor Leste

Agency/Company: **SHA Morris Foun, Carlos Guterres Arujo Representative; other people in attendance were:**

Anastacio da Sousa Mendonca

Contact Information: Address: Moris Foun, Selo, Aileu, Timor Leste

Agency/Company: **SHA Tasonih , Santiago Pinto (Head of Group) other people in attendance were:**

Vicente Cruma; Isabela Cruma

Contact Information: Address: SHA Tasoni, Aldeia Hularema, Selo Malere, Aileu, Timor Leste

Agency/Company: **Planet Input Supply store, Mr. Reynold Samara, Managing Director**

Contact Information: Address: Rua da liceu @Benfica Bd. 5Dili, Timor-Leste

Agency/Company: **Embassy of the USA, Mr. Scott B. Ticknor, Deputy Chief of Mission**

Contact Information: Address: Avenida de Portugal
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Annex B: Scope of Work

Mid-Term Review of the Development of Communities through Intensive Agriculture (DOCIA)/Dezenvolve Agricultura Comunitária (DAC) Project

1.0 Background

Development Alternatives, Inc. (DAI) was awarded a three-year contract under the *USAID* Rural and Agricultural Incomes with a Sustainable Environment PLUS (RAISE-PLUS) IQC focusing on the completion of a development model that improves the economic and social livelihood of members of rural households in poor communities a way that distributes the benefits fairly among people of both genders. This will be achieved through two approaches: (i) the introduction of improved agricultural production technologies to poor rural households and (ii) the provision of focused technical and management training of community members in agribusiness and production technologies. It is expected that these interventions will strengthen the supply chain that links rural households agricultural producers to markets in Dili and, later, abroad. This strategy is believed to be the best and most effective route toward sustainable economic growth and development of market efficiencies in Timor-Leste.

In this way, the community can increase its income and the value of its assets by serving a demanding market that pays premium prices for selected products. Increased material wellbeing will enable the community to improve its social and environmental status.

The *USAID*-DAI contract was signed in August 30, 2010 for \$5,679,087, and the project start-up operations began shortly after the award in September. Since then, DAC has made considerable progress in the implementation of planned activities toward meeting project objectives. Nevertheless, the project is also facing some difficulties especially in the Lequitur a Leten community.

As the project reaches its mid-point in its life cycle (project end date August 31, 2013), it is important that an objective outside review be undertaken to assess progress made toward reaching stated goals and objectives, as well as to validate project assumption and results indicators against the reality on the ground, based on DAI implementation experience to date.

2.0 Objective of Mid-Term Review

The objective of this assignment is to carry out a Mid-Term Review of the DAC project, to determine the relevance, effectiveness, efficiency, potential impact and sustainability of the results achieved. Specifically, the evaluators will undertake a formative assessment of the project to gauge progress made in the implementation of planned activities toward reaching stated goals and objectives. Additionally, the evaluators will assess the wider project context to validate project assumptions and results indicators against the reality on the ground, based on actual DAC implementation experience to date. The latter should be done with a view toward making recommendations for adjustments and calibration of assumptions and results indicators, as

warranted to enhance project implementation in the remaining period of the activity.

3.0 Scope of Work

The tasks listed below under the scope of work (SOW) are the minimum requirements of this assignment. The evaluators may add additional tasks that further strengthen the expected results of this assignment.

1. Prior to arrival in Timor-Leste, the evaluators should send a list of those standard documents they would like to review addressing themselves to the COTR at the following e-mail address: cconceicao@usaid.gov. USAID will make every effort to gather requested documents and make them available prior to the beginning of assignment to enable timely review of program data and information.
2. Hold a preliminary meeting with the USAID/Timor-Leste COTR and other key staff of the Mission's Economic Growth team to ascertain a thorough understanding of the assignment requirements and to brief the USAID Mission Director and key staff on the approach and procedures to be taken to carry out the Mid-Term Review, as well as to discuss concerns and suggestions for pursuing appropriate lines of assessment inquiry.
3. Hold meetings with Timorese counterparts at the Timorese agriculture ministry (MAP), economy and development ministry (MED), leaders from the District of Aileu, and the country representative of *Conoco-Phillips* in order to discuss project accomplishments and areas for improvement.
4. Undertake data gathering and analysis, as appropriate, including review of project documents, interviews, individual and group discussions, gathering of primary data, review of primary and secondary data, as well as other means of gathering a comprehensive variety of program data and information from a broad and diversified perspective. Review of project documentation, will include but not be limited to USAID project documents, DAC project documents, work plans, monitoring and evaluation plan, project reports and supporting data and information, relevant project monitoring, internal project management information systems, and so on.
5. Based on data and information gathered during field work, conduct preliminary analyses of same to produce a quantitative and qualitative assessment of the DAC program from all relevant perspectives. Data analysis should focus on yielding meaningful output and outcome data and information to provide an in-depth understanding of program progress, challenges faced, if and how problems were resolved, pending issues, necessary changes and directions, as required, and so on.
6. Midway through the field research, prepare a discussion paper on preliminary findings to discuss with USAID/Timor-Leste staff, Timorese counterparts and DAC staff, addressing key findings and issues, and preliminary recommendations. The discussion paper must be submitted at least 24 hours prior the debriefing meeting to be held with above concerned parties. (The inception report may be sent either electronically, in hard copy, or both.) Take note of comments and observations made during the debriefing meeting regarding key findings and preliminary

recommendations to be considered in the drafting of the full Mid-Term Review report. The debriefing meeting is the final phase of the fieldwork.

7. Prepare a draft of the Mid-Term Review report. The draft report shall address progress made toward reaching stated project goals and objectives, as well as to validate project assumptions and results indicators against the reality on the ground, based on actual DAC implementation experience to date. To the extent possible, comments and observations made by *USAID/Timor-Leste*, Timorese counterparts and/or DAC should be taken into consideration in the drafting of the full draft report. Where such comments and observations deviate from evaluators' findings and opinions, appropriate explanatory notes should be provided, registering differing opinions. The draft report should respect standard format and be clearly written to include an Executive Summary, Findings, Conclusions, Recommendations and appropriate annexes.

8. Make specific recommendations in the complete draft report to guide and enable *USAID/Timor-Leste*, Timorese counterparts and the DAC team to take appropriate actions to ensure that the project attains all set goals and objectives within the established timeframe and resources allocated. Recommendations should be both of project implementation nature as well as looking deeper into the project context, appropriateness of current results indicators vis-à-vis actual experience on the ground, and so on.

9. The draft Mid-Term Review report shall be submitted to *USAID* prior to the departure of the expatriate members of the evaluation team from Timor-Leste and at least 24 hours prior to their final debriefing on the assessment. A final debriefing on the assessment report will be held subsequent to the receipt of the draft report.

10. *USAID/Timor-Leste* will review and collect comments and inputs from all key parties and submit these to the evaluators within seven workdays of reception of the draft Mid-Term Review report.

11. Upon receiving the *USAID/Timor-Leste* comments and inputs, the evaluators shall finalize the report within ten calendar/working days and submit an electronic version of the final Mid-Term Review report.

4.0 Expertise Required

An evaluation team is required to undertake this evaluation. The team shall consist of an International and a Timorese consultant.

To carry out the proposed assignment, the following are selection criteria for the team:

1. International Consultant

Essential:

- Senior Agribusiness Specialist with at least ten year experience in international development;
- Proven experience in carrying out project and program evaluation of donor-funded private sector development projects and programs, specifically horticultural projects;

- Proven experience in leading teams of consultants on short- or long-term assignment;
- Gender sensitive and experience of gender analysis;
- Excellent reporting and communication skills;
- Fluency in the English language is a must.

Desired:

- Experience in similar agribusiness projects will be an asset;
- Prior experience of working in Timor-Leste or the Southeast Asia and understanding of the local context will be an asset;
- Fluency in Portuguese, Tetun, or Bahasa Indonesia will be an asset.

The consultant-team leader will have the following responsibilities:

- Orienting the evaluation team in the process and methodologies to be adopted;
- Finalizing the methodology especially the key evaluation questions framework for data analysis and gathering, and for analysis of findings and development of recommendations;
- Compiling and review all the information available from surveys, monitoring and reporting and other relevant documentation;
- Planning the work, assigning responsibilities for team members, carrying out the field visits, meeting all the involved groups and partners and writing the field trip reports;
- Providing regular updates and conducting debriefing with the *USAID/EG* program team;
- Writing the final report.

2. Timorese Consultant

- Agricultural education background;
- At least five year experience in agribusiness projects and programs;
- Prior experience participating in donor-funded private sector projects or programs evaluation;
- Familiarity with agribusiness projects is highly desirable;
- Professional command of English is required.

5.0 Duration of Assignment

The services for the proposed assignment are required for approximately two weeks, beginning on/about May 7, 2012. Fieldwork is estimated to take about one week with the second week spent preparing the draft assessment report and holding a debriefing on that draft report. Other workdays shall be spent reviewing background documents and preparing the final assessment report. The assignment, including all deliverables, is to be completed no later than May 24, 2012.

6.0 Location of Assignment

Fieldwork will be conducted in the District of Aileu where DAC is being implemented as well as in Dili where the project's headquarters and the US AID Mission are located. The draft assessment report shall be prepared in Dili and a final debriefing shall be conducted in *USAID* Conference Room. The final assessment report shall be prepared in the home office of the evaluation team.

7.0 Deliverables

Deliverables to be provided during the course of the Mid-Term Review assignment and before the contract ending date are:

- Discussion Paper with preliminary findings shall be submitted mid-way through the fieldwork, on/about May 14, 2012.
- Draft Mid-Term Review report shall be submitted at least 24 hours prior to a final debriefing on the report to take place prior to the departure of the expatriate member of the evaluation team, on/about May 20, 2012.
- Final Mid-Term Review report to be submitted within 5 days after the receipt of the comments on the draft report, but by no later than June 1, 2012.

Illustrative Questions:

To ensure the gathering of both qualitative and quantitative information demonstrating the project's progress, key evaluation questions for each of the criterion below will be addressed in this evaluation. The following questions are intended to be illustrative and will be finalized with the evaluation team during the preparatory phase of the evaluation.

a) Relevance

- Are the original objectives still relevant in the light of lessons learned from the past 18 months, changes in external environment (including climatic changes), and government priorities?
- What modifications and adjustments would be required to ensure the relevance of objectives to the prevailing conditions and alignment with the food security, economic development strategy of the government?
- Are the expected results and corresponding activities the best way to achieving the objectives and if not, what alternative results and activities should be pursued and what are their implications?

b) Efficiency

- Are the existing management arrangements between DAI, participating farmers and Kmanek well defined and adequate?
- Are there sufficient implementing partner staff competencies (knowledge, strengths, and skills) to effectively implement the program as designed?
- Given current competencies, organizational capabilities and capacities of implementing partner, which activities would not be effectively covered and what changes would be needed?
- How well has DAI helped to enhance community members competencies, organizational capabilities and capacities?
- Are activities being carried out consistent to community and project plans?
- Are activities carried out according to lessons learned and good practices; i.e. innovative agricultural technologies tested by other organizations/companies that have implemented or are implementing horticultural programs in Timor-Leste or in the region?
- How can performance be improved in all areas of interventions?
- What have been the challenges and difficulties and how have they been addressed?

- What improvements have been made in the management and technical areas at both DAI, Kmanek and community level to support the DAC program implementation?
- What forms of collaboration/partnerships with government and other institutions exist and how have they facilitated or impeded program implementation?
- Is the monitoring and evaluation (M&E) plan being used? Is the M&E system generating the required data for decision making? How is information from M&E being used to improve program management?

c) Effectiveness

- To what degree is the project reaching the households that are subsistence farmers? How were these beneficiary households identified?
- How has access to income increased and diversified among the beneficiaries?
- What has changed in the behaviors of target beneficiaries in terms of farming practices, and livelihood/wellbeing?
- How far has equity been achieved between women and men and between other groups (youth)?
- How is the program building the capacity of the beneficiaries?
- To what degree was program learning shared with other households of the target community?
- Could there have been a better way of achieving a similar result (assuming the present results are satisfactory).

d) Impact

- To what degree has program interventions made significant impacts on the livelihood of the participating households? (Incomes, nutrition, education, etc.)
- How has the project contributed to the development of enabling policies at the district and national levels?
- What have been the main successes and challenges of the program?

e) Sustainability

- What capacity building initiatives are in place and are they working to enhance program sustainability?
- Can the project design be seen as creating change that will be self-sustaining beyond the life of this project?
- How committed and prepared are local stakeholders such as local volunteers Conselho de Sucos, MAF agricultural extension agents and administrative officers, and local administrations in sustaining changes?
- Which outcomes and changes have the likelihood of being sustained by beneficiaries and communities?
- What capacities, appropriate sustainability strategies have been developed/built and pursued among various stakeholders that would promote sustainability?

8.0 Reporting

The assignment is to be carried out under the supervision of the *USAID* COTR, Cândido da Conceição. Overall supervision of the assignment will be provided by the leader of the Economic Growth Team Leader at the *USAID*/Timor-Leste Mission.

9.0 Special Provisions

Logistical support. *USAID*/Timor-Leste will provide overall direction to the consultant and will provide key documents and background materials for reading, office space and help arrange the in-briefing and debriefing and *USAID*-based meeting space. The evaluation team shall be responsible for ensuring transportation to and from Timor-Leste and in Timor-Leste. The consultant will be expected to provide his/her own laptop computer. Printing and photocopying support will be provided by *USAID*.

Business Class travel is NOT authorized for this assignment unless an exception is required by a documented medical condition. No Mission housing is available.

Work days ordered. A total of up to 15 work days are estimated for this Mid-Term Review assignment. A six-day work/week is authorized during fieldwork.

10.0 Project Details

DOCIA was designed to contribute to *USAID*/Timor-Leste's Assistance Objective of "market-led private sector growth", and its corollary Intermediate Result 2.1, "increased investment in competitive value chains." Specific details about the project are outlined below.

10.1 Expected Results

Within the framework of the above objectives, the DAC life-of project work plan is structured to produce the following expected results:

Depending upon the status of completion of the facilities in these areas, the contractor may engage in the following activities: (i) the completion of the installation of water tanks, nurseries, greenhouses and ancillary assets (hereafter simply "the horticultural complex"); (ii) the inauguration and/or close accompaniment of the first and subsequent production cycles from seed to commercial vegetable; (iii) the continued training of Timorese technicians in the operation of all the assets; (iv) the continued training of members of the community or their Timorese agents in the management of the business of producing vegetables commercially for the Singaporean firm *K'manek*, its successors or assignees, maintaining the gender balance achieved to date, and (v) assistance with each community's efforts to integrate the business operation into their social life so as to minimize friction with traditional practices and maximize the chances of business success.

The tasks related to Sucos Sarin and Liurai and, where relevant, to Suco Leqitura, comprise:

- (i) completion (if necessary) of the installation of water tanks, nurseries, greenhouses and ancillary assets:
 - Inspection and testing of the physical assets (hereafter the “engineering assessment”) to ensure they are capable of performing the tasks for which they were designed and are referred to in available operational plans and/or other descriptions of proposed commercial vegetable production.
 - If the commercial vegetable activity is already under way, then the inspection and testing should measure their efficiency and estimate its useful life and the cost of maintaining it over the near future,
 - *or* if the commercial vegetable activity has still not begun, then the inspection and testing should identify what investments are still necessary, the cost thereof and the time needed to accomplish it.
- (ii) inauguration and/or accompaniment of the first and subsequent production cycles from seed to commercial vegetable:
 - Critique of an existing business plan *or* development of an original plan based on prior discussions and achievements to date, working closely with the community to ensure that its members understand what is proposed and are willing to invest their time and other resources in its accomplishment.
 - Working jointly with the community and Timorese technical staff, begins implementation of the plan providing (a) guidance and training to participants, (b) feedback on achievements, (c) additional training as required and (d) modifications to the plan, if necessary.
 - At the completion of one vegetable production cycle, incorporates lessons learned into the subsequent cycle in order to promote continuous improvement and increase the productivity of participants in particular members of the community.
- (iii) training of Timorese technicians in the operation of the entire horticultural complex in a manner that balances people of different genders:
 - *Either* in advance of the production cycle *or* simultaneously with it, transfers to Timorese technicians—where possible members of the community—the skills necessary to operate and maintain the horticultural complex introducing standards through which to measure the degree of learning.
- (iv) training members of the community or their Timorese agents in the management of the business of producing vegetables commercially for the firm *K'manek*, its successors *or* assigns:
 - simultaneously with the production cycle and operation of the horticultural complex, carries out a program of training that will impart to the leaders of the community the basics of managing a commercial horticultural operation.
- (v) help to the community with the integration of the business operation in to their social life so as to minimize friction with traditional practices and maximize the chances of business success:
 - In parallel with the management training program for the community, undertake a parallel program to observe the changed community dynamics and provide a forum for community leaders, and preferably members too, to discuss changes in their lifestyle due to the advent of commercial farming with a view to (a) anticipation of issues that might interfere with the production cycle and (b) provide alternative courses of action to the community in order to defuse conflict in a constructive way.

The contractor shall describe the strategies to be employed in furtherance of the integration of the business operation and the community's social life. These strategies will address gender-related issues in particular the employment of community members by the business entity, the election representatives to the board of the co-operative or corporation formed by the community, and the distribution of surpluses.

Year Two Activities:

The contractor shall continue to assist the communities at Suco Sarin, Suco Liurai and Suco Lequitura towards:

- continued improvement in the operation of the horticultural complex;
- diversification of the clientele to include *either* another international buyer *or* an initiative to provide merchandise to a Timorese buyer (including the *MTCI* that has a program to buy farm produce or the education department (*Ministério da Educação*) that operates the school lunch program);
- the formation of a legal business entity: a company or a co-operative or some other legal form;
- allocation of exclusive roles and rules for behavior while at work;
- completion of the protection of springs, boundaries, wind-breaks, slope protection and the like;
- recording of a claim or claims to land belonging to individual members of the community;
- formal approach to local government (at community's discretion) in order to be recognized as a significant rural enterprise.

Subject to good progress towards the completion of the development model under Component 1, the contractor shall approach other Aileu communities interested in an intensive truck farming operation and familiarize their members with the operation at Suco Sarin and/or Suco Liurai. However prior to approaching these prospective communities and engaging them under Component 2, prior *USAID* COTR approval must be obtained.

Year Three Activities²

- Continued improvement in the current truck farming operations
- continued coaching of about two additional communities, exposing them to the operations at Suco Sarin and Suco Liurai and assisting them to prepare a bankable business plan based on a combination of the development model and the particular circumstances of each community;
- identification of more communities interested in a truck farming venture;
- maintenance of a diverse client base and continued improvement in sales volume;
- assistance to the original three communities during the preparation of a comprehensive long-term business plan that will sustain the community business after DAC ends and which incorporates those social, environmental, legal and political considerations that underpin the business operation including:
 - formal attention to the creation of a pattern of behavior that distinguishes work from nonwork;
 - expanded steps to protect the natural environment, possibly through agro-forestry;

² These activities will not have begun at the time the evaluation takes place but are included to indicate what is currently intended. Naturally the third-year activities may be modified in light of this evaluation.

- transfer of the economic/social/environmental model to neighbors.

The tasks to be carried out in Suco Leqitura will be similar to those at Sucos Sarin and Suco Liurai but take into account the operation's longer history, different business and ownership form and different produce buyer.

Successful implementation of DAC will contribute to one main result and six intermediate results:

Main result: Completion of the development model, and after a period of three years spent integrating the introduction of superior technology in pursuit of a demanding market with the social development of communities in the interior of Aileu District that will stand as a proxy for other communities in the interior of Timor-Leste.

10.2 Results Indicators

DOCIA major outcome indicators of progress toward achievement of these results are as follows:

At the end of the first year, the following results will have been achieved: At the end of the first year, the following results will have been achieved:

<i>First Component</i>					
<i>Operational/ Technical</i>	<i>Sales and marketing</i>	<i>HR and organizational</i>	<i>Social</i>	<i>Environmental</i>	<i>Legal and political</i>
<ul style="list-style-type: none"> ▪ basic operation under way ▪ baseline yield established ▪ key personnel Trained 	<ul style="list-style-type: none"> ▪ core contract fulfilled ▪ sales baseline established ▪ basic rapport with buyer achieved 	<ul style="list-style-type: none"> ▪ provisional structure in place ▪ independent set of accounts ▪ exclusive role of trained staff respected 	<ul style="list-style-type: none"> ▪ basic forum for discussion of work-life and social life established 	<ul style="list-style-type: none"> ▪ basic respect for nature integrated into Business activities 	<ul style="list-style-type: none"> ▪ the community prepares some basic normative statement regarding its business operations

The contractor must disaggregate these and all subsequent results by gender and social status.

At the end of the second year, the following results will have been achieved:

<i>First component</i>					
<i>Operational/ Technical</i>	<i>Sales and Marketing</i>	<i>HR and organizational</i>	<i>Social</i>	<i>Environmental</i>	<i>Legal and political</i>
<ul style="list-style-type: none"> ▪ 10 percent Improvement in sales over baseline 	<ul style="list-style-type: none"> ▪ 10 percent Improvement in sales over baseline ▪ buyer relationship strengthened 	<ul style="list-style-type: none"> ▪ registration formalities complete 	<ul style="list-style-type: none"> ▪ organogram of business organization ▪ set of work rules 	<ul style="list-style-type: none"> ▪ protective steps in place 	<ul style="list-style-type: none"> ▪ significant Contribution to the application for a land title ▪ significant contribution

					to opening of a dialog with local government
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<i>Second component</i>					
<i>Operational/ Technical</i>	<i>Sales and Marketing</i>	<i>HR and organizational</i>	<i>Social</i>	<i>Environmental</i>	<i>Legal and political</i>
<ul style="list-style-type: none"> ▪ engagement of five additional communities in Aileu capable of replicating the SHA model 					

At the end of the third year, the following results will have been achieved:

<i>First component</i>					
<i>Operational/ Technical</i>	<i>Sales and Marketing</i>	<i>HR and organizational</i>	<i>Social</i>	<i>Environmental</i>	<i>Legal and political</i>
<ul style="list-style-type: none"> ▪ truck farming business operations in place for five communities in Aileu 	<ul style="list-style-type: none"> ▪ 10 percent improvement in sales over baseline 	<ul style="list-style-type: none"> ▪ production of a long-term plan involving many members of the community 			<ul style="list-style-type: none"> ▪ significant Contribution to opening of a dialogue with local government

<i>First component</i>					
<i>Operational/ Technical</i>	<i>Sales and Marketing</i>	<i>HR and organizational</i>	<i>Social</i>	<i>Environmental</i>	<i>Legal and political</i>
<ul style="list-style-type: none"> ▪ developed truck farming business plans for about two communities ▪ identified three more communities and helped them develop business 					

plans					
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10.4 DOCIA Results Targets

Based on DOCIA life-of-program work plan, additional annual targets have been established by results indicator for the overall program. The table below illustrates key results targets expected by year.

Table 1. Proposed DOCIA Expected Results, Indicators and targets per September 30, 2010.

Area	Element	Indicator	2011		2012		2013	
			Target	Actual	Target	Actual	Target	Actual
Private Sector Competitiveness	Business Enabling Environment	Number of Institutions/Organizations Mature/Viable in the Competency Areas Strengthened as a result of USG assistance	0	0 0			2	
	Private Sector Productivity	Number of Firms receiving USG supported assistance to improve their Management Practices	34	98	120	120		
Agriculture	Agricultural Sector Productivity	Number of Farmers, Processors, and Others who have adopted new Technologies or Management Practices as a result of USG assistance	34	145	110	110		
		Number of individuals who have received USG supported short-term agricultural sector productivity training (disaggregated by gender)	34	145	120	120		
		Men	17	92	75		75	
		Women	17	53	45		45	
		Number of new technologies or management practices made available for transfer as a result of USG assistance	4	39	40		10	
		Number of new technologies or management practices under Field Testing as a result of USG assistance	4	28	20		5	
		Number of rural households benefiting directly from USG interventions	34	118	110	110		
		Number of Vulnerable Households Benefiting Directly from USG assistance	0	7 7			7	

Progress toward targets is monitored regularly.

Annex C: References

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8. Dezenvolve Agricultura Comunitária (DAC) project Quarterly report #2: Covering the period of October –December 2010. Submitted by DAI to USAID on January 15, 2011.
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15. Kenya: Firms Opt for Contract Farming; by Paul Wafula, 4 November 2011