

FINAL EVALUATION REPORT

DECEMBER 2012

The EcoAgriCulture Project: Implementing Sustainable Farming Practices in Trinidad's Northern Range Communities

The Cropper Foundation

ATN/ME-11488-TT



MULTILATERAL INVESTMENT FUND (MIF)

FINAL EVALUATION REPORT

Name of Project:	Implementing Susta Northern Range Con	ainable Farming mmunities	Practices in Trinidad's			
Project Number:	ATN/ME-114883-T	T				
Executing Agency:	The Cropper Found	lation				
	MIF:	\$150,000	(51%)			
Amount Approved:	Counterpart:	\$ 144,500	(49%)			
	Total:	\$294,500				
Amount Cancelled by MIF:	(F: nil					
	MIF:	149,148.85				
Amount Disbursed:	Counterpart:	66,822.65				
	Total:	215,971.50	as at December 3 rd 2012			
Date of Project Approval:	February 16 th 2009					
Date of Project Start:	June 30 th 2009					
Date of Project End:	December 31 st 2012 (with 10 month extension)					
Disbursement Timetable:	ble: Scheduled: 36 months Actual: 45.5 months (from project approval)					
Execution Timetable:	Scheduled:30 monthsActual:40 months (from project start)					
Date of Report:	December 3 rd 2012					
Report Prepared by:	Denyse S. Dookie					



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I. INTRODUCTION

This report presents the final evaluation of the IDB/MIF project "Implementation of Sustainable Farming Practices in Trinidad's Northern Range Communities" (ATN/ME-11488-TT), which was executed by The Cropper Foundation. The project was approved by the IDB/MIF on February 16th 2009, and officially started on June 30th 2009. The implementation of the project's activities by the executing agency, The Cropper Foundation, began in March 2010, and was officially completed on March 30th 2012, although this was subject to a 10 month extension period which took project activities to November 30th 2012 and final disbursements and planning until December 31st 2012.

The overall objective goal of this project has been to demonstrate the complementarities of sustainable livelihoods and environmental management through the implementation of sustainable hillside practices. To do this, the project set out to mitigate the negative impacts on the environment and affected downstream communities by piloting a programme of alternative and sustainable farming practices to farmers in two watershed communities of the Northern Range. In so doing, it was expected that this project would not only assist farmers in co-designing and establishing alternative farming practices towards improving the returns and sustainability of agriculture, but also result in conserving land and contributing to greater productive utilisation of such resources. Additionally, this project could further strengthen local community networks and share information on such farming practices.

Such a project was envisioned because of the negative effects of the largely unregulated and unauthorised practice of small-scale and subsistence farming on the slopes of the Northern Range in Trinidad – although such farming contributes to local food production and is a source of livelihood for these relatively rural and impoverished communities, it also aggravates problems of soil erosion, water runoff, downstream flooding and siltation of water courses due to slash-and-burn and other land-clearing approaches by these farmers. Instead of opting to relocate such farmers, which would have been a socially disruptive and politically sensitive decision, the choice to teach alternative farming practices was seen as a balance to not only mitigate environmental consequences, but also assist in improving the economic returns and sustainability of agriculture for small farmers.

Established in August 2000 as a not-for-profit organisation, The Cropper Foundation has a key mandate to advance the understanding and implementation of sustainable development practices in Trinidad and Tobago. With a reputable track record in the successful implementation of projects funded by a range of both local and international funding organisations, The Cropper Foundation was of full capacity to catalyse, organise, coordinate and manage this project, as well as administer funding. Moreover, The Cropper Foundation's credibility as a well-respected partner in national dialogue on development strategies and practices as well as community involvement has augured well in ensuring active stakeholder engagement within the execution of the project.

This evaluation aims to determine whether and/or to what extent the objectives, outcomes and impacts (as stated within the project document and logical framework) were met. Additionally, it will provide an assessment of the project's sustainability beyond the funding horizon of the IDB/MIF resources, and as well include any lessons learnt which can provide useful information for



IDB/MIF in this or similar areas of future intervention and project funding. The report ends with a summary of the performance of the Bank/MIF in assisting the efforts of this project.

The analysis and information presented within this final evaluation comes from a combination of:

- desk research and compilation of information from the Approved Plan of Operations, including the project's logical framework; MIF Project Status Reports (as reported by the executing agency); MIF Transaction History Reports; MIF Statement of Cash Received and Disbursements; Executing Agency Baseline Assessment Report; Executing Agency Technical Coordinator Reports; Executing Agency Stakeholder Workshop Reports; Executing Agency Report on the Design of Intervention Strategies; Executing Agency Reports on the provision of technical assistance to farmers towards implementation of sustainable farming practices; and
- semi-structured interviews with staff at the Executing Agency, The Cropper Foundation, including Keisha Garcia and Maurice Rawlins; consultants and technical coordinators working with The Cropper Foundation, including Allan Williams; and IDB/MIF staff, including MIF Senior Specialist, Vashtie Dookiesingh, and Kavita Maharaj.

Due to the consistent and comprehensive reporting process of the Executing Agency, the evaluation utilises much data and other information collected by The Cropper Foundation in the analysis of the project's performance.

The consultant expresses her kind gratitude for the time and knowledge of those who contributed to this evaluation, and highlights the efforts of Maurice Rawlins in providing key information for this final report.

II. ANALYSIS OF RESULTS (Outputs, Outcomes, and Impacts)

Ahead of the analysis of the outputs, outcomes and impacts as indicated within the project's logical framework (see Annex I), the schematic in Figure 1, below, illustrates the flow of implementation events from the official project start in June 2009 to its formal completion date at the end of November 2012.

<u>Figure 1</u>: Flow of Implementation Events from Project Start to End



2.1 Analysis of Component (Output) Indicators

As shown in the logical framework (see Annex I on page 26), the project targeted two main areas of interventions. The table below summarises the current status and achievements of each of the activities within these components, and following this, the results of each of these components will be discussed.

		Component and Activities	Status	Comments
•	Pil	ot Project on Sustainable Farming Practices		
	0	Baseline assessment of conditions completed (within first 6 months of project)	Complete	Assessment undertaken March – July 2010
	0	Demonstration of sustainable agricultural practices implemented in at least 4 sites within 2 watersheds	Complete	All participant farmers implemented some form of sustainable farming practice
	0	At least 60% of farmers in selected communities are exposed to sustainable farming practices	Complete	All participant farmers in communities exposed to sustainable farming practices
	0	At least 20% of farmers in selected communities continue to implement sustainable agricultural practices	Complete	At least 65% of participants continue to implement sustainable farming practices
٠	Str	rengthening of Local Networks and Dissemination o	f Results	
	0	Increased stakeholder/public awareness of the negative impact of unsustainable agricultural practices on the environment and community life	Complete	3 Stakeholder Workshops held, exposing participants to project objectives and encouraging dialogue
	0	Movement towards clarification/improvement in land tenure and access rights of farmers; regulation and enforcement of policies	Semi- Complete	Discussions concerned tenure issues; difficult to determine whether challenges could be



targeting unsustainable agricultural practices, whether local or national

clarified/improved within project scope.

2.1.a **<u>Component I</u>**: *Pilot Project on Sustainable Farming Practices*

As expressed within the project document, the main intent of this component was to focus on the development and implementation of a pilot programme of sustainable farming practices within two selected watershed communities of the Northern Range of Trinidad. Utilising a range of socioeconomic and ecological factor criteria developed by the executing agency, out of some 35 watersheds within the Northern Range, the watersheds of Caura/Tacarigua and St. Joseph were selected for this project. Primarily, these watersheds (referenced as the 4th and 7th largest watersheds in Trinidad and Tobago, respectively) were deemed suitable for such a project due to the existence, extent and nature of farming practices; terrain type; a preliminary assessment of farmers' willingness to participate in the project; and signs of community transformation.

Key to this component was the identification and creation of a baseline data set and assessment of conditions, which would serve as a foundation measure of the potential environmental and economic impact of adopting environmentally sustainable cultivation practices on participating farmers. As per the logical framework, this activity was intended for completion within the first 6 months of the project to enable further project implementation. True to schedule, such a baseline assessment of the Caura/Tacarigua and Maracas/St. Joseph Watersheds was done and reported to The Cropper Foundation by consultant Beaumont Celestain on July 26th 2010, within 5 months after the project implementation start time in March 2010. This assessment outlined various relevant features and indicators of these watershed areas, including demographic characteristics, landscape factors and vulnerabilities, agricultural practices and farm enterprises, livelihood functions (including land tenure, land use patterns, incomes and employment, governance and capacity building potential of these areas), before including a survey of farmers' expectations, and possible recommendations. It is of note that for this assessment, a total of 20 farmers and persons were interviewed, including 13 from the Caura Valley and 7 from the Maracas/St. Joseph Valley area, over the timeframe of March 10th and June 20th 2010. Since this period coincided with the end of a disastrous dry season, caution was taken in interpreting the survey responses.

Following this baseline assessment was the main strategy of this component geared at providing technical support to the participating farmers. In order to teach and transfer practical skills and knowledge of alternative cultivation practices, the project planned interventions via a series of workshops and demonstration projects regarding land preparation and management, crop selection, and agronomic practices. Ahead of such interventions, a consultant was hired to review the data to prepare initial recommendations for formulating an intervention model as a prerequisite to the development of intervention strategies for the target areas. The model was developed based on data gathered through a baseline survey and several follow up interactive sessions with groups and individuals (including community leaders, extension officers at the Ministry of Food Production, Land and Marine Affairs, and the Department of Land Administration), both on farm and at a stakeholder's workshop.

In a report by the consultant, Shango Abayomi Alamu, dated February 8th 2011, it was summarised that based on the baseline survey and additional interviews, "it is clear that farmers are aware of the negative consequences of current management practices but are hesitant to make transitions



because of perceived risks juxtaposed against livelihood concerns". Moreover, it was exposed that farmers were open to the idea of using sustainable farming practices so long as the research was undertaken "in a manner in which there is no intense competition for resources, both human and material, and as such does not interfere with their income generating capacity and comfort".¹ This report recommended a participatory approach, offering the interaction and involvement of governmental organisations, non-governmental organisations and civil society organisations alike, to ensure the maximisation of appropriate technological and financial input, and as well, the pathways for collaboration. In this way, it was thought that there may be a "much higher possibility of successful implementation when communities take ownership of projects and actually drive the processes involved". It should be emphasized at this point, that the baseline survey and the intervention exercises identified a number of farmers who were already using some SFPs in their farm production, and the project therefore aimed to encourage such farmers to incorporate more SFPs into their operation.

Such a report also shared information on the identified project participants and their potential activities, roles and responsibilities, as well as project sites. As <u>Table 1</u>, overleaf, identifies, there was a seemingly low number of actual project participants. However, it must be mentioned that while the official sources (records of the Ministry of Food Production, Land and Marine Affairs, and the Agricultural Society of Trinidad and Tobago) indicated a potential interview pool of 66 farmers within these watersheds, the consultant noted his interest in meeting persons who were actually farming in these valleys at this time, and that there were in fact some abandoned farms as well as confirmation that some persons had moved away or were deceased. Out of the farmers that were initially interviewed, 83% of those in Maracas/St Joseph and 69% in Caura Valley indicated an initial interest in participating in the project. However, by the stage of implementation of alternative farming practices only 20 farmers indicated an interest in participating; see <u>Table 1</u>.

Watershed Area	Total # of Potential Interviewees	# Successfully Interviewed	Interview Success Rate ²	# with Participation Interest	Participation Rate	# of actual project participants
Maracas/St. Joseph	38	18	47%	15	83%	12
Caura/ Tacarigua	28	16	57%	11	69%	8
TOTAL	66	34	47%	26	76%	20

Table 1: Summary Information of Maracas/St. Joseph and Caura/Tacarigua Farmers

It is noted that the vision of the Project was to implement farming practices that fully managed both land and natural resources to meet three goals simultaneously, *viz*:

- a) Provide agricultural products and services on a sustainable basis,
- b) Support viable livelihoods for local people, and
- c) Conserve a full complement of native biodiversity and ecosystem services.

¹ Alamu, 2011. Implementation of Sustainable Farming Practices in Trinidad's Northern Range Communities (ATN/ME-

¹¹⁴⁸⁸⁻TT) Draft Final Report on Intervention Model.

² Report of Technical Coordinator (For the period Nov. 16, 2010 to Oct. 15 2011)



However, as noted within the consultants' reports, in order to make the preservation and management of bio-diversity a farming concern, a mechanism was needed to weave these landscape/environmental concerns into the farmer's assessment of personal risks, production security and perceived threats. As such, the concept of a High Nature Value Index (HNVI) was introduced, which would help the farmer identify the farming processes in place, and understand whether such practices were conducive to a High Nature Value (HNV) Environment. Defined as a weighted index that scores the practices of any economic actor on any identifiable parcel of land in the landscape, the HNVI uses 8 main areas of questions to assess the eco-friendly status of the agricultural practices of farmers in this environment: farmer personal data, farm location, soil characteristics, crops grown during the year, pest/disease/weeds pressure, structural and agronomic practices, fertilisation practices, fertilisation practices, and management of crop growth.

As shown in the schematic in Figure 2, overleaf, the index is based on the tally of positive and negative points depending on the nature of the farming practices. For example, the farmer is rewarded with positive points if his/her farming practices including drip irrigation, contour planting, composting, and some level of integrated pest management. Negative points are issued in the case of practices including a dependence on rain-fed irrigation, slash-and-burn land preparation and the use of inorganic pesticides and fertilisers. The HNV Index score then first recalibrates the apparent success of a resource appropriator into a deficiency that reflects the negative impacts of practices on the environment, and second establishes the framework for introducing a series of corrective measures, that focus on increasing the farmer's economic gains as a resource-sustainer in the HNV Environment.

<u>Figure 2</u>: High Nature Value (HNV) Positive and Negative Points



Based on this tally, it is then possible to calculate an HNVI score for each farmer. As stratified in <u>Table 2</u>, below, scores that are 65 and above indicate some sense of sound ecologically-based



farming practices. However, scores that are below 45 indicate relatively unsustainable farming practices that are challenging the stability of the environment.

Table 2: What does the High Nature Value Index (HNVI) mean?

HNV Index Score	HNV Index Score Meaning
100 - 86	Farmer engages in practices that definitely have a strong ecological bent. Farmer is encouraged to continue and share such practices with others.
85 - 65	Farmer on the way to a strong eco-friendly farming practice and should review weak points.
64 - 45	Farmer can take advantage of learning from nature itself and is encouraged to explore these if he/she is interested in pursuing a more eco-friendly farming practice.
Below 45	Farmer could improve performance by changing both inputs and approach to crop production. There may be a few "chemical" uses that are hindering a strong index.

Following the project objectives and implementation methods, and ahead of the project execution, The Cropper Foundation compiled valuable information regarding farmers' initial farming status and views on sustainable farming practices (SFP), as well as initial HNVI scores. <u>Table 3</u> compiles this information, plus updated HNVI scores, for farmers in Maracas/St. Joseph Valley, while <u>Table 4</u> summarises similar information for farmers in the Caura/Tacarigua Valley watershed areas.

Fa C	rmer ode	HNVI Score, June 2011	HNVI Score, May 2012	Status in August 2011	Initial SFP Views	Avg Sustainable Farming Status in Dec 2011
1	FH	60.0		Active	Interest	+
2	RA	57.5		Active	Interest	+
3	AT	57.0	76.5	Active	Interest	+
4	SC	56.0		Active	Interest	+ -
5	HY	47.5		Active	Interest	+ -
6	TL	47.0	31.5	Active	Interest	+
7	MA	46.5		Not Active		
8	AW	46.0		Active	Interest	+
9	HT	45.5	35.0	Not Active		
10	HB	44.5	61.0	Not Active		
11	PR	44.5		Active	Interest	-
12	WC	44.0		Active	Interest	+
13	RW	41.5		Not Active		
14	GS	39.6	35.5	Not Active		
15	BN	38.5		Active	Interest	+
16	AK	37.0	71.0	Active	Interest	+
17	JS	34.5		No Contact		
18	WD	33.5	38.5	Active	Interest	+
		9 farmers (50%)		67%	12 farmers (100%)	11 active farmers (92%) end
		below 45		Active	show initial interest	project with positive results

Table 3: Status Indicators and HNVI Scores for Maracas/St. Joseph Farmers



Fa C	rmer ode	HNVI Score, June 2011	HNVI Score May 2012	Status in August 2011	Initial SFP Views	Avg Sustainable Farming Status in Dec 2011
1	QM	74.5	69.5	Active	High Interest	+
2	AS	69.0		Not Active		
3	JA	61.0		No Contact		
4	СТ	57.0	56.0	Active	High Interest	+
5	KB	52.5	54.0	Active	High Interest	+
6	EP	45.5		No Contact		
7	NR	40.0	49.0	Active	Interest	+ -
8	VH	39.0	56.0	Active	High Interest	+
9	TH	37.5	60.5	Active	High Interest	+ -
10	KH	34.5	39.5	Active	No Interest	+ -
11	DK	34.5		Not Active		
12	HS	32.0		No Contact		
13	RR	-	45.5	Active	No Interest	+ -
		6 farmers (50%)		61%	6 farmers (75%)	8 active farmers (100%) end
		below 45		Active	show initial interest	project with positive results

Table 4: Status Indicators and HNVI Scores for Caura/Tacarigua Farmers

Legend:

+ Farmer received an average "Thumbs Up!" in December 2011

+- Farmer received both "Thumbs Up!" and "Thumbs Down" in December 2011

- Farmer received an average "Thumbs Down" in December 2011

As indicated within <u>Table 3</u> and <u>Table 4</u>, these HNVI scores first indicate that 15 out of the 30 farmers (50%) that responded to this initial HNVI exercise demonstrated unsustainable farming practices by having a HNVI score that was less than 45, i.e. within the lowest category of the index. Disaggregating this project-wide number of farmers who reported HNVI scores of less than 45, it is noted that 9 out of 18 farmers (50%) in the Maracas/St. Joseph Valley area, compared to 6 out of 12 farmers (50%) that were initially interviewed in the Caura/Tacarigua Valley area.

In May 2012, efforts were made to follow-up and update farmers' HNVI scores as part of postproject completion evaluations. As indicated within <u>Table 3</u> and <u>Table 4</u>, these HNVI scores were collected for 4 farmers in the Maracas/St. Joseph Valley area out of the 11 farmers who were considered active and who participated in the project's activities in 2011. Also reflected in this table is information collected for 3 farmers who were categorised as "Not Active" throughout the duration of the project activities (i.e. Farmers 9-HT, 10-HB and 14-GS), as well as 3 new farmers who did not participate in the project activities (see Annex II, <u>Table 5</u> for this information). Similar information was collected for 8 active farmers in the Caura/Tacarigua Valley area – this represented all farmers who were considered active and who participated in the project's activities in 2011 in this watershed area.

Based on this information, it is noted that out of the 4 farmers in the Maracas/St. Joseph Valley area who were considered as active participants, 2 farmers showed significant improvement in their HNVI scores between June 2011 and May 2012, while 2 (50%) showed declines. In the Caura/Tacarigua Valley area, it is noted that out of the 8 active farmer participants who ended the project, 7 of them had May 2012 HNVI scores which were greater than 45 (87.5%). Comparing initial June 2011 HNVI scores to these May 2012 HNVI Scores, it is noted that 6 out of the 7 farmers with initial scores (85.7%) showed improvements over their recorded June 2011 scores.



Another methodology was also used to make a valued assessment on the progress of farmers' implementation of eco-friendly agricultural practices, as well as relative inferences to farmer adaptation. To this end, and as summarised within Annex II (see <u>Table 5</u> and <u>Table 6</u>), the project was also able to capture information regarding the farmers' status regarding uptake of sustainable agricultural farming practices during the course of the project. Using information reported within Project Implementation Reports for 4 different areas of monitoring (i.e. Soil Quality, Land Preparation, Crop Management, and Environmental Integrity) for the months of September 2011, October 2011, and November/December 2011, farmers received a "Thumbs Up!" (denoted here by a '+') and/or "Thumbs Down" (denoted here by a '-') based on their current agricultural practices. The information reflected in <u>Table 3</u> and <u>Table 4</u> show the average sustainable farming practice (SFP) status of these 4 monitoring areas for December 2011, the last month in which this monitoring was conducted during the project.

As shown in these Tables, within the Maracas/St. Joseph Valley Area, out of the 18 farmers who were initially interviewed and who completed the HNVI exercise in June 2011, 12 farmers responded to further interviews in August 2011 and were thus identified as active and participants within this project. All 12 farmers showed initial interest in the project. Following project implementation, it was noted that while all farmers showed some sign of effort to implement sustainable farming practices (100% of active farmers, and 67% of original HNVI respondents), a significant 11 of these farmers (i.e. 91% of active farmers and 61% of original HNVI respondents) demonstrated recognised utilisation of sustainable agricultural practices (i.e. at least a '+ -' rating). Furthermore, 9 of these farmers (i.e. 75% of active farmers and 50% of original HNVI respondents) showed high effort and interest in utilising of eco-friendly practices by project end (i.e. with a '+' rating).

For the Caura/Tacarigua farmers, it is first noted that 16 farmers were initially interviewed for this project, out of which 12 completed the HNVI exercise in June 2011. However only 7 of these farmers responded to further interviews, and 1 additional farmer became involved in the project, in August 2011, and as such 8 farmers were thus identified as active and participants within this project. Out of these 8 active farmers, all (100% of active farmers and 75% of original HNVI respondents) showed interest and demonstrated effort in using sustainable farming practices (i.e. at least a '+ -' rating). 4 of these farmers (i.e. 50% of active farmers and 25% of original HNVI respondents) showed high effort and interest by project end (i.e. with a '+' rating).

These intervention results are summarised in the table below:



Maracas/St. Joseph Valley Intervention

- 18 farmers initially interviewed; 18 responded to HNVI exercise (June 2011)
- 12 farmers denoted as active and participated in this part of the project
- 12 showed strong interest in good ecological farming practices
- 11 used some degree of on-farm generated inputs
- 11 farmers use ecologically friendly external farm inputs, e.g.. cured pen manure
- 11 farmers indicated use of non-ecologically friendly farm inputs to varying degrees
- 11 farmers willing to reduce use of inorganic farm inputs
- 5 farmers had soils tested by MFPLM
- 10 famers assessed for HNVI scores in May 2012

Caura/Tacarigua Valley Intervention

- 16 farmers initially interviewed; 12 responded to HNVI exercise (June 2011)
- 8 farmers denoted as active and participated in this part of the project
- 6 showed strong interest in good ecological farming practices
- 6 used some degree of on-farm generated inputs
- 8 farmers use ecologically friendly external farm inputs, e.g.. cured pen manure
- 8 farmers indicated use of non-ecologically friendly farm inputs to varying degrees
- Majority of farmers willing to reduce use of inorganic farm inputs
- 8 farmers had soils tested by MFPLM
- 8 farmers assessed for HNVI Scores in May 2012

Such results satisfy the indicators set out within the project's logical framework as follows:

- **Indicator**: Demonstration of sustainable agricultural practices implemented in at least 4 sites within 2 watersheds:
 - **Output**: Demonstration of sustainable agricultural practices implemented in all 20 documented sites within 2 watersheds (based on farmers denoted as active within the farming community and who were respondents to follow-up interviews with project team).
- **Indicator**: At least 60% of farmers in selected communities are exposed to sustainable farming practices:
 - **Output**: All 20 farmers (i.e. 100% based on 12 farmers in Maracas/St. Joseph and 8 farmers in Caura/Tacarigua denoted as active farmers and project participants) wishing to participate in the project were exposed to sustainable farming practices.
- **Indicator**: At least 20% of farmers in selected communities continue to implement sustainable agricultural practices:
 - **Output**: The teaching and monitoring of use and uptake of sustainable farming practices was conducted over the period of August to December 2011. Based on above analysis, out of the initial 34 farmers who were initially interviewed for the project (see <u>Table 1</u>), 20 farmers (i.e. 59%) participated in the project to the end and showed some sign of implementation of sustainable farming practices (by region, this is disaggregated to be 67% of farmers in Maracas/St. Joseph, and 50% of farmers in Caura/Tacarigua). Of these farmers, it could be surmised that 13 farmers (i.e. 38%) ended the project with a '+' rating within the 4 different areas of monitoring. If these end numbers are compared to the 20 active farmers/actual participants in the project, this shows a high rate of success: 100% of participants from start to finish show some sign of using eco-friendly farming practices while 13 farmers, or 65%, exemplified a continuous use and uptake of sustainable farming practices within their daily routine achieved this status.



This information should be noted in tandem with other factors which may have affected the outputs presented here. Firstly, there was a limited timeframe within the implementation phase of the project. Moreover, there was some difficulty to interact with farmers due in part to inaccessibility of some of the farms but also because of the part time nature of their farming activities. Additionally, the impacts of the dry season set a deep toll on some of the farmers' abilities to engage with this project.

2.1.b Component II: Strengthening of Local Networks and Dissemination of Results

Complementary to the first output initiative of completing a baseline assessment of information and the implementation of technical support for participating farmers, the involvement, feedback, networking and dissemination of information with communities and various public and private stakeholders was seen as a crucial step to achieving the broader project objectives. In this regard, it was necessary to disseminate the actual results achieved within the participating communities to not only ensure community buy-in for the alternative approaches that were introduced, but also to solidify the worth of such changes and improved practices beyond the course of the project. This would speak volumes to the farmers within the communities of the selected watersheds, but also to other farmers and communities in similarly-affected watersheds, as well as to generally inform public policy and programmes at the local, national and regional levels towards the replication of such an intervention. To this end, three key stakeholder meetings were held along the way, as summarised below:

First Stakeholders' Workshop: November 2010	•32 participants •Introduction of project to stakeholders •Presentation of baseline study findings •Solicitation of initial feedback
Second Stakeholders' Workshop: May 2011	•38 participants •Introduction to High Nature Value Environment and Index •Two areas of concern: limited capacity to diagnose pest and disease problems; challenge of land tenure insecurity
Third/Final Stakeholders' Workshop: January 2012	•53 participants •Presented project results/findings to wide range of stakeholders •Presentations/reflections by participating farmers •Discussion of the way forward after project lifetime

The *First Stakeholders' Workshop* was held on November 10th 2010 at the Maracas Community Centre (obtained with much support from the Maracas Valley Farmers' Association, and transportation was provided for Caura farmers to facilitate attendance) wherein which 32 persons participated: 8 from the Maracas/St. Joseph Valley, 18 from the Caura/Tacarigua Valley, and 6 Special Guests, including a farmer/permaculture practitioner and teacher from Freeport, a farming couple from Michigan, USA, and three members of the Project Steering Committee.

As outlined within the Workshop report by Technical Advisor to the Project, Dr. Allan N. Williams, specifically the Workshop allowed the Cropper Foundation to:

- Introduce the project details to the stakeholders;
- Present the findings of our Baseline Study;
- Present key aspects of the project's options;
- Allow for open discussion of these presentations; and



• Solicit the support and participation of the stakeholders.

This first workshop also set the tone for learning more about farmer needs and priorities, with participants weighing in on their preferences regarding the attractiveness *vis-à-vis* feasibility of certain options: options for individual farmers, options for collaborative action, as well as options for getting better services. The participants' reaction to the project was quite revealing, with many emphasising the presence of non-farming activities such as quarrying and residential development which affected not only the environment, but the potential of farmers in the area. Moreover, it was noted that as a result of such conditions there were already existing community-based actions, especially in the Maracas Valley. The workshop also highlighted the farmers' sentiments for the need for an improved road network and the required modalities to justify the development of such a network in rural areas, and as well, that that excuses should not be made for farmers failing to take the appropriate actions in their own plots of land.

Within this workshop, there was a call to the "Community of Responsible Actors" to come together and collaborate in a project to introduce sustainable farming practices, and among the responsible actors identified were: Individual Farmers; Ministry of Food Production, Land and Marine Affairs (Extension Services and Research); Ministry of Housing and the Environment (Forestry Division); active NGOs (e.g. Maracas Valley Action Committee); Farmers' Organisations; and Supporting Institutions (e.g. Trinidad and Tobago Agribusiness Association (TTABA); The National Agricultural Marketing and Development Corporation (NAMDEVCO); The University of the West Indies (UWI); The Caribbean Agricultural Research and Development Institute (CARDI); The Food and Agriculture Organisation of the United Nations (FAO); and the Inter-American Institute for Cooperation on Agriculture (IICA).

The strength of participation of the first workshop was also present in the project's *Second Stakeholders' Workshop*, which was held on May 18th 2011 in the Caura Valley area. At least 12 participants were from the Maracas/St. Joseph watershed area, while at least 6 were from the Caura Valley area. The remaining 20 comprised of representatives from the Tunapuna/Piarco Regional Corporation; the University of the West Indies' Department of Food Production; the Trinidad & Tobago Organic Agricultural Movement (TTOAM); the Ministry of Food Production, Land and Marine Affairs; Wasamaki Permaculture; the Water Resources Agency; and the Project Steering Committee and Project Executing Agency.³

This workshop aimed to build on the previous session by introducing the concept of 'Farming in a High Nature Value Environment' and how the High Nature Value Index (HNVI) works; demonstrating the background information that would support farmers in developing strategies for implementation of sustainable farm practices; providing an opportunity for farmers and other stakeholders to share ideas on strategies for implementation of sustainable farming practices; and collectively determining the material support that would be made available to farmers engaged in readjusting their farming practices.

Several items of consideration emanated from this workshop, including the suggestion of a research component that would demonstrate the benefits of sustainable farming practices towards assisting farmers in analysing the risks involved in implementing such practices. Two areas of concern that was raised included the capacity to diagnose pest and disease problems, and as well the challenge

³ It is noted that 4 persons did not complete a registration form.



of land tenure insecurity, which could act as a disincentive for implementing sustainable farming practices.

The third and *Final Stakeholders' Workshop* was held on January 18th 2012 at the Auzonville Conference Centre in Tunapuna, Trinidad. 53 persons attended the workshop, including representatives from the Maracas Valley and Caura communities, farming organisations, government ministries and agencies, the private sector, research institutions and civil society organisations. Opening remarks were made by Ms. Keisha Garcia, President of The Cropper Foundation; Ms. Vashtie Dookiesingh, Multilateral Investment Fund Specialist with the Inter-American Development Bank (IDB-MIF); Ms. Lisa Martinez of the United Nations Food and Agricultural Organisation (FAO); and Mrs. Patricia LaBorde Grant, Director of the Agricultural Planning Division of the Ministry of Food Production, Land and Marine Affairs (MFPLMA) who provided the feature address for the workshop.

This workshop aimed to provide the wide range of stakeholders with information about and results from the project, highlighting issues raised by farmers during the project execution and also within previous stakeholder workshops. Some of the key research and capacity development issues for mainstreaming sustainable agricultural practices was also presented, alongside the follow-up opportunities beyond the lifetime of this project. Most importantly, participant farmers also offered reflections of their experience with the project and with the acquired information on sustainable farming practices.

The results of these workshops satisfy the indicators set out within the project's logical framework as follows:

- **Indicator**: Increased stakeholder/public awareness of the negative impact of unsustainable agricultural practices on the environment and community life:
 - **Output**: It is evident that these workshops were able to convene not only the farmers involved within the project, but also relevant stakeholders within the Ministry, regional corporations, private sector and public entities alike. Through the showcasing of farmer circumstances, as well as the high nature value environment and index, the project accomplished its aim of increasing the stakeholder/public awareness of the negative impact of unsustainable agricultural practices on the environment and community life. This is also evident in the keynote address from Mrs. LaBorde Grant, who highlighted the Ministry's continued support of initiatives such as the EcoAgriCulture project which not only serve to provide technical and resource support to farmers in Trinidad and Tobago, but which also help to bring together a number of important stakeholders involved in agriculture, towards the formulation of "a collaborative agenda in order to avoid duplication of effort and wastage of resources among the private sector, public sector and civil society".
- **Indicator**: Movement towards clarification/improvement in land tenure and access rights of farmers; regulation and enforcement of policies targeting unsustainable agricultural practices, whether local or national:
 - **Output**: While there was some movement to understand and clarify the various issues regarding farmers' land tenure and access rights, it is difficult to surmise whether there has been any improvement in this aspect, as this could be seen as beyond the scope and timeline of the project's interventions. However, it should be noted that the project was able to put farmers in touch with the Trinidad and Tobago Organic Agriculture Movement (TTOAM) who indicated (in 2011) interest in further work on legal tenure issues. Moreover, while a less tangible outcome, the project was successful in raising farmers' capacity to act



to provide information on various processes, and increasing their overall governance to act as a collective.

2.2 Analysis of Purpose (Outcome) Indicators

As per the logical framework (see Annex I), the project's main purpose was to pilot a programme of alternative and sustainable farming practices to selected farmers in 2 selected watershed communities of the Northern Range. The table below identifies the main indicator that was designed to evaluate the progress towards this project outcome.

	Outcome Indicator (by project completion)	Status	Comments
0	Quantifiable increases in: At least 20% of farmers in selected communities are implementing sustainable and more profitable farming practices	Semi- complete	Farmers engaged in sustainable practices; profitability difficult to gauge in the short term, and without the right data

Noting the success of the project in attaining the indicators outlined in the component section of the logical framework, it follows that there was much success in these activities contributing towards the wider purpose of piloting a programme on sustainable farming practices within the watershed communities of Maracas/St. Joseph and Caura/Tacarigua. This is evidenced by the numerous discussions with stakeholders and farmers alike, as well as site visits which confirmed that farmers were using more sustainable farming practices, or at least working towards them.

However, in terms of achieving the outcome indicator for this project, stated as "at least 20% of farmers in selected communities are implementing sustainable and more profitable farming practices", this success may be a bit more difficult to note. There is no doubt that this project stimulated all participant farmers to at least try to implement more sustainable farming practices (as illustrated within Section 2.1 (see page 6), but the quantifiable confirmation that this project influenced at least 20% of farmers in implementing more *profitable* farming practices must be flagged for attention.

A statement that there has been an achievement regarding profitability should be cautioned since there was insufficient data to make this assertion. This data need of farmer incomes was not possible within the boundaries of this project, and, as well, the project executing unit was not yet within that confidence zone with farmers for them to share that information during the implementation of the project. In addition, even if such income data were shared with the executing agency, it would also be remiss to utilise this information without ensuring the consistency of farmers' record-keeping in this manner.

Additionally, it must be noted that the implementation timeframe in which the farmers utilised these sustainable farming practices was perhaps too short to influence such an outcome, and, moreover, that the time when the assessments were done was at the helm of a disastrous dry season in which many farmers lost yields. Basing any change in profitability at this time, then, would result in skewed effects of this project.



2.3 Identification of Future Impacts

In the light of the outputs and outcomes achieved, this project seems well-poised to generally attain its overall project goal of demonstrating the complementarity of sustainable livelihoods and environmental management through the implementation of sustainable hillside practices. However, despite its successful project execution, there may be several indicators of this goal realisation that may be difficult to monitor and directly attribute to the activities of this project.

Towards achieving the project's overall goal, the project logical framework identifies several indicators that would signify such at two years after project completion:

- a. At least 70% of farmers in selected communities engaging in sustainable hillside agricultural practices;
- b. Increased income levels are reported by participating farmers;
- c. Reduced levels of soil erosion and siltation in water systems;
- d. Reduced/less severe occurrences of flooding within selected watersheds attributable to changes in farming practices; and
- e. Model is disseminated to other communities, stakeholder groups and policy-makers.

Based on the efforts of the project thus far, indicators 'a' and 'e' seem quite likely possible, as it would be a direct continuation of the project activities, and in the best interest of the executing agency, farmers and relevant stakeholders to maintain. In this regard, it is noted that it would be necessary for the project executing agency to continue maintaining communication with the beneficiary farmers in order to ascertain whether the farmers have continued to engage in sustainable farming practices, and as well whether they have been able to disseminate information to other communities, stakeholders and policy-makers.

Regarding the remaining indicators, however, it remains to be seen whether the project would be able to attain such results, as there are other factors outside of the control of the project that could have negative impacts on the environment as well as the efforts of the farmers. As mentioned within Section 2.2 above (see page 17), income data was not readily available and/or plausible for use within this exercise, which would lead to complications in determining indicator 'b'. As well, as noted within Section 2.1 above (see page 6), participant farmers certainly mentioned other factors which could contribute to similar or increased levels of land erosion, and siltation in water systems (i.e. indicator 'c') as well as repeated instances of flooding within these watersheds (i.e. indicator 'd'). Of main concern here, many farmers emphasised the presence of non-farming activities such as quarrying and residential development which affected not only the environment, but the potential of farmers in the area.

Moreover, the attribution of the project's influence on the project goal's remaining indicators is quite questionable at this point. Without adequate knowledge of the particular level of impact of farmers *vis-à-vis* other land development practices on soil erosion and flooding, it would be difficult to ascertain any change in these indicators primarily to the advances of this project.

2.4 Rating of the Project's Effectiveness in Achieving its Development Objective

	X	Highly Effective		Effective		Not Very Effective		Ineffective
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		(HE)		(E)		(NE)		(I)
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Based on the discussion within this report, and notwithstanding the concerns mentioned thus far, it may be summarised that the project was certainly highly effective in achieving its development objective, in the sense that it achieved all of the expected outputs and outcomes, that it is has a very high probability of maintaining the flow of benefits initiated to the direct beneficiaries, and that it has a very high probability of achieving expected future impacts, insofar as demonstrating the complementarity of sustainable livelihoods and environmental management through the implementation of sustainable hillside farming practices.

III. LESSONS LEARNT FOR PROJECT SUSTAINABILITY

3.1 **Scope of Project Sustainability**

The success of this project is testimony of the ability of the executing agency, The Cropper Foundation, to work closely with the various communities and share these valuable lessons regarding sustainable farming practices. Due to the nature of hillside farming and the value that is derived from these activities by the local farmers, the capacity of The Cropper Foundation to design and execute the implementation of project activities to suit the farmers' needs, as well as share this information in open and transparent workshops, has worked well to help farmers understand the need for such changes in their daily farming routine. Understandably, the limitations of financial incentives for change, the narrow availability of necessary data to monitor and evaluate the profitability motive of such changes, as well as land tenure disputes and external factors such as nearby quarrying, may have partially hindered the complete intentions of such a project.

In moving forward, the executing agency has already noted that while the project has been a rewarding experience for the technical team and that majority of the project objectives have been met, work remains to be done to ensure the sustainability of these hard-earned accomplishments. Specifically, the team notes that significant work still needs to be done towards mainstreaming the use of sustainable farming practices. The executing agency realises that while the project activities have instilled a deep appreciation of the need for transitioning to more sustainable agricultural practices amongst the majority of farmers in both study areas, as well as the knowledge, capacity and right attitude to do so, it is imperative for future action to maintain this current willingness.

Focusing on this future, The Cropper Foundation first notes that such maintenance of effort is difficult without the funding to do so. As such, in the short run, the Foundation has been working to source partnerships and opportunities to ensure that such a continuation of efforts takes place soon. To this note, the executing agency has been in conversation with organisations such as the Food and Agriculture Organisation of the United Nations (FAO) (in conjunction with the Ministry of Food Production, Land and Marine Affairs) regarding the possibility of an extension project of this one. At present writing, The Cropper Foundation has since been able to secure a letter of endorsement from the Ministry, but is still awaiting further selection for funding. They have since reached out to the UNDP Global Environment Facility (GEF) - Small Grants Programme (SGP) with the proposal to extend the EcoAgriCulture approach into three additional Valleys of the Northern Range. Currently, it is noted that the funding proposal has advanced significantly and they hope to secure that funding by early 2013. Additionally, a third opportunity for funding has been explored



with the IDB/MIF to continue working with farmers in the Caura/Tacarigua and Maracas/St. Joseph Valleys, and to begin similar implementation and mainstreaming of sustainable farming practices efforts with farmers in three additional valleys of the Northern Range (same target valleys as the GEF-SGP Project).

Moreover, in the short run interim, to maintain the efforts in place already and to further incentivise additional watershed areas, a second area of main concern is that of ensuring current communication. In this regard, the Foundation notes the possible contribution of the Network of Eco-producers and a collective of farmers in the Tumbasson area. Such collaborations may work well because of the benefits and lessons learnt of the sustainable farming practices within the production season during the course of the project, as this has an influence on the farmers' willingness to engage in subsequent production seasons. Moreover, the Foundation's relationship with these organisations and eco-centred interactions could further have an influence in shaping future projections.

In the medium to long term, however, The Cropper Foundation intends to review the main challenges and lessons learnt within this project towards the overall objective of building more sustainable and resilient project outcomes and impacts:

- *Identification of farmers/beneficiaries*: In this context it is noted that some farmers are listed but are not presently residing in the project area; not all persons who farm can be identified as farmers; and there is a mismatch of farmer identification between the Farmers' Organisation, Ministry of Food Production, Land and Marine Affairs, and the executing agency's efforts). As such, it would be important to consider these differences in beneficiary identification ahead of sustainability of current efforts, and as well towards future actions.
- *Internalising externalities which result in project execution delays*: For this project, such externalities included weather shocks (such as an extensive dry season and widespread forest fires in early 2010) as well as National Elections, in addition to the need for building sufficient time into the project plan for farmer interviews, etc. Efforts are to be made to better allow for flexibility of project activities to help internalise such externalities.
- *The role of financial incentives for farmers*: The executing agency's technical team identified that some of the major concerns by farmers in both valleys included the fact that there were higher prices for HNV compatible inputs versus the non-eco-friendly inputs. Moreover, it was found that there was no significant price difference at the farm gate and municipal markets for products produced strictly on HNV compatible inputs versus products produced using harmful environmentally non-friendly inputs. These are both significant factors which certainly limit the incentive for any farmer to opt for eco-friendly inputs and practices, and they both would need to be adequately addressed as part of the process of improving livelihoods for farmers in both study areas, as well as subsequent intervention sites.
- *The role of building consensus*: Through this project, and the efforts that were in place to spend time with engaging farmers and lay the groundwork for action, there is the definite realisation that the uptake of much of these practices is not a short term idea, and requires significant work to create buy-in and sustainability. Specific issues in this regard include the need for project viability, extended research, land tenure, the role of farming groups, and governance issues. Moreover, while hillside farmers do face many challenges, the fact that they are unregulated and unauthorised perhaps infers that they may be unrecognised. As such, movement towards securing action on such issues requires the building of consensus, both with farmers, relevant stakeholders and policymakers, as there is the need to garner political support. A key role that The Cropper Foundation can play here is acting as the medium for this consensus-building



process, as well as finding mechanisms for seeking such consensus for activities within the Northern Range (they have mentioned that perhaps the HNVI can be a tool to do this).

- *The role of communication*: This project has showed that farmer-to-farmer communication and information sharing may be one of the most powerful tools for dissemination of information in this type of project, as well as influencing practice and policy. As such, follow-up projects should therefore focus on strengthening the farmer to farmer networks including farmers' organisations which help to facilitate these networks. Additionally, it is envisioned that future project design and implementation should prioritise communication as an important aspect of the project that transcends the entire project implementation cycle.
- *The role of building capacity*: The project has also found that one of the critical factors to the sustainability of community interventions is the capacity of the community to 'do' for themselves. As such, the executing agency sees building capacity as a structured component within the project design that would provide greater opportunity for sustainability of the initiative. Rather than assume that such capacity-building would come naturally through project intervention, it would be imperative to build in such a structured approach to potentially increase the output and value of effort. A suggested formulation by The Cropper Foundation, in this regard, would be to look at the set of activities that would help to ensure sustainability, for example building community capacity through improved governance etc., and using these activities to help inform the time-frame and resources needed for the project.
- The nature of Agriculture in Trinidad and Tobago: One of the last areas of core concerns for the executing agency in moving forward is a better understanding of the nature of agriculture in Trinidad and Tobago. Questions in this regard concern the culture of doing farming practices: What do these farmers believe? What do they practice? Approaching such a project with this understanding from the viewpoints and intuition of the beneficiary farmers can play a key part in designing a project that is better suited to their interests, which would bode well for future project success, viability and sustainability. For instance, as this project intended to explain some of the ecological effects of some farming practices, it focused on the role of input substitution (from non-eco-friendly to eco-friendly). However, as realised and mentioned above, farmers may respond to such knowledge with the question of the economic incentives availability for such substitution. As such, perhaps a different process and approach would be needed to ensure project viability. In another vein regarding project viability and the nature of agricultural practices in Trinidad and Tobago, it would be imperative to realise that the discussion of problems within the Northern Range of Trinidad cannot be solely an individual farmer issue, but rather within the context of a landscape dimension. As such, the project's executing agency has realised that for the project to address this wider range, there is a need to get people excited and motivated about this. Perhaps this may infer the need for an independent evaluator of farming practices, such as the HNV Index, as it would showcase a common purpose and offer a common perspective for farmers to know theirs as well as other farmers' score, thus hopefully incentivising change.

In response to these identified challenges and lessons learnt, The Cropper Foundation is in the process of putting together a wider and more comprehensive follow-up project which would expand the original idea by focusing on three additional valleys alongside current two (Caura/Tacarigua and Maracas/St. Joseph), and specifically targeting the concern for viability. It is currently envisioned that such a programme would be 4-5 years in length, and comprised of 4-5 components.



3.2 Evaluation of Project Sustainability

v	Highly Likely	Likely	Unlikely	Highly Unlikely
Λ	(HL)	(L)	(U)	(HU)

Given the above information, and the efforts of The Cropper Foundation to continue work towards continuing the initiatives started within this project, it is thought that there is a high likelihood for project sustainability beyond the completion date. This is since most of the factors affecting project sustainability (including the dissemination of results to stakeholders and working with community farmers to educate other farmers in the results of this project) were included in its design. Moreover, necessary future actions to facilitate the sustainability of this project have not only been identified, but also, the project executing unit is seen to be strongly committed to maintaining the continuous flow of project outputs.

3.3 **Other Recommendations**

The preceding sections have encompassed a wide range of challenges and lessons learnt by the executing agency, which could be readily reviewed and adapted to similar projects in Trinidad and Tobago, across the Caribbean and/or within the wider reach of IDB/MIF. To build on this in a general way, a few core recommendations⁴ are listed below:

- 1. Understand the Systemic Nature of Sustainable Farming Practices: As this project has outlined, it is evident that any project with a similar intent in building of capacity and knowledge in the area of sustainable farming practices underscore the importance of encompassing the broad farming system. This includes, but is not limited to, each individual farm and farmer, the communities, the local ecosystem, as well as influencers and stakeholders that affect and are affected by these farmers. As such, a wide all-inclusive participatory base including all relevant stakeholders and institutions would be important for the most comprehensive knowledge about the system. Moreover, such support and contribution by this wide base should go far towards the depth of impact and success of the project concerned. Additionally, as noted by the importance of external project factors concerning environmental degradation (in this case, quarrying), including the context of general land use planning would be important to consider, within a more holistic and watershed-based approach.
- 2. *Recognise the "Sustainable Agriculture Continuum"*: The Sustainable Agriculture Research and Education Program of the Agricultural Sustainability Institute at the University of California at Davis has underscored the importance of noting that the "transition to sustainable agriculture is a process". It notes that "the transition to sustainable agriculture normally requires a series of small, realistic steps" ... and that "Family economics and personal goals influence how fast or how far participants can go in the transition". In this regard, it is important for projects that are similar to this one note the value of such small steps and the respective contribution and difference that those steps make towards the wider goal. Put another way, projects should not rush into looming, big changes for these farmers, as this not only provides a disincentive for change, but it minimises buy-in and confidence in the partner organisation. As The Cropper

⁴ The author has made use of information available on the website <u>http://www.sarep.ucdavis.edu/sarep/about/def</u> in this regard.



Foundation has outlined in their sustainability trajectory, the need to understand the perspectives of these farmers and create an active desire within them to value the need for change, become involved and make personal choices should be core objectives that should be resonant before anything else. As The Cropper Foundation has done, the use of an objective indicator, such as the HNV Index, could be a valuable tool to help farmers to this through small steps. Additionally, the need to revisit the historical paradigm associated of agriculture as being central to societies is important, as there may be a shift of thought towards agro-processing and marketing, and there is a need to complement projects like this one with ways of deriving more income from the agricultural value chains, diversifying livelihoods and building capacities within communities.

- 3. *Encourage the Responsibility of Communication*: As this project has shown, the efforts of this project to transfer capacity to the farmers to become "doers" and to recognise the value of communication of knowledge have played vital roles in the success of this project. For other projects with similar intentions, it is worthwhile to mention that by inculcating this responsibility within the beneficiaries, this sends the message that each agency plays a contributing role in strengthening the sustainable agriculture community (as put by The Sustainable Agriculture Research and Education Program). Moreover, the dissemination and communication of success stories and challenges should be built into the project at all stages, rather as an addendum to project objectives, to ensure that the relevant messages are communicated loud and clear.
- 4. The Role and Benefits of Additional Research and Complementary Projects: While many participants have indeed endorsed the suggested multidisciplinary approach for research in small-scale farm agricultural practices, there is no doubt that the role and benefit of building research and capacity development for mainstreaming sustainable agricultural practices is important to consider in similar projects. On the research front, suggested areas of concern include the risk associated with the transitioning of farms to sustainable farming practices (including the potential role of donor agencies in their willingness to absorb financial risk of farmer transitioning to sustainable farming practices), the potential benefit of projects about payment for ecosystem services, which could have the impact of encouraging farmers to practice in a sustainable manner towards receiving related payments for such services, as well as the potential for niche market development (these latter research areas could help address the concern of improving returns from farming as well as the financial attractiveness of farming). As well, as a complement to such a project, complementary activities or separate projects could be developed to involve farmers in the research and demonstration of outcomes as well as general encouragement of showcasing this information. This stems from some concluding remarks about this project, which note that the benefits of sustainable farming practices need to be better articulated and supported by evidence, and that there is the need for greater effort by extension agencies and research institutions to translate research output into meaningful information for the farmer. It was suggested that on-farm research partnerships could be developed between farmers and tertiary students to assist in documenting the benefits (economic, social and environmental) and challenges involved in implementing sustainable farming practices. To complement this, the transfer of information from research institutions to farmers would need to be more efficient (for this project, some farmers were not aware of the current practices and technologies available for sustainable small-scale hillside agriculture). and in this vein, the improvement of Ministry-led extension services could play a role in helping farmers take an active role in seeking out information and keeping themselves up-to-date in advances in farming technology.



IV. PERFORMANCE OF THE BANK/MIF

In analysing the Bank/MIF performance in key areas of its support for the executing agency in the implementation of this project, the following table summarises the responses received from the main representative at The Cropper Foundation.

		Low	•	-	High	
		1	2	3	4	n/a
1.	Help in designing the project on a participatory basis with the executing agency	•			*	
2.	Technical assistance and training provided, and systematic monitoring to enable the executing agency to fulfil Bank/MIF policies and procedures	Ļ			*	
3.	Technical assistance and training provided to the executing agency, to improve project management and administration	•			*	
4.	Usefulness of Bank/MIF supervision and assistance in improving project management and administration	Ļ			*	
5.	Speed of Bank/MIF response to requests by the executing agency during project implementation	•			*	
6.	Flexibility shown by Bank/MIF in responding to contingencies during project implementation				*	

As indicated in the table above, The Cropper Foundations has found that the Bank/MIF performed quite well in all facets of project implementation. Of specific mention, one of the areas in which the Bank/MIF's intervention was noted particularly helpful was in the financial management of the project – in this regard, it was noted that there was specific support "in helping with reconciling exchange rate differences that result in differences between project financial records and the IDB's records".

One noted suggestion for the Bank/MIF is that the development and execution of a workshop series for each individual project on financial management that would cover general financial reporting and financial recording would be particularly helpful, especially for small organisations where financial management capacity is limited.

In general, the Bank/MIF performance in the implementation of this project was rated as Highly Satisfactory. This indicates that the Bank/MIF consistently provided a very competent level of assistance and support to the executing agency during the project design and execution stages, permanently monitored the fulfilment of policies and procedures, offered useful guidance in areas related to its fiduciary responsibility (e.g. with respect to procurement, financial management, performance of consultants, results-based management, etc.) and demonstrated flexibility and capacity to adapt in response to contingencies. Ultimately, this shows that the performance of the Bank/MIF made a highly positive contribution towards achieving the project's development objectives.





x	Highly Satisfactory	Satisfactory	Unsatisfactory	Highly Unsatisfactory
	(HS)	(5)	(0)	(HU)



ANNEX I: Logical Framework - Implementation of Sustainable Farming Practices in Trinidad's Northern Range Communities

OBJECTIVES INDICATORS		MEANS OF VERIFICATION	ASSUMPTIONS				
GOAL:							
- To demonstrate complementarity of sustainable livelihoods and environmental management through the implementation of sustainable hillside farming practices	 At two years after project completion: At least 70% of farmers in selected communities engaging in sustainable hillside agricultural practices Increased income levels are reported by participating farmers Reduced levels of soil erosion and siltation in water systems Reduced/less severe occurrences of flooding/less severity within selected watersheds attributable to changes in farming practices Model is disseminated to other communities, stakeholder groups and policy makers 	 Project Records Baseline and Research on selected communities Reports from Public/Government Agencies, including data on: Volume, quality and quantity of products derived from sustainable agricultural practices Testing of freshwater and soil resources for pollutants Records of flooding severity and frequency (Ministry of Works, Meteorological Office, WASA, Office of Disaster Preparedness and Management) Comparison of 2003 aerial photographs with Google Earth at end of project 	 Sustainable agricultural practices can lead to economically viable operations Hillside farmers are able and willing to participate in the replication of the pilot project 				
<u>PURPOSE:</u>							
- To pilot a programme of alternative and sustainable farming practices to selected farmers in 2 selected watershed communities of the Northern Range	 At project completion, quantifiable increases in: At least 20% of farmers in selected communities are implementing sustainable and more profitable farming practices 	 Project evaluation reports, surveys, project reports, including research findings Site visits for observation and discussion with communities and farmers Discussion with indirect beneficiaries such as consumers of produce found in the markets and communities located downstream of the targeted watersheds Laboratory reports of chemical residues in farmers' blood and produce 	 Interest and commitment of communities/farmers can be sustained beyond the duration of the project Farmers maintain records 				



OBJECTIVES INDICATORS		MEANS OF VERIFICATION	ASSUMPTIONS			
COMPONENTS/ACTIVITIES	<u>.</u>					
1. Pilot Project on Sustainable Farming Practices	 By the first 6 months of the project: Baseline assessment of conditions is completed At project completion: Demonstration of sustainable agricultural practices implemented in at least 4 sites within 2 watersheds At least 60% of farmers in selected communities are exposed to sustainable farming practices At least 20% of farmers in selected communities continue to implement sustainable agricultural practices Results of the project are assessed by measuring movement in baseline conditions 	 Project evaluation reports, surveys, project reports, including research findings Site visits for observation and discussion with communities and farmers Comparison of 2004 Agricultural Census information to agricultural profile at end of project Workshop participant lists 	 Communities/farmers willing and committed to project and its approach Crime (e.g. personal safety and praedial larceny) does not impede or discourage farmers and technical consultants 			
2. Strengthening of Local Networks and Dissemination of Results	 At project completion: Increased stakeholder/public awareness of the negative impact of unsustainable agricultural practices on the environment and community life Movement towards clarification/ improvement in land tenure and access rights of farmers; regulation and enforcement of policies targeting unsustainable agricultural practices, whether local or national 	 Minutes of meetings, and participant list Records of national policy dialogue forums conducted by both government and non-governmental agencies and associations 	 Stakeholders are interested in sustainable agricultural practices, and have a vested interest in community relations 			



ANNEX II: Summary Information on Farmers uptake of sustainable farming practices

<u>Table 5</u>: Tabular Summary of Maracas/St. Joseph Farmers

Farmer Code				Status in	Initial	Sept 2011 Oct 2011 Dec 2011						2011					
		HNVI Score, May 2012	HNVI Score, June 2011	August 2011	Sustainable Farming Views	SQ	LP	СМ	EI	SQ	LP	СМ	EI	SQ	LP	СМ	EI
1	FH		60.0	Active	Interest	+	+	+	+	+ -	+ -	+	+	+	+	+	+
2	RA		57.5	Active	Interest	+	-	+ -	+	+	+ -	+ -	+	+	+ -	+ -	+
3	AT	76.5	57.0	Active	Interest	+	+	+ -	+	+	+	+ -	+	+	+	+	+
4	SC		56.0	Active	Interest	+	+ -	+ -	+	+	+ -	+ -	+	+	+ -	+ -	+
5	HY		47.5	Active	Interest	+ -	+	+	+	+ -	+ -	+	+ -	+ -	+ -	+	+ -
6	TL	31.5	47.0	Active	Interest	+ -	+ -	+ -	+ -	+ -	+ -	+ -	+ -	+ -	+ -	+ -	+
7	MA		46.5	Not Active	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
8	AW		46.0	Active	Interest	+	+	+ -	+ -	+	+	+ -	+ -	+	+	+ -	+
9	HT	35.0	45.5	Not Active	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
10	HB	61.0	44.5	Not Active	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
11	PR		44.5	Active	Interest	-	+	+	-	-	+ -	+	-	-	+ -	+	-
12	WC		44.0	Active	Interest	+	+	+ -	+	+	+	+ -	+	+	+	+	+
13	RW		41.5	Not Active	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
14	GS	35.5	39.6	Not Active	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
15	BN		38.5	Active	Interest	+	+	+ -	+	+	+ -	+ -	+	+	+ -	+	+
16	AK	71.0	37.0	Active	Interest	+	+	+ -	+	+	+	+ -	+	+	+	+	+
17	JS		34.5	No Contact	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
18	WD	38.5	33.5	Active	Interest	+	+	+	+	+	+ -	+	+	+ -	+ -	+	+
19	BF	45.5	New	New	New	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20	BB	52.0	New	New	New	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
21	JS	47.5	New	New	New	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
			50% below	67%	100%												
			score of 45	Active	Interest												

SQ: Soil Quality

LP: Land Preparation



CM: Crop Management

EI: Environmental Integrity

<u>Table 6</u>: Tabular Summary of Caura/Tacarigua Farmers

Farmer Code				Status in	Initial		Sept	2011			Oct 2	2011			Dec 2	2011	
		HNVI Score, May 2012	HNVI Score, June 2011	August 2011	Sustainable Farming Views	arming SQ LP	LP	СМ	EI	SQ	LP	СМ	EI	SQ	LP	СМ	EI
1	QM	69.5	74.5	Active	Hi Interest	+	+	+	+	+	+	+	+	+	+	+	+
2	AS		69.0	Not Active	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3	JA		61.0	No Contact	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4	СТ	56.0	57.0	Active	Hi Interest	+	+	+	+	+	n/a	+	+	+	+ -	+	+
5	KB	54.0	52.5	Active	Hi Interest	+ -	n/a	-	+ -	+	n/a	+	+ -	+	+ -	+	+ -
6	EP		45.5	No Contact	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
7	NR	49.0	40.0	Active	Interest	+ -	+ -	+ -	-	+ -	n/a	+ -	-	+ -	+ -	+ -	-
8	VH	56.0	39.0	Active	Hi Interest	+	+	+	+	+	n/a	+	+	+	+	+	+
9	TH	60.5	37.5	Active	Hi Interest	+ -	+ -	+ -	+ -	+ -	n/a	+ -	+ -	+ -	+ -	+ -	+ -
10	KH	39.5	34.5	Active	No Interest	+ -	-	+ -	+ -	n/a	n/a	+	+ -	+ -	-	+	+ -
11	DK		34.5	Not Active	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
12	HS		32.0	No Contact	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
13	RR	45.5	n/a	Active	No Interest	+ -	+ -	+ -	+ -	+ -	+	+ -	+ -	+ -	+	+ -	+ -
			50% below score of 45	61% Active	75% Interest												

SQ: Soil Quality

LP: Land Preparation

CM: Crop Management

EI: Environmental Integrity