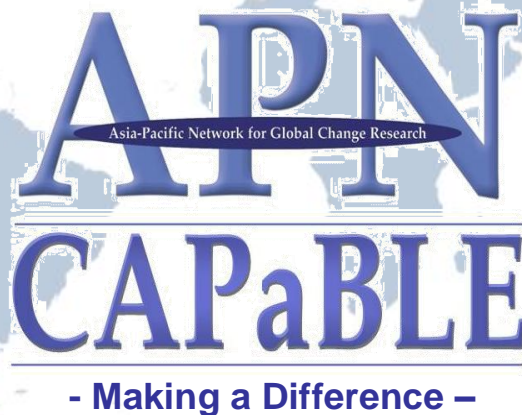


*Enhancing the LGU Capacity for Implementing  
Conservation Farming Villages as a Strategy for  
Climate Change Adaptation and Upland Development*



Scientific Capacity Building & Enhancement for Sustainable Development in Developing Countries

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# **Enhancing the LGU Capacity for Implementing Conservation Farming Villages as a Strategy for Climate Change Adaptation and Upland Development**

**Project Reference Number: CBA2012-12NSY-Cruz  
Final Report submitted to APN**

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## OVERVIEW OF PROJECT WORK AND OUTCOMES

### Non-technical summary

The project on Enhancing the Local Government Units' Capacity for Implementing Conservation Farming Village as a Strategy for Implementing Conservation Farming Village as a Strategy for Climate Change Adaptation and Upland Development in the Philippines in support of the Local Government Code (RA 7160) of the Philippines where the local executives were given autonomy to attain sustainable access and development of their resources, attain increased productivity, enhanced sustainability through soil-water nutrient conservation; community participation and increased equitability and empowerment among the constituents.

The Conservation Farming Village (CFV) is a modality for improving human lives through better livelihood, agricultural productivity, and environmental security of communities living in the marginal sloping lands under the prevailing climate context. It aims to help upland farmers improve their economic conditions by strengthening their skills and enhancing their assets to manage the natural resources thereby protecting their communities against environmental degradation while sustaining their sources of livelihood.

CFV is a tripartite collaboration among the state university or college (SUC), the local government unit (LGU) and farmer. The CFV was first implemented in 5 provinces in the Philippines and this APN-supported project envisions to enable LGUs' executives and development workers to adequately empower upland farmers and local community leaders in the establishment of one model farm per province in one year in 15 provinces.

### Keywords

Conservation Farming Village, sloping land management, agroforestry, partnership

### Objectives

To build the capacities of LGU executives and their technical personnel to undertake sustainable upland development related programs and strategies and facilitate adoption and implementation of science and technology-based sloping land management and agroforestry systems to promote sustainable upland development and adaptation to climate change and variability.

### Amount received and number years supported

The Grant awarded to this project was US\$45, 000 for one year

### Activities undertaken

Preparatory Activities. Organization of Project Management Team (PMT) composed of the representatives from the 5 universities namely: Ifugao State University (IFSU); University of the Philippines Los Banos (UPLB); Bicol University College of Agriculture and Forestry (BUCAF); Siliman University (SU); and the University of Southeastern Philippines (USEP). The PMT was responsible for the implementation of the various activities in the provincial and municipal levels, follow up on farm implementation, monitoring, modification and evaluation.

Capacity-building. The academic institution situated near or within the provinces where the project was implemented conducted a training needs assessment. Results of the training needs assessment (TNA) became the basis for designing the training activity aimed at developing the capability of the LGUs in facilitating the use CFV approach in transforming the erosive farming practices of upland farmers into sustainable land management practices that are adaptive to the impacts and risks associated with the changing climate conditions.

**Farm development.** From the farmers that attended the training course, at least one farmer, who is willing to develop a portion of or his entire farm into a model farm for demonstrating sloping land management in their locality was chosen as Farmer Volunteer. The physical attributes of the farm were assessed using the Agroforestry Land Capability Mapping Scheme (ALCAMS). ALCAMS takes into consideration the slope of the area, vegetation, and soil fertility to enable the implementers to recommend an agroforestry system that is best-suited to the current condition of the land. The species that were and to be planted, however, were the choice of the farmers based on their needs, skills and knowledge on sustainable upland husbandry (both traditional and new knowledge acquired thru the training courses they attended and technical assistance received from the project) and information on the market situation in their locality.

## **Results**

**Capacity Building.** The PMT agreed to use a) proximity to existing CFV sites and b) majority of the municipalities within the province are upland areas as the key criteria for selecting the provinces to receive the capacity-building program. Tools were developed for assessing the training needs of LGU personnel and farmers. Training needs of LGU personnel and farmers show that climate change and upland development is ranked as the topic that most of the participants need. Hence, five training courses were developed and implemented accordingly, attended by 272 participants. Follow-up trainings/ re-echo and cross farm visits were also conducted.

**Farm Development.** The use of ALCAMS to determine the best agroforestry system that will be established in the demonstration farms was done for the cluster adjacent to UPLB. Results of the ALCAMS showed that the farms are generally suitable for agroforestry that require some measures needed to be taken (e.g., terracing, mulching, contour hedgerows, drainage systems/canals ) before an agroforestry system can be established in the farms. There were 18 farms developed through this project that are as of this report in different stages of development. Some are practically developed while others are yet to be developed awaiting the onset of rainy season. UPLB, USEP and BUCAF have 3 farms each while IFSU developed 5 and SU developed 4 farms.

## **Relevance to the APN Goals, Science Agenda and to Policy Processes**

This project works on the assumption that it is the farmers and the LGUs that will best chart their own path to sustainable upland development and are in the best position to decide on how to undertake climate change adaptation strategies that are appropriate and environment-friendly. The academic research institution serves only as the facilitator that provides the technical expertise, information and knowledge, and conducts studies needed while the LGU provides for the on the ground extension human resources and other related assets, and the farmer as co-researcher and primary decision-maker.

In the preceding CFV project we learned that upland development couldn't prosper unless the LGU embraces fully the responsibility of being the primary facilitator of mobilizing resources that are needed by the farmers for sustainable upland development thru CFV. While farmers' ability and commitment to upland development cannot be understated, the sheer immensity of the resources required to veer the management of uplands away from the path of degradation to sustainable development will be overwhelming for the farmers alone to shoulder. The LGU must appreciate that there is a way to better pursue upland development than leaving it solely to the hands of the farmers with arms that are long in aspirations but short in resources.

## **Self evaluation**

The number of participants we envisioned to achieve was met. Aside from these participants, farmers were also capacitated based on re-echo and orientation training that were conducted prior

to farm establishment. This was done to also share the approach to other farmers adjacent to the demonstration farm with the expectation that they too will adopt CFV.

Climate change played a crucial role in the farm development activities of the project. There was a long dry spell beginning in the latter part of 2012 and into the first quarter of 2013. As such, farm development was delayed in most areas affected by the long dry spell.

The national election for May 2013 also disrupted the project implementation particularly in the coordination with the different levels of LGU that became preoccupied with pre-election activities. The election also created uncertainties among the LGUs concerning the extent of commitment they can actually make considering that the incumbent local executives could be unseated and replaced by new LGU leaders that are not supportive of CFV and agreements entered into by the outgoing leadership. Hence, entering into legally binding instruments were also delayed and held in abeyance. Nonetheless, negotiations with the new set of leaders on MOA, MOU and ordinances in support of CFV are already in progress and the teams in the different provinces where the project is being implemented are committed to do follow through with the activities towards sealing these instruments to ensure CFV institutionalization.

### **Potential for further work**

There were shown interests in the implementation of CFV as a modality for climate change adaptation and sustainable upland development. The declining volume of water extracted due to climate change and denuded watershed areas are being recognized by the LGUs and the local water districts. As such, the amount of water and soil that the sloping land management technology can conserve as well as contribution to the income and livelihood of the farmer volunteers and adopters of CFV need to be monitored measured and analyzed. The results of this follow through study will be crucial in the refinements of CFV practices and protocols to better achieve its goals as well as in providing concrete metrics and indicators that are useful in the continuing awareness building activities in other towns and provinces to replicate CFV in other upland areas. Further the information could be useful in mobilizing support of government watershed managers, the local water districts, and other watershed custodians for adopting CFV as a strategy for sustainable upland development.

Also, the Fostering Education and Environment for Development, Inc., a local NGO concerned primarily with rural development and environmental protection requested the support of CFNR-UPLB in the implementation of CFV in the Baroro Watershed that covers 3 municipalities of La Union in Northern Philippines. Support of the Project in this new site for CFV expansion will continue even after this Project is officially completed.

### **Publications (please write the complete citation)**

LGUS ATTEND TRAINING COURSE ON CONSERVATION FARMING ([su.edu.ph/article/772-LGUs-Attend-Training](http://su.edu.ph/article/772-LGUs-Attend-Training))

Cruz, RVO, WM Carandang, AP Payonga, SB Utzurum, Jr., DB Pacoy, NF Dimog, GA Galapia, VQ Carandang and CC de Luna. 2012. Improving the Resilience of Communities to Climate Changes Through Conservation Farming Village. Paper presented during the IUFRO Landscape Ecology Conference: Sustaining Humans and Forests in Changing Landscapes, 2-12 November, 2012, Concepcion, Chile

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Professorial Chair, presented on 07 February 2013 at the Artemio V. Manza Hall, College of Forestry and Natural Resources, University of the Philippines Los Banos, College, Laguna, Philippines

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## Acknowledgments

### LGU of Rizal

Provincial Government of Rizal  
Municipal Government of Baras  
Barangay San Salvador

### LGU of Batangas

Provincial Government of Batangas  
Municipal Government of Lobo  
Barangay Sawang

### LGU of Laguna

City of San Pablo  
Barangay Atisan



LGU of Negros Oriental

Municipality of Bindoy

LGU of Ifugao

Municipality of Alfonso Lista

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Prof. Nelson Latap

Professor, Ifugao State University

## TECHNICAL REPORT

Minimum 15-20 pages (excluding appendix)

### Preface

The devolution of responsibilities from the national government to the local government units to attain sustainable access and development of resources, increased productivity, and sustainable upland development is a task that needs the partnership and assistance of all sectors. Conservation Farming Villages (CFV) is a modality of transforming the traditional upland farming systems into sustainable upland production system while stimulating upland community development resilient to climate changes. With this project, capacities of Local Government Unit (LGU) executives and their technical personnel were enhanced to undertake CFV. In turn, they will help upland farmers improve their economic conditions by strengthening their capacities to manage the natural resources thereby protecting their communities against environmental degradation while sustaining their sources of livelihood and the “multiplier effect” of existing technology diffusion processes at the local level ensured.

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  - **Training Needs Results: LGU Personnel**
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## 1.0 Introduction

Of the 30 million ha total land area of the Philippines, a staggering 75% or 22.88M ha already suffer slight to severe erosion (BSWM, 1990). Soil erosion affects 70% of the 13 million ha of alienable & disposable lands (A&D) with 13 provinces having more than half of their areas eroded. There are about 14.3 million ha of sloping lands (16-50% slope) in the country. In addition, high influx of farmers to the uplands is negatively impacting on its fragile environment. Farmers migrate to the uplands in search of areas to till. There are now more than 24 million people living in the uplands who are considered the poorest among the poor in the Philippines. In regions where upland areas constitute more than 60% of the total area, poverty incidence ranged from 27-40%. It is expected that with the burgeoning population and the seemingly lack of better livelihood opportunities in the lowlands, higher influx into the upland communities can be expected in the next few years, unless more responsive government programs are implemented to avert such consequences.

Conservation Farming Village is a **modality** for enhancing the transfer of conservation farming technologies and practices anchored on participatory planning, monitoring, and evaluation processes at the community level. It is an in-situ showcasing of **a model S&T based farms** within a model village where practitioners, farmers and other stakeholders could observe and have hands-on experience in technology application.

It is a **model village** where majority, if not all, of the farmers practice, on a sustainable basis, technologies like alley-cropping, bench terracing, minimum tillage, composting, nutrient recycling, and other sloping agricultural land technologies. CFV adopts a **community-based participatory approach** to technology development, promotion and utilization, wherein researchers, extension workers, farmers and other upland development workers learn and work together. CFV serves as a point of **convergence** of all sustainable land / upland development efforts at the municipal and barangay level in the Philippines. CFV also gives importance to integration of efforts into local planning, monitoring and program evaluation processes to sustain the life of the farming systems and the commitment of the various stakeholders. This is achieved through facilitation and operationalization of stronger research – extension linkages among GO's and NGO's, as well as the private sector.

## 2.0 Methodology

### A. CFV Concept

The conceptual framework for CFV establishment is shown in Figure 1. There are three stages that need to be carried out in the CFV implementation. These are the formation, consolidation and integration stages. Incorporated in the modality is the empowerment of the farmers enabling them to become the vanguards of sloping land resources. Tapping the active leadership and participation of the local government and other municipal and barangay stakeholders and the community-based organizations is also an important approach towards developing a CFV.

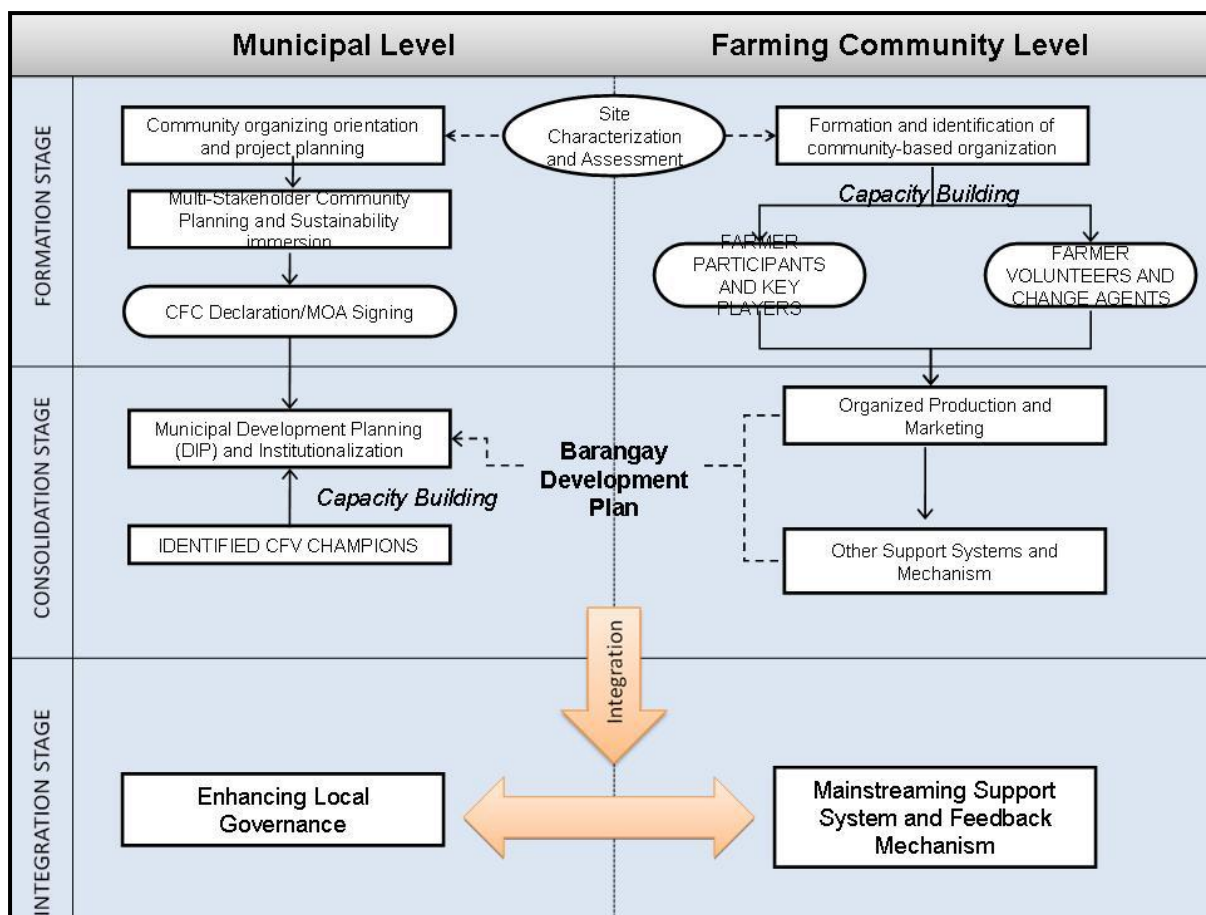


Figure 1. Conceptual framework for the establishment of Conservation Farming Village (CFV)

The implementation of CFV should have the following components:

- Key players and community organizing, orientation and planning workshop for the project
- Multi-stakeholder community development planning and sustainability immersion
- Identifying and training / capacitating farmer-volunteers (FV) and community extension workers/change agents under an appropriate technology promotion mechanism at the local level.
- Capacity building strategies for farmers and other community groups or sectors / key players
- Development of sloping land S and T based model farms.
- Basic facilities and structures like trading posts cum training shelter and conservation farming information service (CFIS)
- Marketing strategies and livelihood support mechanism
- Farming support systems like credit, technical assistance linkages, information/ data basing, baseline information gathering, and policy support mechanisms
- Monitoring and evaluation including program impact assessment

This project built on experiences of previous CFV initiatives implemented in the country and successes were realized starting year 1.

## **B. Capacity Building**

The academic institution situated near or within the provinces where the project was implemented conducted a training needs assessment (TNA). Results of the TNA became the basis for designing the training activity aimed at developing the capability of the LGUs in facilitating the use of the CFV approach in transforming the traditional erosive farming practices of upland farmers into sustainable land management practices that are adaptive to the impacts and risks associated with the changing climate conditions.

## **C. Farm Development**

From the farmers that attended the training course, at least one farmer, who is willing to develop a portion of or his entire farm into a model farm for demonstrating sloping land management in their locality will be chosen as Farmer Volunteer. The physical attributes of the farms were assessed using the Agroforestry Land Capability Mapping Scheme or ALCAMS (IAF and Kapwa Upliftment Foundation, Inc, 1994). ALCAMS takes into consideration the slope of the area, vegetation, and soil fertility to enable the implementers to recommend an agroforestry system that is best-suited to the current conditions of the land. The species that were and to be planted, however, were the choice of the farmer based on their needs, their skills and their knowledge on sustainable upland husbandry (both traditional and new knowledge acquired thru the training courses they attended and technical assistance received from the project) and information on the market situation in their locality.

## **3.0 Results & Discussion**

### **A. Preparatory Activities: Project Management Team Formation**

The College of Forestry and Natural Resources, University of the Philippines Los Baños (UPLB) in partnership with Bicol University College of Agriculture and Forestry (BUCAF), Ifugao State University (IFSU), Silliman University (SU), University of Southeastern Philippines (USEP) implement the project in 15 provinces in the Philippines. Five clusters of provinces were identified and each cluster was assigned with a Project Leader to facilitate project implementation.

On July 31, 2012, a Project Leader's Meeting was held at the Chancellor's Office of UPLB to plan for the implementation of the project. The five identified Site Coordinators were:

- Dr. Antonio P. Payonga, Project Leader from the Bicol University College of Agriculture and Forestry
- Dr. Wilfredo M. Carandang, Project Leader from UPLB
- Prof. Santiago Utzurum, Jr., Project Leader from Siliman University
- Prof. Nathaniel Dimog, Project Leader, Ifugao State University
- Dr. Danilo B. Pacoy, Project Leader, University of Southeastern Philippines (USEP)

Each project Leader was tasked to constitute the Site Project Management Team which was responsible for the implementation of the capacity-building activities on site, including conduct of pre-training activities and the subsequent model farm development.

## B. Capacity Building

### Criteria for selecting the provinces to receive capacity-building program

The Project Management Team agreed to use the following key criteria for selecting the provinces to receive the capacity-building program:

- Proximity to existing CFV sites
- Majority of the municipalities within the province with farms on upland areas

With the above key criteria, the following provinces were chosen (Figure 2):

Existing CFV sites	Adjacent State University	Target Provinces for Scaling up
General Nakar, Quezon	UPLB	Laguna Batangas Rizal Quezon
Ligao City, Albay	BUCAF	Albay Camarines Sur Sorsogon
Alfonso Lista, Ifugao	IFSU	Ifugao Mountain Province Kalinga
La Libertad, Negros Oriental	SU	Cebu Negros Occidental Siquijor Negros Oriental
Panabo City, Davao del Norte	USEP	Compostela Valley Davao del Sur Davao del Norte

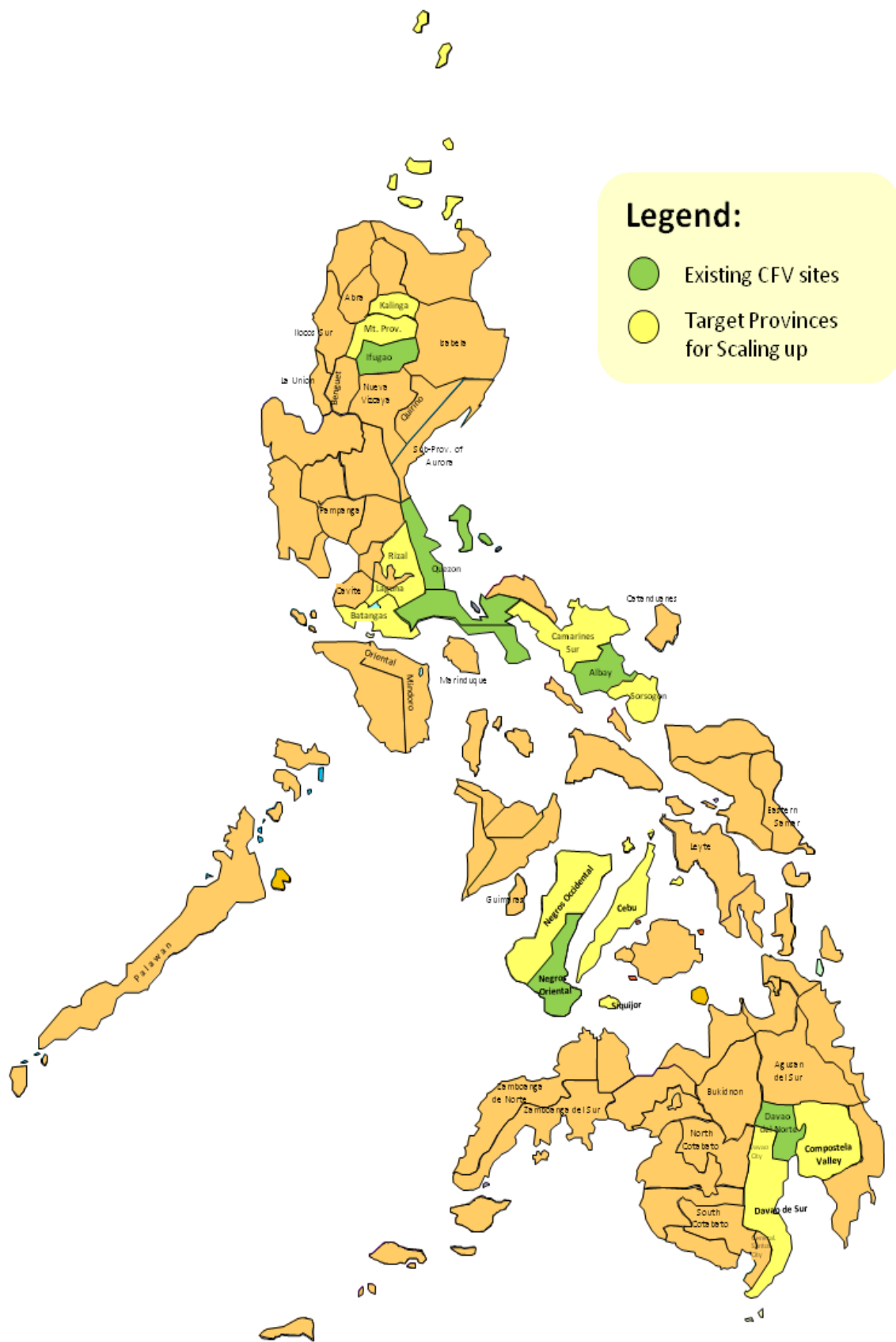


Figure 2. Location map of Conservation Farming Villages (CFV) Sites



- Training Needs Assessment

Tools were developed for assessing the training needs of LGU personnel and farmers. These focused on organizing and implementing CFV, agroforestry and other sloping land management technologies. As the circumstances permitted, the questionnaires were administered to the respondents through email, fax, or personal interviews.

The socio-demographic profile of the respondents is shown in Figure 3. The respondents were mostly male, college graduates and ages are mostly between 31 to 40 and 51 to 60 and majority of the respondents have attended training courses related to upland development.

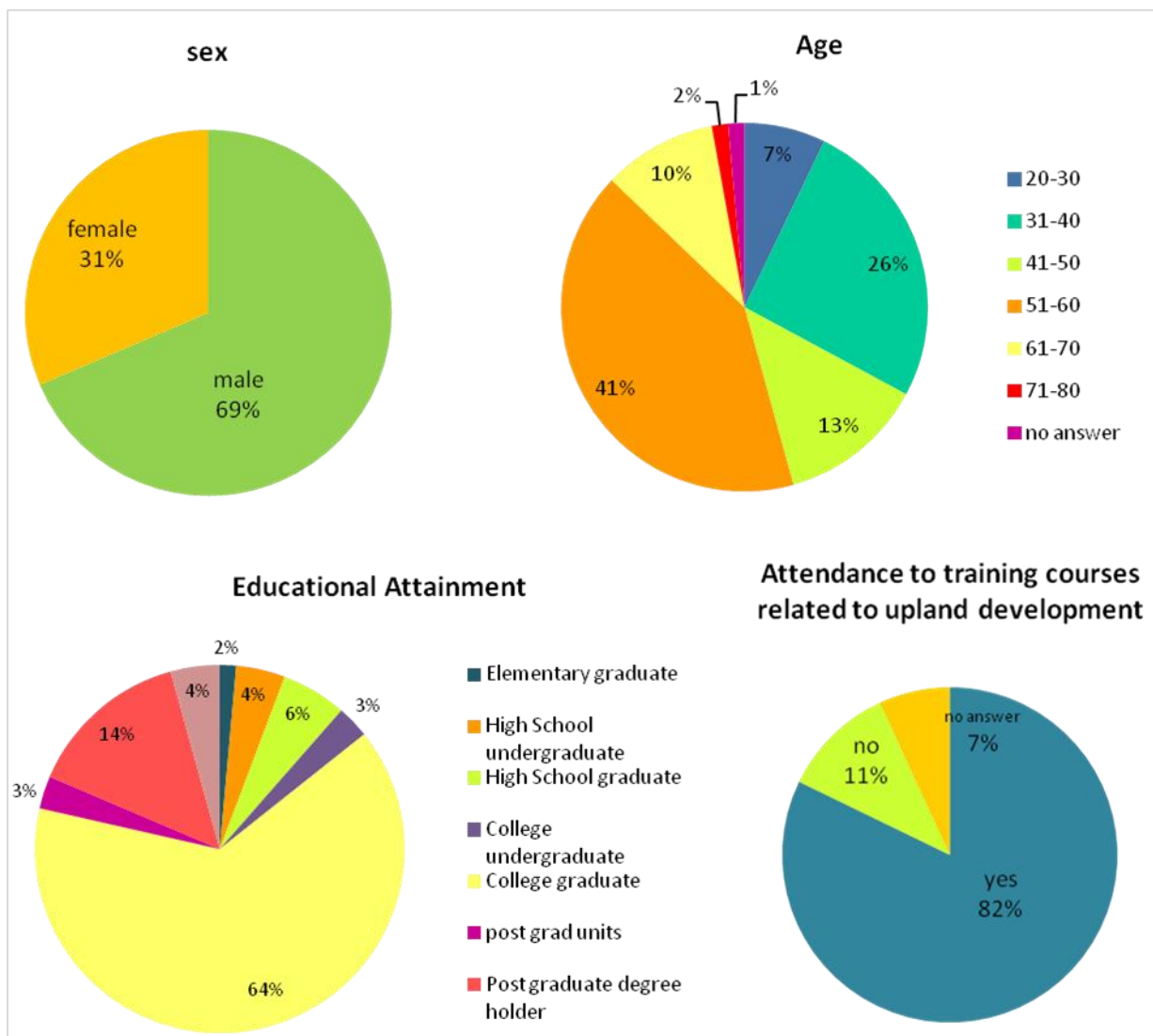


Figure 3. Socio-demographic profile of respondents

- **Training Needs Results: LGU Personnel**

Results of the training needs of LGU personnel are shown in Table 1. Based on the weighted score for each suggested topic, ranking showed that climate change and upland developments was ranked

as the topic that most of the participants needed. Meanwhile, soil erosion and its control ranked second and community organizing ranked third. The topic on marketing strategies was the lowest.

Table 1. Results of training needs assessment for LGU personnel in the target provinces

Rank	Suggested Topics	Weighted Score* n = 62
1	Climate change and upland development	636
2	Soil erosion and its control	620
3	Community organizing	609
4	Farm and farmer profiling	577
5	Cropping combinations appropriate for sloping areas	562
6	Soil fertility management	557
7	Basic Concepts of Watershed Management	548
8	Multistakeholder community development planning	491
9	Local policy/ordinance formulation	481
10	Barangay Development Planning	473
11	Livelihood support mechanism	432
12	Community Sustainability Indicators	351
13	Alley cropping	333
14	Financial management	318
15	Marketing strategies	312

\* The weighted scores were computed based on topics given first priority were rated 15 points, those given second priority, 14 points and so on, until topics ranked 15<sup>th</sup> were given a score of 1 ([ftp://ftp.cgiar.org/isnar/papers/tna-radio.pdf](http://ftp.cgiar.org/isnar/papers/tna-radio.pdf))

- **Training Needs Results: Farmers**

The training needs for the farmers are shown in Table 2. The farmers saw the need for understanding climate change and upland development as it was ranked number 1. Farmers also saw the need to understand and be capacitated on community organizing as this ranked number 2. Topic on soil erosion and its control was ranked third by the farmers.

Table 2. Training needs of farmers in the target provinces

Rank	Suggested Topics	Weighted Score* n= 8
1	Climate change and upland development	101
2	Community organizing	85
3	Soil erosion and its control	65
4	Local policy/ordinance formulation	60
4	Farm and farmer profiling	60
5	Basic Concepts of Watershed Management	54
6	Cropping combinations appropriate for sloping areas	53
7	Multistakeholder community development planning	45
8	Livelihood support mechanism	44
9	Soil fertility management	42
10	Marketing strategies	40

11	Alley cropping	30
12	Barangay Development Planning	15
13	Financial management	14
14	Community Sustainability Indicators	13

\* The weighted scores were computed based on topics given first priority were rated 15 points, those given second priority, 14 points and so on, until topics ranked 15th were given a score of 1 (<ftp://ftp.cgiar.org/isnar/papers/tna-radio.pdf>)

- Training Implementation

Based on the results of the training needs assessment, training courses were developed specifically for each provincial cluster, to meet the needs identified by the prospective participants both from the LGUs and the farmers.

Five training activities were implemented as targeted, attended by 272 participants (Table 3). Follow-up trainings/ re-echoing at the municipal and barangay levels were also conducted (Table 4). Cross farm visits were also employed to allow farmers to see for themselves the different technologies espoused by CFV farmer volunteers, and hopefully encourage them to emulate these conservation farming practices in their respective lands.

Participants to the training courses had the opportunity to visit previous CFV sites where sloping land management technologies, livelihood opportunities and agroforestry systems are showcased. During the visit to the CFV sites, farmer-to-farmer training/interaction was made possible; farmer volunteers of the previous project served as resource persons already. This provided the opportunity for the potential farmer volunteers in the APN supported project to appreciate the kind of role they would be playing in the scaling up of CFV in their areas.

Table 3. Number of participants for the five training courses conducted

Venue	Date	Title	Number of participants
UPLB	September 6-7, 2012	Training Course on CFV as a Strategy for Climate Change Adaptation and Sustainable Upland Development	67
IFSU	October 16-17, 2012	Training Course on CFV as a Strategy for Climate Change Adaptation and Sustainable Upland Development	38
BUCAF	October 24-25, 2012	Training on Conservation Farming Village (CFV) as a Strategy for Climate Change Mitigation and Adaptation for Sustainable Upland Development	62
USEP	December 11-12, 2012	Conservation Farming Villages: A Strategy for Climate change Adaptation and Upland Development	30
SU	February 21-22, 2013	Training Course on CFV: A Strategy for Climate Change Adaptation and Upland Development	75
TOTAL			272

Table 4. Follow-up and re-echoing activities after the training and were conducted on site

Venue	Date	Title	Topics/ Activities	Number of participants	output/impression from participants
1. Brgy. Sawang, Lobo, Batangas	May 15, 2013	Maikling Pagsasanay sa Agroforestry	CFV orientation lecture on Agroforestry Pest management (mealybug in Atis) Game: Longest line practicum: homemade pesticide, construction and use of a-frame model farm establishment	31	Atis ( <i>Anona squamosa</i> )-based model farm established. Farmers are willing to adopt technology (agroforestry). However, unlike in other communities where CFV has been implemented, farmers in Sitio Ulupong prefer to work on their farms individually rather than to form groups/ engage in <i>bayanihan</i> .
2. Brgy. Atisan, San Pablo City	March 17, 2013	Agroforestry and sloping land management	CFV orientation; Agroforestry; model farm establishment; visit to the site for the demonstration farm	37	
3. Ifugao		Sloping land management and organic farming		fifty (50)	
5. BUCAF-CFV Office	February 21, 2013	CFV orientation cum training (including activities to be conducted and roles in project implementation)	farm visit to Oma-Oma practicum on A-frame and farm planning		farm plans

### C. Farm Development

The use of ALCAMS to determine the best agroforestry system that will be established in the demonstration farms was done for the cluster adjacent to UPLB (Table 4). Results of the ALCAMS showed that the farms were generally suitable for agroforestry that require some measure needed to be taken (e.g., terracing, mulching, contour hedgerows, drainage systems/canals) before an agroforestry system could be established in the farms.

Table 4. Land suitability for agroforestry of identified farms adjacent to UPLB

Provincial Cluster	Location	Slope	Vegetation	Soil Fertility	Suitability for Agroforestry
Batangas	SitioUlupong, Barangay Sawang, Lobo, Batangas	18-45%	brushland	Medium	Conditionally suitable for agroforestry
Laguna	Barangay Atisan, San Pablo City, Laguna	18-30%	brushland	medium	Conditionally suitable for agroforestry
Rizal	SitioPawpawan, Barangay San Salvador, Baras, Rizal	18-30%	brushland	Low	Conditionally suitable for agroforestry

Table 5 shows the description of the 18 farms that were developed through this project. UPLB, USEP and BUCAF have 3 farms each while IFSU developed five and SU developed four farms. These different farms, that are as of this report, in different stages of development. Some are practically developed while others are yet to be developed awaiting the onset of rainy season.

Table 5. Description of the farms developed through the project

University	Province	Municipality/Brgy.	Description
UPLB	Batangas	SitioUlupong, Barangay Sawang, Lobo, Batangas	Mountainous terrain where slash and burn farming is a dominant practice No soil erosion control measures Corn, rice, sweet potato and vegetables as monocrops are prevalent Monocrop planting of atis in 3 m x 3 m planting distance with intensive weeding operations
	Laguna	Barangay Atisan, San Pablo City, Laguna	Brushland previously planted to ampalaya but is now on fallow, for soil to regenerate its fertility
	Rizal	Sitio Pawpawan, Barangay San Salvador, Baras, Rizal	Brushland with some portions of the land planted to pineapple
BUCAF	Camarines Sur	Barangay Antipolo, Baa, Camarines Sur	upland area where in 85% of the total land area were devoted for rice, vegetable, root crops, coconut and fruit production severe soil erosion occurring
	Albay	Barangay Paulog,	Rolling terrain

		Ligao City, Albay	Severe soil erosion occurring
	Sorsogon	Barangay San Rafael, Castilla, Sorsogon	Moderate soil erosion occurring
USEP	Davao del Sur	SitioBalutakay, Barangay Managa, Bansalan, Davao del Sur	high value crops are planted particularly carrots, onions, cabbage mountainous terrain and its weather is conducive to vegetable production soil erosion is prevalent as shown by the intensive use of chicken dung
	Compostela Valley	San Isidro, Nabunturan, Compostela Valley	Coffee, banana, coconut are planted with no soil conservation measures
	Davao del Norte	Barangay New Visayas, Sto. Tomas, Davao del Norte	Monocrop planting of cassava
IFSU	Ifugao	Alfonso Lista, Ifugao	Five farms were developed
			Monocropping of corn but is now transformed into contour farming/alley cropping with the incorporation of permanent and semi-permanent crops (fruit trees) and pineapple
SU	Negros Oriental	Bindoy, Negros Oriental	Four farms were developed  Brushland

#### 4.0 Conclusions

The project was implemented to build the capacities of LGU executives and their technical personnel to undertake sustainable development related programs and strategies. Such capability building activities were designed to facilitate adoption and implementation of science and technology-based sloping land management and agroforestry systems to promote sustainable upland development and adapt to climate changes.

Preparatory activities include organization of PMT and conduct of the TNA for prospective participants. A Project Coordinating Team from UPLB was formed as well as the five site management teams in IFSU, BUCAF, SU, USeP and UPLB.

The formation of the site management teams allowed for the continuity of the CFV initiatives in the five regional clusters formed. The CFV gains in the provinces of Quezon, Ifugao, Albay, Negros Oriental and Davao Oriental provided the vital foundation for the expansion of the CFV practice in the nearby provinces targeted.

TNA was conducted to elicit training needs of LGU personnel and farmers. Based on the results of the TNA, five training courses were developed and implemented which were attended by 272 participants. Participants to the training courses had the opportunity to visit existing CFV sites where sloping land management technologies, livelihood opportunities and agroforestry systems are showcased. During the visit to the CFV sites, farmer-to-farmer training/interaction was made possible; farmer volunteers of the previous project served as resource persons/trainers already. This

provided the opportunity for the potential farmer volunteers in the APN supported project to appreciate the kind of roles they would be playing in the scaling up of CFV in their areas.

Eighteen farms have been established or are currently being developed in the 15 provinces where CFV capacity building activities were implemented.

Climate change played a crucial role in the farm development activities of the project. There was a long dry spell beginning in the latter part of 2012 and into the first quarter of 2013. As such, farm development was delayed in most areas affected by the long dry spell.

The national election for May 2013 also disrupted the project implementation particularly in the coordination with the different levels of LGU that became preoccupied with pre-election activities. The election also created uncertainties among the LGUs concerning the extent of commitment they can actually make considering that the incumbent local executives could be unseated and replaced by new LGU leaders that are not supportive of CFV and agreements entered into by the outgoing leadership. Hence, entering into legally binding instruments were also delayed and held in abeyance. Nonetheless, negotiations with the new set of leaders on MOA, MOU and ordinances in support of CFV are already in progress and the teams in the different provinces where the project is being implemented are committed to do follow through with the activities towards sealing these instruments to ensure CFV institutionalization.

The Project Leader shared the CFV scaling up efforts in the international scene through a paper presentation in Chile during the IUFRO Landscape Ecology Conference: Sustaining Humans and Forests in Changing Landscapes. Such provided encouragement to the site management teams and the farmer volunteers on the knowledge that their efforts have gained some international recognition already.

The Co-Project Leader delivered a Professorial Chair in UPLB entitled, "Towards Systemic Agroforestry Landscapes in the Philippines: The Conservation Farming Villages Way" at the College of Forestry and Natural Resources, UPLB on February 2013 which provided the vehicle for the promotion of CFV in the national scene.

Outside of the proposed provincial coverage of the CFV Project under the APN, the Fostering Education and Environment for Development, Inc., a local NGO concerned primarily with rural development and environmental protection requested the support of CFNR-UPLB in the implementation of CFV in the Baroro Watershed that covers 3 municipalities of La Union in Northern Philippines. Support of the Project in this new site for CFV expansion will continue even after this Project is officially completed. This is a welcome opportunity to demonstrate the potential of CFV as an integral component of the Watershed Ecosystem Management approach which is being implemented in the Philippines.

In the preceding CFV project, upland development could not prosper unless the LGU embraces fully the responsibility of being the primary facilitator of mobilizing resources that are needed by the farmers for sustainable upland development thru CFV. While farmers' ability and commitment to upland development cannot be understated, the sheer immensity of the resources required to veer the management of uplands away from the path of degradation to sustainable development will be overwhelming for the farmers alone to shoulder. The LGU must appreciate that there is a way to better pursue upland development than leaving it solely to the hands of the farmers with arms that are long in aspirations but short in resources.

## 5.0 Future Directions

This project provided much impetus in the efforts to scale up CFV in the Philippines.

Catacutan (2007) said that “scaling up begins with the assumption that there is a product, a process, or an innovation worthy of expansion, and that there is a multitude who will benefit from such.” In the case of the CFV it is more of the process as tested in the different project areas , as well as the innovations that were implemented in selected sites.

Scaling up, as defined by the International Institute for Rural Reconstruction (2000), consists of an integration of vertical and horizontal movements across institutional levels. The vertical movement shall involve the lower and higher levels of stakeholders (farmers, field extension agents or agricultural technicians, as well as leaders of barangay and city/municipality local government units. Uvin and Miller (1994) described this as political scaling up where the involvement of the farmers in particular are influenced or motivated by the local government officials. In the different project areas, the barangay captains were very much instrumental in the implementation of the CFV in their respective barangays. Then there is the horizontal movement which would seek to expand the practice in terms of geographical extent covering more farms and more people. The APN supported project proved to be a critical vehicle in paving the way for such envisioned expansion of the CFV in the national scene.

Four critical questions have been forwarded by Racine (1998) to be addressed whenever there are efforts to scale up a program similar to the CFV. These are: (a) whether the program has worked well in one area; (b) whether it is likely that the program will work elsewhere; (c) how can an organization get the program to work in another place given another situation, and; (d) what kind of resources will it take for the program to work in other locations.

Following the above mentioned elaborations, there are a number of opportunities that are recognized to favor or enhance the scaling of the CFV in the Philippines. These include:

- Enlisting the support of the local government units in potential CFV sites
- Finding more CFV champions in both the LGUs, farmers and extension/upland development agents
- Developing social capital within rural communities and between external agencies
- Linking the CFVs and the farmers with organizations that could provide further enrichment of knowledge and skills, as well as development resources in the forms of grants and/or credits
- More investments by the local government units on infrastructure for markets, transports and communication

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## **Appendix 1**

### **Training Design, Schedule and Participants**

## **Design of Trainings on Barangay Sagip-Saka (Conservation Farming Villages – CFV): a Strategy for Climate Change Adaptation and Mitigation and Sustainable Upland Development**

### **RATIONALE:**

The Conservation Farming Village (CFV) approach was designed as a modality of effectively promoting agroforestry and other conservation farming practices that will sustain and improve human lives through better livelihood, agricultural productivity and environmental security of communities living in the marginal sloping lands of the country and enhance their resiliency amid climate change.

The program adopts the community-based participatory approach to technology development, promotion and utilization; and multi-level technology promotion mechanism that will capacitate local extension and change agents. Such strategies would ensure sustainability of efforts in promoting upland farming technologies and approaches, and would strengthen the “multiplier effect” of existing technology diffusion processes at the local level.

The CFV approach involves a) empowerment of farmers for them to become vanguards of sloping land resources; b) provision of technical expertise and guidance of an academic institution; and c) tapping the active leadership and participation of local government units and other stakeholders. As CFV banks on the functional partnership among the said institutions/entities, a training course that would capacitate the farmers and LGU executives and personnel in adopting/implementing CFV is imperative.

### **OBJECTIVES:**

The training will be conducted to:

1. discuss the concepts and principles of climate change and sustainable upland development;
2. characterize the different technologies that are espoused by CFV;
3. describe the approach to technology promotion and utilization;
4. learn the establishment and maintenance of the various sloping land management technologies; and
5. develop appropriate sloping land management technologies that will be implemented in the participants’ place of work.

**COURSE CONTENT:**

OBJECTIVES	TOPIC	LECTURE HOURS	PRACTICUM HOURS
discuss the concepts and principles of climate change and sustainable upland development;	Climate Change and Sustainable Upland Development: Concepts and Principles	2.0	
characterize the different technologies that are espoused by CFV	Concepts and Principles of Sloping Land Management and Appropriate Technologies	2.0	
			1.0
describe the approach to technology promotion and utilization	Community-based participatory approaches to technology promotion: The CFV Experience		1.5
learn the establishment and maintenance of the various sloping land management technologies	Saknungan: The Best Way for Establishing and Maintaining Productive Farms		1.5
develop appropriate sloping land management technologies that will be implemented in the participants' place of work	What's Next? Post-Training Activities		1.0

**EXPECTED OUTPUT:**

After the implementation of this training course, the participants should have gained knowledge and skills in the organization, establishment and maintenance of CFV farms that are able to adapt to climate changes and contribute to sustainable upland development in the Philippines.

**TARGET PARTICIPANTS:**

The participants will be LGU executives (governors, mayors, barangay captains) and their technical personnel (provincial/municipal environment and natural resources officers, provincial/municipal agricultural officers) and farmers.

**Appendix 1.a TRAINING COURSE ON CONSERVATION FARMING VILLAGES (CFV) AS A STRATEGY FOR CLIMATE CHANGE ADAPTATION AND SUSTAINABLE UPLAND DEVELOPMENT**

Date: September 5 to 6, 2012

Venue: Training Center for Tropical Resources and Ecosystems Sustainability (TREES), College of Forestry and Natural Resources, University of the Philippines Los Banos, College, Laguna and General Nakar, Quezon

**SCHEDULE OF ACTIVITIES:**

<b>September 5, 2012</b>		
<b>Time</b>	<b>Activity</b>	<b>Person Responsible</b>
7:00 – 9:00 AM	Arrival of Participants	Project staff
9:01 – 9:30 AM	Registration/Billeting	
9:31 – 10:00 AM	Opening Program	
	Prayer	Dr. Vida Carandang <i>Prof. CFNR /CFV Project Staff</i>
	National Anthem	On tape
	Introduction of Participants	Ms. Catherine C. de Luna <i>Researcher, IAF-CFNR/ CFV Project Staff</i>
	Welcome Remarks	Dr. Edwin A. Combalicer <i>CFNR Associate Dean</i>
	Training Overview	Catherine C. de Luna
10:01 AM – 12:00 NN	Climate Change and Sustainable Upland Development: Concepts and Principles	Dr. Rex Victor O. Cruz <i>Professor/CFV Project Leader/UPLB Chancellor</i>
12:01 NN – 1:00 PM	LUNCH	
1:01 PM – 3:00 PM	Concepts and Principles of Sloping Land Management and Appropriate Technologies (Lecture)	Dr. Wilfredo M. Carandang <i>Professor, CFNR/CFV Project Staff/Assistant to the Chancellor</i>
3:01 PM	Break	
3:30 PM – 4:30 PM	Concepts and Principles of Sloping Land Management and Appropriate Technologies (Visit at LLA)	Staff <i>Institute of Agroforestry, CFNR-UPLB</i>
<b>September 6, 2012</b>		
7:00 – 10:00 AM	Travel from UPLB to General Nakar, Quezon	
10:01 AM – 12:00 NN	Community-based participatory approaches to technology promotion: The CFV Experience	CFV Project Staff and Farmer Volunteers
12:01 NN – 1:00 PM		LUNCH
1:01 PM – 3:00 PM	Saknungan: The Best Way for Establishing and Maintaining Productive Farms	Farmer Volunteers <i>CFV in Gen. Nakar</i>
	Visit to model farms	
3:30 PM – 4:30 PM	What's Next? Post-Training Activities	CFV Project Staff/Participants
4:31 onwards	Closing program	

**Participants:**

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**Appendix 1.b TRAINING COURSE ON CONSERVATION FARMING VILLAGES (CFV) AS A STRATEGY FOR CLIMATE CHANGE ADAPTATION AND SUSTAINABLE UPLAND DEVELOPMENT**

Date: October 16-17, 2012

Venue: Ifugao State University Review Center, Ifugao State University, Nayon, Lamut, Ifugao

Program of Activities

<b>October 16, 2012</b>		
<b>Time</b>	<b>Activity</b>	<b>Person Responsible</b>
7:30 – 9:00 AM	Registration	Secretariat
9:01 – 9:30 AM	Opening Program	
	Prayer	
	National anthem	
	Introduction of Participants	
	Welcome Remarks	Mr. Florencio D. Dimog Campus Director, IFSU Main Campus
	Training Overview	
9:30 AM—12:00 NN	Climate Change and Sustainable Upland Development: Concepts and Principles	Dr. Wilfredo M. Carandang, Professor/Assistant to the Chancellor, UPLB and CFV Project Staff
12:01 NN – 1:00 PM	LUNCH	
1:01 PM – 2:00 PM	The Conservation Farming Villages Approach	Dr. Wilfredo M. Carandang
2:01—5:00 PM	Concepts and Principles of Sloping Land Management and Appropriate Technologies (Lecture)	Mr. Nelson Latap Professor, IFSU
6:00—7:00 PM	Supper	
7:01—9:00 PM	Socialization Night	
<b>October 17, 2012</b>		
7:00 - 8:00 AM	Breakfast	
8:00-8:30 AM	Recapitulation	Mr. Eric Bimoy Instructor, IFSU
8:30-10:30 AM	CFV, the Ifugao Experience	Mr. Nathaniel Dimog Faculty, IFSU and CFV site coordinator
10:30-12:00 NN	Farmer's Experience of CFV	Mr. Dionisio Catayong and Mr. Rodolfo Ventura, CFV Farmer Volunteers
12:00-1:00PM	Lunch	
1:00-4:00 PM	Post Training Activities Integration of CFV in Agencies' Development Programs	Participants
4:00-5:00 PM	Closing Program	
	Prayer	
	Message	WMC
	Impressions from the Participants	Mr. Leopoldo Dulnuan CFV Farmer Volunteer Mr. Joe Choy-awon Municipal Agriculturist, Mayoyao, Ifugao
	Awarding of Certificates	
	Closing Remarks	Prof. Joseph Ngohayon

**Participants:**

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## Appendix 1.c TRAINING ON CFV AS A STRATEGY FOR CLIMATE CHANGE MITIGATION AND ADAPTATION FOR SUSTAINABLE UPLAND DEVELOPMENT

Date: October 24-25, 2012

Venue: Audio Visual Room, VO-AG, Building, Bicol University College of Agriculture and Forestry, Guinobatan, Albay

### Program of Activities

(October 24, 2012)

8:00—8:30 am	Registration and Arrival of Participants	Secretariat
8:30—9:15	Opening Program Invocation National Anthem Opening Remarks  Message	Ms. Zandra C. Bergancia Ms. Zandra C. Bergancia Dr. Marissa N. Estrella <i>Dean, BUCAF</i> Dr. Rex Victor O. Cruz <i>UPLB Chancellor / Project Leader CFV Project</i>
9:15—10:00	Introduction of Participants Objectives and Mechanics of the Training Pre-Training Evaluation	Prof. Ma. Julieta C. Gonzales <i>Training Facilitator</i> Ms. Sarrah M. Duran <i>Training Assistant</i>
10:00—10:30	Mainstreaming CFV in Local Governance	Hon. Linda P. Gonzalez <i>City Mayor, Ligao City</i>
10:30—12:00	Upland Situationer	Prof. Alberto B. Gonzales <i>Resource Person</i>
12:00—1:00	<b>LUNCH BREAK</b>	
1:00—2:30	CFV as a Key Strategy for Climate Change Adaptation for Sustainable Upland Development	Dr. Antonio P. Payonga <i>Resource Speaker/Project Site Coordinator</i>
2:30—4:00	Barangay Development Planning as key CFV Strategy	Prof. Jose T. De Leon <i>Resource Speaker</i>
4:00—5:30	Agroforestry as a Key CFV Technology	Prof. Alberto B. Gonzales <i>Resource Speaker</i>
7:00—10:00	<b>SOCIALS</b>	

Day 2 (October 25, 2012)

7:30 am	Travel from BUCAF to Oma-Oma, Ligao City	
8:15—8:30	Welcome Message	Hon. Emily Ponting <i>Punong Barangay, Oma-Oma</i>
8:30—10:00	Introduction of Barangay Council and Farmers SLM as a Key CFV Technology	Dr. Antonio P. Payonga <i>Resource Speaker/Project Site Coordinator</i>
10:00—12:00	Visit to Model Community and Farms - Lecture-Demo on CFV key Practices - Lecture Discussion/Sharing of Experience	
12:00—1:00	<b>LUNCH BREAK</b>	
1:00—2:30	Farm Planning as a key CFV Strategy	Prof. Jose T. De Leon <i>Resource Speaker</i>
2:30—3:30	Closing Program - Post-Training Evaluation  - Impression from the participants - Distribution of Certificate  - Closing Remarks	Sarrah M. Duran <i>Training Assistant</i>  Dr. Rex Victor O. Cruz Dr. Antonio P. Payonga Hon. Emily Ponting Dr. Antonio P. Payonga <i>Project Leader</i>

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Julietta Nollo	Farmer, Gen. Nakar, Quezon	
Marivic Caballis	Farmer, Oma-Oma, Ligao City	
Zandra Bergancia	Researcher, BUCAF	
Demetrio R. Gaecia	farmer, Oma-Oma	
Allan Ponting	Brgy. kagawad, Oma-Oma, Ligao City	

**Appendix 1.d TRAINING ON CFV AS A STRATEGY FOR CLIMATE CHANGE MITIGATION AND ADAPTATION FOR SUSTAINABLE UPLAND DEVELOPMENT**

Date: December 11-12, 2012

Venue: Social Hall, University of Southern Philippines, Obrero, Davao City

**Program of Activities**

<b>December 11, 2012</b>		
<b>Time</b>	<b>Activity</b>	<b>Person Responsible</b>
8:00 - 9:00	Registration	Mr. Redinjoe Cabigon <i>Training Assistant</i>
9:00 - 10:00	Opening Program	
	Prayer	On Tape
	National Anthem	On Tape
	Introduction of Participants	Dr. Carmelita P. Martinez Director, USEP, Extn Div
10:01 - 12:00	Climate Change & Sustainable Upland Development: Concepts & Principles	Dr. Rex Victor O. Cruz <i>CFV Project Leader/UPLB Chancellor</i>
12:00 - 1:00	LUNCH	
1:00 - 3:00	Concepts & Principles of Sloping Land Management & Appropriate Technologies (Lecture)	Dr. Wilfredo M. Carandang <i>CFV Project Staff/Assistant to the Chancellor</i>
3:00 - 3:15	Break	
3:15 - 5:15	Community-Based Participatory Approaches to Technology Promotion: The CFV Experience	Brgy. Capt Wilson Pabelonia <i>CFV Farmer Volunteer, San Roque, Panabo City</i>
<b>December 12, 2012</b>		
8:00 - 10:00	Bayanihan via Selda : The Best Way for Establishing & Maintaining Productive Farms	Mr. Godofredo V. Berdon <i>Agricultural Technologist, LGU Panabo City</i>
10:00 - 12:00	What's Next? Post-Training Activities	Ms. Catherine C. de Luna <i>University Researcher, UPLB/CFV Project Staff</i>
12:00 - 1:00	LUNCH	
1:00 - 5:00	Concepts & Principles of Sloping Land Management & Appropriate Technologies (Farm Visit in Brgy. San Roque, Panabo City)	Dr. Danilo B. Pacoy <i>CFV -Davao Site Coordinator</i>  Farmer Volunteers

Participants:

<b>Name</b>	<b>Designation/Institution/ Address</b>	<b>Contact Number/ Email Address</b>
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Hernando A. Almodiel	Farmer San Juan Agroforestry Association, Kiblawan	09293166650
Tito D. Avellano	DAR, Digos, City	
Edison P. Dapin	Kagawad/Comm. Agriculture Brgy. Cacao, Panabo City	09167880535
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Israel B. Manalo	LGU Sto. Tomas	
Marrieta M. Panisal	Agriculturist LGU Asuncion	
Reynaldo D. Panisal Sr.	Asuncion	
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Rex Victor O. Cruz	RP	
Wilfredo M. Carandang		
Danilo B. Pacoy		
Catherine C. de Luna	RP	
Godofredo V. Berdon	RP/Agriculturist I LGU Panabo City, Davao del Norte	09089048752
Wilson T. Pabelonia	RP/FV Brgy. San Roque, Panabo City, Davao del Norte	09094882950
Vida Q. Carandang	project staff	
Genevieve A. Galapia	Project Researcher	
Gladys Florangel I. Ortiz	USEP	
Teresita V. Modesto	USEP	
Redinjoe B. Cabigon	USEP	
Pinky Pearl Moniera	Student, USEP	
Karl Campos	Student, USEP	
Mary Grace Sarsuelo	Student, USEP	
Marjorie C. Namang	Student, USEP	09393144300
Ma. Josilamae A. Santos	Student, USEP	09077073837

**Appendix 1.e TRAINING ON CFV AS A STRATEGY FOR CLIMATE CHANGE MITIGATION AND ADAPTATION FOR SUSTAINABLE UPLAND DEVELOPMENT**

Date: February 21-22, 2013

Venue: College of Agriculture, Silliman University, Dumaguete City, Negros Oriental

Program of Activities

<b>February 20, 201</b>		
<b>TIME</b>	<b>ACTIVITIES</b>	<b>PERSON RESPONSIBLE</b>
4:00-6:00 p.m	Arrival & billeting of participants	Secretariat
6:00-7:00 p.m	Dinner	Silliman Café
<b>February 21, 2013</b>		
8:00-8:30 a.m	Registration of participants	Secretariat
8:30-9:30 a.m	<b>OPENING PROGRAM</b> Prayer National Anthem Introduction of participants  Welcome Address  Message  Pre-training activities/expectations	Marcelo A. Bolingot Recorded Music Dr. Al Zamora Professor, College of Agriculture SU  Dr. Ben S. Malayang President, Silliman University  Cong. Jocelyn SyLimkaichong Congresswoman, 1st District, Negros Oriental  Prof. Santiago B. Utzurum, Jr. Professor, SU
9:30-9:45 a.m	Training Overview	Prof. Santiago B. Utzurum, Jr. Professor, Silliman University
9:45-10:00 a.m	B R E A K	
10:00-11:00 a.m	Climate Change and Sustainable Upland Development: Concepts & Principles	Dr. Rex Victor O. Cruz CFV Project Leader UPLB Chancellor
11:00-12:00 a.m	Concepts & Principles of Sloping Land Management & Appropriate Technologies (Lecture)	Dr. Wilfredo M. Carandang CFV Project Staff/Assistant to the Chancellor, UPLB
12:00-1:00 p.m	LUNCH BREAK	



1:00-2:00 p.m	Mainstreaming CFV in Local Governance	Albert F. Gutierrez MPDC/OIC, MAO
2:00-3:45 p.m	CFV La Libertad: Mobilizing Upland Resources for Climate Change Adaptation	Prof. Santiago B. Utzurrum, Jr. Professor, Silliman University
3:45-4:00 p.m	BREAK	
4:00-5:00 p.m	Farmer's Experience of CFV	Andres Pacunla, Jr. F.A President
5:00-6:00 p.m	Agroforestry as a Key CFV Technology	Marcelo A. Bolingot CDA
6:00-7:00 p.m	DINNER	
February 22, 2013		
5:00-8:00 a.m	Departure for Field Visit to Nasunggan, La Libertad	Secretariat
<u>February 22, 2013</u>		
8:00-8:30 p.m	Breakfast at LALIMAR Resort & Beach Club La Libertad, Neg. Or.	Catering: LALIMAR
8:30-12:00 a.m	Site Visit: CFV Project Site in Barangay Nasunggan, La Libertad, Neg. Or.	CFV Project Staff
12:00-1:00 p.m	LUNCH	
1:00-2:30 p.m	Post Training Activities: Integration of CFV in Agencies' Development Programs	Albert F. Gutierrez MPDC/OIC, MAO
2:30-3:00 p.m	Closing Program and Distribution of Certificates	Prof. Santiago B. Utzurrum, Jr. Professor, College of Agriculture Silliman University
3:00-7:00 p.m	Travel back to Dumaguete City	
7:00-8:00 p.m	Dinner at SU Farm	

Participants:

Name	Designation/Institution/Address
Apolonio Omoyon Paguntalan	
Edwin M. Nemenzo	
Pastora Mejos Paculba	
Esmeraldo Vilar Sastre	
Magini Callao Paguidian	
Jeffrey Cariño	
Norma Ignacio Cauian	
Nestor P. Cadallo	
Rene Lomolio Bucol	
Cresenciano Ephem Ranguita	
Felix Amantello Amas	
Romulo Gara Rombo, Jr.	
Wilfredo Sibira Manila	
Carmelo Abueva Lubaton	
Melo Anfone Engcong	
Melijon Tresquio Buquiran	
Florante Bajar Bacang	
Glenda Cuaresma Chan	
James Santos Campos	
Medardo P. Villalum	
Arlindo Zerna Awayan	
Alvin Abugan Blaza	
Valente Dy Yap	
Rosemar Lofranelo Cadorna	
Helen Estrada Pastor	
Fe C. Tabotabo	
Darryl Perez Barraquias	
Marile Mayonila Guitones	
Miguel Vendiola Yucor	
Sarah Viajedor Ignacio	
Virginia Gablines Tadiamon	
Descartes Kirit Piñero	
Lolita Taub Quiliope	
Jane Budiongan Noculan	agriculture technologist LGU Carmen, Bohol
Bernard Rosales Limbaga	
Andrea Cabanes Canoy	
Rizalina Aguilar Muñoz	MAO, Sta. Catalina, Negros Oriental
Roberto Aguilar Balansag, Jr.	LGU Bayawan
Brenda E. Villalon	Agricultural Technician
Belina Banglos Inao	LGU-En. Villanueva SB-Agriculture
Joseflor Looc Macahis	Agricultural Technologist LGU Maria
Leovy Morales Cuevas	
Aiza Ann Daligoig	Agricultural Technologist Siquijor
Noel Banglos Anding	
Esteban Nuique Mamigo	MENRO?
Roberto Llanera Amaro	

Name	Designation/Institution/Address
Oscar Victorio P. Trinidad	Agricultural Technologist LGU Guihulngan
Rex Victor O. Cruz	
Wilfredo M. Carandang	
Santiago B. Uzurrum	Site coordinator
Marcelo A. Bolingot	LGU La Libertad, Negros Oriental
Albert F. Gutierrez	LGU La Libertad, Negros Oriental
Catherine C. de Luna	project staff
Vida Q. Carandang	project staff
Genevieve A. Galapia	Project Researcher
Al Zamora	professor, Silliman

## **Appendix 2**

### **Photodocumentation of Activities**



Training Course on CFV as a Strategy for Climate Change Adaptation and Sustainable Upland Development held on September 5-6, 2012 in UP Los Baños, Laguna and Gen. Nakar, Quezon



Training Course on CFV as a Strategy for Climate Change Adaptation and Sustainable Upland Development conducted October 16-17, 2012 in Ifugao State University, Lamut, Ifugao



Training on Conservation Farming Village (CFV) as a Strategy for Climate Change Mitigation and Adaptation for Sustainable Upland Development held on October 24-25, 2012 in Bicol University College of Agriculture and Forestry, Guinobatan and brgy. Oma-Oma, Ligao City, Albay





Conservation Farming Villages: A Strategy for Climate change Adaptation and Upland Development conducted on December 11-12, 2012 in University of Southeastern Philippines and Brgy. Mabunao, Panabo City, Davao del Norte





Training Course on CFV: A Strategy for Climate Change Adaptation and Upland Development held on February 21-22, 2013 in Silliman University, Dumaguete City and Brgy. Nasunggan, La Libertad, Negros Oriental

### Funding sources outside the APN

The Provincial Government of Batangas in Batangas City provided for food during the consultation to the Municipal Government of Lobo, Batangas, farmers consultation and training in SitioUlupong, Barangay Sawang, Lobo, Batangas.

The Vice President of the FEED, Inc, Ms. Anne-Marie Bakker, was interested to implement the Conservation Farming Village approach to rehabilitate the denuded forest and uplift the lives of the community living within the Baroro Watershed. A proposal was made for the Baroro Watershed, and FEED, Inc. will look for funding sources to support the CFV implementation.

### Glossary of Terms

BUCAF -- Bicol University College of Agriculture and Forestry  
CFV – Conservation Farming Village  
CFNR – College of Forestry and Natural Resources  
DENR – Department of Environment and Natural Resources  
FEED – Fostering Education and Environment for Development, Inc.  
IFSU – Ifugao State University  
LGU – local government unit  
PMT – project management team  
UPLB – University of the Philippines Los Banos  
SU – Siliman University  
USEP – University of Southeastern Philippines