



Republic of the Philippines
MOUNTAIN PROVINCE STATE POLYTECHNIC COLLEGE
Tadian, Mountain Province
Department of Forestry and Agroforestry

TERMINAL REPORT

**Hands-on Site Characterization of Heirloom Rice
Production in Bauko, Mountain Province**

December 12-13, 2014
Victor Dominguez Research and Training Center,
Baang, Banao, Bauko, Mountain Province

CONTENTS

Transmittal Letter	A
Executive Summary	B
Approved Activity Design	C
Photo Documentation	D
Lecture Notes	E
Evaluation Summary	F
Attendance Sheets	G

Republic of the Philippines
Mountain Province State Polytechnic College
Tadian, Mountain Province

Department of Forestry and Agroforestry

TERMINAL REPORT

Hands-on Site Characterization
of Heirloom Rice production in Bauko,
Mountain Province.

DECEMBER 12-13, 2014
Victor Dominguez Research and Training Center,
Baang, Banao, Bauko,
Mountain Province

Republic of the Philippines
Mountain Province State Polytechnic College
Tadian Campus
Research Development and Extension Unit

January 21, 2015

Mr. ELMER D. PAKIPAC
Extension Director
Bontoc, Mountain Province

Sir,

Greetings!

Respectfully submitting the terminal report of the activity Hands-on Site Characterization of Heirloom, Rice production in Bauko, Mountain Province held at Victor Dominguez Research and Training Center, Baang, Bauko on December 12-13, 2014.

Thank you.

Prepared by:


FELICIDAD C. AYEO
Science Aide

Noted by:


JOEL C. FARODEN
Extension Campus Coordinator



Republic of the Philippines
Mountain Province State Polytechnic College
Tadian, Mountain Province

TERMINAL REPORT

Activity Title:	Hands-on Site Characterization of Heirloom, Rice production in Bauko, Mountain Province.
Extension Component:	Training/Seminar/Workshop
Extension Program:	Agricultural Extension
Cooperating Agency:	DA-CAR, IRRI, PHILRICE, OPAG, OMAG and MPSPC
Implementing Department:	Research Development and Extension Sector
Trainers/Speakers:	Joel C. Faroden and Ms. Jovita Camso
Actual No. of Participants:	40
Actual Venue:	Victor Dominguez Research and Training Center, Baang, Banao, Bauko
Actual Date of Implementation:	December 12-13, 2014
No. of Training Days:	two (2)

EXECUTIVE SUMMARY

The training was conducted on Dec. 12, 2014 at Victor Dominguez Research and Training Center, Baang, Banao, Bauko, Mountain Province and actual soil sampling were done on the following day (December 13, 2014). It was attended by different farmers from Bauko. There were forty (40) participants being encouraged and inspired by the speaker. The activity was started around 9:00 am, it was started with an opening prayer given by Mr. Juan Garci one of the participants, followed by welcome and introduction of participants by Mr. Joel Faroden and Ms. Jovita Camso.

Mr. Joel Faroden presented slide on soil characterization which includes: site environmental descriptions, estimated slope of the site, soil aspects, soil drainage, soil pH, soil texture classes, soil taxonomic classification and climate of the site (temperate and rainfall). And also how to collect soil sample as well as the materials needed in the collection of the soil sample like soil auger/ shovel, basin, marker and plastic cellophane.

The group was divided into three sub-groups namely Bila, Banao and Utocan groups for soil sampling purposes only.

Next presentation was given by Ms. Jovita Camso, which she present a video on how to preserve and conserve the environment, and for the farmers to be able to produce a clean, healthy and fair food for the people. Go for organic farming which includes the preservation and processing of product.

The following day is the actual soil sample collection in the different farm clusters of Barangay Bila, Banao and Utocan.

Problems encountered, Action taken and recommendation:

1. Limited suited material for soil sampling. A soil auger owned by Mr. Faroden was used for the soil sampling.
2. Data gathering for Geo-Tagging were not taken, Re-schedule on the last week of January 2015 based on the availability of IRRI personnel and GPS equipment.

Prepared by:

FELICIDAD C. AYEO
Students

Noted by:

JOEL C. FARODEN
Extension Coordinator



Republic of the Philippines

Mountain Province State Polytechnic College

Tadian Campus, Tadian Mountain Province

ACTIVITY DESIGN

MPSPC
Extension Form 1
BIDS AND AWARDS DESIGN
RECEIVED
BY: *[Signature]*
DATE: 11/27/14

I. ACTIVITY IDENTIFICATION

Activity Title: Hands-on Site Characterization of Heirloom Rice Production in Barlig and Bauko, Mountain Province

Extension Component: (please check appropriate box)

- ☒ Training/seminar/workshop
- ☐ Technology Transfer and utilization
- ☐ Technical assistance and advisory services
- ☐ Information dissemination
- ☐ Community involvement/outreach activities

Extension Program: (please check appropriate box)

- ☒ Agricultural Extension
- ☐ Technical/Vocational
- ☐ Continuing Education for Professionals
- ☐ Others

Implementing Department : Department of Forestry and Agroforestry
Training Coordinator : Joel C. Faroden

Resource Persons : IRRI Staff and Joel C. Faroden

Participants : 3 staff from MLGU-Barlig
2 staff from MLGU Bauko
4 staff PLGU-Mountain Province
6 MPSPC Team Members -Heirloom Rice Project
26 Members of Blooming Hills
30 Members of Barlig Heirloom Rice Organization
70 Members of Kadaclan Heirloom Rice Organization

Date and Venue : Kadaclan - December 2-3, 2014
Poblacion, Barlig - December 4-5, 2014
Banao and Bila - December 8-9, 2014

Budget Requirement : PhP 109,680

Source of Fund MPSPC Heirloom Fund

II. RATIONALE:

Crops have acquired their adaptive mechanisms to specific factors of climate, soil and biotic conditions through natural evolution and man's intervention. Hence, crops with special adaptation should match a given bio-physical situation in order to survive. Thus, site characterization of heirloom rice environment is crucial step in understanding why such traditional rice grows from generation to generation.

In the Cordillera heirloom rice production remains the most important agricultural activity, most especially in Mountain Province. Due to low temperature, low solar radiation intensity, and low level of understanding and adoption of new improved rice

production techniques by the farmers, rice yields are generally low. Also, with the changing environment due to climate change, rice farming in the province is one of the most vulnerable sectors since rice production mainly dependent on irrigation water and other biotic and non-biotic factors.

MPSPC, organized these activity to document, gather data and collect soil samples from the different farms of the target beneficiaries as part of the project on *raising productivity and enriching the legacy of heirloom/ traditional rice through empowering communities in unfavorable rice-based ecosystem* (heirloom rice project) hence, this training design was prepared.

III. OBJECTIVES:

Specifically, the training wants:

1. To gather biophysical characteristics of heirloom rice terraces in Kadaclan cluster, Gawana Cluster and Banao-Bila Cluster;
2. To collect soil samples heirloom rice terraces in Kadaclan cluster, Gawana Cluster and Banao-Bila Cluster; and
3. To train heirloom farmers in the collection of soil samples.

IV. METHODOLOGIES

This training will be employing various strategies but not limited to the following:

1. Participatory lecture/discussions.
2. Power point presentation
3. Question and answer
4. Actual data collection
5. Soil sampling

V. BUDGETARY REQUIREMENT

Quantity	Unit	Particular	Unit cost	Sub total	Total Cost
A. Meals and Snacks					
December 01, 2014 (Bila-Banao cluster)					
40	Pax	AM Snacks	60	2,400	
40	Pax	Lunch	120	4,800	
40	pax	PM Snacks	60	2,400	
December 02, 2014 (Bila-Banao cluster)					
40		Snacks	60	2,400	
40		Lunch	120	4,800	
40		Snacks	60	2,400	
December 03, 2014 (Gawana cluster)					
43		Snacks	60	2,580	
43		Lunch	120	5,160	
43		Snacks	60	2,580	
December 04, 2014(Gawana cluster)					
43		Snacks	60	2,580	
43		Lunch	120	5,160	
43		Snacks	60	2,580	
December 05, 2014 (kadaclan Cluster)					
83		Snacks	60	4,980	
83		Lunch	120	9,960	

83		Snacks	60	4,980	
December 06, 2014(Kadaclan Cluster)					
83		Snacks	60	4,980	
83		Lunch	120	9,960	
83		Snacks	60	4,980	
Subtotal					79,680
B. Transportation cost					
1	unit	Hire Vehicle (2 days on Bila; 2 days in Poblacion, Barlig and 2 days in Kadaclan Barlig)	15,000	15,000	
200	Liters	Diesel (for Gov't. Vehicle)	50	10000	
Subtotal					25,000.00
					104,680

VI. ACTIVITY SCHEDULE

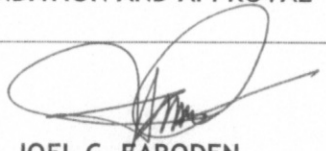

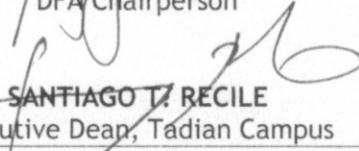

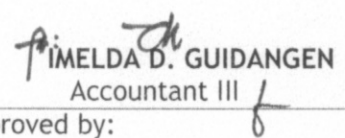
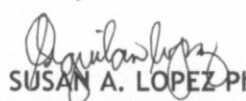

Day 1

8:00-8:30	Registration	Fely/Sidcop
8:30 – 9:00	Preliminary program	Fely/Sidcop
9:00 – 12:00	Site Characterization of heirloom rice production	IRRI Staff
12:00 – 1:00	Lunch Break	
1:00– 2:30	Soil sampling techniques and hands on soil collection	Joel
2:30 – 3:30	Planning workshop for Data collection and soil sampling	Joel
3:30 -5:00	Reportorial per group	

Day 2

8:00 – 8:30	Assembly per group	Joel/Elmer/Loida/Gen/MLGU/PLGU
8:30 – 12:00	Data Collection and soil sampling per farm	Joel/Elmer/Loida/Gen/MLGU/PLGU
12:00 – 1:30	Lunch Break	
1:30-5:00	Continuation for data and soil sampling per farm	Joel/Elmer/Loida/Gen/MLGU/PLGU

VII. RECOMMENDATION AND APPROVAL

Prepared By:  JOEL C. FARODEN Instructor	Noted By:  BRENT GREG E. GOMUAD DFA Chairperson  SANTIAGO T. RECILE Executive Dean, Tadian Campus
Reviewed by:  ELMER D. PAKIPAC Extension Director	Fund Available:  IMELDA D. GUIDANGEN Accountant III
Recommended by:  SUSAN A. LOPEZ Ph.D. VP for Research Development and Extension	Approved by:  REXTON F. CHAKAS Ph.D. President

Highlights of the Activity through Photo Documentation

A hands-on site characterization training of heirloom rice production was conducted on December 12 to 13, 2014 at Victor Dominguez Research and Training Center, Baang, Bauko, Mountain Province attended by 40 participants. Some of the participants are beneficiaries of the on-going Heirloom Rice R and D project in the province. Figure 1 and shows the participants

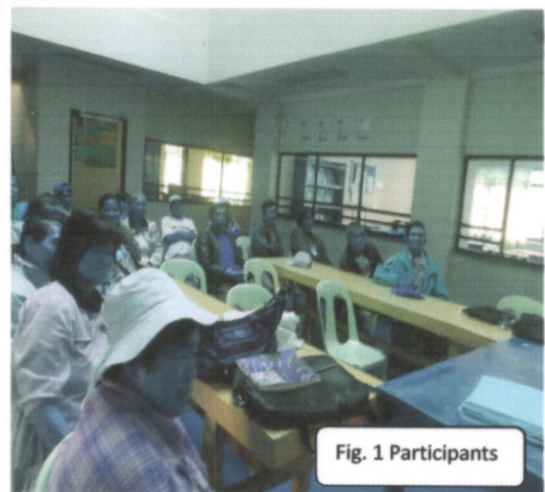


Fig. 1 Participants



Fig. 2 Participants

listening to the lecture given by Mr. Faroden. Active participation were observe during the activity since some of the participants are very interested on how to collect soil samples in their respective rice terraces (Fig 3 and 4). Not only on how to collect soil samples but how the soil sample as basis for their fertility management. The lecturer, Mr. Faroden clearly explains how to use the result of the soil analysis as basis of fertilizer management.



Fig 3. Mr. Martinez Damayan asking about how to conduct soil sampling



Fig 4. Mr. Juan Garci also asking how to use result of soil analysis

The same day on December 12, 2014 after the lecture given by Mr. Faroden another speaker from the Provincial Agriculture Office in the person of Ms. Jovita Camso share a video presentation how to preserve and conserve the environment and how the farmers to be able to produce a clean, healthy and fair food for the people. Her topic is part information education campaign in the attainment of the objective of the Heirloom Rice Research and Development in Mountain Province (Fig. 6 and 7).



Fig. 5 Ms. Camso presenting the video on preservation and conservation of environment



Fig. 6 Ms. Camso explaining some details of the video presented

The following day (December 13, 2014) the sub-groups were directly attended by the responsible coordinator in the collection of soil sample. Since the farms of the participants are far from each other, then some were re-scheduled on the agreed day by the farmer and the Science aide. Some of the pictures during the collection of soil samples were shown in the following figures.



Fig. 8 Soil auger use in collecting soil sample



Fig. 9 Soil auger full with soil sample

Soil sampling at the lower terrace slope of the mountain.



Fig. 10 Ms. Ayeo driving the soils auger to collect soil sample



Fig. 11 Mixing of 10 collected samples from the sampling points



Fig. 12 Taking up at least 1 kg composite soil sample ready for air drying.

Hands-on Site Characterization of Heirloom Rice Production in Barlig and Bauko, Mountain Province

(Heirloom Rice Project)

December 12, 2014
Research and Extension Center,
MPSPC-Baang, Banao Bauko

"Capturing Value Preserving Heritage"

Geographic Indication:

Characterization/ identification of traits and the other requirements for certification

"A new branding technique for local entrepreneurs"

IP PHL GEOGRAPHICAL INDICATIONS

Identify a good as originating in territory, region or locality, where given quality, reputation or other characteristics of the good is essentially attributable to its geographical origin.

IP PHL GEOGRAPHICAL INDICATIONS

- Indicate qualities, attributes, reputation associated with geographic origin; reputation for quality associated with place *name used on labels, advertising*
- Suggest connection to region's inherent characteristics – specific qualities linked to area of production/region, through physical and/or human factors (e.g., soil, climate.)
- May also imply production skills/processes associated with region

Geographical indications and trademarks

GIs are closely related to **trademarks**; both indicate **product origin**


- GI, Trademark protection is **territorial**
- GIs and trademarks differ in two ways:


1. A trademark belongs to a **particular company**; it distinguishes that company's products. GIs are shared by all producers in the region identified by the GI.
2. GIs attach to a **location**; trademarks don't.


IP PHL Importance of GI Registration

- Improves product quality
- Develops market access
- Increases productivity
- Generates employment
- Promotes tourism
- Preserves the environment
- Ensures product safety

Geographic Indication: Examples

Swiss 

Florida 

Colombian Coffee 

Philippines ??

Environment and Site Descriptors for Rice

Characterization and/or evaluation site descriptors


- Country of origin, Province/state/Municipality/Barangay
- Location of collecting site/production sites (distance from a landmark, direction, village or map grid reference point (GPS))
- Latitude/Longitude
- Elevation/altitude (masl)

Collecting source habitat/production sites

- Wild habitat/farm/market
- Institution/research organization
- Evaluation environment – field, laboratory, nursery,
- Other notes of collector of information

Site environmental descriptors

- Site environment
- Topography (swamp, floodplain, plain level, undulating, hilly, mountainous, others)
- Land elements and position (description of the geomorphology of the immediate surroundings of the sites/location/sources or production areas):
- Plain level
- Valley
- Terrace
- Summit, etc...



Land elements and position descriptors (geo-morphological)

Site environmental descriptors

- Estimated slope of the site
- Slope aspect (direction with symbols N, S, E, W)
- Soil drainage
- Soil pH
- Soil texture classes
- Soil taxonomic classification
- Climate of the site (Temperature & Rainfall)

Soil Sampling Techniques and Hands-on Soil Sample Collection

Presented during the Hands-on Site Characterization of Heirloom Rice Production in Bartig and Bauko, Mountain Province

By: JCFaroden
COF-Department
MPSPC-Tadian campus

What is soil sampling?

- A method in which soil samples are collected as representative of the area.

"Correct interpretations and fertilizer recommendations can be made only when the soil samples are collected properly and correctly."

Materials Needed in Soil Sampling

1. Soil auger, shovel, trowel, bolo or grub hoe

2. Container – pail needed during collection and mixing



Materials Needed in Soil Sampling

3. Plastic bags needed for packaging the composite soil samples from the field to the laboratory.



4. Marking pens

GUIDES IN SOIL SAMPLING:

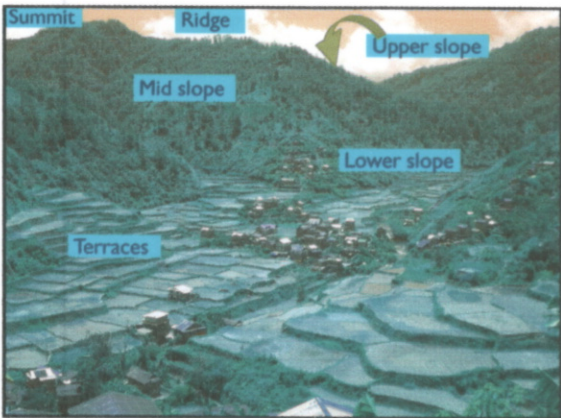
1. Collect soil samples when the soil is moist or when the soil is at field capacity. However, samples may also be taken as dry or naturally wet like in paddy fields.
2. Collect soils samples away from fences, roads, building sites, straw piles, manure piles, and other abnormal occurrences

GUIDES IN SOIL SAMPLING:

3. Do not mix light and dark-colored soils, areas which vary on past treatments, crops planted.
4. Do not mix soils samples of areas with different slope gradients, textures, depth or drainage conditions.

Procedure in Soil Sampling

1. Divide the farm into lots. A farm seldom has uniform land features.



Procedure in Soil Sampling

2. Clear away any stone, rubbish or trash from the surface

3. Dig out and discard enough soil so that a clean vertical side about 6 to 9 inches (15 to 20 cm.)

Two photographs showing soil sampling steps. The first shows a person clearing the surface of a hillside. The second shows a person digging a vertical side into the soil.

Procedure in Soil Sampling

4. Obtain from the vertical side a thin slice of soil about 2 inches (5 cm) thick and about 9 inches (20cm) deep.

Three photographs showing soil sampling steps. The first shows a person obtaining a thin slice of soil from a vertical side. The second shows a person obtaining a thin slice of soil from a vertical side. The third shows a person obtaining a thin slice of soil from a vertical side.

Procedure in Soil Sampling

5. Obtain about 2 inches (5cm) wide of the middle of this vertical slice and place it in the pail or bucket.

6. Take similar samples in 9 more points of each lot.

Two photographs showing soil sampling steps. The first shows a person placing soil into a pail. The second shows a yellow bowl filled with soil.

Procedure in Soil Sampling

7. Mix all ten samples thoroughly and then obtain about one kg of composite soil samples. Each composite soil samples should represent not more than 10 hectares of farm lot.

8. Place this composite soil sample in a plastic bag and label it correctly. Attach to the sample a soil information sheet.

Preparation of Collected Soil Sample

1. Spread the sample on a labeled paper in a soil preparation room until it is air-dry.

2. Pass the soil through a 2-mm mesh sieve. Clods that do not pass through the sieve should be crushed with a wooden mallet. Discard particles that do not pass through the sieve.

3. Store or keep the soil sample in plastic bags or jars with appropriate labels.





Republic of the Philippines
Mountain Province State Polytechnic College
Tadian, Mountain Province

EVALUATION SUMMARY

Title of Activity: **Hands-on Site characterization of Heirloom Rice Production in Bauko, Mountain Province**
Date Conducted: December 12-13, 2014 Venue: Victor Domiguez Research and Training Center
Bauko, Mountain Province
Total Raters: 21 participants

Activity	No. of raters				
	Poor	Fair	Satisfactory	Very Satisfactory	Excellent
1. Objectives and Relevance					
a. Clarity and relevance	1		4	11	5
b. Relevance of the activity	1		4	10	6
c. Attainment of the activity objectives	1		3	9	8
d. Usefulness of the activity/topics to the participants	1		1	8	11
e. Timeliness and immediate applicability		1	2	10	8
2. Organizational and preparation					
a. Planning and implementing activity	1		8	8	4
b. Preparation and organizations of the activities	1	2	4	8	6
c. Ventilation, lightning, equipment and facilities in the venue.	1	4	3	9	4
d. Appropriateness of the venue of the activity		1	4	11	5
e. Time allotment per activity/topic		1	5	8	7
3. Speakers/Facilitators					
a. Mastery of the subject matter/content	1		1	12	7
b. Use of effective means of communicating ideas	1		6	8	6
c. Keenness and interest in the conduct of training	1		4	12	5
d. Stimulation of the participant's interest	1		2	11	7
4. Involvement of Participants					
a. Enthusiasm and interest shown	1		3	9	8
b. Level of involvement of participants	1	1	2	9	8
5. Overall Evaluation	1		1	10	9
Percentage	4.76		4.76	47.62	42.86
Total percentage on satisfactory and above			95.24%		
6. Qualitative Assessment					
Please write your valuable comments/suggestion for the improvement of the succeeding activity/seminar/program.					
1. Limited suited material for soil sampling					
2. Geo-tagging please let us know when will be undertaken.					
3. Very good, job well done.					
Trainings suggested for future activities					
1. Training on pest and disease management of rice					
2. Leadership training					
3. bookkeeping					

Prepared by:


JOEL C. FARODEN
Training Coordinator



Republic of the Philippines
 Mountain Province State Polytechnic College
 Tadian, Mountain Province

Extension. Form

ATTENDANCE SHEET

Title of Training: Hands-on site characterization of Heirloom Rice Production in
 Date Conducted: December 12, 2014 Bauko, Mountain Province
 Venue: Baang Campus, Bauko, Mountain Province

Name	Sex	Home Address /Barangay	Occupation/Position	Office/Organization
Grace Atipson G.		Tuban Tadian	Farmer	
Woro Lay Bahang Lay		Cubun Tadian	Farmer	
FELICIDAD C. KIBAD	F	BILA	Farmer	
Regina C. Ayao	F	Lubor Tadian	Farmer	
Jerome C. ...	M	Bauko	Farmer	
... ..	F	Farmer	
Ulorio P. Salay		Tapsapan	Farmer	
Summing Wadung	F	Bila	Farmer	
Mamela C. ...	F	Bauko	Farmer	
Leonard G. ...	M	Bauko Bauko	Farmer	
Andro Damayan	M	Bauko Bauko	Farmer	
Martinez Damayan	M	Bauko Bauko	Farmer	
Estela Inoke				
Eduardo Garsi		BANAO	MP-SP-C	
... ..		Bauko	
Dedca Yomic		Bauko	MPSPC-RDE	
Bilao ...	M	Bila	Farmer	
Jessie ...	M	Bauko	MPSPC-RDE	
Felicidad Ayao	F	Bauko	MPSPC	
POPE S. IGNACIA	F	BALASA TADIAN	FARMER	
Vivita Camiso	F	OPAG, Bauko	Agri-IP	OPAG, Bauko
Oliver Pacupan	M	Bila	Farmer	
Juner Lumabas	M	Bila	Farmer	
Kaiser Isican	M	Bila	Farmer	
Brent Bagoll	M	Bila	Farmer	
Sae ...	M	Bila	Farmer	
Shane Wadung	M	Bila	
Denver Lumabas	M	Bila	Farmer	
Summing P. ...				
Irene Ballada	F	Bila	Farmer	
Eufemia Agustin	F	Bila	Farmer	
ANITA GARCIA	F	Bila	Farmer	
... ..	M	
Theodore	NO
... ..	F	..	Farmer	
... ..	F	Bauko	Farmer	
Elena ...	F	Bauko	Farmer	
... ..	F	Bila	Farmer	
Joel C. ...	M	Sabangan	Farmer Coordinator	MPSPC-RDE



Republic of the Philippines
Mountain Province State Polytechnic College
 Tadian, Mountain Province

Extension. Form

ATTENDANCE SHEET

Title of Training: Hands-on site characterization of Heirloom Rice Production in
 Date Conducted: December 13, 2014
 Venue: Baang Campus, Bauko, Mountain Province

Name	Sex	Home Address /Barangay	Occupation/Position	Office/Organization
JESSIE LENGUA	M	PONTOC	PDE	
FELICIDAD C. KIBAO	F	BILA	FARMER	
ESTELA THAK	F	BILA	Farmer	
Manuela Ann-yan	F	Bila	Farmer	
Yferio P. Salazar	M	Tapayan	Farmer	
Juan Saca	M	Banar	Farmer	
Leonard Gutierrez	M	Banar Bauko	Farmer	
Martinez Damayan	M	Banar Bauko	Farmer	
Andro Itimayan	M	Banar	Farmer	
EDUARDO RATS	M	Bila	NI-P-S-P-C	
Bulaqan	M	Bila	Farmer	
Sampan		Banar	PDE	
Sahumun Wadung	P	Bila	I.T.P.C. Farmer	
Sarah Tubad	F	Bila	YOUTH	
Agnes Domagala	F	Banar Bauko	Farmer	
Grace Alon	F	Banar	Farmer	
Rosita Ay. Ayon	F	Banar	Farmer	
Robby Balangay	M	Banar	Farmer	
PODESIGNACIA	F	Balasa Tadian	FARMER	
Felicidad Ayco	F	Banar, Bauko	Science Aide	MPSPC
Oliver Pachwan	M	Bila	Farmer	
Junet Lumabas	M	Bila	Farmer	
Kaiser Isican	M	Bila	Farmer	
Brent Baguil	M	Bila	Farmer	
Joe Cobimpor	M	Bila	Farmer	
Shan Wadung	M	Bila	Student Farmer	
Deriver Lumabas	M	Bila	Farmer	
Sahumun P. P. P.		Bila	Farmer	
Irene Balada	F	Bila		
Eufemia Bawin	F	Bila	Farmer	
ANITA GAMBA	F	Bila	Farmer	
Nazko Wadung	M	Bila		
Theodore Ayon	M	Bila		DO
Agnes Bawin	F	Bila	Farmer	
Agnes Bawin	F	Bila	Farmer	
Elena Carait	F	Banar	Farmer	
Margarita Bawin	F	Banar	Farmer	
Anna Lumabas	F	Bila	Farmer	
Joel Fanden	M	Sabangan	Coordinator	