

# IMPACT ASSESSMENT OF CBFM-CARP AGROFORESTRY DEVELOPMENT PROJECT IN REGION XI : The Case of Tagbao Farmers' Association



**Maria Grace P. Moralde**  
**Sr. Science Research Specialist**  
**DENR - Ecosystems Research and Dev't Bureau**  
**AGROFORESTRY RESEARCH DEVELOPMENT EXTENSION CENTER**

# Introduction

- Community Based Forest Management Program (CBFM)
- More than 20 million upland dwellers in the Philippines (26% of the population) and the poorest of the poor is in the upland
- CBFM-CARP Agroforestry Development Project's objective and interventions of cacao, rubber, and falcata seedlings, sacks of corn seeds, farm inputs, pair of horse

# Objectives

## *General :*

Determine the overall impact in terms of social, economic and environmental aspects brought about by the project

## *Specific :*

1. To determine the factors that have affected the impact of the CBFM-CARP project;
2. To suggest action strategies; and
3. To come up with policy recommendation for an enhanced implementation of the project

# Methodology

## *Statistical Treatment*

- Descriptive statistics was used such as frequency counts, percentages, and ranking
- t-test was used to describe the means of 2 variables that have significant changes before and after the project

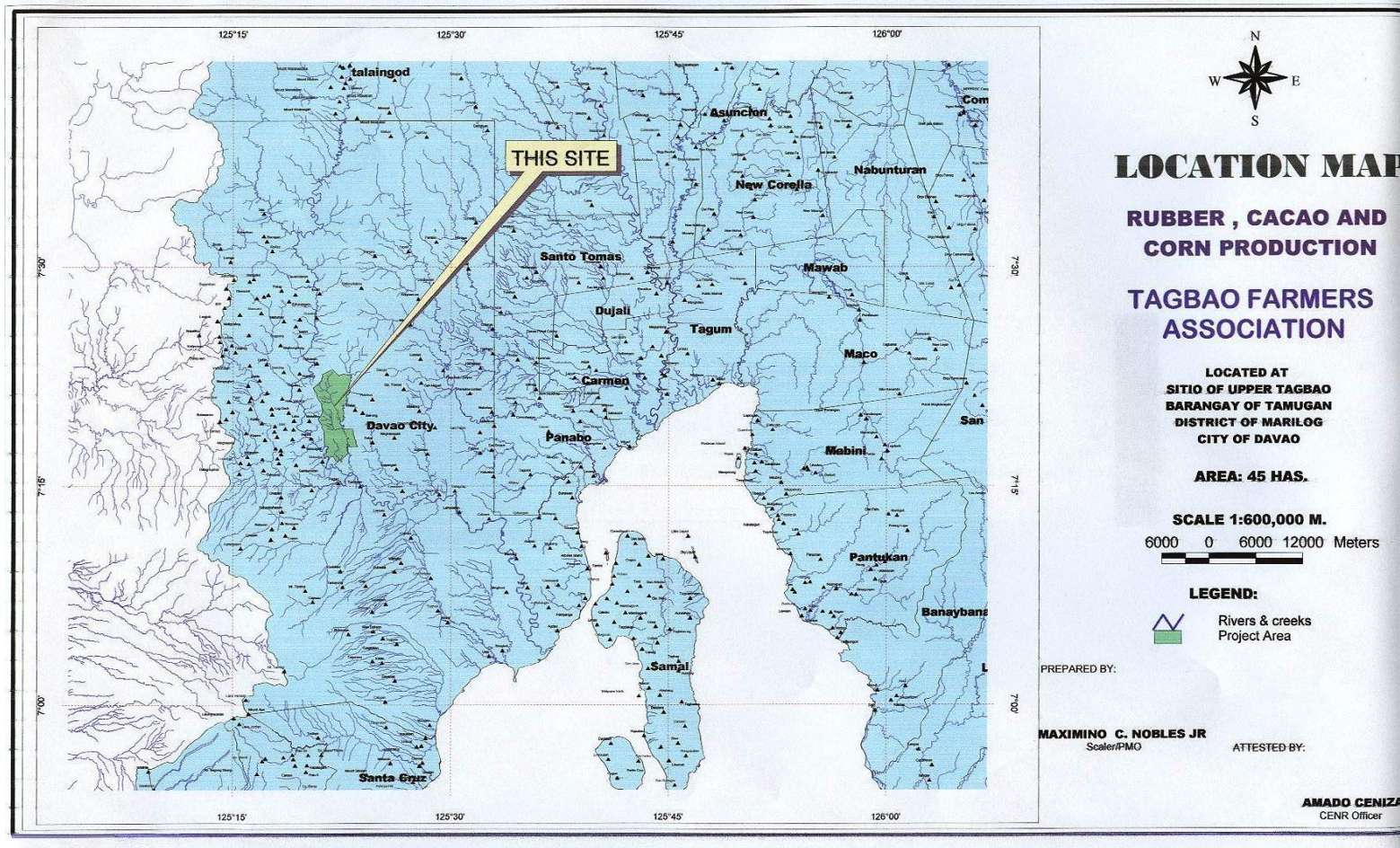
## *Unit of Analysis*

- Head of households of the farmer/beneficiaries of the project. There are 25 members and only 21 were interviewed

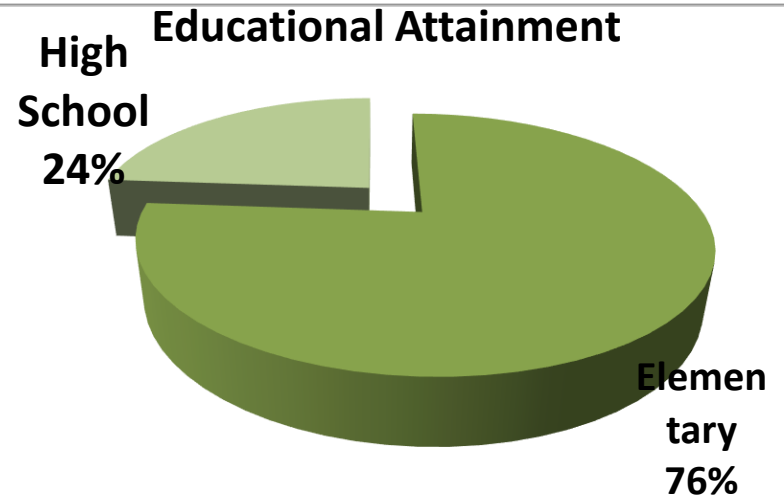
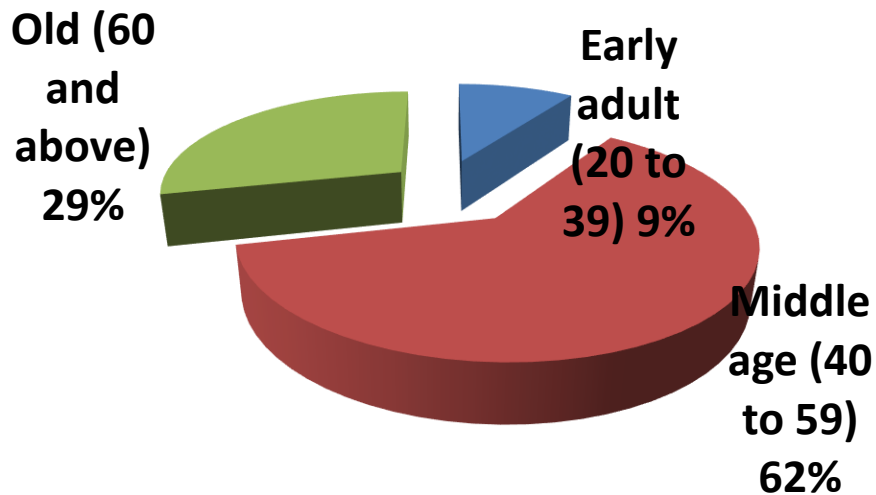
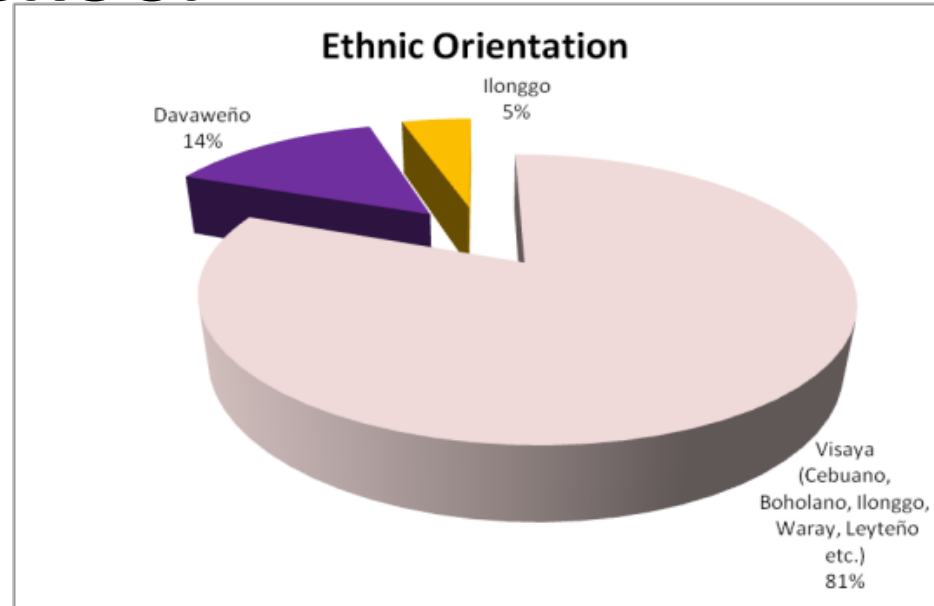
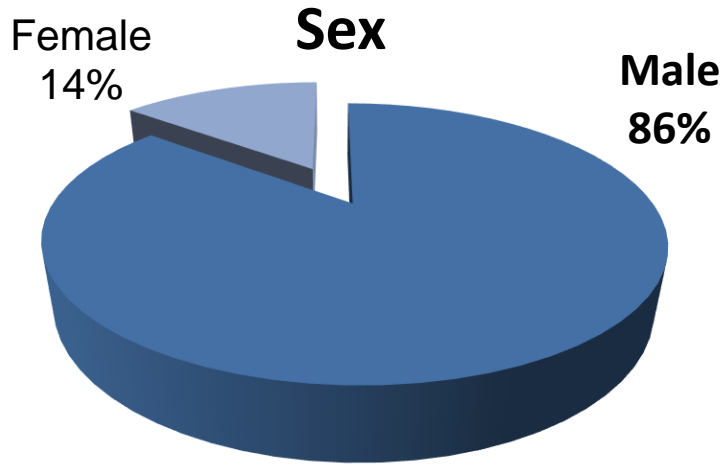
## *Research Design*

- Both quantitative (structured Interview Schedule) and qualitative type (Focus Group Discussion, Key Informant Interview)

# Location Map



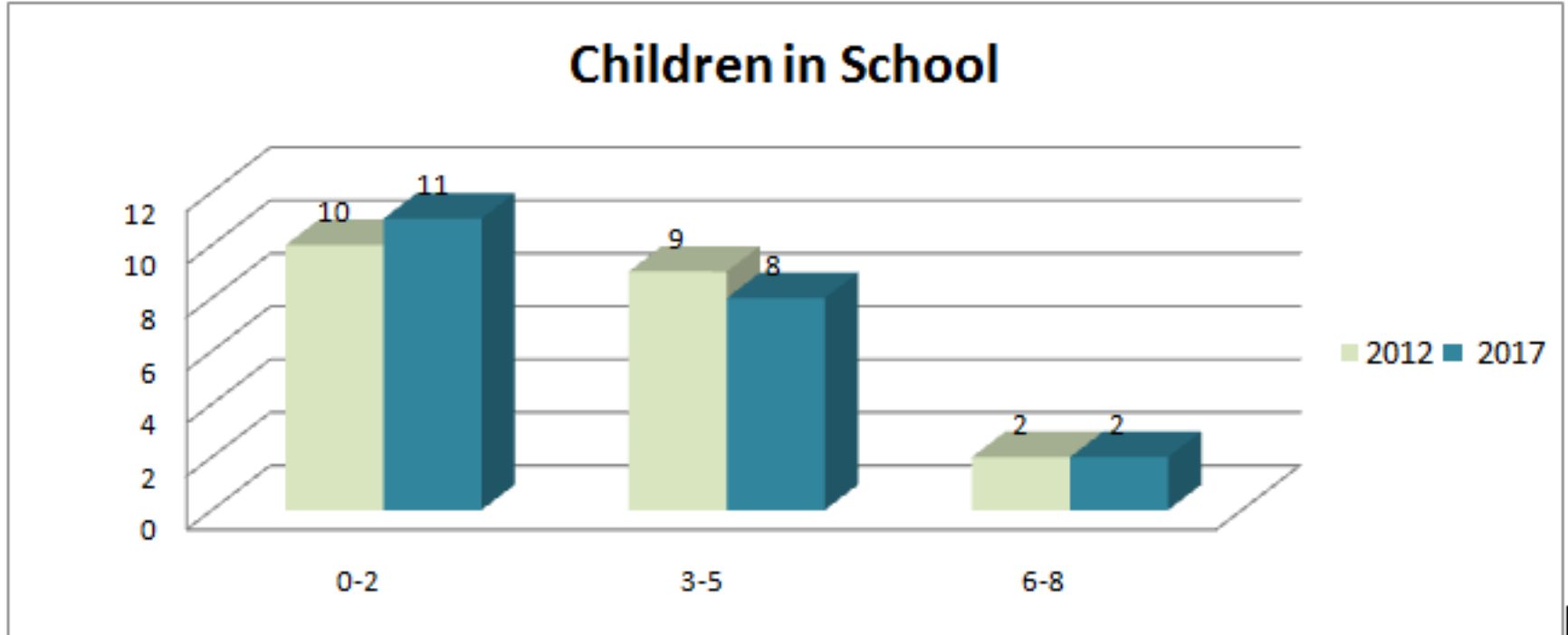
# AGE GROUP



# *Social Impact*

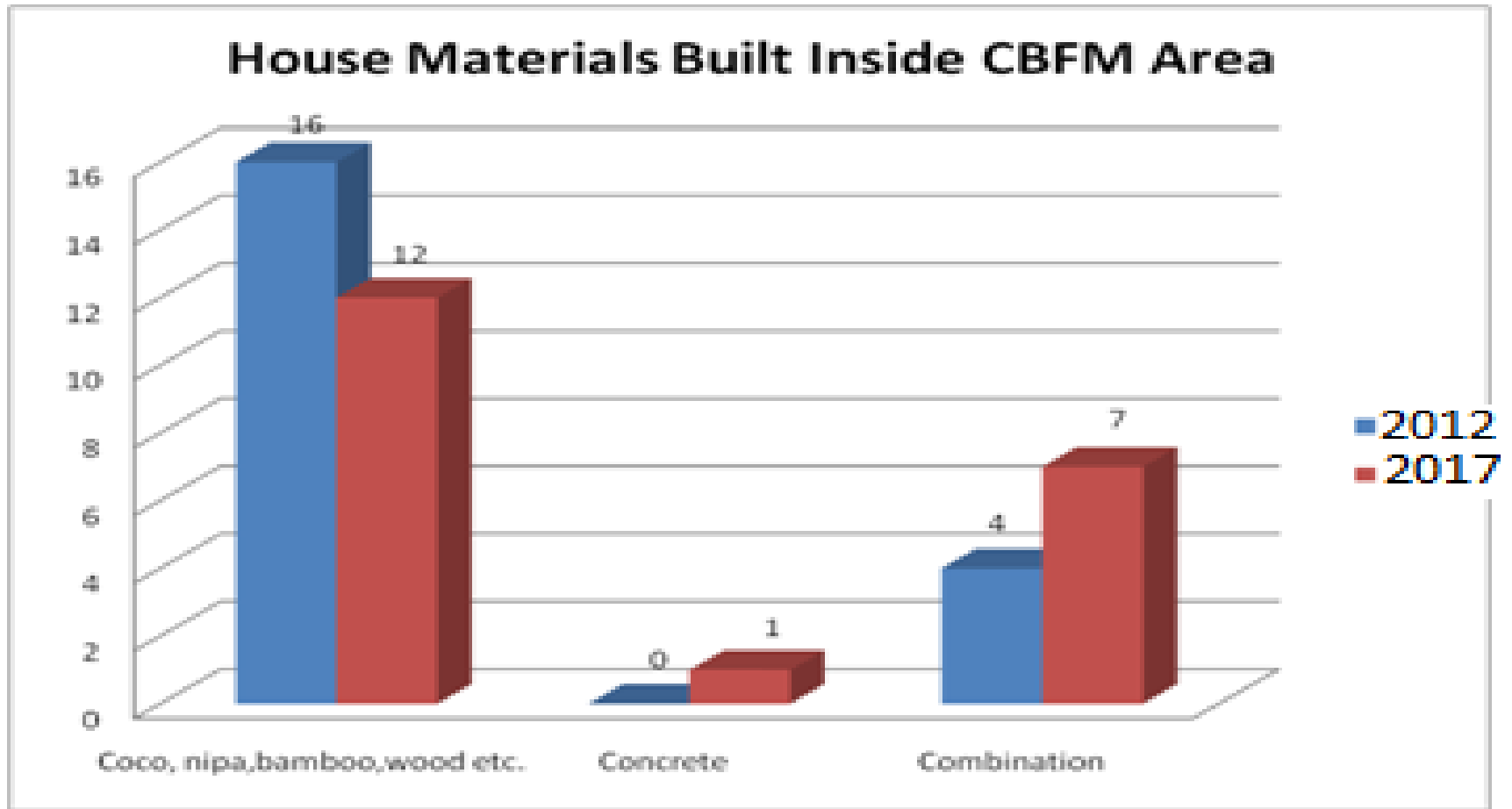
## 1. Changes in Number of Children Sent To School

- The **t –test value of 0.049** indicates significant change in number of children sent to school



# Social Impact

## 2. Changes in House Materials Built Inside the CBFM Area



- The **t-test value of 0.049** is significant



# ***Social Impact***

## **3. Changes in Lighting Facility**

- Before the project 98% used Kerosene as means of lighting. After the project more than half 76% of the respondents used solar power facility
- The t-test value of **0.013** is **highly significant**

## **4. Changes In Common Illnesses**

- coughs, colds, fever and stomach ache were the minor illnesses suffered but after the project less number of respondents encountered the illnesses
- - the t-test value of **0.000** is **highly significant**

# ***Social Impact***

## **5. Changes in Waste Disposal System**

- Before majority of the farmer/beneficiaries practiced burning of garbage and throwing anywhere but after the project majority practiced composting and segregating their garbage.
- the t-test value of 0.001 is highly significant

## **6. Changes in Development Programs**

- There is an increase in number of development programs in 2012 as compared to 2017

## **7. Scaling Up Of the Project**

- Expansion of the CBFM-CARP development project wherein the other sitios and new members have availed;
- Increase in number of membership who wants to avail of the benefits of the program

## Other Social Data

### 7. Sense of Ownership

*“Nakasisiguro po kami na mapapaaral na namin ang aming mga anak at mga apo na rin at mabibigyan sila ng magandang kinabukasan. Dahil ang rubber ay nandiyan lang at hindi mawawala sa amin. Ito ay isang biyaya ng proyekto. Kami ay lubos na nagpapasalamat sa DENR at sa CBFM-CARP”*

- positive response
- one in saying that the project is for them and that they will take good care of it



## ***Other Social Data***

### ***SENSE OF OWNERSHIP***



*“Hindi pa po kami pwedeng pabayaang ng DENR, kailangan pa po namin ang tulong nila para sa project.*”

- In a scale of 1-10 , where 10 is the highest they are still in level 6

**Mrs. Baby Gerodias**

## Linkages/Networks Established

The NESTLE Philippines provides ready market and accessed to the PO by buying their crops like cacao and coffee direct to their place.

# Other Social Data

- **Scaling Up of the Project**
  - increase in membership in TFA
- Replication done about the project
  - because of “**to see is to believe attitude**”, the actual demonstration on intercropping technology and sharing of experiences were effective tool in convincing others
- **Linkages/Networks Established**
  - The NESTLE Philippines provides ready market and accessed to the PO by buying their crops like cacao and coffee direct to their place.

# ***Economic Impact***

- The farmer/beneficiaries have harvested their cacao. An Average household can harvest about 15-25 kilos twice a month at a price of P120.00 – 140.00. They earn additional income of 7,000 per month out of Cacao.
- They can tapped 10-20 kilos of rubber twice a month at a price of P62.00 – P80.00. An additional income of P3,000/month.
- They also earned an additional income of 3,000 – 5,000 as rubber tapper in other farm areas. They have learned the skill in tapping through extension services extended from CBFM-CARP

# ***Economic Impact***



# ***Economic Impact***





# *Economic Impact*

## *Estimated Annual Income*

- As compared to 2012 the mean gross income of the household/beneficiaries is P42,436.90 but in 2017 the mean gross was P55,631.43.
- The t-test value of **0.001** is **highly significant**

# ***Environmental Impact***

## ***Presence of Important Faunal and Floral Species***

- As compared to 20012 and 2017 the presence of important faunal and floral species is still many as perceived by the farmer/beneficiaries

## ***Presence of Important Physical Resources***

- Best ever potable water can be found in the springs of the barangay. Davao river and Pangyan river provide a stable supply of water for agricultural and domestic uses.

# ***Environmental Impact***

## ***Occurrence/ Incidence of Environmental Disturbance***

- Charcoal making was once a threat to their environment
- Increased awareness on the importance of protecting their forests
- Illegal logging activities have stopped
- Pests and Diseases and rat infestation are some of the perennial problems

# Summary and Conclusion

## Social Impact

- Changes in Number of Children Sent to School
- Changes in House Materials Built
- Changes in Lighting Facility
- Changes in Common Illnesses/Diseases
- Changes in Waste Disposal System
- Changes in Organizations/Associations Formed
- Increase in development Projects
- Others social impacts

# Summary and Conclusion

## Economic Impact

- Increased income from cacao is P5,000 – P6,000 per month
- Increased income from rubber is P2,480.00 per month
- Percent contribution of income from cacao and rubber is 135% annually
- Corn production is mainly for family's consumption only that mitigates hunger
- The additional income from CBFM-CARP investment is still minimal as their agroforestry production has not reached its maximum fruiting stage.
- The pair of horses share to the PO Cooperative if 40%
- There is a highly significant increase in annual gross income among the farmer/beneficiaries in 2012 is P42,436.90 and P55,631.43 in 2017.

# Summary and Conclusion

## Environmental Impact

- The presence of faunal and floral species are still the same in 20012 and 2017, they are still many.
- The important physical resources are the Davao and Pangyan rivers where the pristine and potable water can be sourced.
- Occurence of environmental disturbance
- Charcoal making has minimize after the project
- Vulnerable to the hazards of soil erosion and landslides
- Pests and Diseases are the common problems of the farmers

# Lessons Learned

- Because of the **to-see-is-to-believe** attitudes, the technology on Intercropping and Diversified farming, sharing of experiences among the farmer/beneficiaries are an effective tool in convincing others.
- Reports indicate low survival of some agroforestry inputs of the project.
- The project's input on cacao and rubber are very promising

# Lessons Learned

- Project Implementers should look into the situation of Farm-to-Market (FMRs) roads before to the approval of the project.
- Integrity and dedication of the farmers should be considered in availing the input of the project



# Recommendation

- Needs strong linkages among the local government units and the national government as well to find appropriation for their Farm to Market Roads
- Since CBFM-CARP area is 40 hectares, there is a need to mobilize the members so that 1:1 ratio or 40 members can avail of the project and not just 25 members
- PMOs/project coordinators should conduct regular and close monitoring on maintenance of the seedling input.

# Recommendation

- Strong linkages among the local government units and the national government as well to find appropriation for their Farm to Market Roads
- Since CBFM-CARP area is 40 hectares, there is a need to mobilize the members so that 1:1 ratio or 40 members can avail of the project and not just 25 members
- PMOs/project coordinators should conduct regular and close monitoring on maintenance of the seedling input.

**“AIN’T No Mountain High  
Enough For Tagbao  
Farmers Association and  
as we leave their place  
we have sense the smell  
of success”**

**Thank You**

