

1. **Title : IMPACT ASSESSMENT OF COMMUNITY BASED FOREST MANAGEMENT-COMPREHENSIVE AGRARIAN REFORM PROGRAM (CBFM-CARP) AGROFORESTRY DEVELOPMENT PROJECT IN TAGBAO FARMERS ASSOCIATION, MARILOG DISTRICT, DAVAO CITY REGION XI**

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3. **Introduction :**

The Community Based Forest Management (CBFM) program is one of the major pillars of the Department of Environment and Natural Resources (DENR). It is a production sharing agreement between DENR and participating Peoples Organization (PO) for a period of 25 years and renewable and shall provide tenurial security to develop, utilize, and manage specific portions of forest lands (DENR AO No. 96-29). The DENR converged with the Department of Agrarian Reform (DAR) through its Comprehensive Agrarian Reform Program (CARP) that gives funding to the CBFM-CARP Agroforestry Development Project. It had developed denuded uplands and provided funds for seedlings of rubber, cacao, corn seeds and other farm inputs aside from the extension services such as conduct of trainings. It is aimed at alleviating poverty and hunger, and mitigating climate change. Basically, the project is aimed at improving the socio-economic condition of the upland farmers in CBFM areas by providing livelihood projects and extension services. This Impact Assessment is a tool of assessing the impact on the social and economic aspects of the lives of the farmers and on their environment.

Hence, an Impact Assessment Study is conducted to assess the changes that occurred on the lives of the recipient upland farmers after 5 years of project implementation in terms of the following aspects: social, economic and environmental.

#### *Significance of the Study*

This study is significant because the output of this study will serve as a guide for project implementers and policy makers in order to develop action strategies for a more enhanced implementation of the project.

4. **Project Location and Profile of the People's Organization**

#### ***Tagbao Farmers Association, Tagbao, Tamugan, Marilog District, Davao City***

Away from the restless Davao City, Tagbao Farmers Association (TFA) lies peacefully in Barangay Tamugan, Marilog District, in southern part of Davao City. It is 30 minutes ride from Calinan proper to Barangay Tamugan and 1 hour ride from Davao City. From there, the vehicle ride is only up to Sitio Sabang. It can no longer be accessible to any 4-wheeled nor single motorcycles but through hiking and/or horseback riding. A long stretch of a swaying hanging bridge awaits anyone who would like to reach the place passing through uphill climb and crossing a river. Our shoes will be wet and again dry under the scorching rays of the sun. These made our trip somewhat difficult but all these were compensated by the warm reception and hospitality of the PO members. The 40 ha CBFM area is composed of seven (7) sitios, namely Tagbao, Pangyan, Awid, San Miguel, Kanacan, Turuyan and Siao. Tagbao is accessible from Siao, which is 3 kilometers from Sabang proper.

The topography of the area ranges from moderately rolling to steep slope with an elevation that ranges from 300 to 800 meters above sea level. The area is under type 4 climatic type with an even distribution of rainfall and no pronounced dry and wet season. The soil type is clay and sandy loam and the presence of Davao and Pangyan rivers provide a stable supply of water for agriculture and domestic purposes. This makes the area ideal for the development of both fruit trees and production forest except on very steep slopes which will be best to be devoted for the establishment of protection forest.

### **Skills of the PO**

The PO members are skilled in nursery operation and tree plantation establishment. They are also engaged in buy and sell of banana and other farm products. The PO members themselves propagate their cacao seedlings inside their nursery. Women augments their family's income through bagging of seedlings or from nursery operation.

## **5. CBFM-CARP Agroforestry Development Project Interventions**

Of the 40 ha CBFM-CARP area, the PO was given 17,000 grafted cacao seedlings, 11,000 budded rubber seedlings, a pair of male and female horses to transport their product, a banana buying station and 2 sacks of corn seeds as cash crops while waiting for the fruition of their labor.

## **6. Objectives :**

a. *General:* To determine the overall impact in terms of social, economic and environmental aspects brought about by the CBFM-CARP projects to the lives of CBFM beneficiaries and people's organization after five years of implementation.

### *Specific:*

1. To determine the factors that may have influenced and/or affected the impact of CBFM-CARP projects;
2. To suggest action strategies to enhance the implementation of CBFM-CARP projects;
3. To recommend policy measures to support the successful implementation of CBFM – CARP projects

## **7. Procedure and Methodology :**

### **Research Design**

The descriptive survey design was used in the study. The study employs both quantitative and qualitative research methods. The Instrument used in data gathering was a structured Interview Schedule. It is complemented with a Focus Group Discussion (FGD), Interview with Key Informants and actual Field Observation in order to have in-depth information of the study area. The FGD lasted for two hours for both sites. In Tagbao Farmers Association, the FGD consisted of 15 participants consisting of active PO members and officers including CBFM site coordinators. Moreover, a "cued" recall approach for the respondents was employed to gather environmental data.

## Unit of Analysis

The respondents of the study were the men and women members and officers of Tagbao Farmers Association (TFA) in the area. They were the household beneficiaries of the CBFM-CARP Agroforestry and Livelihood Project.

## Sampling

In the initial Socio-Economic Survey (SES) conducted in Tagbao Farmers Association 5 years ago, there were a total of **25 member-beneficiaries of the CBFM-CARP project**. They were the ones who are qualified to be the respondents of the Impact Assessment Study. However, in TFA only **21 respondents** were able to answer the interview. The other 4 beneficiaries were not available during the data gathering phase/period of the study. Because of time constraint the total respondents of Tagbao is only **21**.

## Data Analysis

Data gathered were classified, tabulated, analyzed and interpreted accordingly. Measures of central tendency was used such as : frequency counts and percentages, weighted mean, and ranking. A **t-test** was used to determine the significant changes that occurred on the lives of the recipient upland farmers before and after 5 years of project implementation. The means of two variables were compared such as changes in: household size, income, number of children in school, number of furnitures and appliances owned among others in 2012 and 2017 were compared.

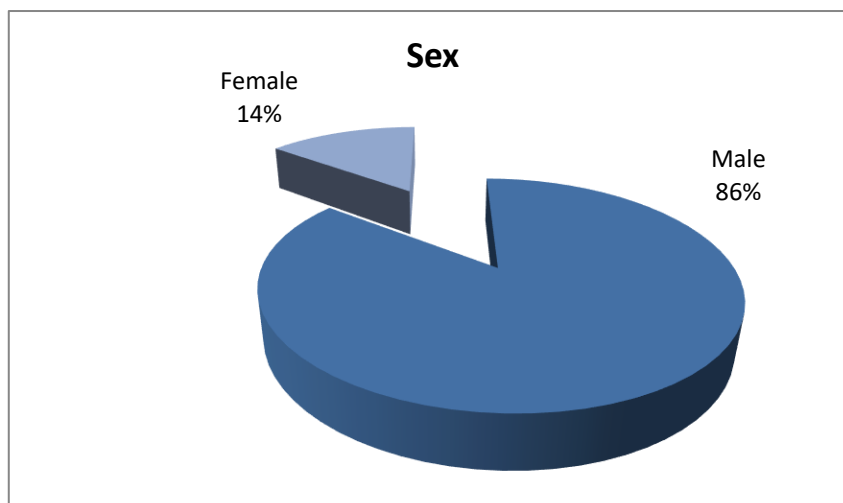
## 8. Results and Discussion

### A. General Profile of the Respondents

#### Sex

Majority of the respondents were males (86%) and only 14% were females.

Figure 1. Sex Distribution



### **Age Group**

The age of the respondents were categorized accordingly as to 20-35 which belongs to early adult; 36-51 years old which belongs to middle aged group; 52-67 years old which belongs to old aged; and 68 and above as elderly. Majority of the respondents falls under the old age group or 52-67 years old. The mean age is 52 years old.

### **Educational Attainment**

The member/beneficiaries were literate. Seventy-six percent (76%) reached elementary and 24% reached high school.

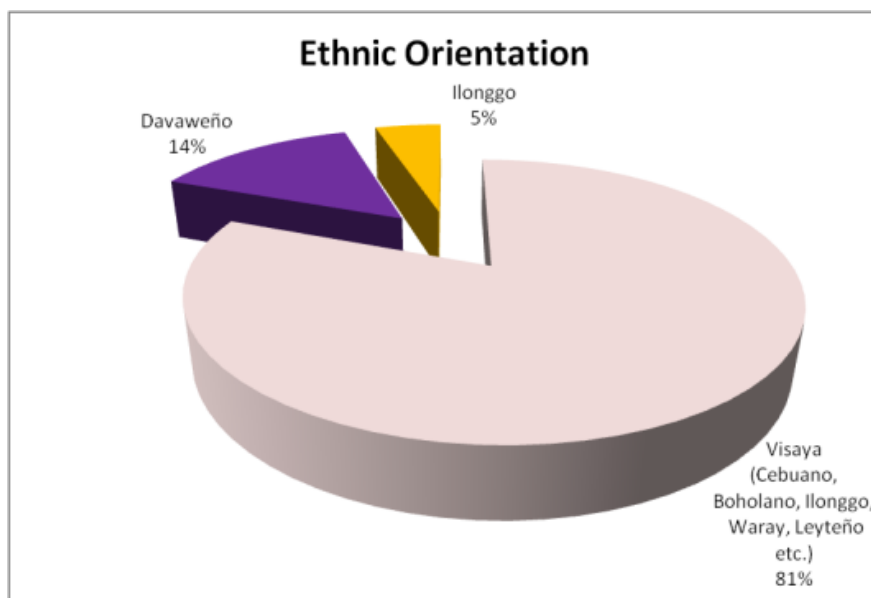
### **Religion**

Roman Catholic was the predominant religious affiliation (100%). The commonality and oneness in religion are an important factor in participating to any development project in the area.

### **Ethnic Orientation**

Visayans dominates the ethnicity among the respondents (81%). Visayans include those who came from Cebu, Ilo-ilo, Bohol, Leyte and other nearby provinces. A minimal of 14% were Davaweños or those that came from the neighboring provinces of Davao. (Please see Table 1).

Figure 2: Ethnic Orientation



**Table 1. Frequency counts and percentages of the socio-demographic variables**

Variables	Level	Frequency	Percentage
Sex	Male	18	86
	Female	3	14
	<b>Total</b>	<b>21</b>	<b>100</b>
Age Group	20-35	2	9
	36-51	8	39
	52-67	9	43
	> or = to 68	2	9
	<b>Total</b>	<b>21</b>	<b>100</b>
Educational attainment	No education	-	-
	Elementary	16	76
	Secondary	5	24
	Tertiary	-	-
<b>Total</b>	<b>21</b>	<b>100</b>	
Religion	Catholic	21	100
	Protestant	-	-
	Others	-	-
<b>Total</b>	<b>21</b>	<b>100</b>	
Ethnic Orientation	Visayan	17	81
	Davaweño	3	14
	Ilonggo	1	5
<b>Total</b>	<b>21</b>	<b>100</b>	

## B. Social Impact

- Changes in Household Sizes

This pertains to the total family members living in one household as compared to CY 2012 and 2017.

**Table 2 : Frequency Distribution as to Changes in Household Size**

Household size	2012	Percent	2017	Percent
1-3	3	14	2	10
4-6	9	43	7	33
7-9	3	14	9	43
> 9	6	29	3	14
<b>Total</b>	<b>21</b>	<b>100</b>	<b>21</b>	<b>100</b>

At the start of the project in 2012, most of the respondents have a majority of 4 to 6 household size. However in 2017, the average household size is between 7 to 9 household members. The changes or increase in household size is attributed to the fact that some of beneficiaries' children get married and still stays with them while some member/beneficiaries wives gave birth. The mean household size is 6 household members. With the Filipino culture of close family ties and extended families, member/beneficiaries still can afford to feed their children including their grandchildren as can be seen from table 2 that there are slight changes in household size. When comparing the means of households in 2012 and 2017, **the paired t-test value is .822 which shows the changes in household size are not significant.**

- Changes in Number in Children in School

Figure 3 revealed that in 2012, majority of the respondents have 0-2 children sent to school (48%). In 2017, there is higher percentage of 52% who have an average of 0-2 children sent to school. The reason is that although some of the respondents' children have graduated, yet they were still the ones who sent their grandchildren to school. **The t-test value of .049 showed that the change in number of children sent to school is significant.**

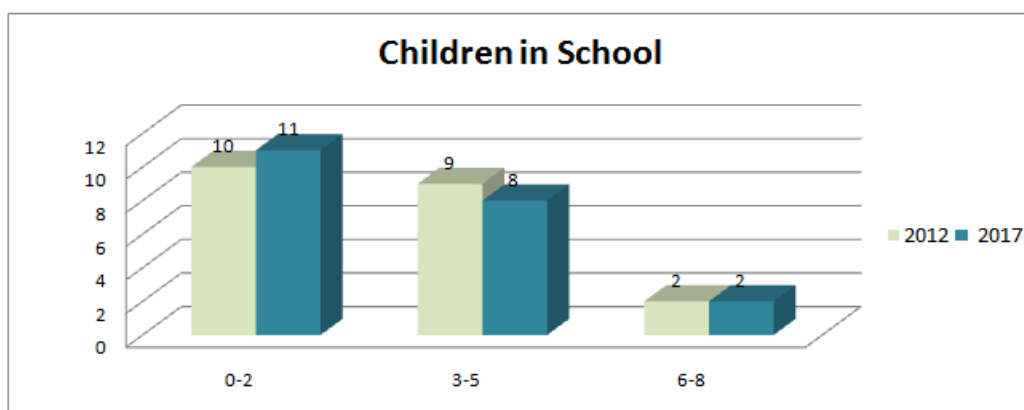


Figure 3 : Changes in Children's sent to School

- Changes in Size of Residential Lot and House Ownership

There are no significant changes as to house ownership in the years under review 2012 and 2017. Most of the farmer/beneficiaries owned their dwellings (90.48%). On the other hand, Table 3 revealed that in 2017, the sizes of residential lot among the respondents (in sq.m.) varies from 10 to more than 500sq.m. **There were no changes in size of residential lot.**

**Table 3. Changes in Size of Residential Lot (in sq.m.)**

Size of Residential lot	2012		2017	
	f	%	F	%
10-50	10	47.62	10	47.62
51-100	6	28.57	6	28.57
101-200	2	9.52	2	9.52
201-500	2	9.52	2	9.52
> 501	1	4.76	1	4.76
<b>Total</b>	<b>21</b>	<b>100</b>	<b>21</b>	<b>100</b>

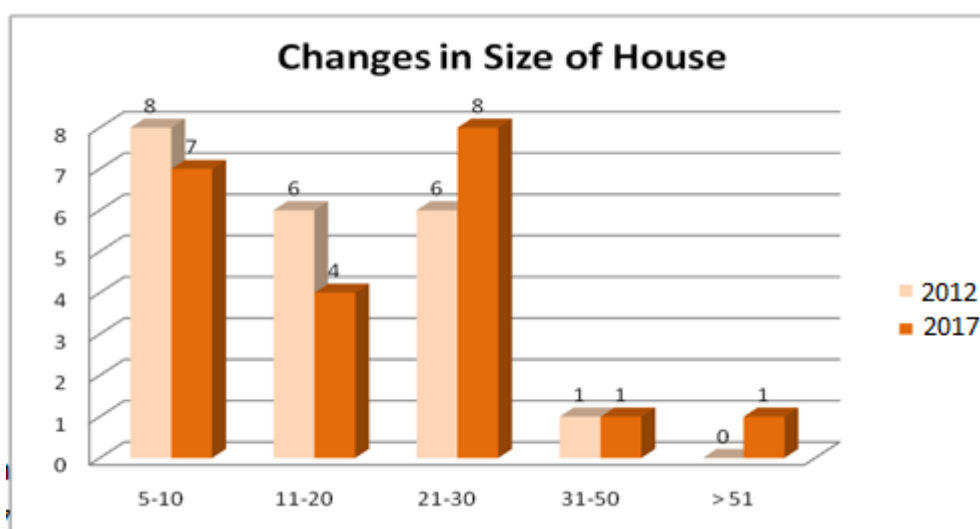
○ Changes in Size of House (in sq.m.)

As to changes in size of house, In 2012, majority of the respondents (38%) have 5-10 sq. m. size of house. In 2017, 38% of them have 21-30 sq.m.. There were only 3 respondents who have made some renovations in their houses. Some of these changes were: extension of their salas and the extension of verandas. These changes in size of house are attributed to their increase in farm sales. **But these changes are not significant as indicated in the t-test value of 0.179.**

**Table 4. Changes in Size of House (in sq. m.)**

Size of House	2012		2017	
	F	%	F	%
5-10	8	38.10	7	33.33
11-20	6	28.57	4	19.05
21-30	6	28.57	8	38.1
31-50	1	4.76	1	4.76
> 51	0	0	1	4.76
<b>Total</b>	<b>21</b>	<b>100</b>	<b>21</b>	<b>100</b>

Figure 4: Changes in Size of House



○ Changes in House Materials/built Inside CBFM Area

In 2012, 80% of the respondents have dwellings made of local materials. In 2017, 60% have dwellings made of local materials (please see table 6). There are slight changes in house materials built within CBFM area. Such as from nipa roof to G.I. sheets roofs, from wooden house materials to a combination of cement and their lavatory is made of tiles. Reasons for these slight changes were increase from farm sales; increase income from increase agricultural production and from CBFM investment. **This change is significant as indicated in the t-test value of 0.049.**

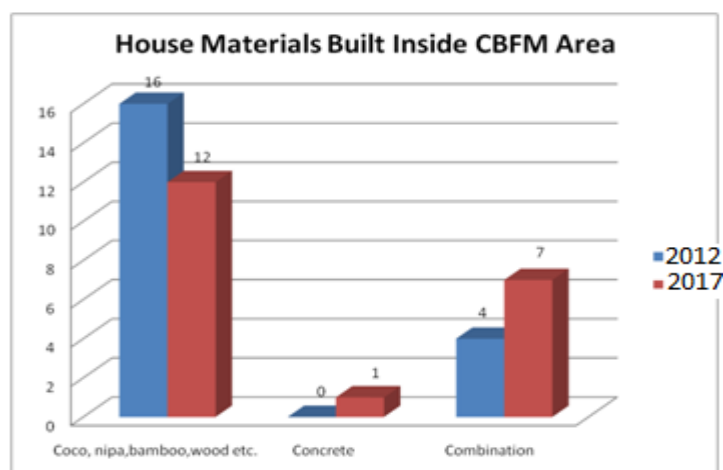


Figure 5: House Materials Built inside CBFM Area

#### ○ Changes in House Materials/built Outside CBFM Area

When asked about their changes in house materials built outside CBFM area, only 2 respondents built houses outside the CBFM area. In 2012, half of whom (50%) have houses built in local materials and 50% have houses made of concrete. In 2017, the trend is the same. **The t-test value is not significant at 0.167.**

Table 5. House Materials Built Outside CBFM Area

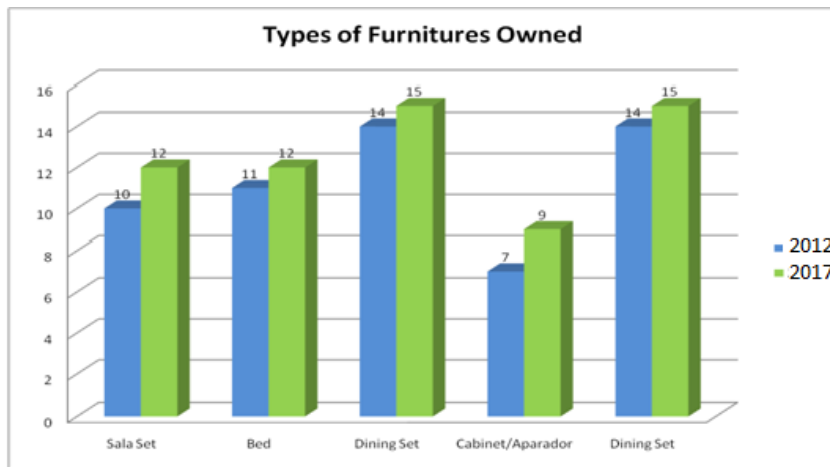
Types of House Materials	2012		2017	
	F	%	F	%
Coco, nipa, bamboo, wood etc.	1	50	2	50
Concrete	1	50	2	50
Combination	0	0	0	0
Others	-	-	-	-
<b>Total</b>	<b>2</b>	<b>100</b>	<b>4</b>	<b>100</b>

#### ○ Changes in Types of furniture Owned/Changes in Number of Furniture Acquired

Table 6 below revealed that there was minimal increase/change in types of furniture owned by the respondents. The most acquired furniture in 2012 and 2017 is the dining set. However, this change is not significant at t-test value of 0.071. As to number of furniture owned there was a slight change. In 2012 there were 14% who have no furniture to speak of, but in 2017 all of them have acquired a number of furnitures. The most common was the dining set. Respondents cited that the reason for this is that they have additional income



from their CBFM investment. However, the change is not significant at t-test value of **0.071**. (Please see Figure 6 below).



**Figure 6: Changes in Types of Furnitures Owned**

**Figure 7: Changes in Number of Furniture Owned**



○ **Changes in Number of Appliances Owned 2007 and 2011\* and Types of Appliances Owned**

In 2007, there were 10% of the respondents who have no appliances but in 2012 more than half (52%) of the respondents have at least owned 1 appliance. The change/increase in number of **appliances owned is not significant at t-test value of 0.162**. As to types of appliances, battery powered transistor radio ranked first. This is followed by television sets. It can be deduced that the radio is the best medium of transmitting information as most of the households own this.

Figure 8: Number of Appliances Owned

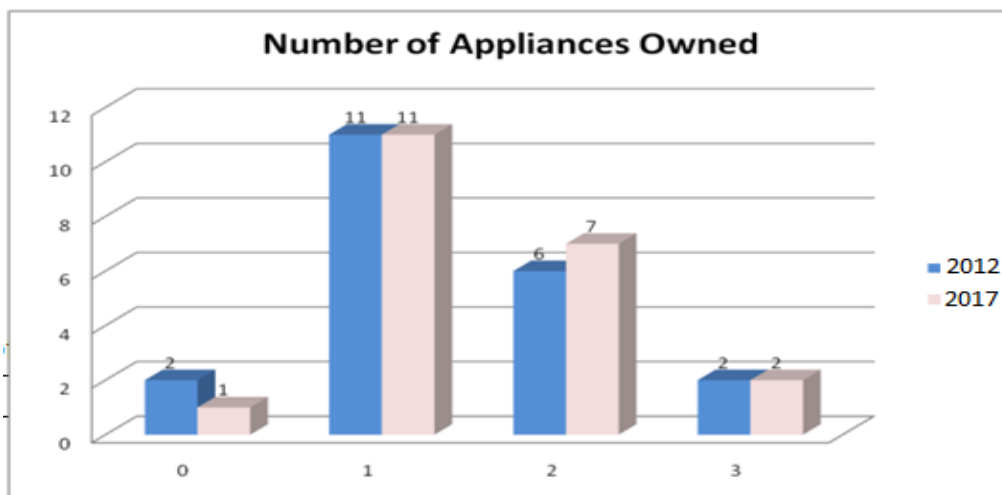
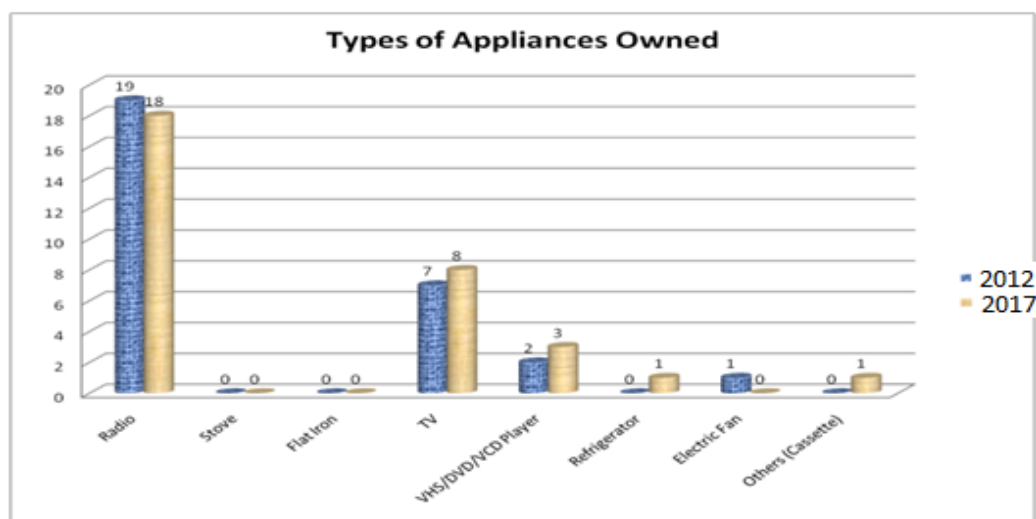


Table 6. Types of Appliances Owned 2012 and 2017.

Types of Appliances Owned	2012		2017	
	F	Rank	F	Rank
Radio	19	1 <sup>st</sup>	18	1 <sup>st</sup>
Stove	0	0	0	0
Flat Iron	0	0	0	0
TV	7	2 <sup>nd</sup>	8	2 <sup>nd</sup>
VHS/DVD/VCD Player	2	3 <sup>rd</sup>	3	3 <sup>rd</sup>
Refrigerator	0	0	1	4 <sup>th</sup>
Electric Fan	1	4 <sup>th</sup>	0	0
Others (Cassette)	0	0	1	4 <sup>th</sup>

\*Multiple response

Figure 15: Types of Appliances Owned



- Change in Cooking Fuel Used

Almost all of the respondents 95% revealed that they used firewood as their major fuel used in cooking.

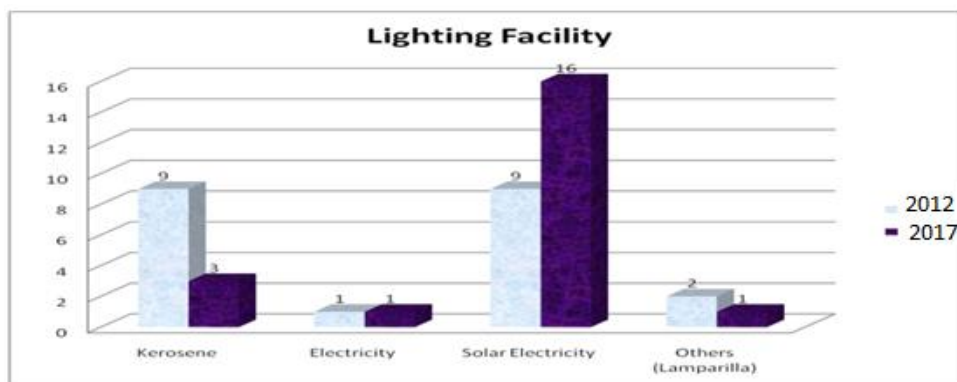
Table 7. Types of Cooking Fuel Used 2012 and 2017

Cooking fuel used	2012		2017	
	F	%	F	%
Major (Firewood)	21	95.45	21	95.45
Minor (Kerosene)	1	4.55	1	4.55
<b>Total</b>	<b>22</b>	<b>100</b>	<b>22</b>	<b>100</b>

○ Change in Lighting Facility 2012 and 2017

In 2012, 42.86% of the respondents have kerosene and solar powered means of lighting facility. In 2017, more than half of the respondents 76.19% used solar electricity. **There is significant change in lighting facility at t-test value of 0.013.**

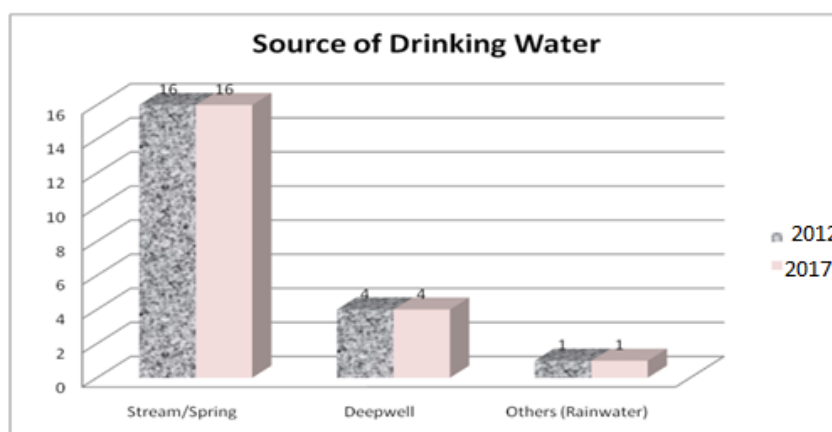
Figure 16: Lighting Facility



○ Change in Source of Drinking Water 2012 and 2017

There is no significant change in source of drinking water in 2012 and 2017. Their source of drinking water is from spring (76.2%). Through pipes the water from spring goes directly to their houses.

Figure 17: Source of Drinking Water



- Change in Toilet facility

There was no change as to types of toilet facility. The water-sealed/bowl with septic tank is commonly used in 2012 and 2017.

- Change in Owned Vehicle 2012 and 2017

There was no change in vehicle owned in 2012 and 2017. Only 1 respondent owned a motorbike.

- Change in Common Illnesses/Diseases in 2012 and 2017.

In 2012 and 2017 Coughs, colds and stomach ache are the common illnesses confronted by the respondents. However, as compared to 2012 and 2017, there is highly significant change in number of respondents who were confronted with common illnesses, from 32 to 28 number of responses. **The t-test value is highly significant at 0.000.**

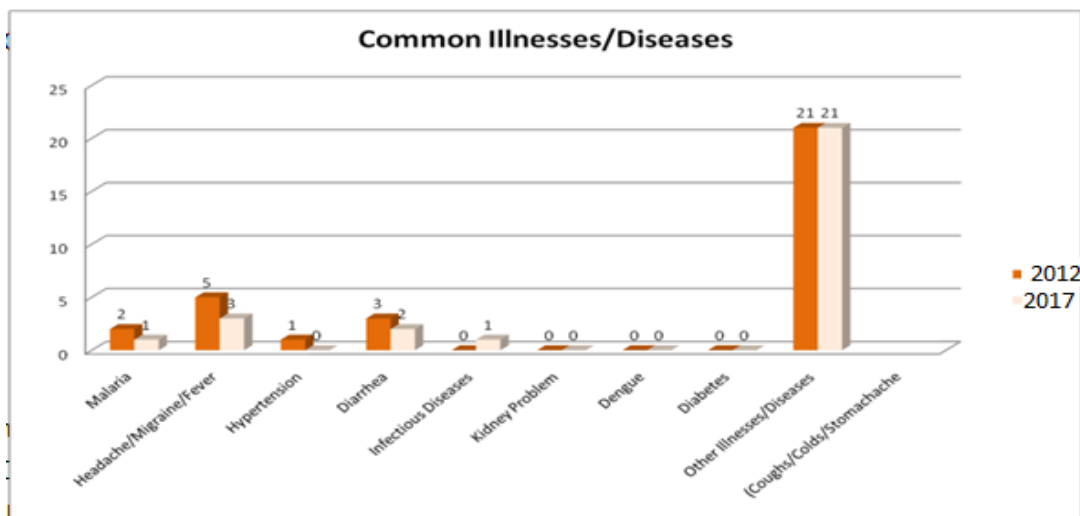


Figure 18: Common Illnesses/Diseases

- Change in Health Facilities in 2012 and 2017.

In 2012, men, women and children both young and old especially pregnant women resort to the Barangay health center for check-ups and first aids. The Center is attended by a midwife and is located in Barangay Tamugan, Marilog District. The farmer/beneficiaries still has to hike about 7 kms to reach the center. It has available first aide medicines. It also renders vaccination for infants and prenatal consultation. As of 2017, the health center has acquired health supplies and equipment such as weighing scale, refrigerator, blood pressure reader, among others. It has also provided other new programs such as vitamin intake for children, fillariasis vaccination once a year, tuberculosis program and others.

- Change in Waste Disposal System

In 2012, the initial data of the Socio Economic Survey (SES) revealed that most of the respondents practice burning of their garbage. This is followed by open pit type of waste

disposal. However, with the CBFM-CARP project in the area, extension workers have rendered lectures and meetings on proper waste management. Hence, in 2017, the Focus Group Discussion revealed that the respondents were now aware of the hazards brought in burning of garbage and dumping of garbage anywhere. Burning of garbage are minimized and they now practice waste segregation and composting. **The t-test value of 0.001 indicates significant change.**

- Change in Infrastructure Facilities

**There are changes in terms of infrastructure facilities.** The Socio Economic Survey (SES) data in 2007 revealed that the infrastructure facilities in the area include Soil and Water Conservation, Small Water Impounding Structures (SWIS), nursery, elementary school, spring box and water reservoir, chapel, basketball court, bridge, health center and a multi-purpose hall. In 2017, the new infrastructure services were the construction of solar dryer and waiting shed. The Department of Agrarian Reform (DAR) provided the construction of a solar electricity in the area while the LGU had constructed the waiting shed.

- Change in Transportation Facilities

The Focus Group Discussion revealed that **there were no changes in terms of transportation facilities.** Because of the rugged terrain and steep slope, the only available facilities are the horses. It cannot even be reached by a motorcycle ride. The Farm-to-Market roads has not improved since the inception of the CBFM-CARP project in 2012 and after 5 years after.

- Change in Communication Facilities

**There were no changes in communication facilities in 2012 and 2017.** In the SES data the cellular phones are the widely used communication facility among the respondents. This goes through until the present.

- **C. Changes in Organizations/Associations in the Community**

When correlated with the changes in organizations/associations that exist in the community in 2012 and 2017, **there is a highly significant changes at t-test value of 0.000.** Aside from the People's Organization of Tagbao Farmers Association (TFA) and the existing associations (senior citizens, womens' group, religious organizations, the number of organizations have increased. Four (4) new POs were formed in the neighboring sitios.

Other associations were also formed such as: Gmelina and falcata producers; BHW groups; cacao producers and Barangay tanod groups.

○ **D. Development programs implemented in the Community**

This section used the qualitative type of research using key informant's interview and FGD. Data revealed that there are increased in the number of development programs from 2012 and 2017. In 2012, among the development programs implemented were: from DENR, DA; the Josefa Segovia Foundation, an NGO and the Local Government Unit of Davao. They capacitated the POs on the use of organic fertilizer, animal dispersal, and agroforestry and until the present. The Department of Agriculture (DA) provides grafted fruit trees that is payable upon harvest and the Department of Environment and Natural Resources have CBFM-CARP. Realizing the success of the said project it has expansion its project on CBFM-CARP and presently, a beneficiary of the National Greening Program (NGP). The extension workers of DENR frequent the area and provided technical and livelihood assistance, distribution of forest and fruit trees, conduct of training, coaching, establishment of reforestation areas etc. Among the new development programs in the area were: the Department of Agrarian Reform (DAR) provided solar electricity; the DSWD provided day care center programs for senior citizens and breastfeeding programs. The DOH provided health worker in the Center, free medicine and a BotikasaBarangay, where generic but reasonable priced medicines are in store. The DPWH provided bridge maintenance project. The Southern Mindanao Agricultural project (SMAP) of DA XI provided a warehouse, grafted seedlings of mangoes and a solar drier.

○ **E. Other Social Data**

This section used qualitative type of research, through key informants' interview and FGD.

1. **Sense of Ownership to the Project.**

There was a positive response among the PO members when asked if they have sense of ownership to the CBFM-CARP project. They believed that the project is not for them alone but for their children and the next generation to come. Mr. Romeo dela Cruz, a 46 year-old farmer member of TFA *"Nakakasiguro po kami na mapapaaral naming ang aming mga anak at mga apo. Mabibigyan sila ng magandang bukas dahil ang rubber na isang biyaya sa proyekto ay nandiyan lang. Kami ay lubos na nagpapasalamat sa DENR"*. They were one in saying that the project is for them and that they will take good care of it. Although they have sense of ownership of the project, they can not still stand alone without

the help of DENR. Baby Gerodias, a wife of the farmer/beneficiary remarked “*Hindi pa po kami pwedeng iiwan ng DENR, hindi pa namin kaya.*”

## 2. Scaling Up of the Project.

There was an increase in membership in the members of TFA. The new members have farm lots inside the CBFM area but they live outside the area. They became members of the PO to avail of the benefits of the project.

## 3. Replication done about the Project

Because of the “**to see is to believe**” attitudes of some farmers, the actual demonstration of the intercropping technology and sharing of experiences about the project were seen to be more effective tools in convincing others, thus, replication of the project is done by other neighboring People’s Organization (POs). Four new POs were formed in neighboring sitios such as in Pangyan.

### 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

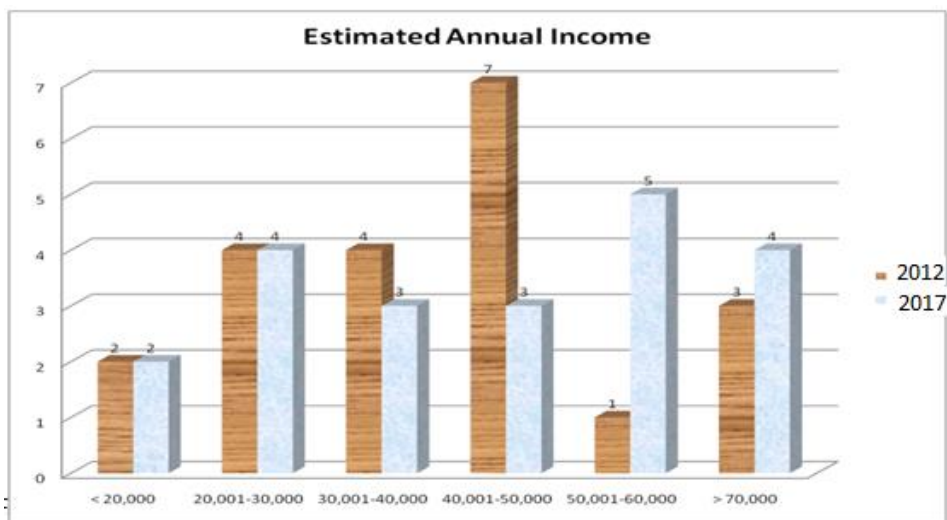
### ECONOMIC IMPACT FROM CBFM-CARP PROJECT INVESTMENT

- Most of the farmers have harvested their cacao plantation out of the CBFM-CARP Project Investment. Their cacao plantation bore fruit after only 2 years. The price of cacao is at P120-140 per kilo. An average household can harvest 15-25 kilos of cacao twice a month. They can earn an **average additional monthly income derived from cacao of Php6,000.** Moreover, CBFM-CARP beneficiaries have tapped their rubber. Moreover, an average family can tap rubber by 10-20 kilos of rubber twice a month at a current price of P62.00/kilo. Farmers have significantly increased their income by about **Php 5,000 – 6,000 per month.**
- As to their corn production, the income derived from corn is only for their family’s consumption, thus, mitigating hunger in the uplands. Most of the farmers did not sell their corn.
- The project also provided for a pair of HORSE both male and female. The male horse is usually used in hauling of farm produce. The benefit sharing scheme for the pair of horse is that sixty percent of the income (60%) goes to the caretaker and 40% goes to the coop. The income is saved for buying another horses.

## A. Estimated Annual Income

Farming is the main source of income. Other secondary sources of income include *on farm* sources such as labor, and livestock raising. As compared to 2012, the mean gross annual income level among the 21 respondents was Php 42,436.90 but in 2017 the mean gross income was Php 55,631.43. When paired with the **means of income in 2012 and 2017 using t-test it yielded a value of 0.001 which is highly significant.** This is attributed to the additional monthly income derived from the CBFM-CARP project's investment.

Figure 19: Estimated Annual Income



### ○ Changes in Farm Size Inside the CBFM Area

Majority of the farmers has a farm size inside the CBFM area of only 1-3 ha (71.43%). In 2017, 66% have a farm size of 1-3 has. **This is not significant at 0.333 t-test value.**

### ○ Presence of Important Faunal Species

The presence of important faunal species are still abundant in Tagbao. The population of wild animals such as wild pigs, monkeys, wild deer locally called "*binaw*", wild chicken, the diverse bird species still increased in number. The Kalaw birds are considered the major clocks of the natives to the place. The rat increased in number because of the presence of many agricultural crops which means many food to eat. As compared to 2012 and 2017 the changes in the presence of important faunal species were the same, there are still many.



- Presence of Important Floral Species

There are many floral species found in the area such as : agotay (wild abaca), bajang (food for the birds) and ferns locally known as “paku” still thrives in the area. Big and tall trees can be found almost everywhere, such as Lauan, Apitong, Almon, Mayapis, Yakal, Narra and Molave. The numbers are many in 2012 and 2017 respectively.

- Presence of Importance Physical Resources

The best ever pristine waters and potable water supply can be found in the springs of the barangay. The creeks, rivers and open areas for development are the other vital resources.

- Occurrence/Incidence of Environmental Disturbance.

Charcoal making is one of the livelihoods of the occupants to the place. They sell the sack of charcoal (one sack is 10 kilos) at P80.00 from source and P140.00 in the market. This is a threat in their forest plantation. To protect this, a barangay Resolution was made that they have to get Certification from the PO/Coop that the woods used in charcoal comes from the CBFMA area. And if the PO will not certify the barangay will not give them permit.

- The illegal logging activities in the area decrease because the occupants especially inside the CBFMA area were vigilant in protecting their forest.

### Summary and Conclusion

The CBFM-CARP Agroforestry Development Project had successfully contributed to household income among the farmer/beneficiaries as can be reflected in the t test value of **0.001 which is highly significant.**

There is a highly significant increase in annual gross income among the farmer/beneficiaries such that in 2012 it is P42,436.90 and P55,631.43 in 2017. The fruition of their labor has been realized. The project should be replicated to other POs especially those who are the poorest of the poor.

### Lessons Learned:

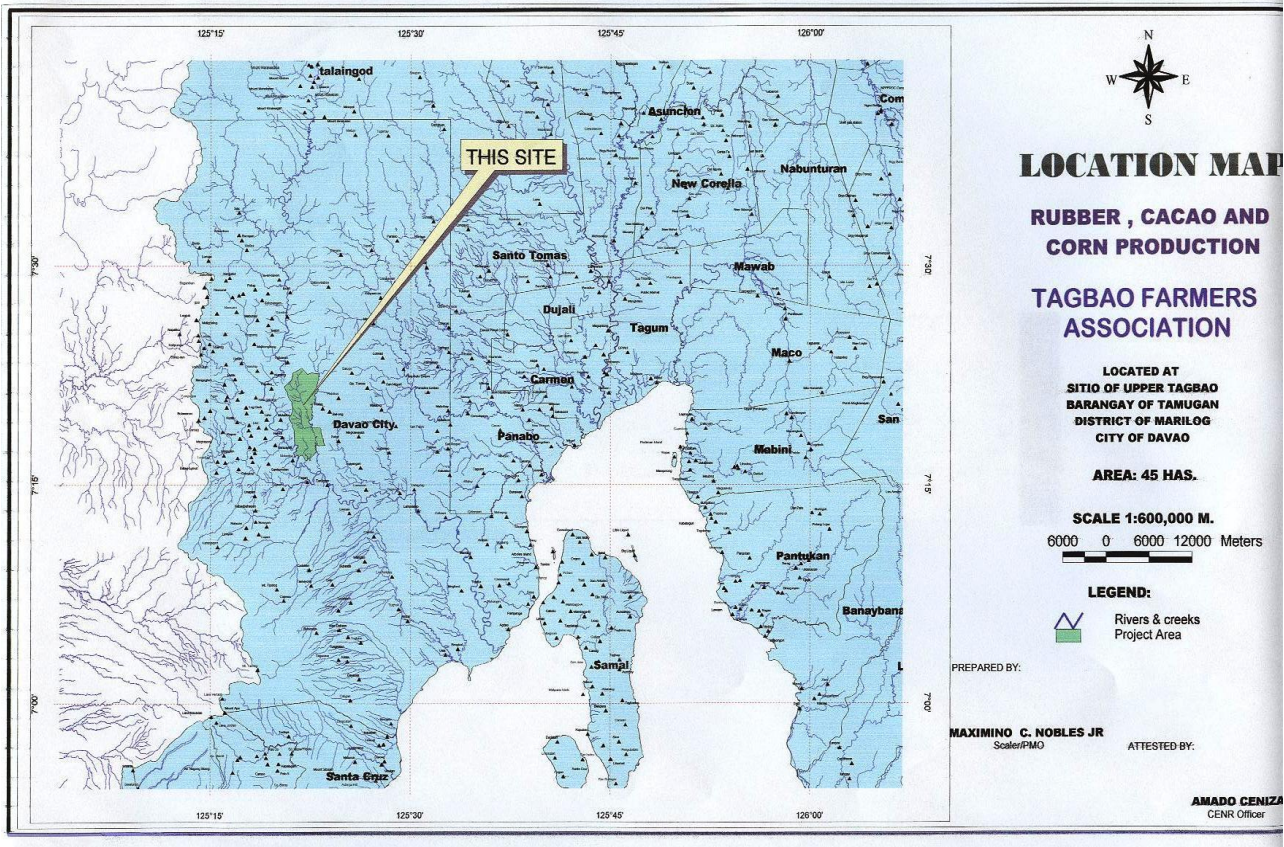
1. Project implementers should look into the situation of Farm-to-Market (FMRs) roads prior to the approval of the project.
2. Integrity and dedication of the farmers to the project should be considered in availing the input since some seedlings have high mortality because of improper handling among farmer/beneficiaries.
3. Project Implementers should look into the situation of Farm-to-Market (FMRs) roads prior to the approval of the project.

4. Since CBFM-CARP area is 40 hectares, there is a need to mobilize the members so that 1:1 ratio can avail of the project and not just 25 members

**Recommendation:**

Based on the conduct of the study, the following are recommended :

1. PMOs/project coordinators should conduct regular and close monitoring on maintenance of the seedling input.
2. Strengthen forest protection, intensify IEC on DENR program implementation and strict monitoring of forestry laws and regulations in coordination with concerned LGU and other sectors
3. Project implementers should assist the TFA PO to form into coop as an income generating cooperative so that they will not be exploited by the traders.



Map of Agro-Forestry Project in Tagbao Farmers Association

