



Economic Security Assessment in Palapag Northern Samar Philippines

Marcos E. Bollido

Department of Agriculture, Northwest Samar State University, Barangay Erenas, San Jorge, Samar, Philippines

*Correspondence: markbollido@yahoo.com

This study conducted to assess the economic security of Palapag in terms of food production, food consumption, livelihood, income and living condition of the municipality of Palapag, Northern Samar, Philippines. Analyze the extent of disaster response provided by the government, Non-Government Organizations (NGO), International Non-Government Organizations (INGO), and concerned groups and individuals to the affected population and how people cope to crises using their local assets or resources after the disaster. Families sometimes received food assistance (26 kg rice and canned goods) from local government and other concerned NGOs & INGOs good for few days. There were families who are member of Cash transfer (a government program) who receive cash grants to improve the health, nutrition, and the education of children. This will also augment the expenses of the family for the food, health and education of their children. The family cope with the food shortage of food by reducing number of meal per day, replacement of rice by root crops and vegetables. Borrowing of money from small sari-sari shops in supporting their house hold (HH). Taking children out of school and rather obliged or forced to help the family to earn income in the form of labor. Selling of productive assets like land or livestock in case of emergencies related to health, education and death. Migration by both men and women to big cities for applying as domestic, construction and factory worker.

Keywords: assessment, crises, disaster, Economic, palapag northern samar, security

Introduction

Municipality of Palapag is a third class municipality in the province of Northern Samar, Philippines. It is bounded on the North by Pacific Ocean, East by the Municipality of Mapanas West by the Municipality of Laoang, South by the Municipality of Catubig. Palapag has a total land area of 223.72 sq. km. or 22, 372 hectare where 73.13% is used mainly in agriculture ^[1]. Palapag has a type II climate with no dry season and very pronounced maximum rain period in winter. Maximum rainfall generally occurs in December & January, although there is not a single dry month. Average typhoon that hit Palapag is 3 typhoons a year ^[2].

Last December 14, 2015 Palapag was battered by a typhoon, Nona (International name Melor) making landfall in Batag Island, Laoang, Northern Samar. The typhoon had sustained wind of 150km/Hour with gustiness of up to 185km/hour with a diameter of 300 Km.

There was substantial damages to livelihood both fishing and agriculture. A total of 2,263 houses were totally damaged and 5,911 houses partially damaged. A total damaged cost is estimated to reach Php.169M both in infrastructure and livelihood ^[6]. The agricultural sector was just recovering from

three (3) typhoons ^[4,5] that hit the area before Nona. Coconut farmers in upland and farm laborers were most affected since coconut industry is the only main source of income. Around 11, 197 hectares of coconut farms were damaged which affects 6,362 farmers. It will take 3-5 years for the coconut industry to recover. Around 836 hectares of fruit trees and root crops which is also serve as cash crops were destroyed. Rice farmers were slightly affected since they had just doing the planting when the typhoon ^[3]. hit. The government and other INGOs distributed food (rice and canned goods) good for few days and non-food items (shelter kits and seeds) to selected villages.

Because of little assistance to shelter needs and livelihood most families will continue to live in make-shift houses cope, save food by eating less, migrate to cities to look for job, sell their assets, and look for alternative source of cash to sustain the basic needs of their families. Dry spell is predicted in coming months and it is foreseen that the situation will become worse. If nothing will be done, problems such as food insecurity, increase in unemployment, increase in out-of-school children, increase in malnutrition, and increase in susceptibility and vulnerability of children to diseases will likely to happen.

[Received 12 Dec 2018; Accepted 03 March 2019; Published (online) 30 Sep 2019]

Publisher's Note: RCLSS stays neutral regard to jurisdictional claims published maps



Attribution 4.0 International (CC BY 4.0)

Objectives

The rapid assessment is conducted to generally understand the economic security situation of the area, specifically it aims to:

1. find out the status of food production, livelihood, income and living condition of the selected barangays in municipality of Palapag, Northern Samar
2. analyze the extent of disaster response provided by the government, NGOs, INGOs, and concerned groups and individuals to the affected population
3. find out how the people cope to crisis using their local assets or resources after the typhoon hit the area

Methodology

Collected secondary data from concerned offices such Municipal Disaster Risk Reduction Management Office (MDRRMO); Department of Social Welfare and Development (MSWDO); Department of Agriculture; Barangay Local Government Office (B-LGU); Bureau of Fisheries and Aquatic Resources office. Conducted an ocular survey, direct observation, community visits, Focused Group Discussion, individual Interview to farmer, fishermen and families directly affected by the calamity to validate the secondary information given and get a first-hand information from affected population.

Used random sampling and clustering of villages especially in the coastal villages to compare the magnitude or extent of damage and recovery level between coastal and upland areas. More time were spent in the assessment in armed conflict affected areas which were also hit by typhoon.

Geographical Area

The Municipality of Palapag, is a 3rd class municipality in the province of Northern Samar, Philippines. According to the 2015 census, it has a population of 34,286 people. It is located in the northernmost part of Samar Island. Palapag is bounded on the north by the vast Pacific Ocean, on the east by the municipality of Mapanas, on the west by the municipality of Laoang and on the south by the municipality of Catubig. The town center is located in the north-eastern part of the municipality. Its physical features are characterized by mountainous part on the east and a relatively plain on the north-western side of the municipality. Palapag has a total land area of 17,960 hectares ^[6].

Results

Both coastal and upland areas were affected by Typhoon Nona. Many families whose houses were totally damaged are still living in makeshift houses or staying with relatives and will affect their living conditions. A total of 2,263 houses were totally damaged and 5,911 houses partially damaged. Electricity is not yet restored to almost villages in municipality of Palapag. Some families who can afford use

generators as source of lightings for a few hours during night time.

Families received food assistance (26 kg rice and canned goods) from local government and other concerned NGOs/INGOs good for few days. The family cope with the food shortage by eating rootcrops, and leafy vegetables. Others, make rice porridge eaten with dried fish or fish from the river. Food security is uncertain for families who rely solely on farm labor. Philippine Red Cross had not yet provided assistance since.

Non-food assistance were also distributed such as 10-meter tarpaulin/laminated sacks to all affected families (both totally and partially affected) and shelter materials to one coastal village. One coastal barangay (Brgy Binay) were provided shelter kit by INGO.

Coconut which is the main source of income of the most of the households were heavily damaged which will take several years to completely recover. Copra production is expected to drop 80% of pre typhoon yield and recovery will take 3-5 years. The last harvest of coconut will be on February with expected harvest of 200-300 nuts per hectare. Normally a coconut farmer yield 1000pcs of coconuts /hectare harvested every two months and income P4,000-P5000.

Vegetables and root crops were also affected. Family use root crops to substitute rice as source of carbohydrates

Families who are member of Cash transfer (a government program) who receive cash grants to improve the health, nutrition, and the education of children. This will also augment the expenses of the family for the food, health and education of their children. The percentage enrolled in this program ranges from 25% to 50% of the total population.

In abaca and banana planting communities which were affected by the typhoon, farmers are trying to replan and will take about a year-wait for the next harvest. Rice farmers slightly affected because rice was just newly planted when the typhoon hit the area. A total of 3,899 hectares of rice is rain-fed/non-irrigated and 115 hectares irrigated. Rice farmers of non-irrigated rice farms will probably suffer when the predicted dry spell will come. There are only two cropping of rice for irrigated farm and only one for the non-irrigated one.

Coastal communities has diversified source of income where most of the households engaged in fishing, farming, and casual labor. One community in Palapag (Brgy. Maragano) although is considered as a coastal area, it cannot engage in fishing due to rocky shoreline which makes it difficult for fishing vessels to land. Upland-inland communities solely depend on farming and are observe to be more affected than coastal communities. Most affected sector is agriculture, with

90-100% of bananas and abaca trees totally bent, most probably wouldn't regrow. Replanting needed. Markets are operational and is now stable, but is expected to slow down because of damage to agriculture.

Coping strategies

- Reduced quantity of food served per meal
- Reduced number of meal per day, a normal 3x a day meal drop to 2x a day meal)
- Replacement of rice by root crops and vegetables or taking coffee during breakfast
- Less protein diet
- Borrowing of money to small sari-sari shops in supporting the HH needs whenever there is no generated income during the waiting period before the cropping season
- Support from 4Ps conditional cash grant.
- An average of 4x yearly copra production may exceed to 5x. Even the not fully matured nuts are harvested in order to have income to support HH needs.
- Taking children out of school and rather obliged or forced to help the family to earn income in the form of labor.
- Selling of productive assets like land or livestock in case of emergencies related to health, education and death.
- Migration by both men (mostly skilled workers) and women (mother or a daughter capable of working) to the NCR applying as domestic, construction and factory worker.

Discussions

Economic Security and Nutrition Situation of Population Groups of Interest

Food Consumption

Food insecurity is experienced in communities in Palapag especially the poorest sector such as low-income-large families, landless laborers, jobless widow, and female headed families. Three strong typhoons (Typhoon Ruby, Amang, and Glenda) hit the area which damaged their crops and effect the livelihood of the farmers and the farm laborers. An average family has an average monthly income of Php 2500-P3000 and 1500-2400 to farm laborers.

Before the crises, a family usually eat 3 times a day. A family of five consumes at least 2-3 kilograms of rice eaten with fish, canned goods and vegetables or sometimes meat in some occasions. During lean months a family usually eat root crops, porridge, dried fish, and vegetables. These vulnerable families have difficulty in meeting the required 2400 kilo calories per person per day most especially the large-low income families

A month after the crises, majority of the families in upland still eat 3 times but for only few days when food assistance from the government or concerned organization are available. They tried to extend their food supply by eating twice a day, and eating less by eating rice porridge and sometimes mixed with root crops, and dried fish. Sometimes parents or adults eat only minimal giving priority to small children. As their coconut and other crops will take months to years to recover and food assistance will becoming less it undernourishment or starvation may happen.

Food Production

In the assessed villages 10 were coastal and 10 were inland-upland area. In coastal communities, food production is diversified where most of the households engaged in fishing and owned coconut farm. Only 3% (115 hectares) of total rice-farm (3889 hectares) are irrigated which has two croppings (June to September/ November to February). Rainfed/Non-irrigated rice has only one cropping per year (July to September). The average harvest per hectare is 50 cavans for rainfed and 70 cavans for irrigated. The farmers are still using manual labor in doing farm works such as in land preparation and threshing. The coming dry spell will likely affect the food production (rice, Vegetable, rootcrops) is impending. Because of few amount of rain the farmers are uncertain if their newly planted rice and root crops will survive.

In fishing, an average fishermen using unmotorized boat are able to catch an average 10 kg of fish during peak months (November-February) but these are also the months where bad weather is expected. An average of 1-2 kg fish catch during lean months (April to July). For fishermen using motorized boats fish catch is higher.

In upland villages, most rely mainly in coconut industry as their main source of income. Most farmers also grow root crops (sweet potato, cassava, gabi) , banana, and vegetables as source of food and cash. Upland farmers also grow corn but in small-scale. Villages along the river such as in Napo, Bagacay, Osmenia, Sangay, Bangon, and Capacujan can also get river fish and shells for food.

After the typhoon Nona, food production was affected with thecoconut industry as the main source of income of communities were heavily damaged. Banana and other root crops (sweet potato, were also damage and will take several months to recover. As the dry season is approaching which start on March it will surely affect the food production in the first to second quarter of 2016.

Income

Normally a coconut farmer who own 1 hectare of coconut has an average income of P2500/month. An average fishermen

will earn also an average of P5000-P7000 per month during peak months. Unskilled laborers will work at least fifteen days a month earning P3,750 a month and P5,000-P6,000 per month for skilled workers. The tenant and owner usually have 50:50 sharing of the income and will depend on the volume of production.

There were also families who are member of cash transfer (a government program) who receive cash grants to improve the health, nutrition, and the education of children. This will also augment the expenses of the family for the food, health and education of their children. The percentage enrolled in this program ranges from 25% to 50% of the total population. A family with 3 children in primary school receives about Php 1,400 per month paid every other month, expenses has to be liquidated to DSWD staff.

Some income come from sell of rootcrops, vegetables, and livestock. Families also get some income from the financial assistance from other member of the family working outside the city. Because of the damaged to agriculture crops brought about by typhoon, job opportunities will become slimmer. Five out of ten families have one member migrating to other cities to look for job.

Nutrition Situation

Municipality of Palapag has malnutrition prevalence rate of 15.8 % (health data 2015) blamed on poor nutrient intake, and preventable diseases such as respiratory tract infections, diarrhea, and parasitism. Prevalence of malnutrition rate is expected to rise because of decrease in food production and decrease of family income to sustain basic food needs as a result of the typhoon Nona. This will be worsen because of poor living conditions and inadequate water and sanitation facilities.

Access to and Functioning Markets

In general, market is accessible which allow transport of agricultural produced from the community to the central market in the town. Few days after the typhoon Nona hit the province, the government was able to mobilize to clear the debris and landslides blocking the roads to the market. The market remain functional though some of infrastructure was damaged. The Department of Trade and Industry (DTI) issued a message to freeze the price of all the basic commodities to include the construction materials.

Transport are more difficult in the upstream villages because of poor condition of road and the transportation cost. In upland villages, a person will pay P120/trip plus P2.5/kg of copra or agricultural products going to town market. Some

villages can be reached by boat and some parts of it can only be reached by hour walk. The economy is seen to slow down because of the damage to agriculture and fisheries as their main source of income.

Access to and Functioning of other Institutional Services and Processes

Government is still functioning though resources are becoming scarce due calamity brought about by typhoon Nona. There are rural banks in the area and other money-transfer services. Microcredit/microfinance institutions remain accessible to offer their services such as loans but also expect low repayment rates due to decrease of income.

Response by National and International Stakeholders

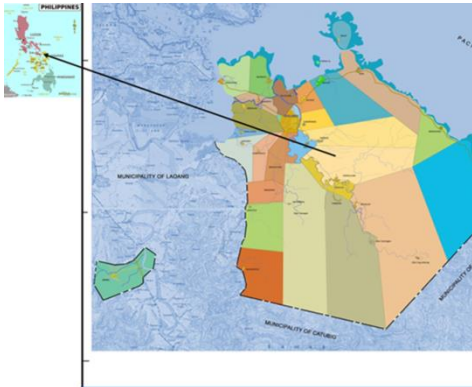
The government solely depend mainly on their calamity fund to respond for the immediate needs of the affected families. The government regional office of DSWD immediately provided food good for few days. The regional government also distributed 10m laminated sacks to all affected households. They also distributed a few packs of vegetable seeds.

INGOs distributed non-food items (tarpaulins, jerry cans, shelter materials and sleeping kits) relief to homeless families of selected village. Other NGOs such as TV5, LCDE, and private individuals also donated but only to selected villages. Philippine Red Cross has not send assistance since. The municipal government is continually accepting donations from concerned individuals and NGOs.

Figures, Tables and References

Figure 1. A map of the Palapag, Northern Samar

Villages were assessment conducted

Office/Villages visited	Location/description
	Coastal Upland (cluster of 3)

	villages) 30 min by land cruiser (LC)	Name of Villages	#HH	#Farmers	#Farm Labors	# Fishermen	4Ps beneficiaries		
MSWD, MDRRMO, Agriculture, Office of Vice Mayor Napo	Coastal Village (cluster of 3 villages)	aragano	10	2	2		35		
	30 min by LC, and 20 minutes by walk	inay	48		1	7	46		
	Town Center	apo	30	6	20		1		
		alalora	49	7	0	27	70		
		apacujan	87	08	2		60		
	Riverside, and flat to hilly village;	agacay	36	9	92		7		
	30 min. by LC	angon	07	9	5		6		
	Coastal Village (cluster of 3 villages)	smenia	24	18	75		29		
	15 min by LC	abaras	0	0	5		6		
	Near the river, plane to hilly-upland village	angay	10	6	11		7		
30 min by LC									
Near the river, Hilly to upland village,									
Osmenia	Near the river, plane to hilly-upland area,								
Sangay	20 min by LC, 5 minutes by river boat and 8 minutes by motorcycle	aragano	10	5	5	9	3	1	
	Near the river, plane to hilly-upland area,	inay	48	8	4	9	14	1	
	20 minutes by LC	apo	30	0	3	0	5	8	
Mabararas	Plane to upland area, woodland area, 30 minutes by LC	alalora	49	1	11	18	17	16	6
		apacujan	87	5	52	00	87		
		agacay	36	1	86	03	6	93	7

Table 3. Basic Living Condition, Sanitation & water

Barangay	Total HH	Total Family Headed Households	Moderately to highly vulnerable	No. of HH without household toilet	Level 1 River/spring	Level 2	Level 3	Others
aragano	10	5	5	9	3	1		
inay	48	8	4	9	14	1		
apo	30	0	3	0	5	8		
alalora	49	1	11	18	17	16		6
apacujan	87	5	52	00	87			
agacay	36	1	86	03	6	93		7

Table 2. Livelihood/Income activities in assessed villages

ango n	07	2	0	4	0	0	7
smen ia	24	4	51	38	02	58	4
abar as	0	2	3	0	4	9	8
anga y	10	5	58	07	2	18	0

malnutrition, and increasing unemployment in the affected area.

References

[1]. Department of Agriculture. (1898). Philippines. Retrieved from <http://www.da.gov.ph/>

[2]. Department of Social Welfare and Development. (1987) Philippines. Retrieved from <https://www.dswd.gov.ph/>

[3]. Philippine Statistics Authority. (2013). Philippines. Retrieved from <https://psa.gov.ph/>

Conclusions

- Less to no income is expected to farm-labor-dependent families, and farmers’ family who solely rely to coconut production. Family will try to extend their food supply available by limitation of food consumption (eating twice a day with root crops, porridge, and will either decide to let their children stop schooling or attend without out transportation and snacks).
- Food production will be insufficient for three months due to the damage of crops and seeds. Planting and harvest season will be delayed especially for the rice farmers. The root crops and vegetables will hopefully recover within three months. But the looming dry season is coming, which will hamper the production
- Malnutrition will definitely increase if food consumption will become less and due to decrease in family income.
- Some of the affected families will continue to live in their makeshift houses or with their relatives for months. Other whose crops are damaged may sort to loans or borrowing money to recover their livelihood or migrate to other places to look for a job.
- Increase of the susceptibility of children, old people, and pregnant women living in make-shift houses.
- Families will tend to sort to other resource-extraction activities such as legal logging and charcoal making; gathering and selling sand and gravel.
- Outmigration of members of some member of families to other cities to look for job. Other families sort to borrowing/loans to neighbours.
- Increase in out of school youth and children because the family cannot sustain the expenses (food transportation, boarding houses etc.) for education especially for the higher levels (high school, college). Others may stop to seek job in the neighbouring towns or cities.
- Decrease in the production of coconuts and other crops is expected. And it would take 3-5 years for the coconut industry to fully recover if no typhoon will again hit the area. Income from farming will decrease which may result to migration,