EMERGENCY FOOD SECURITY ASSESSMENT

Albay province, Philippines
5-8 February 2007

In collaboration with RDCC, World Vision, Philippine National Red Cross, International Organization for Migration and Department of Agriculture

CONTENT

EXECUTIVE SUMMARY

The Republic of the Philippines was hit by multiple typhoons that triggered landslides, flash floods, widespread flooding and, together with the high winds, caused severe destruction between September and December 2006. Most of the areas that were severely damaged by the typhoons were coastal and farming municipalities and towns located around the periphery of the Mount Mayon Volcano in Albay Province, Bicol region. Over 1000 lives are estimated to have been lost, and more than 180,000 houses were totally destroyed.

WFP, together with supporting agencies, undertook a one-week assessment (from 3rd to 9th February 2007) with the general objectives of evaluating the impact of the typhoons and identifying any eventual food assistance requirements for the next three to nine months. The assessment purposively sampled 430 households in five of the worst-affected municipalities of Albay province.

Over 80 percent of the sampled households had either totally or partially damaged homes as a result of the typhoons. Losses of livelihood assets were also reported amongst these households. Of particular concern was the significant loss of equipment and tools which most likely were used in income generating activities prior to the typhoons.

Some 60 percent of the households interviewed who previously had livestock claimed extensive losses of both small and large livestock. There was also damage and loss of agricultural plots; almost 60 percent of respondents claim to have losses in this area. Fisherman lost their boats; approximately half of those surveyed who had boats prior to the typhoons, lost them. Such losses will have medium- to- long- term implications on the safety net systems of the affected population as well as the possibilities to support their families.

Farmers who still have arable land have begun to replant cassava, beans and peanuts, which will take an average of three to seven months before yielding their first harvest; these crops will mainly be used for personal consumption. Families whose primary income is derived from agriculture are amongst the most vulnerable in the post-typhoon scenario. The reestablishment of their farming systems, depending on crop grown, will take a minimum of six months to upwards of three years for coconut harvest, one of the core industries in Bicol.

The fishing industry, another big job provider, has also been thrown into disarray, with much of the equipment damaged, or blown away, and some natural fish reservoirs suspected to be contaminated. Most fishermen are poor and do not have the financial capacity to replace lost fishing assets such as the boats. The timing is important to them as the peak fishing season is February to May. This is the period when fishing families make the bulk of their income that will support them for the rest of the year. When they run out of savings they live on credit until the next peak season when they will pay back the credit.

Households have diversified their income activities in order to cope with the situation after the typhoons. There are more families that are engaged in small businesses, sale of agricultural products and livestock now than before. It is assumed that the sale of agricultural products is in fact petty trade as the agricultural production in the area has significantly reduced. There is also an increased demand of skilled workers and more men are engaged in construction work. However, the job opportunities seem to be on a daily basis and a salary for most households is not guaranteed.

The distribution of household expenditures did not change significantly after the typhoons but the amount spent has changed. Seventy eight percent of the sampled households reported a reduced income after the typhoon, of which 27 percent of these had much less money in February 2007 as compared to the period prior to December 2006.

Of those households interviewed, some 90 percent indicated that there were times in the past 30 days when they did not have enough money to purchase food. The food-related coping strategies adopted by a large percentage of the sampled households were: relying on less preferred food; borrowing and buying food on credit; and reduction of portions sizes. As many as one in four households have also reduced the number of meals on occasion.

Presently 34 percent of households currently have food consumption classified as 'borderline'. These families could fall into the category of poor food consumption unless they receive assistance. Almost 70 percent of all respondents ranked food within their top three "urgent needs".

The rehabilitation needs of affected communities are huge. Shelter, water, and sanitation are only some of the most immediate needs of the population today. Coordination and discussions between the humanitarian community and the local government is ongoing in order to meet these needs. In terms of food, the assessment concluded that short-term assistance is needed in order to meet the immediate household food needs, protect livelihoods and speed up the recovery process. As part of the recommendations below, most of the food assistance would be self-targeting, i.e. those households who do not have other income generating activities would be supported through Food for Work or Food for Training.

Recommendations:

- It is recommended that relief assistance is continued to the households who remain in the evacuation centres until they are relocated and can re-establish their livelihoods. It is noted that most of the households in the evacuation centres are engaged in some form of income generating activity, thus the ration is recommended to be a half family ration of rice and pulses.

- It is recommended that the most affected communities are supported for at least six months through livelihood supporting activities such as Food for Work and/or Food for Training. These could include clearing of damaged agricultural fields, reforestation in the landslide areas where the next rainy season will bring more slides if nothing is binding the soil before then. School and home rehabilitation work are other examples of activities that could be covered through FFW.

- The relief component should be strongly coordinated with other agencies supporting the evacuation centres in order to avoid duplication or conflicting objectives, especially if cash interventions are being implemented.

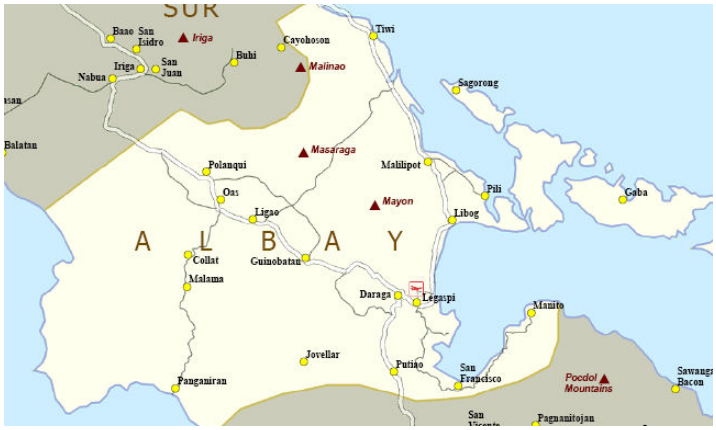
1. INTRODUCTION

Between September and December 2006, the Philippines was hit by multiple typhoons. These events triggered landslides, flash floods, widespread flooding and together with the associated high winds, caused destruction and damage to homes, community buildings, communications, infrastructure, roads, bridges, agricultural crops and fishing assets. On a conservative estimate, the three typhoons affected some 1.7 million people of which an estimated 84,500 people took refuge in 273 evacuation centres. Typhoon Reming (Durian), the most severe typhoon to affect the Bicol region, made its landfall at Mount Mayon, the most active volcano in the Philippines, with winds measuring up to 240 km per hour.

The worst destruction from Typhoon Reming was seen in the Bicol region and its provinces of Albay, Catanduanes, and Camarines Sur in south eastern Luzon Island, although significant damage was also recorded in Mindoro Oriental, Marinduque, Batangas, Laguna, Mindoro Occidental and Romblon provinces.

Most of the severely damaged areas were the coastal and farming municipalities and towns located around the periphery of Mt. Mayon Volcano in Albay Province. An estimated 1000 lives were lost, and over 180,000 houses were totally destroyed.

WFP together with supportive agencies[1] undertook an Emergency Food Security Assessment in Albay province (the most severely affected province) the first week of February 2007 to assess the food security situation and the people's coping mechanisms in order to determine the best type of intervention for relief and livelihood protection.



2. OBJECTIVES AND METHODOLOGY

The general objectives of the assessment were to evaluate the impact of the typhoons which affected livelihoods, and identify food assistance requirements for the next three to nine months.

More specifically, the assessment aimed to:

- Describe and assess the current food security situation in evacuation/transitional centres and rural typhoon-affected communities for different livelihood groups[2] in terms of food availability, access and usage;

1 Annex 1 for list of participants.

2 Livelihood groups were differentiated as Agriculturists vs. Non-Agriculturists.

- Determine how different groups are coping with the situation and what plans are made to re-establish their livelihoods;
- Estimate whether food aid was needed and, if so, the number of people in need of food aid and the time frame for this; and
- Where food aid is an appropriate response option, determine the necessary quantities, as well as the most appropriate interventions.

2.1. Sampling Methodology

The sampling method employed was purposive, based on areas which Government identified as "Typhoon Affected[3]". Municipalities and *barangays*[4] were identified by the Regional Disaster Coordination Council and other organizations (i.e. IOM, Red Cross, World Vision). Of the total sampled households, 61 percent suffered total damage to their homes, while 36 percent suffered partial damage. Time and available resources were also taken into consideration in planning the sample size.

Five municipalities were selected in Albay Province, which were among the most severely affected and had the greatest number of human casualties. Bacacay, Guinobatan, Camalig, Legazpi City, and Daraga municipalities were included in the assessment. Five sample sites were selected in each municipality, where 20-25 household interviews and one community focus group were conducted. Households surveyed were randomly selected.

The team conducted 430 household interviews and 23 community focus groups. Both communities and evacuation centres were surveyed in almost equal numbers (50 percent in Evacuation Centres, 48 percent in Communities, and 2 percent unknown/missing data).

Table 1. Number of households interviewed by municipality

Municipality	Number of HHs	percentage of HHs
Bacacay	61	14%
Guinobatan	101	23%
Sto. Domingo	84	20%
Camalig	43	10%
Daraga	108	25%
Legazpi City	33	8%
Total	430	100%

3 The Government of the Philippines used the term "Typhoon Affected" to describe houses which were partially or totally destroyed.

4 The administrative structure used in the Republic of the Philippines is: 1st order: Region; 2nd order: Province; 3rd order: Municipio (Municipality), which include both rural and urban areas; 4th order: Barangay; and 5th order: Sitio

Table 2. Number of people by age group and by household type in the sampled households

Age group	Household type			Total by age group and sex
	IDPs living communally (215 HHs)	Remained at home (208 HHs)	Unknown HH type (7 HHs)	
Males 0-4 years (N)	83	68	4	155
Females 0-4 years (N)	65	51	3	119
Males 5-17 years (N)	238	192	2	432
Females 5-17 years (N)	211	184	4	399
Males 18-59 years (N)	280	312	12	604
Female 18-59 years (N)	276	318	8	602
Males 60 years or older (N)	22	38	0	60
Females 60 years or older (N)	21	48	0	69
Number of HHs	1196	1211	33	2440

2.2. Data Collection and Analysis

The assessment utilized data from primary and secondary sources as per the Analysis Plan (table 3). Primary data was collected by using a household structured interview and a semi-structured community focus group. Data was entered into an Access database, and analyzed using SPSS software. Secondary data from the national Government, UN, and NGO was also gathered and used in the analysis; references are inserted throughout the report.

Table 3. Analysis Plan.

EFSA Objectives	Data	Sources
• Describe and assess the current food security situation in evacuation/transitional centres and rural typhoon-affected communities for different livelihood groups [Agriculture vs. Non-Agriculture] in terms of food availability, access and usage.	• Sources of food • Sources of income • Current food stocks • Means of livelihoods • Prices • Cooking practices • Number of meals and snack for under-fives • Number of meals in the family • Availability of cooking fuel and firewood	HH interview, Community Focus Group, and Secondary data
• Determine how different groups are coping with the situation and what plans are made to re-establish their livelihoods.	• Availability of cooking fuel and firewood • Means of coping • Means of livelihoods • Food consumption during the last 7 days. • Sale of domestic and productive assets and disposal of savings	HH interview, Community Focus Group, and Secondary data
• Estimate the number of people in need of food aid and the time frame for this.	• Food consumption during the last 7 days. • Means of access to food • Market functioning • Global acute malnutrition rate in <5y • Morbidity rate • HH income • percent expenditure on food	HH interview and Secondary data
• Where food aid is an appropriate response option, determine the necessary quantities, as well as the most appropriate interventions	• Food consumption • Market prices • Staple quantities • Income • Production	HH interview and Secondary data

2.3. Limitations

The assessment as mentioned is not a representation of the population in Albay and thus the results represent the sampled households and the visited communities. Anthropometric measurements were not included thus the impact of the typhoons on the nutritional status of affected households was not captured. However, the assessment does give a good picture of the stress that sampled families have been exposed to and how they have tried to deal with it.

This assessment did not assess market issues in detail as this was being covered by an FAO assessment that took place at the same time. Results from the FAO assessment were not available at the time of writing.

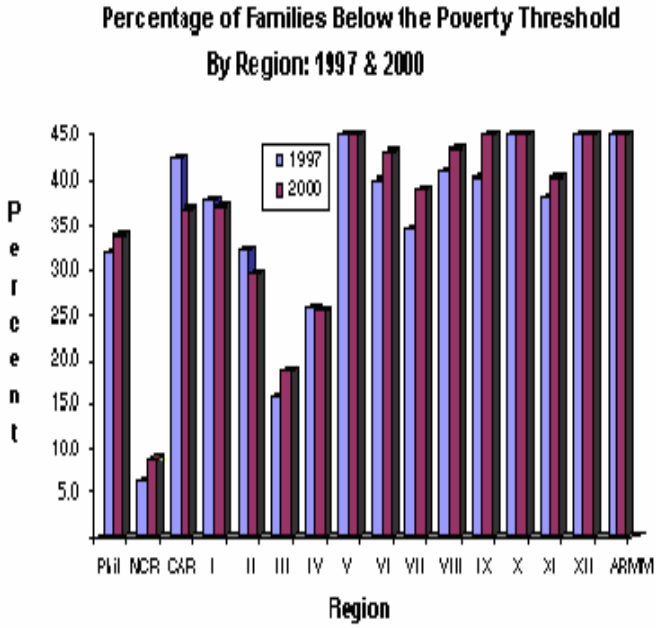
3. SOCIO-ECONOMIC BACKGROUND

Albay province has a population of 1.1 million. The growth rate between 1995 and 2000 was 1.77, the second highest in the Bicol region and with the highest population density. The average household size is 5.22 a reduction from 5.35 in 1995. The average family size in the sample population in this assessment was 5.6. Fifty-three percent of Albay population is below 14 years of age. Thirty-one percent live in urban areas and thus the majority of people lead rural lives. Of the assessed households a fairly large proportion (26 percent) were headed by women.

Prior to the typhoons the unemployment rate was 9 percent (NSO 2001), significantly higher than the national rate of 7 percent. It has yet to be determined whether this has changed since the disaster. The sector generating the greatest employment in Bicol was the services sector at 41 percent, with wholesale and retail trade being the most important sub-sectors (2003). More than 42 percent of the interviewed households in Albay were engaged in agricultural activities; both crop and animal production combined. Four out of five (80 percent) of them were working on their own holding.

Agriculture, as mentioned, is a vital sector in the national economy and plays an important role in the economic sustainability and development, not only of the country but also for Bicol region and Albay. The majority of the farms in the country are devoted to coconut plantation. The Bicol Region places third in terms of the number of farms, although this region had the largest farm area amongst all regions. It contributed nine percent of the total farm area of the country (892,000 hectares).

The Bicol region is constantly rated as one of the poorest areas of the Philippines, having among the highest rates of child malnutrition and a high rate of emigration both for overseas work and for more lucrative jobs in major urban centres. The Bicol Region is one of the ten regions with increasing poverty rates (2000 FIES). Regions with highest poverty incidences in 1997 also had the highest poverty incidence in the year 2000: ARMM at 66 percent, Bicol Region at 55 percent and Region XII at 51 percent.



Source of basic data: National Statistics Office, 2000 FIES Final Results
Source of Poverty Statistics: TWG on Income Statistics

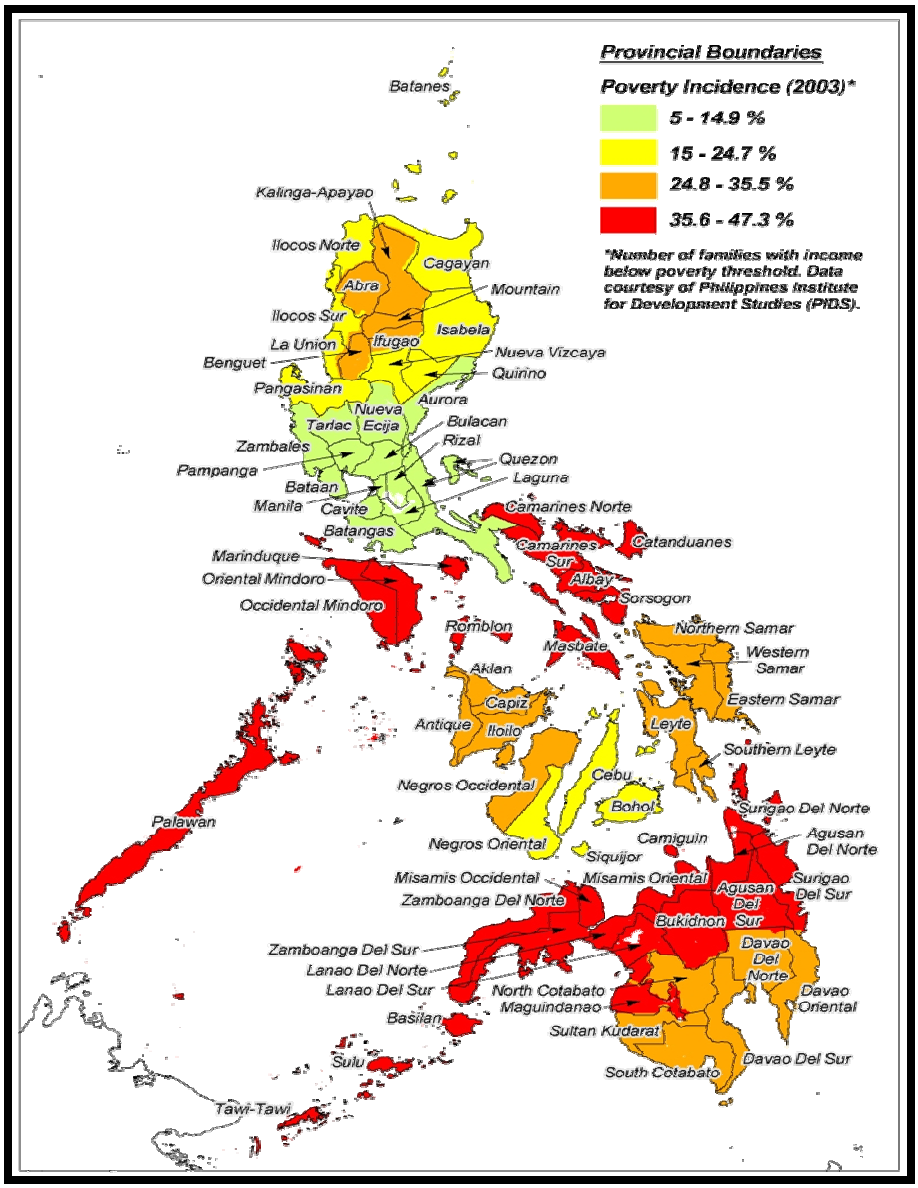
Figure 3 (left) shows the percentage of families below the poverty line. (Bicol region is number V).

Table 4 below highlights specific indicators that are of particular concern for Albay. These are access to health facilities and poor housing conditions. Both these indicators are indirectly linked to the typhoons and the level of recovery as the reasons for the very high number of houses destroyed partly depend on the building material.

Table 4. Poverty indicators for Albay Province.

Families with access to:	Percentage of HHs	national rank
Safe water	87 %	30
Sanitary toilets	82 %	47
Electricity	72 %	31
Health facilities	56 %	2
Housing made of strong material	56 %	48
HH member >18y gainfully employed	95 %	37
Children 6-12y in elementary school	94 %	14
Children 13-16 in high school	74 %	54
Children 5-17y old working	11 %	20

Map below shows poverty incidences as per 2003. Albay is coloured in red, corresponding to a poverty incidence rate of 35-47 percent.



4. FOOD AVAILABILITY AND MARKETS

4.1. Agricultural production

Rice grain (palay) was the major *temporary crop* of the Bicol region in 2004. The next major temporary crop was maize. Other major temporary crops planted in the region were tubers, roots and bulbs, sugarcane and fruit bearing vegetables.

Coconut remained the major *permanent crop* in Bicol, followed by pineapple and abaca. Other important permanent crops in the region were banana and mango (table 5). Rice in Albay is cultivated mainly using irrigation systems with two harvests per year.

Table 5.

Top Five Agricultural Crops in Albay (Souce :BAS)[7]		2004	2003	2002
Palay	Area (Hectares)	47,402	44,441	45,974
	Production (Metric Tons)	155,700	131,882	131,895
Corn	Area (Hectares)	13,625	13,363	15,807
	Production (Metric Tons)	18,553	16,440	17,318
Coconut	Area (Hectares)	41,180	41,180	35,325
	Production (Metric Tons)	172,516	207,158	179,307
Sugarcane	Area (Hectares)	1,060	1,060	1,060
	Production (Metric Tons)	66,769	68,669	67,806
Banana	Area (Hectares)	1,045	1,045	1,016
	Production (Metric Tons)	12,165	13,014	12,275

Despite Albay's coastal location, fish production is very small with a national ranking of 51. However, the number of people engaged in fishing is substantial. Table 6 below reflects the income sources of the sampled households of which fishing communities were less than farmers and does not represent the livelihoods of the total population

After the three strong typhoons, agricultural production has been severely reduced. Assessments of the destruction to coconut trees have been carried out and results show that almost all coconut production is totally destroyed for at least three to five years before trees have recovered or been replaced (source: FAO). This will have an impact on the total national coconut production for the next coming years and thus to the national income as coconut is one of the major exports.

Table 6. Income sources as per 2007 EFSA

Income Generating Source	% of Households Engaged
Fishing	8.3
Small Business/ Petty Trade	28.2
Daily Labour (unskilled)	45.5
Skilled Labour	23.6
Farming- both crop and animal production	**42.4**
Handicrafts	10.5
Remittances	13.4
Borrowing	7.5

4.2. Market situation

Markets have reopened with largely the same quantity of agricultural goods as before, However goods that previously were coming from the region are now transported from other regions by traders and thus prices have increased in particular for vegetables and coconut. Fish is reported to be less available now and the prices have increased.

The commerce is slightly slower than before due to lack of money, and families tend to purchase basic goods only. As roads and bridges have been re-opened, there are no major bottlenecks in transportation of goods into Albay and availability is not a concern. This assessment did not assess market issues in detail as this was being covered by an FAO assessment that took place at the same time. Results from the market section are not available, however, at the time of writing.

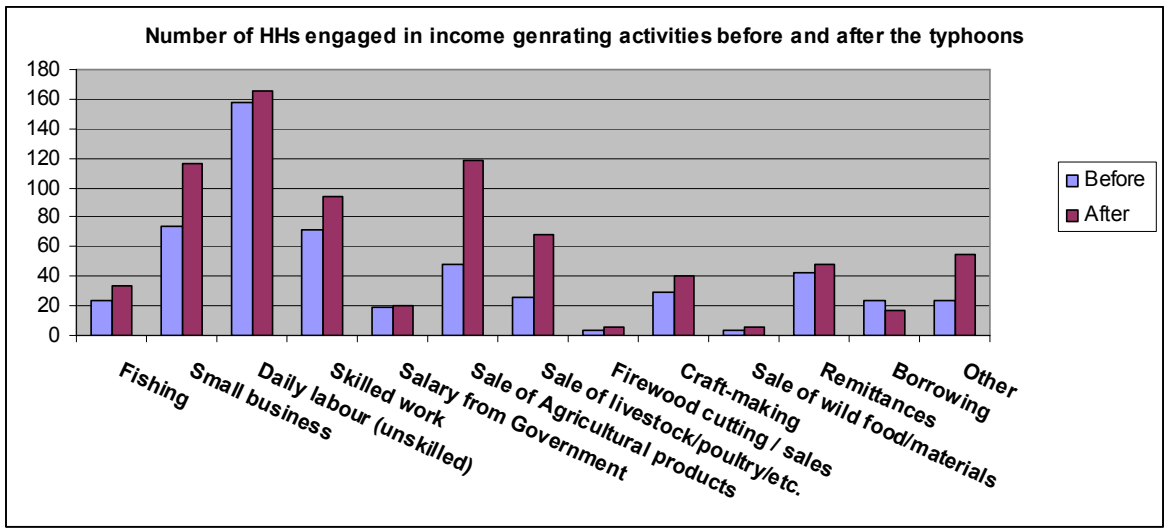
5. LIVELIHOOD AND HOUSEHOLD ACCESS

5.1. Income activities

Coconut farming is one of the core industries in Bicol, a region of low growth, high unemployment, and a multitude of impoverished families. Farmers who still have arable land (some 40% of those who had land before the typhoon) have begun to replant cassava, beans and peanuts, which will take an average of three to seven months to produce the first harvest. These crops will mainly be used for personal consumption. Families whose primary income is derived from agriculture are amongst the most vulnerable in the post-typhoon scenario. The reestablishment of their farming systems, dependant on crop grown, will take a minimum of six months to upwards of three years for coconut harvest.

The fishing industry, another big job provider, has also been thrown into disarray, with much of the equipment damaged, or blown away, and some natural fish reservoirs suspected to be contaminated. On average, 50 percent of the fleet in the affected fishing communities has been lost. Most fishermen are poor and do not have the financial capacity to replace lost fishing assets such as the boats. The timing is dire to them as the peak fishing season is February to May. This is the period when fishing families make the bulk of their income that will support them for the rest of the year. When they run out of savings they live on credit until the next peak season when they will pay back the credit.

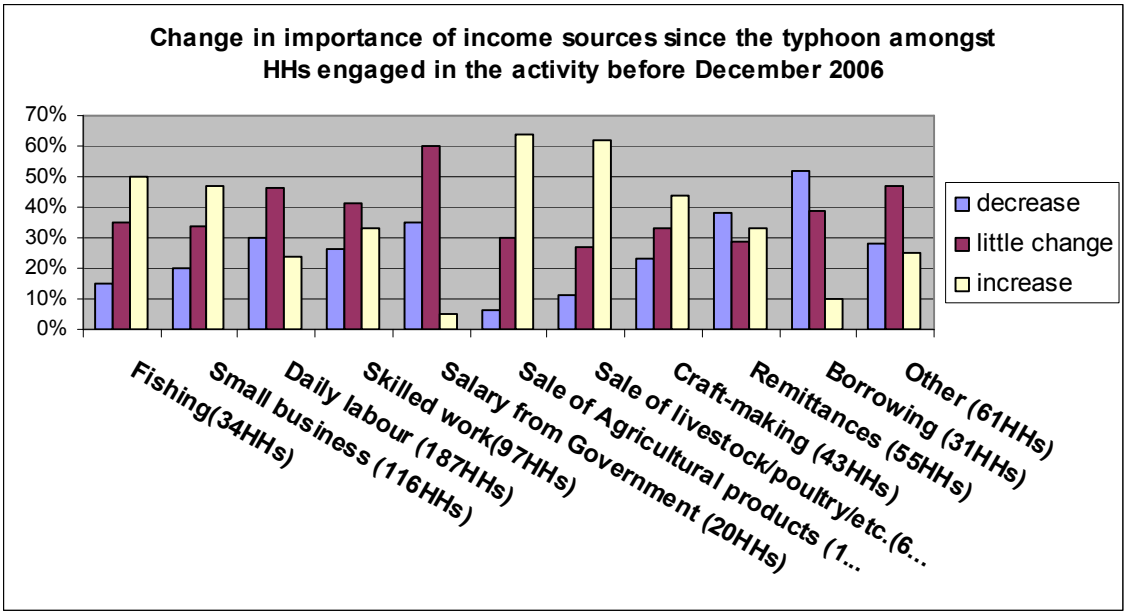
Figure 4.



There has been a great shift in households' income activities as shown above in Figure 4. Households have diversified their income activities in order to cope with the situation. There are more families now that are engaged in small businesses, sale of agricultural products and livestock. It is assumed that the sale of agricultural products is in fact petty trade as the agricultural production in the area has significantly reduced. There is also an increased demand of skilled workers and more men are engaged in construction work now. However, it seems to be on a daily basis and a salary for most households is not guaranteed. The small increase in fishing despite loss of fishing assets is a change from coastal fishing to shore fishing with line rather than with a net. This gives a much reduced catch and thus the actual income from this activity is minimal.

The main source of income for the sample households is unskilled daily labour at 45 percent. Based on community interviews, the average wage for unskilled labour is about 120 pesos per day. This amount remained unchanged after the typhoons. As shown in figure 5 the importance of households' income sources have also changed with the shift in income activities. For a large group of families the importance from borrowing and remittances has decreased. Sale of agricultural products and livestock have increased in importance, however this does not indicate whether the amounts have increased.

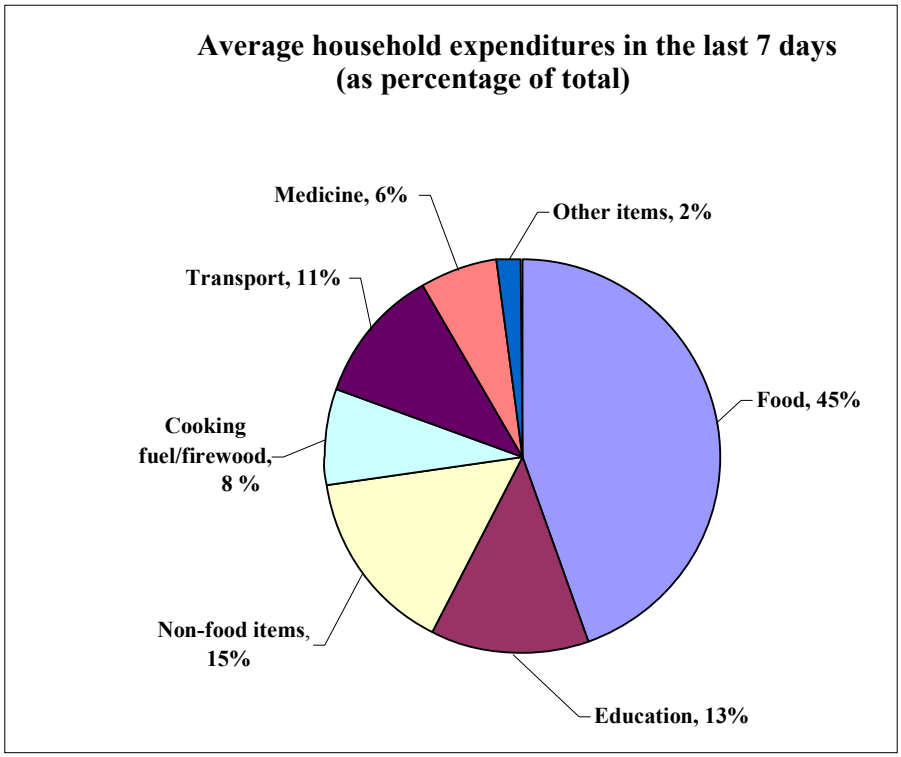
Figure 5.



Approximately 50 percent of those interviewed reported having a reduced income, while 27 percent reported having 'much less' income now as compared to pre-typhoon.

5.2. Expenditures

The distribution of household expenditures did not change significantly after the typhoon, although the total expenditures declined significantly due to fall in income. Data from the Bicol Region (2000) and the EFSA 2007 estimate that 49 percent and 45 percent respectively was spent on food purchase figure. There was some difference between households living in evacuation centres and those living in communities, where households in the evacuation centres spend slightly less on food but more on cooking fuel than the families living in their original communities.



There are 410 households for which both the proportions spent on expenditure items before the typhoon and in the past week are known. The difference between the proportions spent before the typhoon and in the week prior to the assessment was calculated for each expenditure item for those 410 households.

Table 7. Changes in household expenditures for 15 items since the typhoon

Expenditure item	Percentage of HH where proportion spent on item			
	decreased (more than 5 points lower than before typhoon)	no or little change (maximal 5 points lower or higher than before)	increase (more than 5 points higher than before typhoon)	Total
Food	14%	69%	17%	100%
Education	6%	86%	8%	100%
Non-food	11%	80%	10%	100%
Cooking fuel	7%	88%	5%	100%
Transport	10%	84%	6%	100%
Health (medicine)	9%	87%	4%	100%
Other	0%	93%	7%	100%

Seventy-eight percent of the sampled households reported having a reduced income after the typhoon of which 27 percent had much less money now compared to before December 2006. Thus, even though the proportion between the various expenditure posts have not changed much, the amount spent has been reduced.

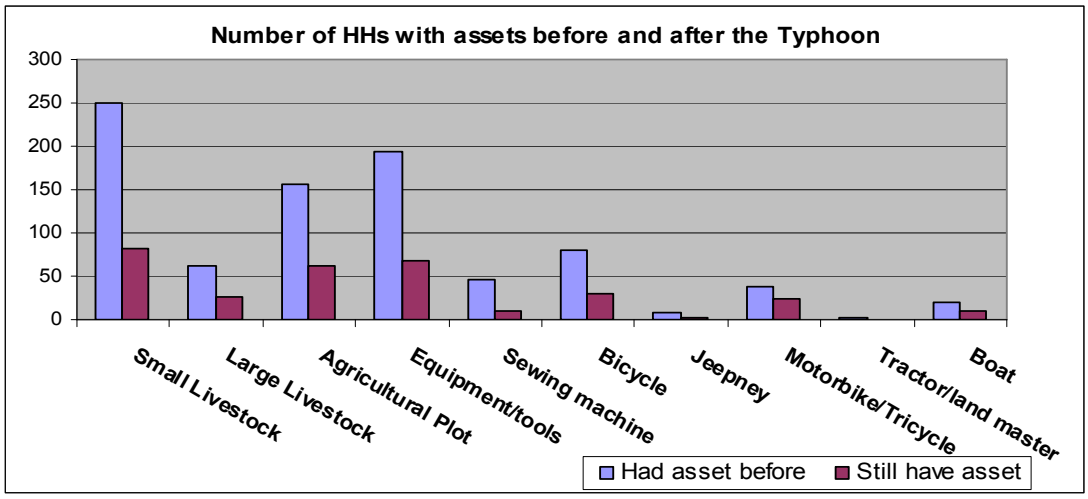
5.3. Assets

Over 200,000 homes were either partially or totally damaged, which by far accounts for the greatest asset loss as a result of the typhoons. Many families also lost most household items (clothing, personal items, tools, etc.) within their homes during the mudslides and floods. As mentioned earlier, over 80 percent of the sampled households had their homes damaged.

Figure 7 indicates the types of assets primarily lost. Of particular concern are the equipment and tools lost, which are likely needed for income activities.

Of the 60 percent of the total households interviewed who previously had livestock, 67 percent claim small livestock losses, and 60 percent claim large livestock losses. There was also damage and loss of agricultural plots; almost 60 percent of respondents claim to have losses in this area. Fisherman lost their boats- approximately only half of those surveyed who had boats prior to the typhoons, still have them. Such losses will have medium to long term implications on the livelihood systems of the affected population.

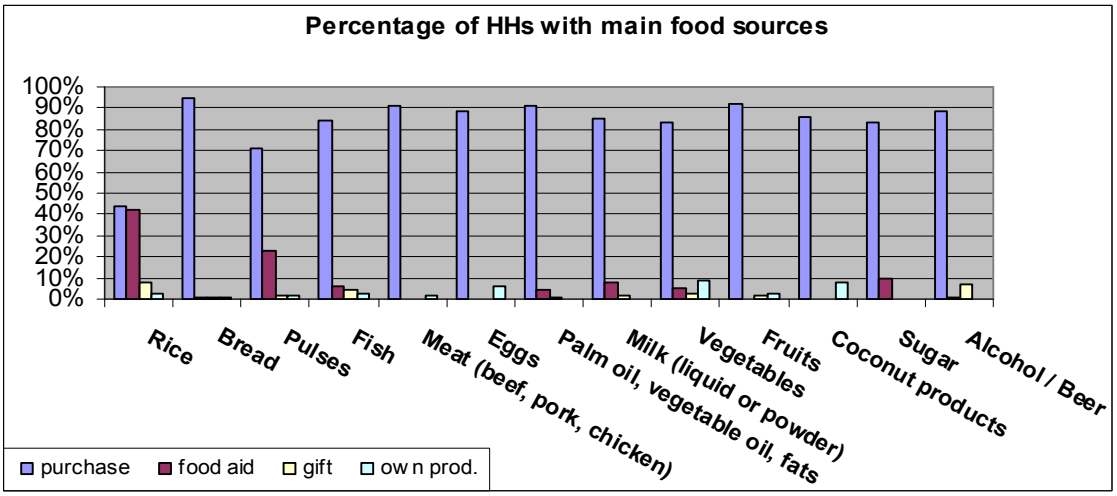
Figure 7



5.4. Food sources

The majority of assessed households were getting their food from the market (figure 8). This was the case for all food items apart from rice which was equally obtained from food aid. Own production was not mentioned as a source of food apart from a few households who still have a backyard kitchen garden. Gifts were not mentioned as an important source of food. This would suggest that, with food aid to support staple rice requirements, households have been able to purchase some amount of the other foods they normally consume.

Figure 8.

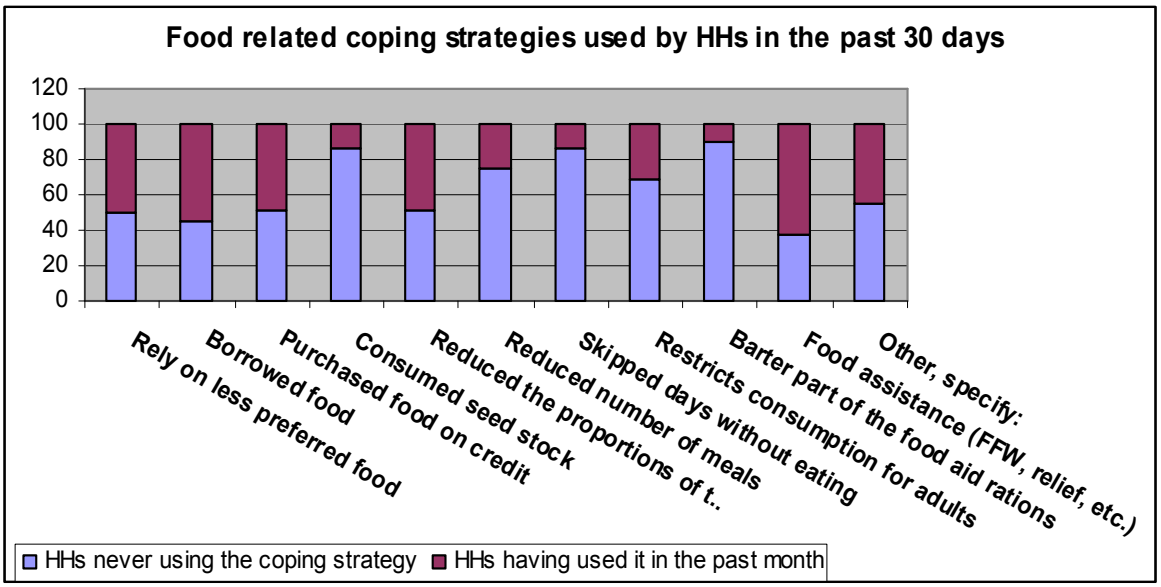


5.5. Coping strategies

Of the 385 households interviewed, some 90 percent replied that there were times in the past 30 days when they did not have enough money to purchase food.

The food related coping strategies adopted by a large percentage of the sampled households were as demonstrated in figure 9, relying on less preferred food, borrowing and buying food on credit and reduction of portions sizes. Some 60 percent relied on food assistance for rice, the staple food. As many as one in four have also reduced the number of daily meals.

Figure 9.



Of non-food related coping strategies, only a small number of households reported having used them in the past 30 days. The most common strategy was borrowing money from relatives/neighbours and reducing expenditures on health. This was however only reported to be used only once in a while.

7. FOOD CONSUMPTION, UTILISATION, NUTRITION AND HEALTH STATUS

7.1. Food Consumption and Utilization

The usual Filipino diet is based on rice-fish-vegetable and Albay is not different in this aspect. Intake of rice and products constitutes one-third of the total food consumed per capita per day. Intake of fish and products is 99g per capita per day, while it is 48g for meat and poultry and their products. Intake of vegetables at 106g per capita per day is made up of green leafy and yellow vegetables (30g) and other vegetables (76g). Intake of fruit amounts to 77g per capita per day. Consumed in small amounts are milk and milk products (44g), starchy roots and tubers (17g), sugars (19g), fats and oils (12g) and dried beans, nuts and seeds (10g)[5]. Results of the 1993 national nutrition survey conducted by the Food and Nutrition Research Institute of the Department of Science and Technology (FNRI-DOST) indicate that the typical Filipino diet meets less than 90 percent of the Recommended Dietary Allowances (RDA) for energy and even less for other nutrients (FAO 2001).

5 FNRI (Food and Nutrition Research Institute) 2002

7.1.1. Impact of the Typhoons on Food Consumption

Judging from the reported food intake in the seven days immediately preceding the assessment, the diversity of the diet has not been severely affected by the typhoon; the diet presented in table 8 shows a varied diet with the main food groups consumed almost daily. However, as indicated earlier, a common coping strategy used by over 40 percent of the households is the reduction of portion sizes. Also, focus group members mentioned that coconut products are not consumed as much as before and fruits and vegetables have become more expensive.

Most adults (95 percent) reported that they consume three meals per day, and 75 percent also have one or two snacks. Ninety-six percent of children also eat three meals per day and 85 percent have one or two snacks. This takes into account that, since the typhoons, up to 60 percent of households have secured rice from food aid rations.

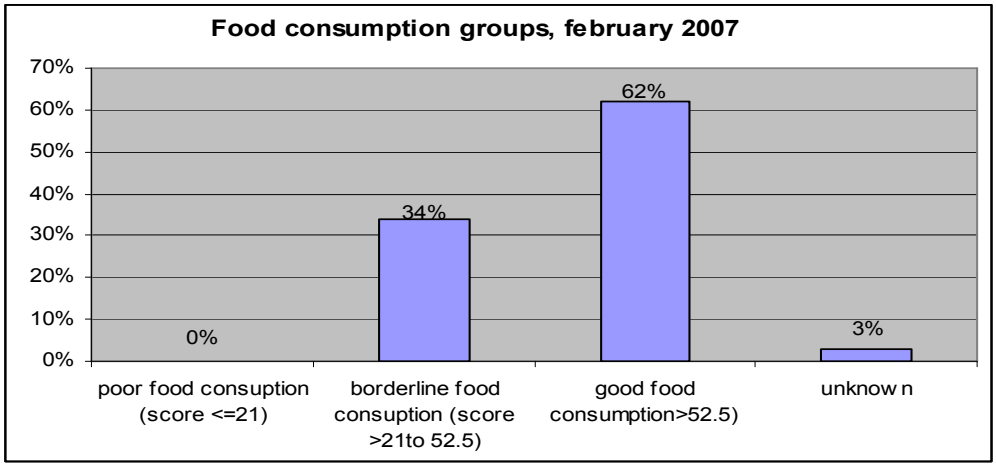
Table 8. Average daily consumption of food items in the past 7 days (all households).

	Average days consumed in the past 7 days			
Food item	0-1	3-Feb	5-Apr	7-Jun
Rice				6.6
Bread			3.9	
Pulses	0.5			
Fish		2.4		
Meat		1.2		
Eggs		2.2		
Oil/fat			4.8	
Milk			3.6	
Vegetables			4.6	
Fruits	0.9			
Coconut products		1.9		
Sugar				5.7
Alcohol/Beer	0.4			

Based on the dietary diversity section in the household questionnaires diet scores are calculated (see annex 5). The graph below show the results of the 430 sampled households living in evacuation centres and in badly affected communities.

As many as thirty-four percent of the total surveyed households had a food consumption score regarded as borderline. These are at risk of falling into the category of poor food consumption if the proper assistance is not provided and/or livelihood restored.

Figure 10.



As indicated in table 9, no differences were found between households living in evacuation centres and communities.

Table 9. Food Score Groups for sample households.

Household Type	Food Score Groups			
	Poor food consumption (score <= 21)		Borderline food consumption (score > 21 and <=52.5)	
	Number of HHs	percent of HHs	Number of HHs	percent of HHs
IDPs living communally (evacuation/ Transitional centre)	1	0 percent	75	37 percent
Remained at home in affected area	0	0 percent	72	35 percent
Total	1	0 percent	147	36 percent

Thirty five percent said that they have less stocks compared to normal, 22 percent said they have the same stocks and 20 percent said they have more stocks now than normal.

7.2. Nutrition

Anthropometric measurements were not collected during this assessment and a nutritional survey has not taken place after the typhoons. Protein-energy malnutrition (PEM) and micronutrient deficiencies are the primary nutritional problems in the Philippines. As seen in table 11, the percentage of children undereweight in Albay is higher than the national average.

Micronutrient deficiencies are also widespread. Among the regions, the prevalence of goitre among Filipinos 7 years and over is highest in Bicol (12 percent). It is not envisaged that this would worsen since the typhoons though. In 2003, 27 percent of pregnant women in the Philippines were nutritionally at risk of delivering low birth weight babies. Among lactating women, 12 percent were chronically energy deficient. Anaemia and vitamin A deficiency are also nutrition problems of public health significance among both pregnant and lactating women – with more than 40 percent anaemic for both groups and more than 15 percent VAD also for both groups. Statistics from Albay on malnutrition levels in women were not available but are believed to be the same or higher than the national average.

Table 10. National Malnutrition Rates (pre-typhoon)[6].

Region/Province/City	Underweight	Stunted	Wasted
Philippines	32	34	6
Bicol	36.5	36.6	4.5
Albay	**35.2**	**32.7**	**5.8**
Camarines Norte	37.5	37.3	4
Camarines Sur	32.7	35.4	2.1
Catanduanes	35.9	39.9	6.5
Masbate	42.8	38.6	7.4
Sorsogon	38.9	40.4	4.3

6 National nutrition survey 2003

7.3. Health

Acute respiratory infection (ARI), diarrhoea, and malaria are common causes of childhood illness and death.

As per focus group discussion results, the morbidity pattern in children had not changed much since the typhoon and the most common diseases reported were respiratory infections, fevers, and diarrhoea. Malnutrition was cited multiple times as a concern since the typhoons- particularly in the evacuation/transitional centres. For adults the most common ailments were: morbidity pattern of hypertension, respiratory infections and stress.

There were no reported outbreaks of communicable diseases in the evacuation and transit centres for the past week. However the risk remains due to the inadequacy of water and waste disposal facilities.

A total of 22 hospitals sustained varying degrees of damage while some suffered extensive damage in critical sections such as the operating and delivery room and the emergency department. Rural health units (RHUs) and Barangay Health Stations (BHS) in Bicol province suffered the most with 88 percent of these infrastructures impaired in Albay. Many of the evacuation/transitional centres are staffed with at least one midwife, but equipped with little or no medicines or tools. Furthermore apart from minor medical needs- these camp health centres had limited capacity. Individuals still need to access the Regional University Hospitals (or other government hospitals) for treatment of more serious ailments- which require payment.

At current mortality levels, 40 of every 1,000 children born in the Philippines die before the fifth birthday. Mortality levels in urban areas are much lower than those in the rural areas (24 deaths per 1,000 live births compared with 36 deaths per 1,000 births). Childhood mortality is inversely related to the mother's education level and wealth status. The IMR for children whose mother have no education is 65 deaths per 1,000 live births compared with 15 deaths per 1,000 live births for children whose mother have college or higher education.

8. CHRONIC AND TRANSITORY FOOD INSECURITY

As mentioned earlier, Albay province is one of the poorest in the country and the number of people living below the poverty line had increased in the past few years. The typhoons will have a long term affect on the large majority of families but worst off are those who have lost their agricultural land and other livelihood assets such as fishing boats and other equipments. The timing for fisherman is critical as they have only a short window (from February to May) during which time the majority of their income is earned for the entire year. Some 34 percent have borderline food intake as reported in figure 10.

9. CURRENT AND FUTURE RISKS TO FOOD SECURITY

At the time of the EFSA, Albay, the worst affected province continued to host 3,052 families (12,829 people)[7] displaced in 23 evacuation centres and two transitional sites in Legaspi City, Daraga, Guinobatan and Camalig. Most of these families could not return to their villages which are not safe for habitation; they were waiting for government options to be permanently relocated. While the updated information concerning “danger areas” was being finalised by Philippine Institute of Volcanology and Seismology and the Mines and Geosciences Bureau and PAGASA (Philippines Astronomical, Geophysical and

[7] IOM evacuation and transit centre assessment. February 2007

Seismological Agency), 11 possible relocation sites had been identified by the government and negotiations for their acquisition was on-going. Some displaced families have also sought refuge with relatives and neighbours.

On permanent housing, the Government in Bicol was planning to build 12,000 units. However these plans are pending the release of funds which will be handled by government agencies. Others projects supporting permanent housing were also being implemented by church groups and other local initiatives, but the numbers were small in comparison to the overall need.

Transitional housing was being supported by the Philippine National Red Cross through their shelter project which has a three- to- five year lifespan and covers all the affected areas. The plan will support 10,000-15,000 units and the procurement process had started at the time of the assessment.

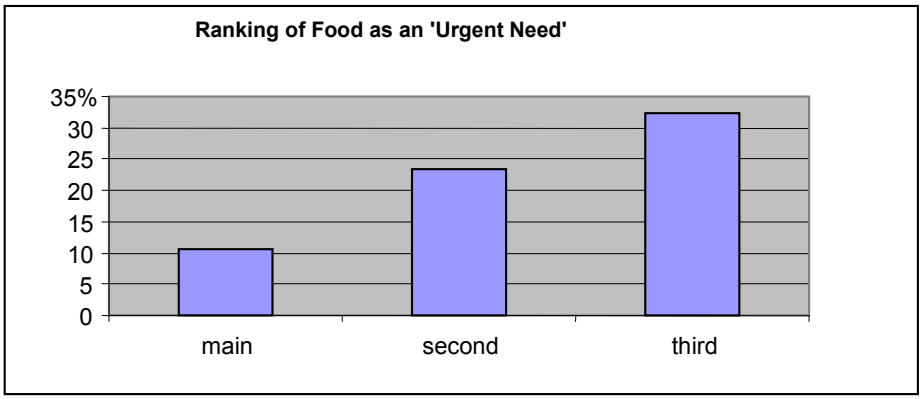
Evacuation centres had been reduced to 23 centres in Albay Province, primarily in school buildings. Most were overcrowded and required upgrading if families are to remain there whilst waiting alternative solutions. In Albay there were also two transit camps which had been set up to decongest the schools and accommodate families still waiting for return or relocation. The Philippine National Red Cross, Oxfam and IOM alongside other local groups and church organizations, were providing non food support to those families residing in the centres.

Permanent resettlement sites must be established as soon as possible in order to decongest evacuation centres. Notably, evacuation centres located in Tabon-Tabon and Bagumbayan were still without water and sanitation facilities. The cleanliness and quality of the supplied water, particularly in Taysan, had deteriorated causing 23 cases of diarrhoea. Water tanking in the area had stopped and the local government had not set up water filtration systems.

Focus groups reported that the available humanitarian assistance had reduced compared to the first weeks after the typhoons. The UN Early Recovery Cluster Mission Report from January 2007 stated that appropriate, humanitarian assistance is still required if households for those families in evacuation/transitional centres. In absence of livelihood recovery support there is a danger that even more households would fall under the poverty line and become chronically food insecure. Efforts should therefore be made to ensure that livelihood activities are rehabilitated where possible and skills training is provided to those who cannot recover their pre-typhoon livelihood.

When respondents were asked about their priorities using the proportional piling method, shelter, work, cash/credit, and food emerged as the top priorities. Almost 70 percent ranked food within the top three “urgent needs”.

Figure 12 . Ranking of food as an ‘urgent need’



10. RESPONSE AND TARGETING OPTIONS

The Government of the Philippines' recovery plan of 10 billion pesos focuses on housing (including funds to acquire safe land), rebuilding schools, health, infrastructure (flood control) and agriculture sectors. At the time of the assessment, the funds had not yet been released to the affected Provinces.

World Vision had supported Food for Work for 1,794 families in 14 barangays of Santo Domingo, Albay. The participants worked in the community for three days and received Php 100 and five kilos of rice per day. A second food for work project assisted 3,246 families in three municipalities (Malilipot, Sto. Domingo, Bacacay) where each family/beneficiaries received 25 kilos rice, 4 cans sardines, 1 litre cooking oil, 1 kilo dried fish, 1 blanket, 1 mosquito net.

The Red Cross had assisted 1,573 households in Bacacay island (673 households), Legaspi city, Manito (393 households) and Jovellar (299 households).

WFP launched an Immediate Response Emergency Operation on 8 December 2006 to address urgent food requirements generated by the typhoon. The objectives of the operation were to ensure food assistance efforts were planned and coordinated consistent with need; address unmet food needs of vulnerable people; and assist the Government to ensure timely flow of relief commodities from staging sites to final destinations. At the time of the EFSA, WFP had distributed 146 mt of rice, reaching 50,000 people, and was in the process of negotiating the further distribution of 294 mt of rice and 9 mt pulses.

In terms of food assistance the coordination has been poor with a large number of private persons/companies/churches who have distributed food to communities and evacuation centres without providing the food cluster (led by WFP at national level and provincial authorities at provincial level) or IOM (responsible for camp management and a database to track all donor assistance in Albay) with information. The Government had also distributed food to affected households with commodities received from various donations (see list in annex 3) and from WFP. The government ration consisted of approximately 2kg of rice, 2 tins of sardines and 2 sachets of noodles per family, covering a period ranging from 7-14 days[8].

Most households expressed concerns that food assistance over the past month had been reducing without them having means to fill the gap. The food assistance has from the beginning been irregular and rations have not been known in advance to the families.

Affected households were living very much from day to day as they did not know when and if more assistance, incluing food assistance, would come. In the meantime, as shown previously, most families were engaged in daily labour of different kinds. Laundry and handicraft were most popular amongst women and men tried to find un-skilled construction work where they could.

The fundamental problem for the families in the evacuation centres was that they did not know how long they would remain there. In the meantime they could not re-build their livelihoods and thus need assistance. In order for families to be able to plan and have a little bit more control of their situation it is recommended that food assistance is distributed

[8] Results from 20 Focus Group discussions

monthly rather than 7-14 days, which WFP was in the process of negotiating with Government. The current ration of 2kg rice is regarded as insufficient.

WFP response options:

10.1. Relief:
Households in the evacuation centres should receive regular food assistance whilst waiting to be re-settled. Once relocated, this caseload could be included in food for work and other livelihood projects. As most of the households did have some sort of income even though it is small and irregular it is recommended to distribute half family rations in order to encourage continued engagement in income generating activities.

10.2. Livelihood support/recovery:
Based on calculations of damaged houses the below table indicates the worst affected municipalities with the largest proportion of affected households. This represents 370,000 people or 73,000 households. It is assumed that these are also the municipalities with the largest infrastructural damages and focus group discussions indicate that approximately 50 percent of these households have seen their livelihood destroyed. A six months food for work programme in the prioritized and highlighted municipalities is recommended. Food for work would be self targeting and thus households with restored livelihood would not opt for this type of activity.

Table 11 Most affected municipalities[9]

Town/Municipality	Estimated Population	Estimated No. of Households	Damaged houses	Proportion affected HHs
Bacacay	64,835	12,967	499	4 percent
Camalig	64,595	12,919	1787	14 percent
Daraga	112,247	22,449	678	3 percent
Guinobatan	78,961	15,792	708	4 percent
Jovellar	19,284	3,857	1090	**28 percent**
Legazpi City	174,440	34,888	3459	10 percent
Libon	73,563	14,713	4870	**33 percent**
Ligao City	100,661	20,132	6861	**34 percent**
Malilipot	32,820	6,564	888	14 percent
Malinao	40,253	8,051	2172	**27 percent**
Manito	22,687	4,537	2124	**47 percent**
Oas	68,953	13,791	1254	9 percent
Pioduran	49,354	9,871	4255	**43 percent**
Polangui	78,272	15,654	1376	9 percent
Rapu-Rapu	32,415	6,483	3907	**60 percent**
Sto. Domingo	30,433	6,087	1149	**19 percent**
Tabaco City	119,063	23,813	4334	18 percent
Tiwi	49,174	9,835	1225	12 percent
TOTAL	1,212,010	242,403	42,636	

The main obstacle with the food for work programme will be to find implementing partners who can take on such a large caseload. It should not be a problem to find meaningful projects as the rehabilitation phase should follow the initial phase of cleaning up, some of which has been carried out though food for work run by World Vision and the Government.

10.3. Cash interventions
Cash transfer and cash for work could be considered if reliable and experienced partners were available. It would however require close monitoring to avoid leakage. With the amount of

[9] OCHA

households in need of short term rehabilitation assistance, the team did not find it to be a practical option even though the market is functioning.

10.4. Rations

Households in the evacuation centres are not entirely reliant on food aid and thus half a monthly ration is recommended. This should include at least 25 kg rice for a family of five, along with pulses.

The ration for food for work should be set at the same level as other ongoing food for work projects to avoid creating confusion or competition. For instance, World Vision, on a limited basis, distributed a ration of 25kg of rice for three days of work. This ration is not an economic transfer as such but is meant to support the family whilst spending money on rehabilitating and restoring their livelihood.

11. RECOMMENDATIONS

- It is recommended that relief assistance is continued for three months to the households that remain in the evacuation centres until they are relocated. The food would allow the households to invest their small income in replacing lost assets.

- It is noted that most of the households in the evacuation centres are engaged in some form of income generating activity, thus the ration is recommended to be a half family ration of rice and pulses.

- The relief component should be strongly coordinated with other agencies supporting the evacuation centres in order to avoid duplication or conflicting objectives, especially if an agency is proving cash.

- It is recommended that the most affected communities are supported for at least six months through livelihood supporting activities such as Food for Work and/or Food for Training. These could include clearing of damaged agricultural fields, reforestation in the landslide areas where the next rainy season will bring more slides if nothing is binding the soil before then. School and home rehabilitation work are other examples of activities that could be covered through food for work.

- The ration for food for work should be in line with other agencies rations to avoid conflict and competition.

- A follow-up assessment in June is recommended to assess the level of livelihood recovery and to prepare for a phase out of food assistance.

ANNEX 1

MEMBERS OF ALBAY RAPID FOOD SECURITY ASSESSMENT FOR TYPHOON AFFECTED POPULATIONS-HOUSEHOLD MODULE

NAME	Organisation
1. Sara Moussavi,	WFP Manila
2. Yvonne Forsen,	WFP Bangkok
3. Mishael Argonza,	WFP Legazpi
4. Armando Arellano,	WFP Legazpi
5. Selina Go-Alano,	WFP Legazpi
6. Joseph Wyne Manjares,	Phi;ippines Red Cross
7. Fletcher Moratillo,	RDCC
8. Jesus Saavedra,	RDCC
9. Martin Ray Garcia,	IOM
10. Bienvenido Saclolo,	World Vision
11. Cesar Bautista,	World Vision
12. Gilbert Abrera,	WFP Legazpi
13. Arman Bercasio,	WFP Legazpi
14. Cherry May Manacho,	DA/FAO

ANNEX 2

Locations Assessed

Municipality	Team	Baranguy-Sitio	Evac/Trans Ctr.
Legazpi City	A+B		Tayson-MMDA Resettlement Site and EC
Daraga	A+B		Daraga North Central School (EC) in Bagumbayan
Daraga	A		Tagas (EC)
Daraga	B		Tabon-Tabun (EC)
Daraga	A		Binitayan (EC)
Daraga	B		Ban~ag
Daraga	B	Budiao	
Bacacay	A	Manait Village, Cagraray Island	
Bacacay	A	Bariuw, Cagraray Island	
Bacacay	A	Namantao, Cagraray Island	
Camalig	B		Gapo (EC)
Camalig	B		Baligang Elem School (EC)
Camalig	B		Cababgan Elem School (EC)
Camalig	B	Libod	
Guinobatan	A + B		Travesia Sports Complex (TC)
Guinobatan	A	Ilawood/Morera	
Guinobatan	B	Ilawood-Peaceful *sitio*	
Guinobatan	B	Tandarora	
Legazpi City	B		Bogtong (EC)
Sto. Domingo	B	St. Andreas Resettlement Site	
Sto. Domingo	A + B	Buhatan	
Sto. Domingo	A	Salvacion	
Sto. Domingo	A	San Isidro (purok 4 only)	

ANNEX 3

DONATIONS IN KIND COURSED THRU THE DSWD FOR VICTIMS OF TYPHOON "REMING"
As of 29 January 2007

Source	Type of Assistance	Amount (Pesos)
A. Foreign		
1. Government of Malaysia	Tents, gas stoves, kitchen utensils and other relief items	30,776,766.25
2. People's Republic of China (PROC)	Mattresses, towels, bedsheets and tents	15,176,000.00
3. Republic of Indonesia	Medical supplies, **food** and clothing	6,310,520.25
4. Government of Japan	Tents, plastic rolls, mattresses, generators and cable cords	2,929,000.00
5. Government of Singapore	Blankets, sleeping bags, ground sheets, tents and **noodles**	2,004,300.00
Sub-Total		**57,196,586.50**
B. Local *		
1. United Laboratories, Inc.	Assorted medicines	1,458,996.00
2. San Miguel Corporation (SMC)	Purefoods **corned beef**	617,760.00
3. Philippine Navy (PN)	Used clothing	445,000.00
4. Agility/GeoLogistics, Inc.	Trucking/transport services	270,000.00
5. Sugar Regulatory Administration (SRA)	Mineral water, blankets, plastic sheets, mosquito nets, clothing	246,850.00
6. Various Donors	Used clothing	103,500.00
7. PHILEXIM	Drinking water, coffee, **baby's formula milk**, blankets, soaps, toothpastes, underwear, and kitchen utensils	101,459.00
8. CM Pancho Construction	**Rice, sardines, cup noodles and corned beef**	99,936.00
9. DHL Danzas Global Forwarding	Trucking/transport services	93,800.00
10. CDO Corporation	CDO Carne Norte **corned beef**	42,500.00
11. Office of Civil Defense (OCD)	**Milk,** coffee**, sardines, noodles**, toiletries, used toys, clothing and kitchen utensils	21,584.00
12. PAREF Northfield School	**Rice, noodles, canned goods** and drinking water	19,557.00
13. Philippine Women's University (PWU)	**Assorted powdered milk, canned goods, noodles**, **assorted grocery items**, slippers, towels, toiletries and used clothing	17,840.00
14. Mitsui and Company, Ltd.	Christmas delights, pancit canton, **noodles and sardines**	10,980.00
15. Ms. Carandang and friends	**Noodles and sardines**	10,840.00
16. San Miguel Corporation Employees	**Rice** and used clothing	10,250.00
17. Shangrila Hotel	Bathrobes, indoor slippers and used clothing	9,130.00
18. Christian Charity Movement of the Ph. (CCMP)	Used clothing, **noodles, sardines, and assorted groceries**	5,255.00
19 Philippine Lipid and Atherosclerosis Society (PLAS)	**Assorted food items**	3,265.00
20. Grace Flous School (GFS)	**Rice, noodles, sardines** and used clothing	2,810.00
21. Philippine Information Agency (PIA)	**Rice and noodles**	2,484.00
22. Ms.Tess Fernandez	Used clothing	900.00
23. Aboitiz Transport System Co - Cargo	Trucking/transport services	
24. Internal Audit Department (IAD)	Assorted relief goods	
25. Thomson Financial Company*	Assorted relief goods	
Sub-Total		3,594,696.00

Total	**60,791,282.50**

ANNEX 4 **Mean One-Day Capita per Energy and Nutrient Intake and percent Adequacy, by Region**

Energy and Nutrient	Phils.	Bicol	Western Visayas	Central Visayas	Eastern Visayas	Western Mindanao	Nothern Mindanao	Central Mindanao	ARMM	NCR
Intake, kcal	1684	1618	1587	1640	1696	1699	1754	1688	1759	1651
percent Adequacy	87.7	86.3	83.4	86.1	88.2	87.4	90.3	88.4	92.5	85.7
Intake, g	49.9	46	47.2	54.2	49.4	53	53	49.6	46.9	52.2
percent Adequacy	106.2	102	101.5	117.8	104.7	110.9	111.2	107.1	100	110.6
Intake, mg	10.1	8.5	9	11.8	9.8	9.4	10.7	10.9	10	10.2
percent Adequacy	64.7	56.7	58.8	77.1	63.6	59.1	68.2	70.3	63.7	63
Intake, g	0.39	0.42	0.4	0.37	0.34	0.39	0.38	0.39	0.36	0.41
percent Adequacy	67.2	71.2	67.8	62.7	57.6	66.1	65.9	66.1	62.1	70.7
Intake, mcg	391.9	328.9	320.4	393.7	280.6	409.2	325.1	384.4	273.1	582.7
percent Adequacy	88.1	74.9	72.4	89.4	63.1	91.9	72.5	86.8	61.3	131.6
Intake, mg	0.67	0.62	0.62	0.64	0.59	0.6	0.62	0.65	0.59	0.74
percent Adequacy	68.4	64.6	63.9	65.3	60.2	60.6	62.8	66.3	60.8	75.5
Intake, mg	0.56	0.5	0.47	0.52	0.47	0.52	0.52	0.56	0.45	0.7
percent Adequacy	57.1	52.1	48.4	53.1	47.5	52	52.4	57.1	45.9	70.7
Intake, mg	16.1	15.1	15.8	15.6	16.8	15.4	16	16	17.1	16.8
percent Adequacy	88	84.4	86.8	85.7	91.3	82.8	86.1	87.9	94	91.3
Intake, mg	46.7	46.1	39.7	33.2	30.5	46.9	47.4	48.4	57.7	41.9
percent Adequacy	73.2	74.4	62.7	53.2	47.6	72.7	72.8	76.6	90.2	65.7

ANNEX 5

Calculation of the simple diet score

Food group	Food items
staple foods (starches)	rice bread
pulses/legumes	pulses
vegetables	vegetables (including leaves)
fruits	fruits
animal protein	fish meat (beef, pork, chicken) eggs
sugar	sugar
dairy products	milk (liquid or powder)
oil/fats	palm oil, vegetable oil, fats coconut products

1. The food items are grouped into 8 food groups. The number of days food items were eaten in the past week is summed for the food items in each of the 8 food groups.
2. If the total sum of the number of days of the separate items in a food group is larger than 7 days, the sum is converted to 7. Thus, the maximum score in each food group is 7 days.
3. The food score of each household is calculated as follows:
   Simple food score = 2 * staple + 3 * pulses + 1 * vegetables + 1* fruit + 4 * animal protein + 0.5 * sugar + 4 * dairy + 0.5 * oil
4. The households are now grouped according to their scores by applying the standard cut-offs:
   Poor food consumption: simple food score is 0 – 21
   Borderline food consumption: simple food score is 21.01 – 52.5
   Good food consumption: simple food score is 52.51 and higher

The threshold value 52.5 was based on a normal diet for the region (7 days rice, fish, vegetables and sugar ((2*7) + (4*7) + (1*7) + (0.5*7