Emergency Food Security Assessment (EFSA)

PHILIPPINES
Luzon Typhoon and Floods

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Data collected in November 2009

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EXECUTIVE SUMMARY

The typhoons Ondoy and Pepeng hit several parts of Philippines within a span of two weeks in September and October 2009. These typhoons and floods caused havoc in the urban and rural setup of northern Luzon – particularly affecting Regions I, CAR, II, III, NCR and IVA. Among other impacts, household food security was greatly affected. In November 2009 WFP partnered with the Government of Philippines, UNICEF, FAO, Save the Children, World Vision, OXFAM, ADRA, CFSI and Christian Aid for an Emergency Food Security Assessment (EFSA) that looked at the impact of the typhoons and the floods on household food security situation.

Altogether 721 households were interviewed following a household survey questionnaire aiming to capture information on assets ownership and losses, main livelihoods, agriculture, food consumption, access to water and sanitation, child health and nutrition, coping strategies and access to relief assistance. Apart from this, 39 traders were also interviewed to capture market information. Data collection was done between 6th and 20th November 2009.

The survey revealed that almost 60 percent of Households (HH's) in region IVA and NCR were asset poor prior to the typhoons compared to 13 percent of HH's surveyed across regions III and the North. A lack of ownership of assets suggests that household vulnerability were much greater for those households to absorb unexpected costs (shocks) as a result of a disaster and had a significant impact on other household expenditures. This being the case, pre-flood, regions IVA and NCR were significantly more vulnerable than other regions.

In terms of damage to household and household belongings, over 80 percent of household questioned in regions VIA and NCR had either completely lost their homes (30%) or partially lost their homes (50%) and a similar number had sustained damage to household furniture and equipments. This compares to fewer than 20 percent of housing losses reported in region III and fewer than 10 percent of HH's in the North.

Almost every household questioned had sustained at least partial loss to their crops. However in region IVA almost 90 percent of households had lost their entire crop (though agriculture is not a highly prevalent livelihood in this region) compared to region III where loss of entire crop was just over 50 percent and in the Northern regions total crop loss was just over 30 percent. Dspite the fact that HH's in regions IVA and NCR were much more likely to report loss (90%); the losses in those regions were smaller in magnitude than those reported from HH's in the North and region III. This is because most of the farmers are in the north and Region III and hence greater magnitude of loss is reported compared to NCR and Region IVA.

In terms of household food consumption scores (a proxy for household food security), an interesting finding from the EFSA was that though the majority of households reported an acceptable food consumption pattern, a significant minority did not. The worst food consumption scores were reported in region III where 18 percent of respondents were

found to have either poor or borderline household consumption scores. Regions NCR and the North faired slightly better than region III with around 15 percent of households falling into either the poor or borderline household consumption score.

The most surprising finding in relation to household food consumption was found in region IVA where almost all the households questioned reported acceptable household consumption scores. These scores were recorded despite the previously detailed high levels of poverty and asset loss. However, it was found that most of the households in region IVA and NCR were adopting several negative coping strategies in order to attain a 'good' food consumption pattern.

Across all regions it was noted that households were largely dependent on the market for food; in NCR and region IVA households reported that 100 percent of household food was sourced either from the market (around 70%) or from food assistance. Sharp increases in the price of vegetables were a feature in the post flood period due to heavy damage incurred by the vegetable growing farmers in the north. Though market dependence of the households remained very high, the traders experienced reduction in the traded volume in most of the food commodities.

Between 60 and 70 percent of respondents in region III and the north either own or have access to land compared to 8 percent of respondents in region IVA. More than three-quarters of the respondents in the north and region III were farmers. By contrast in NCR and region IVA, which are mainly urban areas, there was no major livelihood group. Instead, income was generated from a variety of means within a given household. Main sources of HH income in NCR and region IVA were unskilled labour, petty trade, salary, skilled labour and fishing.

For the farmers in the north and region III, the impact of the typhoons was two-fold: loss of land, crop and equipments through landslide and/or flooding coupled with loss of homes and life. In some cases families lost, within one day, not only their means of livelihoods (as once fertile land was reduced to rock when sections of mountain side slid away or buildings were reduced to rubble), but also the loss of loved ones. The most flood affected households in NCR and region IVA were already very poor and had few assets before the floods. The flood has compounded what was already a squalid life and moreover increased the risk of disease from an environment which has become substantially more unsanitary; while at the same time reducing their capacity to work and access to food. Due to this circumstance they are at increased risk of hunger.

The common coping strategies adopted across the flood affected households were: to eat less food; to eat cheaper foods; to eat borrowed food; and to buy food on credit. These strategies are common within such times and generally do not deplete household resources in the longer term. However, in regions IVA and NCR the data revealed that 'negative' non-consumption coping strategies were widespread. Non-consumption coping strategies are generally employed by households when consumption coping strategies are insufficient to provide for their basic needs. They are a last attempt to ensure 'required'/ short-term food consumption for the household. Adoption of non-consumption coping strategies such as

out-migration, selling labour in advance, taking children out of school, selling household and productive assets are not reversible, and once they are lost they are difficult to replace. The adoption of negative non-consumption coping strategies was recorded mainly in NCR and Region IVA.

In the short term the households in the NCR and Region IVA are more likely to be food insecure than other flood affected households, considering their starting point of a pre-flood 'poor' asset base, loss of assets post flood and the adoption of negative coping strategies. That said it is true for both groups that in the longer term, the impact of the typhoons has been to increase indebtedness, increase ill health, increase employment uncertainly and increase homelessness.

Based on the findings and the analysis described above, a multi pronged strategy needs to be adopted in order to improve the household food security situation. Below are a set of proposed activities for WFP and other food related agencies in the coming months.

Households that are particularly highly asset poor in NCR and Region IVA and have lost their major livelihood sources should be targeted for general food distribution till specific recovery activities are fully set in. These would be essentially the households, who had lost most of their household and productive assets, cannot access their main livelihoods as a result of asset loss and/or inaccessibility of land/pond; those who lost their main breadwinner or those who became physically impaired as a result of injuries that they sustained during typhoons and floods.

The analysis further revealed that many areas in NCR and Region IVA are facing serious sanitation challenges and hence pregnant and lactating women and children under 5 years will be vulnerable to diseases that could lead to malnutrition and mortality. If these targeted groups could get foods that are fortified with essential vitamins and minerals, their immunity would enhance and reduce the risk of getting sick. Hence, it is suggested that some of the worst hit areas with serious sanitation challenges be targeted for a supplementary feeding programme that would provide fortified food for pregnant and lactating women and children less than 2 years.

As loss of assets has been extremely high, rebuilding/rehabilitation/ restoration of those assets would be the biggest challenge for the affected communities. Interventions like food and/or cash for work could be used to ensure that the targeted communities can protect/ achieve immediate food security through food/cash assistance and longer term food security through rehabilitation of their community assets. Food for work also could be used as a vehicle for creation of disaster risk reduction infrastructures, particularly in the north and Region III, e.g., dykes, farm bunds, gully plugging etc.

As many households, particularly in NCR and Region IVA, reported adopting several negative coping strategies, establishment/strengthening of a community based surveillance system could be an effective disaster preparedness and response tool.

1. Background

The Philippines is one of the most disaster prone countries in the world. According to the UN International Strategy for Disaster Reduction Philippines ranks 12th among 200 countries that are most at-risk for tropical cyclones, floods, earthquakes, and landslides. On average, around 20 typhoons hit the country each year. Typhoons account for up to 40 percent of the annual average rainfall. The impact of climate change is likely to further increase the occurrence of extreme weather events.

1.1 2009 Ondoy and Pepeng Typhoons

During September and October 2009, in a span of two weeks, tropical storm Ondoy and typhoon Pepeng caused extensive casualties and physical damage in the northern part of Philippines, particularly in metropolitan Manila and Central and Northern Luzon. The situation further deteriorated after the occurrence of typhoon Santi in late October 2009.

Tropical storm Ondoy (international name Ketsana) hit the Philippines on September 26, 2009. Ondoy brought an unusually high volume of rain and caused widespread flooding. During the 12-hour period starting in the morning of September 26, the rainfall was recorded as approximately 450 mm at the Manila Observatory. These intensive rains generated a record-high flood in the Marikina River which, according to statistics, occurs on average once in every 180 years[1]. Ondoy caused extensive flooding in the metropolitan Manila area, including the cities of Antipolo, Makati, Malabon, Marikina, Muntinlupa, Pasig, Quezon, San Juan, Taguig, and Valenzuela. (maybe a map here would help visualize these areas)

Tropical storm Ondoy was quickly followed by typhoon Pepeng (international name Parma), which stuck the Philippines during October 3-9, 2009, following a rather unusual path of impact over Central and Northern Luzon. The typhoon also brought an extended period of heavy rain in the northern part of Luzon, pouring large amounts of rainfall on agricultural areas already fully saturated.

Both events caused extensive damages to lives and livelihoods of those living namely in Regions I, CAR, II, III, NCR and IVA. As of October 30, 2009, the official death toll from natural disasters was 929, with 84 still missing and 736 injured[2]. The total estimated cost to the economy of the Philippines, as per the Post Disaster Needs Assessment (PDNA), led by the World Bank, stands at 217.4 billion PhP, or its equivalent of 4,625 million US Dollars. This sum includes not only the

[1] Post Ondoy and Pepeng Joint Needs Assessment, The World Bank, 2009
[2] Post Ondoy and Pepeng Joint Needs Assessment, The World Bank, 2009

value of destroyed physical assets but also associated losses in production and other flows of the economy.

Among other impacts, household food security was greatly affected. In November 2009 WFP partnered with the Government of Philippines, UNICEF, FAO, Save the Children, World Vision, OXFAM, ADRA, CFSI and Christian Aid to undertake an Emergency Food Security Assessment (EFSA) that looked at the impact of the typhoons and the floods on household food security situation. This paper sets out the findings of the 2009 EFSA.

2. Methodology

2.1 Objectives of Assessment

The overall objective of the Emergency Food Security Assessment was to provide a detailed understanding of the food security situation and vulnerability status of flood affected households in 6 regions, namely regions I, II, III, CAR, NCR and IVA. The following four key questions were to be analysed:

1. What was the impact of the floods on food security and livelihoods? Who were the most affected?
2. How does the affected population currently cope with the situation?
3. What would the implication of the floods have on short and mid-term food security situation?
4. What assistance is needed for whom, for how long?

2.2 Survey Instruments

The primary instrument for data collection was the household questionnaire. The household questionnaire was designed to collect quantitative data on: Household Demographics; Household Assets and Asset Loss; Land Access, Production and Damages due to floods; Access to Water and Sanitation; Food Sources and Household Consumption; Coping Strategies; Access to External Assistance; Child Health and Nutrition.

The second instrument for data collection was the trader/market questionnaire. This questionnaire was designed to collect information on: Market prices and availability of food and non food commodities; Key Constraints and Opportunities for the traders; Expansion Capacity.

The third instrument for data collection was the Focus Group Discussion to collect qualitative information on: Health and Nutrition, Food Security; Needs and Priorities for the affected communities; Seasonal Calendar for diseases, farming, prices of key commodities etc.

The survey tools were developed jointly with the agencies that collaborated/participated in the assessment.

2.3 Sampling Methodology

Based on the residential status (those living in Evacuation centres and those living with the host families or otherwise) of the affected communities and also to find

out the situation and needs of the farming communities, namely in Regions I, II, III and CAR, the sample households were divided into three groups – evacuation centres, other flood affected households and households living in predominantly farming communities. It should be noted that the Regions I, II, III and CAR are predominantly rural, whereas the remaining two regions (NCR and IVA) are largely urban and peri-urban areas.

A two-stage cluster sampling approach was undertaken to select the households in the study. In the first stage, a total of 50 clusters (*Barangays*) were selected from a list of affected *Barangays*[3] using Probability Proportional to Size (PPS)[4] sampling technique. Based on PPS principle, more clusters were selected from the areas having more number of affected people. The following table shows the distribution of the clusters across the regions and their residential status. As the table shows, more clusters were selected from Regions III and IVA because of higher number of affected population.

15 households were then selected randomly from each of the 50 clusters (*Barangays*), making a total of 750 households.

Table 2.1: Distribution of Sample Clusters

	Evacuation Centre	Other Flooded Area	Farming Communities	TOTAL
NCR	2	4		6
CAR			1	1
Region I			5	5
Region II			3	3
Region III	4	1	10	15
Region IV-A	9	10	1	20
Total	**15**	**15**	**20**	**50**

Two traders questionnaires were conducted in alternate clusters, making a target of 50 questionnaires to be filled in. Every alternate cluster was also covered for the Focus Group Discussion (FGD). In other words, a total 25 FGDs were undertaken for the assessment.

[3] Data Source: National Disaster Coordinating Council, 23 October 2009 Status.

[4] Probability proportional to size (PPS) is a sampling technique for use with surveys in which the probability of selecting a sampling unit (e.g., village, zone, district…) is proportional to the size of its population. It gives a probability (i.e., random, representative) sample. It is most useful when the sampling units (Barangays) vary considerably in size because it assures that those in larger sites have the same probability of getting into the sample as those in smaller sites, and vice verse. This method also facilitates planning for field work because a pre-determined number of respondents is interviewed in each unit selected, and enumerators can be allocated accordingly.

Based on field realities and data cleaning, the findings of the study are based on 721 household questionnaires, 39 traders' questionnaires and 22 FGDs. **For effective decision making on response options, the final analysis has been undertaken in four groups: Northern Regions (I, CAR and II), Region III, NCR and Region IVA**.

2.4 Data Collection

Data collection was jointly supervised by partners from local government, NGOs and UN agencies, particularly DSWD, FAO, World Vision, ADRA, Save the Children, OXFAM, CFSI and Christian Aid.

Four teams were formed with the members of the above mentioned organisations. DSWD did not participate in the assessment, however, provided necessary logistical support at the regional and municipal levels. Each team comprised of 3 enumerators and a team leader. The team leader was entrusted with the sample selection and allocation of households to the enumerators and undertaking traders' interviews and FGDs. Each enumerator conducted 5 household questionnaires in each location.

Consent was first sought from the respondents before proceeding with the interview. Data collection was done between 6th and 20th November 2009.

During the survey 6 Evacuation Centres were found to be vacant as the population returned to their origins or some other places and hence had to be replaced by alternate sites, which were selected randomly from the original list.

2.5 Data Entry and Statistical Analysis

A data capture screen in Microsoft Access was designed for data entry. Department of Statistics, University of Philippines was assigned the task of data entry and first stage of data cleaning. Statistical Package for Social Scientists (SPSS) and Excel comprise the tools used for data analysis.

In the subsequent sections, the report will first discuss the findings, followed by key analysis of these findings emerging from the survey. Finally, conclusions and recommendations section will touch upon major observations from the survey and a set of recommendations for short and medium term interventions on food security.

3 Findings

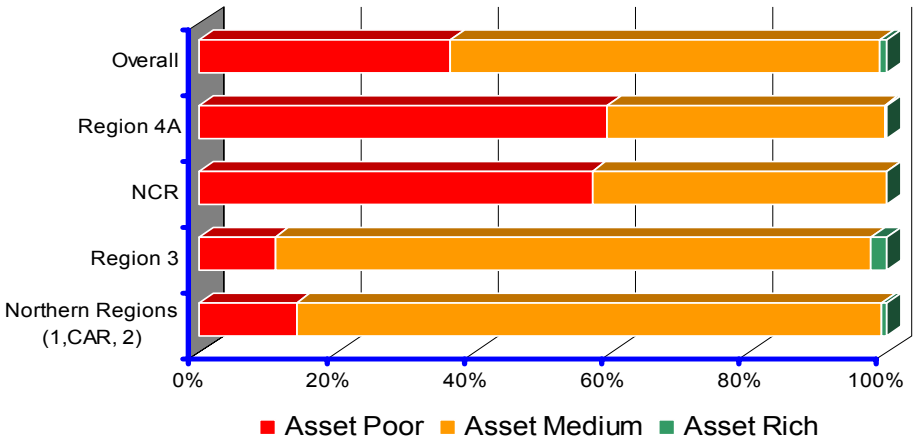
3.1 Asset Ownership

Ownership of household and productive assets (pre and post flood) was recorded during the assessment. Apart from house ownership, household assets ownership like jewellery, furniture, electrical appliances, kitchen utensils etc. were recorded. Productive assets recorded were boat/trawler, tri-cycle/bi-cycle/motorcycle, car/van/jeepney, agricultural tools and machineries, trees/orchards, fishing gears, rice/corn mills etc. For the post flood, the extent of damages of the assets was investigated.

A pre-flood asset index was computed using these household and productive assets, excluding the housing[5]. With an ownership score of '1' for each asset owned, the index was computed with a total score between 0-11. This index provides a reliable proxy for the economic status of the surveyed households.

Three asset classes were computed based on a scale of 0-11 - asset poor (up to 3 assets), asset medium (4-8 assets) and asset rich (9-11 assets).

Chart 3.1: Asset Index of Flood Affected Households
(based on pre-flood asset ownership)

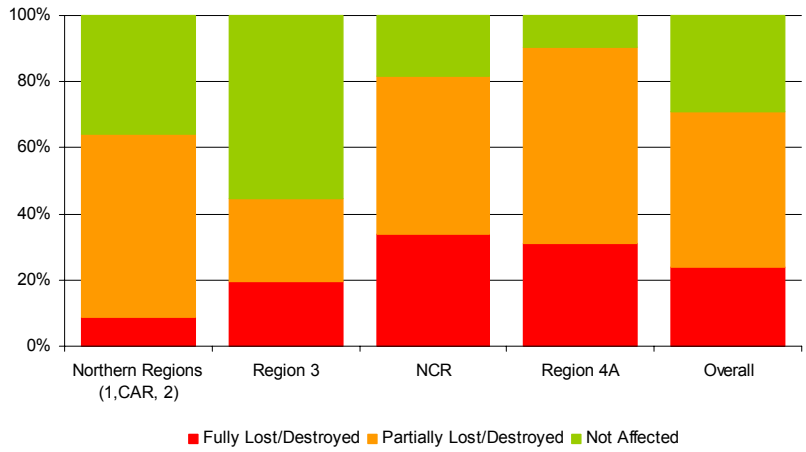


The above chart suggests that before the floods households questioned in Regions III and in the North are less asset poor than households in NCR and Region IVA.

[5] Housing is excluded from asset index because all the households have houses and since pre-flood housing condition cannot be verified, this may lead to serious bias in the index.

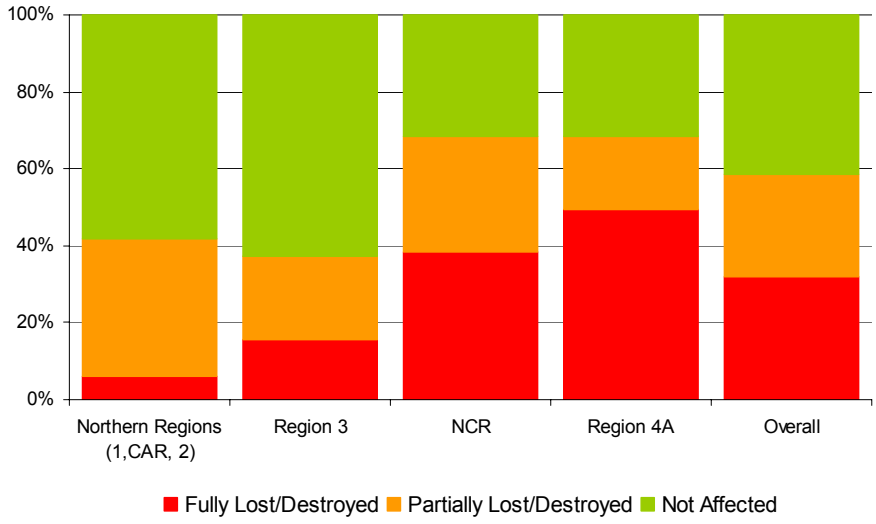
In regions IVA and NCR almost 60% of households surveyed were asset poor compared with northern regions at 15% of households being asset poor and 10% of households in Region III.

Chart 3.2: Damage to housing



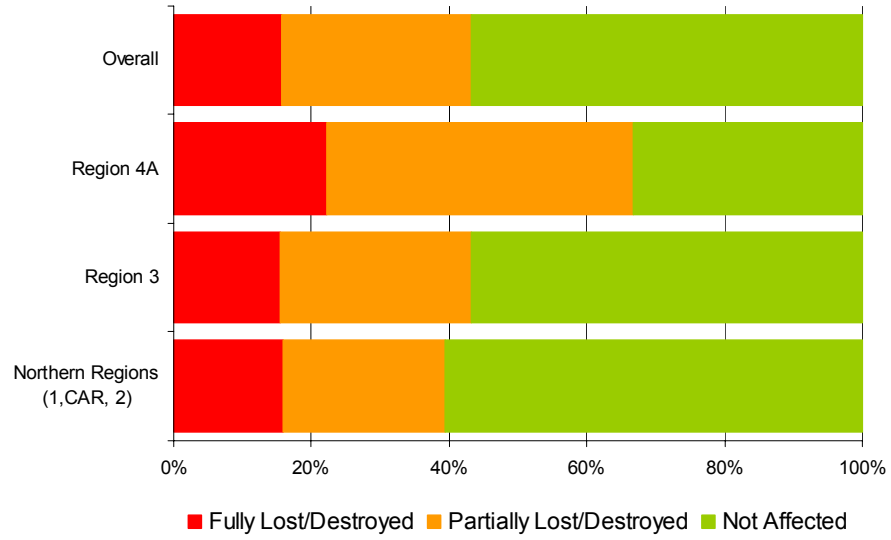
NCR and Region IVA suffered maximum damages in housing (Chart 3.2). In Region III, almost 20 percent households completely lost their houses. Partial damage is reportedly high in the northern regions (I, CAR and II), followed by NCR and Region IVA.

Chart 3.3: Damage to household furniture



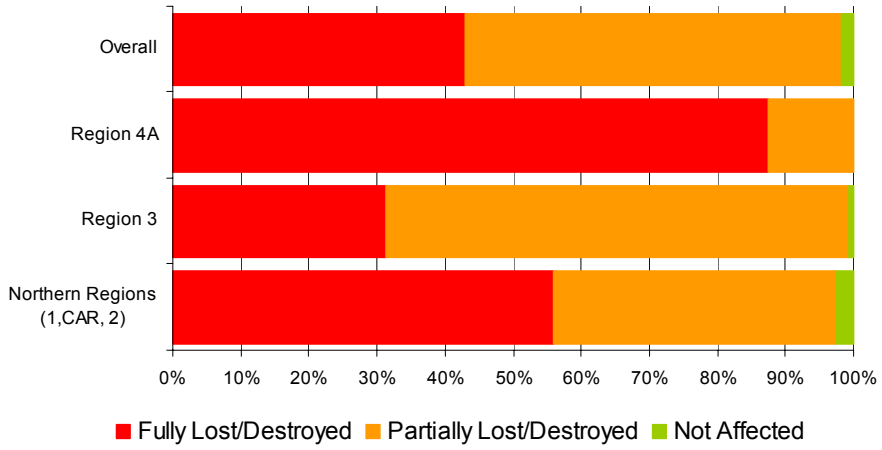
Loss of furniture (Chart 3.3) is mainly reported from NCR and IVA. Other regions mainly suffered partial damage/loss.

Chart 3.4: Loss of Agricultural Tools and Implements



In terms of proportion of households reporting loss of agricultural tools (chart 3.4) and loss of crops (chart 3.4), Region IVA had the highest proportions of households reporting loss of tools or crops. However it is important to note that the volume of loss was much greater in the north and Region III. in other words in those regions the amount of loss was greater.

Chart 3.4: Loss of Crops



3.2 Household Food Security Profile

3.2.1 Household Food Consumption

The number of foods from different food groups consumed in a household is commonly referred to as dietary diversity. Several food security studies across the world have demonstrated that dietary diversity is highly correlated with caloric adequacy, protein adequacy and the presence of essential micronutrients within a household. In other words, the more diverse the diet the more likely it is that a given household is food secure. Dietary diversity is therefore used as a proxy indicator of household food security. The household food consumption score provides a numeric representation of dietary diversity of a household. How this number is reached is described in the paragraphs below.

In order to classify households into consumption groups on the basis of their actual weekly food consumption, the frequency of consumption for the 16 food items (refer to the household questionnaire in the annex) reorganized into 9 main food groups[6] were recorded (days of consumption, 0 to 7 days per week).

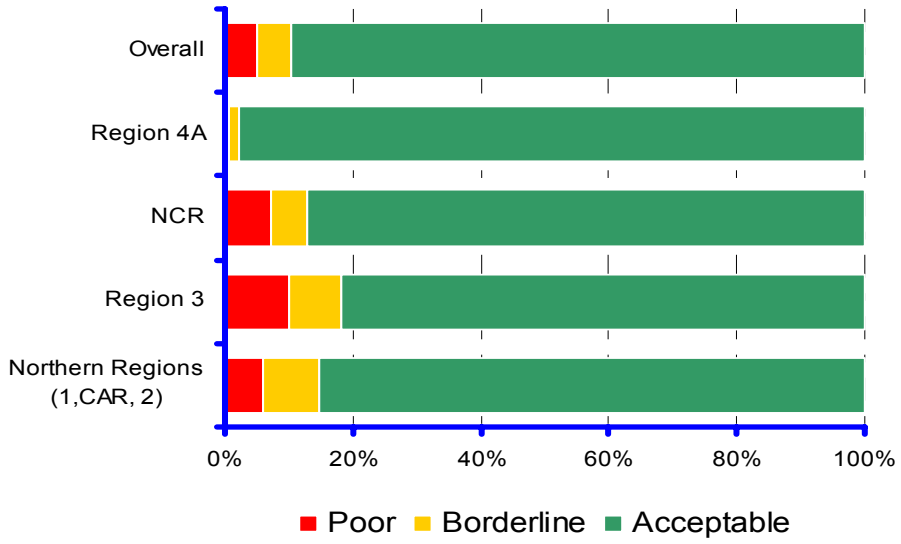
Each household was asked to report the main sources for each food item consumed in the past week prior to the date of the survey. The number of responses for each source was 'weighted' by the frequency of consumption of the foods that were accessed through that particular source. Then the proportion of consumption from each source was calculated.

In order to achieve analysis of dietary patterns, 'weights' were given to each food group and a composite score was computed for each household, called food Consumption Score (FCS). The higher the score, the better is the food consumption profile of a household, both in terms of frequency of consumption and dietary diversity. Several food security assessments across the globe suggest that FCS is a reliable indicator for determining household food security status.

The chart below (3.5) shows that majority of the households (throughout all areas assessed) have acceptable food consumption pattern. Between 13 and 18 percent of the households in Regions I, II, CAR, III and NCR have either a poor or borderline FCS. Region IVA demonstrates a very good food consumption pattern. No households were found to have poor food consumption.

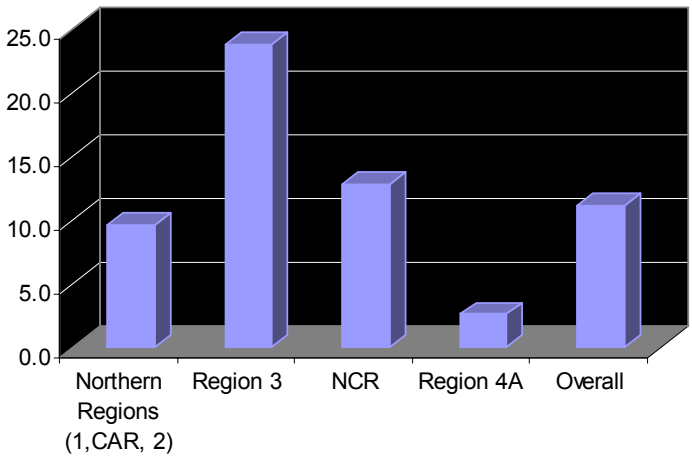
[6] Cereals/Roots/Tubers, Pulses, Vegetables, Meat/Fish, Eggs, Fruits, Dairy products, Oil and Fats and Other foods

Chart 3.5: Food Consumption Score



Households in Region III reported poorer dietary diversity (expressed in terms of the percentage of households consuming 4 or less food groups) compared to the other regions (Chart 3.6). In general, a household with poor food consumption mainly consumed cereals (7 days) and vegetables (3 days), whereas a borderline household consumed cereals (7 days), animal protein (4 days) and vegetable (4 days).

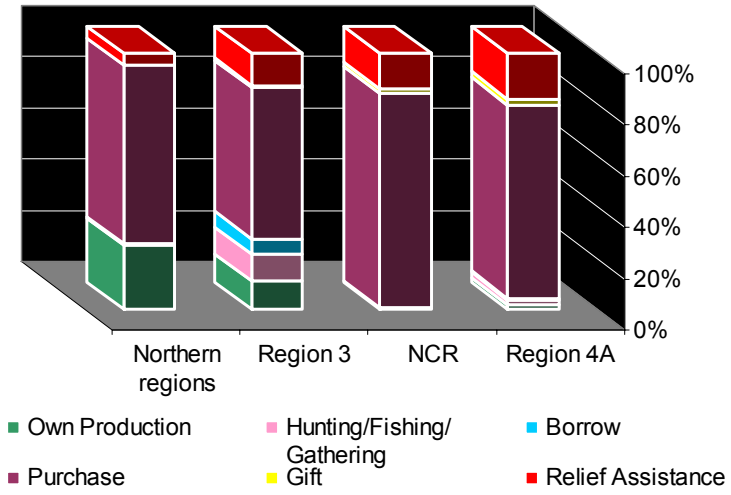
Chart 3.6: Percentage of Households Consuming 4 or less Food Groups in a Week



For these households, most of the food is sourced from the markets (Chart 3.7). In Region IVA food relief contributed 18 percent to the food basket, while 25 percent

of the food for the households in the Northern regions came from own production. Those living in evacuation centres received more food relief (30% of their food basket) than others. In all the surveyed areas, households with poor FCS were reportedly relying more on food relief than other food consumption groups.

Chart 3.7: Sources of Food



3.2.2 Coping Strategies

Put simply, a coping strategy refers to short-term choices/ decisions households are forced to take in order to cope and deal with and adapt to the onset of a new situation such as a natural disaster. These coping strategies are at most times considered negative offsetting the threat to already vulnerable, households' short and long-term food and economic resources. For example, if food access in a household is reduced one 'negative coping strategy' adopted may be to reduce the number of meals consumed in the household. The severity of the negative coping strategy adopted will frequently reflect the severity of the situation faced by the household, who at times may have already been in a vulnerable enough position previous to the onset of a disaster. Some strategies, such as sale of land, typically lead to the deterioration of a household's well-being in the longer term, in that the sale of assets is not sustainable and such assets are frequently the most difficult for a household to replace, particularly in the short term. In this EFSA data on food consumption, a commonly deployed coping strategy, along with other negative coping strategies were collected. The following table depicts the usage of several consumption coping strategies by the households in the previous seven days prior to the date of the enumeration.

Table 2: Consumption and Non-consumption Negative Coping Strategies adopted by Flood Affected Households (% of households)

Coping strategies	Northern regions (I, CAR, II)	Region III	NCR	Region IVA	Overall
Consumption Coping Strategies					
Eating less preferred food	42	95	94	82	**79**
Borrowing food from neighbours/friends	44	33	55	34	**37**
Buying food on credit	53	46	50	54	**51**
Eating wild/gathered food	45	39	10	21	**33**
Reducing meal portions	31	34	32	50	**39**
Reducing number of meals by children	4	10	33	16	**12**
Reducing number of meals by adults	13	45	46	35	**34**
Skipping meals for the whole day	7	20	26	13	**15**
Sending family members outside for food	3	2	15	9	**5**
Non Consumption Coping Strategies					
Out-migration	5.2	4.3	18.2	15.3	**9.1**
Selling Labour in Advance	18.5	2.4	26.3	23.4	**15.1**
Taking Children out of School	2.2	0.5	20.6	10.7	**5.7**
Selling of household assets for food		1.0	13.3	12.8	**5.2**
Selling Agricultural Assets for food	10.4	5.3		2.5	**5.2**

The most frequently reported mechanism was to rely less on preferred or expensive food (79% of households). Thirty nine percent of households reported reducing meal size and thirty four percent households reduced the number of meals for the adult members. Thirty seven percent of households reported borrowing food from neighbours/friends and fifty one percent purchased food on credit. Reducing meal portion was highest in Region IVA (50%), while NCR had more cases of skipping meals (26%). More children reported to have reduced meal frequency in NCR (33%) than other regions. More households in the NCR had sent the members outside their home for eating food (15%). The table above clearly shows that NCR and Region IVA adopted more consumption strategies than other regions.

The data also reveals that the households in NCR and Region IVA adopted more severe non-consumption coping strategies than their counterparts in the north and Region III – out migration (18.2%, 15.3%), selling labour in advance (26.3%, 23.4%), taking children out of school (20.6%, 10.7%) and selling household assets, including in 2 cases in Region IVA land, to buy food (13.3%, 12.8%) were some of them.

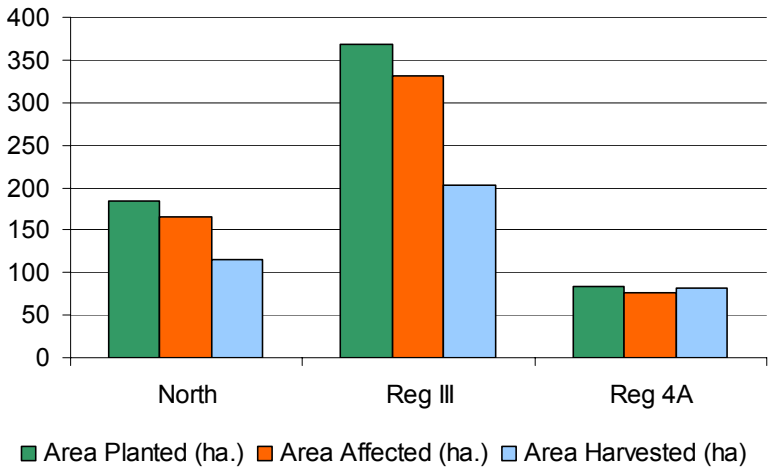
3.3 Agriculture

Around 77 percent households in the north and 62 percent in Region III reported that they owned agricultural land this compared to 8 percent of households in Region IVA. Share cropping and land tenancy were the other two predominant forms of land ownership in these areas.

The majority of these households in the north (93%) and Region III (86%) had cultivated their lands in the previous agricultural season. Rice was the major crop cultivated, followed by corn and high value crops.

Significant damages to the crops were reported by the farmers (Chart 3.8).

Chart 3.8: Area of Rice Planted, Affected and Harvested (hectare)



The table above shows that despite approximately 620 hectares of crops being planted only 390 hectare were harvested (63 percent). Almost 40 percent of the crop could not be harvested.

Region III reported most widespread damages to their rice farming compared to the northern regions. In Region III more than 50% of the rice cultivation was totally destroyed.

Farmers were asked to identify their major challenges for the coming agricultural season. Some of them are described below

- Shortage of traditional seeds (North 23%, Region III 68%)
- Shortage of improved seeds (North 49%, Region III 34%)
- Lack of funds - including debt liabilities (North 86%, Region III 88%)

- Water shortage (North 40%, Region III 30%)
- Lack of farm tools (Region III 25%)
- Still flooded (Region III 13%, Region IVA 28%)
- High input prices (North 38%, Region III 35%)

Ownership of livestock per-household was reduced after floods as many households suffered loss of livestock. The following table shows ownership of livestock per-household, pre and post floods. Region III reported the highest loss of livestock.

Table 3: Livestock Ownership

	Cattle		Goat/Pig		Poultry	
	BF	AF	BF	AF	BF	AF
North (I, CAR, II)	1.07	0.97	1.4	1.12	9.67	5.79
Region III	0.85	0.72	1.94	1.26	26.58	10.43
NCR					1.81	1.11
Region IVA					3.87	1.27

BF – Before Flood; AF – After Flood

Fish farming (33 households reported fish farming as one of their main livelihoods) suffered maximum loss particularly in Regions III and IVA. Fish pans/ponds got filled with mud (Region III 67%, Region IVA 50%). Some fish catchers (out of a total of 59 households) in Region IVA lost all their productive assets and fear that they may not be able to return to fishing as their main livelihood.

3.4 Livelihoods

During the EFSA data collection, households were asked to provide information on the four most important livelihood activities that they participated in over the previous twelve months. They were then asked to indicate the relative importance of these activities through identifying what each activity generated in terms of income to the total household income.

From the data gathered it appears that there is no single activity that identifies a household's livelihood and as a result a more complex analysis had to be undertaken. Livelihood activities were classified in a manner that created groups with the greatest similarities and a Principal Component Analysis was carried out and the analysis produced 10 major Livelihood Groups (Table 4).

Table 4: Description of the 10 major livelihood groups

Livelihood Group	Group Description	% Asset Poor	% Poor and Borderline Food Consumption Score
Farmers (40%)	80% of the income comes from agriculture 5% comes from livestock 4% comes from unskilled labour	8	15.5
Unskilled Labourers (13%)	93% of the income comes from unskilled labour work	72	7.6
Petty traders (8.4%)	82% of the income comes from petty trading 9% comes from unskilled labour work	63	3.4
Salaried (6.7%)	96% of the income comes from salaries	47	8.4
Transport Services (6.6%)	90% of the income comes from transport services	51	10.6
Skilled Labourers (6.4%)	88% of the income comes from skilled labour work 5% comes from petty trading	61	6.7
Fish catch (3.1%)	85% of the income comes from fish catch 8% comes from unskilled labour work 4% comes from skilled labour work	32	-
Remittance dependants (3.1%)	68% of the income comes from remittances 18% comes from agriculture 4% comes from petty trading	27	4.5
Salaried + Diverse Livelihoods (2.1%)	57% of the income comes from salaries/wages 14% comes from agriculture 7% comes from petty trading 6% comes from commercial selling 4% comes from transport services 4% comes from skilled labour 3% comes from pensions	14.3	-
Livestock dependants (1.8%)	82% of the income comes from livestock/livestock products 7% comes from petty trading 5% comes from agriculture	31	7.7

More than three-quarters of the respondents in the north and Region III were farmers. Other important livelihood groups in these areas were transport service providers, salary earners and remittance dependants. In the NCR, the major livelihood groups were unskilled labourers, petty traders, skilled labourers, salary earners, transport service providers, livestock dependants and 'salaried+diverse livelihood' group. Like NCR, Region IVA also had highly diversified livelihood groups – unskilled labourers, petty traders, salary earners, skilled labourers and fish catchers.

3.5 Access to Water and Sanitation

Access to clean drinking water does not seem to be a major challenge in all the affected areas. Before the floods, between 89 percent (Region IVA) to 100 percent (NCR) households had access to clean water. After the floods, around 16% respondents in the NCR reportedly accessing unsafe water sources and almost 15 percent households purchased bottled water. More households in NCR and Region IVA used bottled water than other regions.

On the other hand, sanitation is a major concern. Floods significantly impacted access to latrines (Table 5). All the regions reported sharp decline in access to latrines. On average there was a drop in access to latrines by 82%. The most affected region was Region III which recorded a drop in access by 86.2 percent. This is a serious public health concern.

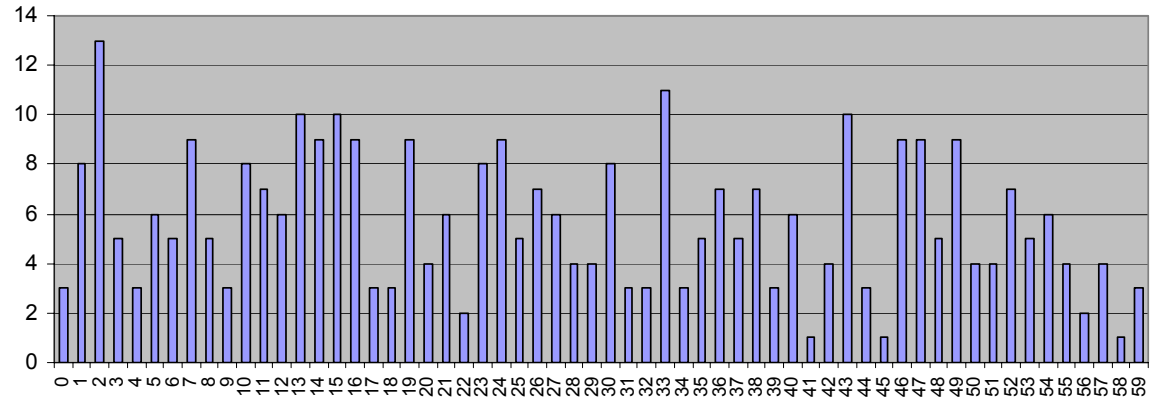
Table 5: Access to Latrines (%)

Clusters/Regions	Before Floods	After Floods
North (I, CAR, II)	85.2	12.6
Region III	93.8	7.6
NCR	87.1	1.4
Region IVA	92.8	8.8

3.6 Child Health and Nutrition

The 'child health and nutrition' section of the household questionnaire was conducted when a household had children between 0-59 months. The 721 surveyed households were found to have 341 children in this age group.

Chart 3.9: Age distribution of children 0-59 months surveyed



3.6.1 Morbidity Pattern

Very high proportions of children were reported to have 'any sickness' during past 2-weeks. Across all regions, prior to the date of survey, cough/cold/ breathing difficulty was the most predominant disease reported: e.g. 71 percent of children in the north, 56 percent of children in Region III, 32 percent of children in NCR and 61 percent of children in Region IVA had cough/cold/breathing difficulty.

Fever was the second most common disease reported e.g. North-21%, Region III-31%, NCR-39%, Region IVA-26%. Twenty five percent children in NCR had diarrhea, followed by 9.3 percent in Region IVA.

3.6.2 Infant and Child Feeding Practices

Of the 341 children, 42 percent were currently breast feeding while 78 percent reported ever being breastfed. Among those children who were currently breastfed, i.e. 36 percent of the 42 percent, were reported having only breastmilk the previous day.

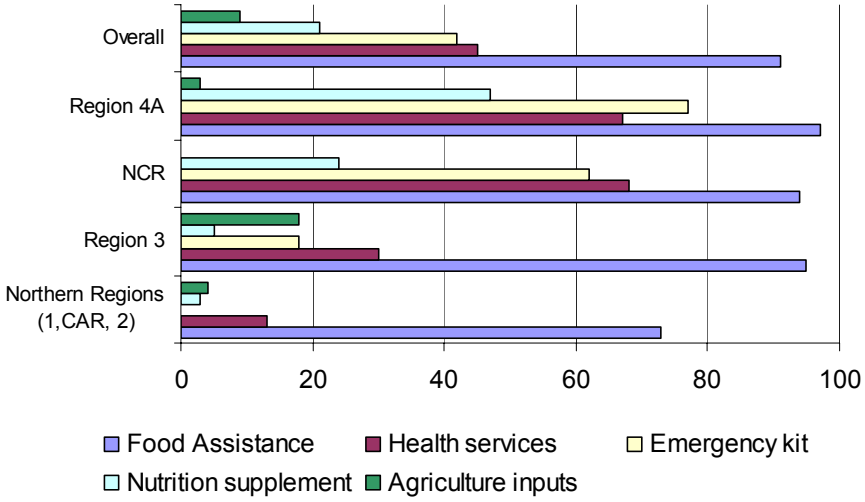
Slightly more than 25 percent children were consuming less breast milk than their pre-flood habits. Twelve percent cited mother's stress as a reason. The main reason cited for discontinuation of breastfeeding was 'working mother' (NCR-47%, Region IVA-22%).

Nearly 83 percent children had solid food the day before the date of the survey. Major frequency reported was 3 times (64%). Only 14 percent children 6-24 months had commercial porridge the previous day. Rice (82%), biscuits (49%), instant noodles (41%), vegetables (28%), fish/meat (44%), fruits (26%), eggs (35%) were the major food items consumed by these young children. NCR (36%) and Region IVA (33%) reported receiving infant formula and other milk products after the floods.

3.7 Access to Emergency Assistance

Food was the most reported assistance received by the respondents (91%), followed by health services (47%), emergency kit (42%), nutrition supplements for children and pregnant and lactating women (21%), infant formula (18%) and agricultural inputs (9%).

Chart 3.10: Assistance received by people post flood (% of households)

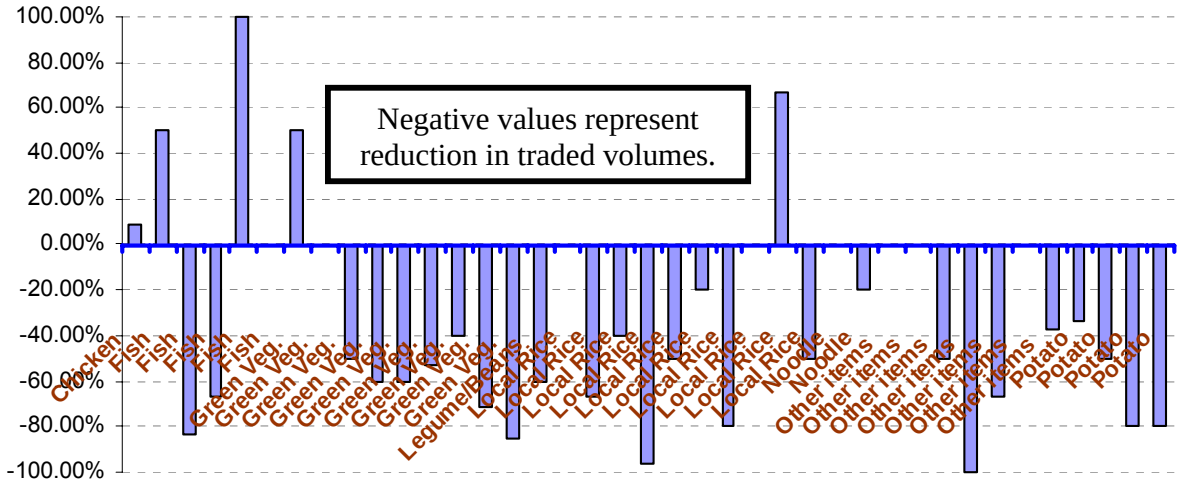


3.8 Markets

As mentioned in the methodology section, a trader's questionnaire was also conducted during the assessment. In all, 39 traders were interviewed. Almost 30 percent traders were vegetable vendors, followed by cereal vendors (rice, noodle, and bread – 16%). Other vendors sold cooking oil, fish, chicken, meat and miscellaneous items.

When asked about the price changes after the floods, majority mentioned significant increase in the prices of vegetables only. Prices of the other food commodities remained stable. However, the volume of trade reduced significantly for most of the traders. The chart below (3.11) shows the extent of changes in the volume of their major traded commodities. Rice and vegetable vendors suffered the most.

Chart 3.10: Changes in the Volume of Commodities Traded after Floods



From the chart above it is possible to see that out of the 39 traders responding, 15 suffered loss of stored food stuff due to floods. The extent of losses ranged from 10-100 percent. Six traders reported an increase in transport costs and 1 trader mentioned an increase in storage costs.

Post flood, several constraints were mentioned by the traders which affected their businesses. The major ones were – poor food quality (84%); high buying price (76%); lack of demand (75%); lack of credit (67%); irregular supply (67%); transportation challenges (53%); storage constraints (44%) and food aid (33%).

Most of the traders had sufficient capacity to accommodate an increase in consumer demand of 30-60 percent for their commodities. Three traders mentioned that some relief food items were sold in the market.

Seventeen traders, 44 percent, mentioned a reduction in sales volume as a result of food assistance given to the affected people,

4. Analysis

In this section the findings set out in Section 3 will be analysed to provide a more detailed understanding of the food security situation and vulnerability status of flood affected households in 6 regions, viz., I, II, III, CAR, NCR and IVA

The impact of the floods on assets: from the EFSA (chart 3.1) it is striking that, **prior to the floods,** almost 60% of Households (HH's) surveyed in region IVA and NCR were asset poor compared to 12.5 % of HH's surveyed across regions III and the North.

This finding is significant for two reasons; firstly, ownership of assets, among other livelihood factors, provides an indicator of how resilient a given household is to weathering the negative impact of shocks. A lack of ownership of assets suggests that household vulnerability will be increased as the potential for the household to absorb unexpected costs (shocks) is limited and additional costs incurred will have a significant impact on other household expenditures. This being the case, pre-flood, regions IVA and NCR were significantly more vulnerable than other regions prior to the floods and therefore were the ones harder hit.

Secondly, and more importantly, it is possible to see from the findings in Section 3 that the poorest households i.e. those in regions IVA and NCR were also the HH's most severely impacted during the typhoons across the range of indicators. This is set out in the paragraphs below.

In terms of damage to household and household furniture, over 80% of HH's questioned in regions VIA and NCR had either completely lost their homes (30%) or partially lost their homes (50%) and a similar number had sustained damage to household furniture and equipments. This compares to fewer than 20% of housing losses reported in region III and fewer than 10% of HH's in the North.

The charts relating to loss of agricultural tools and crops (3.4 and 3.5 respectively), reveal a similar pattern. Almost every household questioned had sustained at least partial loss to their crops. However in region IVA almost 90% of households had lost their entire crop, compared to region III where loss of entire crop was just over 50% and in the Northern regions total crop loss was just over 30%.

What is important to note from the above findings on loss of agricultural tools and crops is that despite the fact that HH's in regions IVA and NCR were much more likely to report loss (90%); the losses in those regions were smaller in magnitude than those reported from HH's in the North and region III. This is because most

of the farmers are in the north and Reg III and hence greater magnitude of loss is reported compared to NCR and Reg IVA.

The impact of the floods on household consumption scores: in terms of HH consumption scores, an interesting finding from the EFSA was that though the majority of households reported an acceptable food consumption pattern, a significant minority did not. The worst HH food consumption scores were reported in region III where 18% of respondents were found to have either poor or borderline household consumption scores. Regions NCR and the North faired slightly better than region III with around 15% of households falling into either the poor or borderline household consumption score.

The most surprising finding in relation to HH food consumption was found in region IVA where almost 100% of HH's questioned reported acceptable household consumption scores. These scores were recorded despite the previously detailed high levels of poverty and loss. The reason for this unexpectedly high household food consumption score is discussed later in analysis of coping strategies (see page 23).

The impact of the floods on markets: across all regions it was of note that HH's were largely dependent on the market for food; in NCR and region IVA HH's reported that 100% of household food was sourced either from the market (around 70%) or from food assistance. Sharp increases in the price of vegetables were a feature in the post flood period due to heavy damage incurred by the vegetable growing farmers in the north. Though market dependence of the households remained very high, the traders experienced reduction in the traded volume in most of the food commodities. . .

The impact of the floods on livelihoods: in general livelihoods are split by region. Between 60 and 70 percent of respondents in region III and the north either own or have access to land compared to 8 percent of respondents in region IVA. More than three-quarters of the respondents in the north and region III were farmers. By contrast in NCR and region IVA, which are mainly urban areas, there was no major livelihood group. Instead, income was generated from a variety of means within a given household. Main sources of HH income in NCR and region IVA were unskilled labour, petty trade, salary, skilled labour and fishing.

For the farmers in the north and region III, the impact of the typhoons was two-fold: loss of land, crop and equipments through landslide and/or flooding coupled with loss of homes and life as they knew it. In some cases families lost, within one day, not only their means of livelihoods (as once fertile land was reduced to rock when sections of mountain side slid away or buildings were reduced to rubble), but

also the loss of loved ones. For those families the shock of living with the scale of their losses is hard to overestimate and it is likely that they struggle to grasp new realities and to go back to normal. These HH's will require support for some time to come if they are to be enabled to gather themselves and begin to rethread and rebuild their lives and their livelihoods.

In NCR and region IVA, it could be hypothesised that people with nothing to start with have the least to loose. In other words, the most flood affected households in these regions were very poor and had few assets before the floods. In post flood, this remains the same. The major difference between pre-flood and post-flood for this group is that their plight is now more highly visible. In addition, the flood has compounded what was already a squalid life and added to the mix an increased risk of disease from an environment which has become substantially more unsanitary, while at the same time reducing their capacity to work and access food. Due to this circumstance they are at increased risk of death. Lack of access to food raises susceptibility to diseases, decreases ability to work and decreases access to food. The cycle perpetuates.

How does the affected population currently cope with the situation? From table 2 (page x) entitled "Consumption Coping Strategies adopted by Flood Affected Households" it is clear that the common coping strategies adopted across the flood affected households were: to eat less food; to eat cheaper foods; to eat borrowed food; and to buy food on credit. These strategies are common within such times and generally do not deplete household resources in the longer term.

However, in regions IVA and NCR the data revealed that 'negative' non-consumption coping strategies were widespread. This is a concern. Non-consumption coping strategies are generally employed by households when consumption coping strategies are insufficient. They are a last attempt to ensure 'required'/ short-term food consumption for the HH. The Adoption of non-consumption coping strategies frequently erode the resource base of a household as they are irreversible, unlike consumption coping strategies that are easily reversed as the situation improves. Adoption of non-consumption coping strategies such as out-migration, selling labour in advance, taking children out of school, selling household and productive assets are not reversible, and once they are lost they are difficult to replace. The adoption of negative non-consumption coping strategies was recorded mainly in NCR and Region IVA; these strategies may well account for the high levels of household food consumption reported earlier. Although such strategies can and do provide food in the short term, in the longer term these strategies will compound the levels of poverty. For example children taken out of school are unlikely to make up for lost time, thus the cycle of poor education and poverty will continue unbroken.

5. Conclusions and recommendations

In the short term the households in the NCR and Region IVA are more likely to be food insecure than other flood affected households, considering their starting point of a pre-flood 'poor' asset base, loss of assets post flood and the adoption of negative coping strategies. That said it is true for both groups that in the longer term, the impact of the typhoons has been to increase indebtedness, increase ill health, increase employment uncertainly and increase homelessness.

For both groups the main manifestation of the floods has been to make them poorer through asset depletion. Each group are in turn more vulnerable now than they were before to a further shock. This is a serious concern when the Philippines is considered one of the most disaster-prone countries in the world. Time is finite for HH's in the rebuilding of lost assets in an effort to strengthen their resilience to future shocks.

What are the implications for short and mid-term food security, for whom is assistance needed, and for how long? Based on the findings and the analysis described above, a multi pronged strategy needs to be adopted in order to improve the household food security situation. Below are a set of proposed activities for WFP and other food related agencies in the coming months.

5.1 Targeted General Food Distribution

Households that are particularly highly asset poor in NCR and Region IVA and have lost their major livelihood sources should be targeted for general food distribution till specific recovery activities are fully set in. A joint verification exercise could be organised jointly with the LGUs in the worst hit Barangays of these regions and a list of households fulfilling these criteria could be identified for this intervention. These would be essentially the households, who had lost most of their household and productive assets, cannot access their main livelihoods as a result of asset loss and/or inaccessibility of land/pond; those who lost their main breadwinner or those who became physically impaired as a result of injuries that they sustained during typhoons and floods.

5.2 Supplementary Feeding

The analysis revealed that many areas in NCR and Region IVA are facing serious sanitation challenges and hence pregnant and lactating women and children under 5 years will be vulnerable to diseases that could lead to malnutrition and mortality. If these targeted groups could get foods that are fortified with essential vitamins

and minerals, their immunity would enhance and reduce the risk of getting sick. Hence, it is suggested that some of the worst hit areas with serious sanitation challenges be targeted for a supplementary feeding programme that would provide fortified food for pregnant and lactating women and children less than 2 years.

5.3 Rehabilitation of Assets and Restoration of Livelihoods

As loss of assets has been extremely high, rebuilding/rehabilitation/ restoration of those assets would be the biggest challenge for the affected communities. In the north and Region III, the communities would need to rehabilitate their agricultural land, rehabilitation of their irrigation system, pay back their outstanding loans and then to invest into the inputs for the next cropping season. Interventions like food and/or cash for work could be used to ensure that the targeted communities can protect/ achieve immediate food security through food/cash assistance and longer term food security through rehabilitation of their community assets. Similarly, households in the NCR and Region IVA could be engaged in cleaning up of their drains, restoration of latrines, rehabilitation of community buildings etc., though this would need collaboration with agencies that would have the resources for materials and other technical inputs.

Food for work also could be used as a vehicle for creation of disaster risk reduction infrastructures, particularly in the north and Region III, e.g., dykes, farm bunds, gully plugging etc. These measures could enhance resilience of the farmers to future disasters.

5.4 Enhancing Monitoring System

As many households, particularly in NCR and Region IVA, reported adopting several negative coping strategies, establishment/strengthening of a community based surveillance system could be an effective disaster preparedness and response tool.

Annex

Household Survey Questionnaire

Region		Province
Municipality/City:	Barangay:	Barangay PCode: I__I I__I I__I I__I I__I I__I I__I I__I I__I
Evacuation/Relocation Centre name:		Cluster ID : I__I I__I I__I I__I
Name and organization of surveyor:		Household ID. #: I__I I__I I__I I__I I__I I__I
Date:		Water Level: I__I I__I cm above ground (0 0 if not flooded)

DEMOGRAPHICS

1.Gender of Head of household (tick one option only)	1	Male
	2	Female
2. Current residence (tick one option only)	1	Own House
	2	Rented house
	3	Evacuation Centre
	4	Relocation centre
	5	Make-shift tent
	6	Living with Host Family (e.g. relatives)
3. When did you move here? (tick one option only)	1	Before the flood
	2	After the flood

		Number before the Flood		Number today	
		Male	Female	Male	Female
4. Household composition (Number of people eating from same cooking pot)	a. Total household size				
	b. < 2 yrs				
	c. 2 - 4 years				
	d. 5 - 17 years				
	e. 18 - 59 years				
	f. Elderly > 59				
	g. Number of infants less than 6 months				
	h. Number of lactating women				
	i. Number of pregnant women				
	j. No. of members with physical disability (within 18-59 years)				

HOUSEHOLD ASSETS

		Before flood: 1 = yes 2 = no	Lost or destroyed 1=fully, 2 = partially 3 = not affected, 4=N/A
5. House and Household Assets	a. House		
	b. Jewellery		
	c. Electric appliances		
	d. Furniture		
	e. Kitchen utensils		
	f. Food stocks		
	g. Other……		

		Before flood: Number	Now: Number
6. Animal assets	a. Cow/Oxen/Buffalo (cattle/carabao)		
	b. Goat/Pig		
	c. Poultry (chicken/duck/pigeon)		
	d. Other		

		Before flood: 1 = yes; 0 = no	Lost or destroyed 1=fully, 2 = partially; 3 = not affected
7. Productive assets	a. Boat / Trawler		
	b. Tri-cycle (Rickshaw) / Bicycle / motorcycle		
	c. Car / van / jeepney		
	d. Fish pond		
	e. Shrimp / crab pond		
	f. Agricultural crops		
	g. Crop seeds		
	h. Trees / Orchard		
	i. Agriculture tools and machinery		
	j. Agricultural tools (shovel, axe, rake etc.)		
	k. Fishing gear (nets, etc.)		
	l. Rice/corn mill		
	m. Other……		

INCOME/EXPENDITURE

8. What are the main livelihood activities of the household for the last 12 months? Use proportional piling or divide the pie method to estimate contribution from each source to the household's livelihood.

	Livelihood activities	Code (use codes below)	Relative importance of each activity to the livelihood of the household (Proportional piling – sum must be =100%)
a.	Main livelihood activity		
b.	Second livelihood activity		
c.	Third livelihood activity		
d.	Fourth livelihood activity		

1 = Agriculture (including Crop sales)	*10 = Salaries, wages (employees)*
2 = Livestock (including Animal and animal product sales)	*11 = Fishing (pond)* *12 = Fish catch*
3 = Unskilled wage labour/daily labour	*13= Brewing*
4 = Sale of charcoal, bricks	*14 = Handicrafts*
5 = Sale of firewood, poles, thatch, wild greens, wild fruits	*15 = Petty trading*
6 = Sale of food aid	*16 = Seller, commercial activity*
7 = Gift from family/relatives	*17 = Government allowance (pension)*
8 = Begging, assistance	*18 = Remittances*
9 = Skilled labour (artisan)	*19 = Transport services* *20 = others……..*

9. How much of your total expenditure in the past 7 days was spent on food? (%)			
10. What were/are your sources of food (%)		Before flood (%)	Now (%)
	a. Own production		
	b. Market purchases (incl. borrowing – and bartering)		
	c. Fishing/gathering		

	d. Social networks (gifts from friends, family, neighbours)		
	e. Social safety nets (SSS, GSIS, Insurance…).		
	f. Emergency Relief (VGF etc.)		
	Total (check)	**100%**	**100 %**

11. For how long do your current food stock will last? 1= no stocks; 2 = less than 2 weeks ; 3 = 2 wks-1 month; 4 = 1-3 months; 5 = more than 3 months	

12. ONLY for infants 6-24mth: In the **last 24hrs** your this child eat any of the following foods? 1=Yes, 2=N0, 3=Don't know

1. Commercial Porridge		2. Biscuit	
3. Rice		4. Vegetables	
5. Meat/chicken/pork/fish		6. Fruits	
7. Egg		8. Cooked with oil/coconut	
9. Mungo		10. Others..... specify	
11. Instant Noodle			

13. Do you own agricultural land? (0=No, 1=Yes)			
14. Did you cultivate last season? (0=No, 1=Yes)			
15. If yes, which capacity and what area?		Ownership	Area in ha.
	a.	Own land	
	b.	Rented land (tenants)	
	c.	Share cropping	
	d.	Agricultural Labourer	
	e.	Amortised owner	

16. What crop did you plant during the previous season? Has there been any impact due to the flood?

Crop	Area Planted (ha)	Area Affected by Flood (ha)	Area Harvested (ha)	Current Production (sacs or kilo/ha)	Last year (2008) same season Production (sacs or kilo/ha)
a. Palay					
b. Corn					
c. Vegetables					
d. Other crop					

17. What are your main constraints for the next agricultural season? (Do not read out the option. Put 1=Yes)

a.		Lack/Shortage of seeds (difficulties to access traditional seeds)	h.		Lack of animal for traction
b.		Shortage of improved/hybrid seeds (no problems to access traditional seeds)	i.		Lack of farm tools implements
c.		Lack of fund (incl. debt repayment)	j.		Shortage of labour
d.		Poor soil fertility	k.		Flood water
e.		Pests, weeds, crop diseases	l.		Lack of access or shortage of land to cultivate
f.		Water shortage	m.		Agricultural product prices
g.		Late delivery of agricultural inputs	n.		Other……

18. Area of fish ponds owned/rented	_____ha.
19. How much was/is the average production in fish pond (per ha.)?	
a. After flood	

b. Before flood	
20. Impact of flood on your fish farming (1 = Yes)	
a. Destroyed dykes	
b. Pans filled with mud	
c. Fishes washed out	
21. If you are fish catcher, what are the impacts of the flood (1 = Yes)	
a. Lost the boat	
b. lost the nets and other instruments	
c. Lost the ability to work	
d. loss of livelihood (if a labourer)	

22. Consumption Coping Strategy Response : Did your family have to:

Responses	Relative frequency: Number of days in past 7 days:	**Responses**	Relative frequency: Number of days in past 7 days:
a) Rely on less preferred and less expensive food?		f) Reduce number of meals consumed in a day by child?	
b) Borrow food from neighbour/relatives/friend?		g) Reduce number of meals consumed in a day by adult?	
c) Purchase food on credit / borrow money?		h) Skipped/missed all meals for a day?	
d) Gather wild foods or harvest immature crops?		i) Barter or sell part of Food and non Food Aid rations to buy more staple food of poorer quality?	
e) Reduce portion sizes at mealtime?		j) Send family members to eat elsewhere? (community kitchen, primary school…)	

23. Since the flood did you adopt any of the following strategies (0=No, 1-Yes)

k) Out-migration of HH members		n) Sold household assets to buy food	
l) Selling labour in advance		o) Sold agricultural assets (tools, seeds, livestock)	
m) Taking children out of school		p) Sold land	

		Before flood 1= yes; 0=No	Now 1= yes; 0=No	Is quality of water same as before? 1= same, 2 = deteriorated, 3 = better
24. What is/are your sources of drinking water	a. Public/private tap			
	b. Tubewell / borehole			
	c. Protected dug well / spring			
	d. Unprotected well			
	e. Canal, pond, lake, river, stream			
	f. Rainwater harvesting			
	g. Others……..			
	h. Does your household treat drinking water (Water Purifying Tablets/boiling)?			

		Before flood 1= yes; 0=No	Now 1= yes; 0=No
25. Access to sanitation	a. Water seal		
	b. Pit Latrine		

	c. Open Defecation			
26. Has your family received any humanitarian assistance so far?		0 = No 1 = Received 2 = Continue to receive		0 = No 1 = Received 2 = Continue to receive
	a. Food		b. Free medical care	
	c. Cash relief		d. Construction material	
	e. Cash for house building		f. Agricultural inputs (seeds, fertilizer)	
	g. Non-food / cash emergency relief items (tarpaulin, stove, plastic…)		h. Agricultural tools / equipment	
	i. Nutrition supplements for children and PWLM		j. Fishing equipment (incl boat)	
	k. Cash / Food for Work		l. Infant formula or milk powder	
			n. Other (specify)	

27. Dietary diversity / frequency (last 7 days): In the past 7 days did you eat -

No.	Food item	i. Days consumed (0 – 7)	ii. Main food sources over the 7-day period considered 1 = Own production; 2 = Purchase; 3 = Fishing/hunting/ gathering; 4 = Borrowed 5 = Gift from relatives/neighbours 6 = Relief assistance
Cereals/ roots/tubers	a1. Rice		
	a2. Noodle		
	a3. Bread		
	a4. Corn		
	a5. Roots and tubers		
Vegetables	b1. Green leafy vegetables		
	b2. Other vegetables (carrots, tomatos, gourds,….)		
Pulses	c1. Pulses		
Fruits	d1. Fruits (mango, banana, pineapple, jackfruit, papaya,…)		
Meat & Fish	e1. Meat (poultry, beef, mutton,…)		
	e2. Fish (fresh fish, dried fish, smoked fish,…)		
Eggs	e3. Eggs		
Dairy products	f1. Milk & dairy products (cow milk, goat milk, cheese, yoghurt, powder)		
Oils & Fats	g1. Soybean oil, mustard oil, cooking oil, fats		
Other foods	h1. Sugar / honey		
	h2. Beverages (tea, coffee, coke, soft drinks…)		

UNDER-5 CHILDREN HEALTH AND NUTRITIONAL STATUS

First ask how many children are <5 years of age

Complete 1st child (column), then move to next child
DO NOT READ answer choices to respondent unless indicated to do so

	Child ID 01		Child ID 02		Child ID 03	
Sex of child - **1=** Male/ **2=** Female	28.1	|__|	28.2	|__|	28.3	I___I
Date of birth Verify birthdates with vaccination card or birth registration – **If unknown leave blank**	29.1	__ __/__ __/ __ __ __ __ ***day / month / year***	29.2	__ __/__ __/__ __ __ __ ***day / month / year***	29.3	__ __/__ __/__ __ __ __ ***day / month / year***
Age in months (record **completed** months e.g. if 3 weeks old record 0)	30.1	|____| months	30.2	|____| months	30.3	|____| months
Was the **child sick during the previous 2 weeks**? **1=** Yes/ **2=** No	31.1	|__| ***If No, go to 33.1***	31.2	|__| ***If No, go to 33.2***	31.3	I___I ***If No, go to 33.3***
What was the **child's MAIN sickness**? **1=** Fever **2=** Repeated coughs/colds/ Breathing difficulties **3=** Diarrhoea (> 3 loose/watery stools in one day) **4=** Measles (diagnosed) **9=**Other_____	32.1	|__|	32.2	|__|	32.3	|__|
Have you ever breastfed the Child? 1= Yes 2= No	33.1	|__| **If No go to 40.1**	33.2	|__| **If No go to 40.2**	33.2	|__| **If No go to 40.3**
Are you still breastfeeding your child? 1= Yes 2 = No	34.1	|__| **If no, go to 39.1**	34.2	|__| **If no, go to 39.2**	34.3	|__| **If no, go to 39.3**
Did the child receive Breast Milk **yesterday**? **1=** Yes 2= No	35.1	|__|	35.2	|__|	35.3	|__|
Did the child receive **ONLY** breast milk yesterday? **1=** Yes 2= No	36.1	|__|	36.2	|__|	36.3	I___I
Are you breastfeeding the child less the same or more than before emergency? 1= More 2= Less 3 = Same 9 = Child born after displacement	37.1	|__| **If more or same, Skip to 40.1**	37.2	|__| **If More or Same, skip to 40.2**	37.3	|__| **If More or Same, Skip to 40.3**
Why are you breastfeeding the child less? (Don't read answers) 1= Age of Child 2= No Privacy 3= Stopped producing Breast milk 4 = Mother is Stressed 5= Child Stopped him/herself 6= Mother is not here with child 9=Other (specify) **----------**	38.1	|__| **Go to 40.1**	38.2	|__| **Go to 40.2**	38.3	|__| **Go to 40.3**

	Child ID 01		Child ID 02		Child ID 03	
Why Did You Stop Breastfeeding your child? (Don't read answers) 1= Age of Child 2= Stress 3= Lack of Privacy 4= Child Stopped him/herself 5= No Breast Milk 6= Child was sick 7=Mother was sick 8=Became pregnant again 9-= Mother Working 10 = Nipple or Breast Problems 11=Other (specify)	39.1	|__|	39.2	|__|	39.3	|__|
Did the child receive **solid, semi-solid or soft foods** yesterday? 1 = Yes 2= No	40.1	|__| ***If No, go to 42.1***	40.2	|__| ***If No, go to 42.1***	40.3	|__| ***If No, go to 42.1***
How many times did the child receive **food** yesterday?	41.1	|__|	41.2	|__|	41.3	I__I
Was the following given to child in the last 24 hours? MORE THAN ONE ANSWER CAN BE GIVEN (ASK ALL) 1. Infant formula 2. Powdered milk 3. Rice milk	42.1	☐ ☐ ☐				

Have you received distributions of **Infant Formula, other milk products or Supplies for Bottle Feeding** since the emergency? 1= Yes 2 = No **Read List of Supplies** Formula, Bottles, Teats, Dry milk, -**Bear Brand** - Liquid Milk etc	43.1	|__| **If No then terminate the survey by thanking the respondent**
Where did you receive these supplies from? 1= LGU Baranguy Captain 2= NGO 3= Mosque or Church 4= Local Business 5= Private Individual 9= Other (Specify) _____	44.1	|__|

Thank you very much for your time and sharing all the information. We wish you all the very best for a rapid recovery from this situation.