WFP POST-TSUNAMI
EMERGENCY NEEDS ASSESSMENT
IN
Aceh Province, Indonesia

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Report

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WFP takes full and sole responsibility for the contents of this report.

List of acronyms

ADB	Asian Development Bank
ACF	Action Contre la Faim
BPS	Central Bureau of Statistics
CDC	Centre for Disease Control
CARE	Cooperation for the Aid and Rehabilitation of Europe
CRS	Christian Relief Services
BMI	body mass index
EMOP	emergency operation
FAO	Food and Agriculture Organisation
FFW	food for work
FFT	food for training
GDP	gross domestic product
GIS	geographic information system
HKI	Helen Keller International
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Crescent Societies
IDP	internally displaced person
IOM	International Organisation for Migration
MDD	Micro-nutrient Deficiency Disease
MoH	Ministry of Health
MUAC	mid-upper arm circumference
NGO	non-governmental organization
OCHA	Office for the Coordination of Humanitarian Affairs
OXFAM	Oxford Committee for Famine Relief
PRRO	protracted relief and recovery operation
SCF	Save the Children Fund
SEAMEO	Southeast Asian Ministers of Education Organization
SPSS	statistical Package for the social science
TB	tuberculosis
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNHIC	United Nations Humanitarian Information Centre
UNICEF	United Nations Children's Fund
USA	United States of America
WFP	World Food Programme
WHO	World Health Organisation

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Executive Summary

A major earthquake triggered a tidal wave that affected the coast of Aceh Province and the northern parts of North Sumatra. Over 230,000 people died. Out of the 2.8 million people that have been directly or indirectly affected, 2 million persons are in need of support, of which over 700,000 are IDPs. The displaced people have sought refuge in camps established by the Government with the support of partners or in temporary shelters, such as school, mosques and other public buildings. A significant number of them also moved to their relatives within the Province.

An emergency needs assessment team was deployed for one month in Indonesia with the objective to provide a refined description of the tsunami disaster food security impact, people in need of food assistance, response/targeting options and any longer-term assistance needs. The assessment methodology combined the analysis of official population statistics, LandSat data and estimates on losses and damages, and primary data collected through households, community and district level interviews on the basis of a classification of livelihood groups.

The west coast geographical zone was the hardest hit by the disaster. Not only was the death toll highest, over half of the affected population lost their durable goods, and also had the greatest magnitude of damage to their economic activities, productive assets and market access. But also residents in urban and east coast regions, although not as severely affected as the west coast, demonstrated significant losses in durable goods, productive assets and sources of food. However, better access to markets and availability of commodities on the markets in these two areas suggests that the various groups have better coping opportunities than on the west coast.

The observed significant increase in the price of both food and non-food commodities poses a threat of forcing affected livelihood groups to adopt erosive strategies which, in the medium and longer term, will reduce the ability of households to recover from the disaster and return to their traditional productive economic activities. And the potential for recovery is already limited as many of the affected people were vulnerable prior to the tsunami. Before the disaster, one third of the population of the Province was living under the poverty line, while two third was below the minimum food consumption level of 2100 Kcal and 580,000 people were ultra poor.

A 24 hour recall of food consumption showed that, particularly in the western area, access to adequate food has been severely impacted. 15 % of the households eat only one meal per day and another 30 % can only afford a second meal – in contrast to the usual 3 meals. While in the east and in urban areas, access to basic food is markedly better, many households had a very limited diversity of their diet.

A recent nutrition survey undertaken by UNICEF/CDC in selected camps in Banda Aceh revealed a high level of acute malnutrition of 13 %. Malnutrition among women was calculated at over 15 %. There is a high incidence of infectious diseases particularly along the west coast but as of yet, no major epidemic disease outbreak has been was reported. Two third of the health posts were either totally or partially damaged. Clean water and latrines, particularly in remote sites, are limited.

Based on calculations triangulating the information available on the extent of physical damage, the number of deaths, the number of people who lost their houses or had their houses severely damages, and responses from the households and communities surveyed, the assessment estimates that 790,000 persons require relief food aid for an initial period of 3 months. 700,000 are displaced persons who are lacking access to food to adequately cover their basic needs, 60,000 have had their livelihoods disrupted and 30,000 are living in isolated areas on the west coast. At the time of the survey, an estimated 450,000 IDPs were living in camp-like situations and a further 250,000 with host families. As the situation of IDPs has been changing rapidly, a continued up-dating of their status will be essential. The observed trend of more IDPs residing with host families is likely to increase the burden they represent, particularly in locations where IDPs outnumber their hosts. In this situation, food assistance operations should consider including both IDPs and the host family.

The assessment team recommends that first a full ration be made available to all IDPs for an initial period of 3 months. As many IDPs are expected to return to their places of origin, they should then receive a return package to facilitate the recovery of their livelihoods. Second, three month support should also be provided to isolated communities and households with disrupted livelihoods. Third, supplementary feeding should be made available for vulnerable groups. Finally, recovery activities such as school feeding, food-for-work, food-for-training and institutional feeding for orphans are recommended. Monitoring of the beneficiaries food security, livelihood and nutrition situation will be programmed in order to determine the need for extension of the relief assistance, the phase over to recovery interventions and the eventual phase out of food assistance.

1. Introduction

An earthquake of a magnitude of 9.0 on the Richter scale occurred at approximately 150 km off the northern western tip of the island of Sumatra on 26 December 2004. It triggered a tsunami that hit Aceh Province and the North West part of North Sumatra Province devastating strips of land along the coast up to 8 km land inwards. The damages and losses from the earthquake and the following tsunami affected 17 out of the 21 districts of Aceh and two districts in North Sumatra. These areas also include the islands of Sabang on the north tip of the Province, the island of Simeulu, off the west coast and the north-western part of North Sumatra Province, including the island of Nias.

Banda Aceh, the head town of the Aceh Province was the most affected in terms of casualties and damages as the wave cut deeply into the densely populated areas of the city. But the death toll and physical damages are also very high in the neighbouring district of Aceh Bezar and the districts along the West coast, in particular West Aceh and Aceh Jaya.

According to the latest figures provided by the Government, over 230,000 people have died. Out of the 2.8 million people that have been directly or indirectly affected, 2 million persons are in need of support[1], of which over 700,000 became homeless and are displaced as their houses were completely destroyed or severely damaged and require major reconstruction or clearing of debris. The homeless have therefore had to seek refuge either in camps established by the Government with the support of partners or in temporary shelters, such as school, mosques and other buildings. A significant number of them also moved to their relatives within the Province. Some, most probably the wealthiest households have either sent their family members to Medan or Jakarta or have left the Province altogether.

The situation remains fluid and the movement of populations is continuing as more and more displaced people join host families, the living conditions in camps and temporary shelters being difficult. After one month, a number of people are slowly recovering from the initial trauma and find the strength to locate their relatives and move over to their houses. Though the trend goes towards increasing number of IDPs living with their relatives, the hardship that some are facing in particular in remote and food insecure areas motivates them to move to sites where assistance is provided. This was observed in particular on the west coast with influxes of IDPs in Meulaboh.

In view of the above, and according to the Government, the number of IDPs in camp like situations is decreasing overall making the identification of and access to displaced persons more difficult as they are dispersed in host communities. Targeting mechanisms will have to be developed so as to provide an appropriate support to the neediest and avoid any bias in the implementation of assistance programme due to difficulties in identification of and access to people.

[1] United Nations, Indian Ocean Earthquake – Tsunami, Flash Appeal 2005

2. Objectives of the Emergency Needs Assessment

WFP conducted an emergency needs assessment in Aceh Province during the month of January 2005. The assessment was carried out in collaboration with Save the Children UK, World Vision, Helen Keller International, CARE, CRS, Mercy Corps and with the support of the Government of Indonesia. Considerable logistics support was provided by the governments of the USA, Malaysia, Singapore and Switzerland.

The objectives of the assessment were to:

- provide an understanding of the impact of the disaster on food security and analyze the profile and livelihoods of the different groups of population affected;
- validate, refine and update the food security and nutrition needs of these groups; also integrating issues related to household food security; and
- provide recommendations on response options, suggestions on the establishment of a food security monitoring system and follow-up actions in preparation of recovery activities.

The current assessment focused on food sector issues and is complementary to the recent interagency assessment on health, which looked at Aceh Province's west coast. This rapid assessment should be followed by a more in-depth assessment on livelihoods and nutrition in the coming month and should assist in designing/refining recovery interventions.

3. Needs Assessment Methodology

3.1 Estimation of the number of displaced persons

The estimated number of homeless/displaced people in Indonesia reported by OCHA in their regional overview data dated 14 January 2005 was 703,518, and was reported to be likely to increase. The WFP assessment mission attempted to verify this initial estimate by employing three different methods (refer to Annex III for further details):

(i) Multiplying estimates of the population living in each district (based on LandSat data) and of the percentage of areas affected (based on reported high of the wave, extent of flooded area and elevation) for the areas located within 10 km from the coast;

(ii) Multiplying the estimated number of destroyed/damaged houses (including all destroyed semi-modern and traditional houses and 50% of damaged semi-modern houses) by the average household size in Sumatra. Modern houses were not included in this figure as we assumed that the households within these dwelling are wealthier and would have strong coping mechanisms. The estimated number of dead people was subtracted from the figure;

(iii) Multiplying the percentage of households who responded in the interview survey that they lost their houses (the total number of respondents were 70) by the population estimates by district (based on the Government's 2003 Village Potential Statistics).

The figure took into consideration the estimated number of dead as a percentage of the population.

All three methods indicated that the number of homeless/displaced persons were in the range of 700,000.

3.2 Sample methodology for primary data collection and analysis

Due to the large area affected by the tsunami, assessment sites were selected on a number of criteria, stratified according to distance from the coast and the community's principal economic activity (livelihood). Villages within 10 km of the coast had a high probability of being directly affected, whereas villages beyond 10 km were considered to have a lesser probability of being affected.

Drawing on remote sensed information and the Government of Indonesia's "Village Potential Statistics", villages within the Province of Aceh were subdivided into the following categories:

1. Urban
2. Agriculture
3. Forest & Animal Husbandry
4. Fishing
5. Plantation

Based on these categories, the enumerators planned to visit three sites (villages, IDP camps, urban wards) per livelihood group, with four structured household interviews per site. The dynamic security environment and finite access to helicopters meant that flexibility was required during the interviewing of households in the selected villages. Therefore, it was not always possible to conduct four interviews per community. To maintain a broad selection of interviews, a replacement village was added to the initial 15 villages and over-sampling in a community also occurred. As a result, the assessment collected information on household variables from a total of 66 households. Aside from the responses collected from the interviewees, the assessment teams also collected information at the community level, and where feasible, district administrators.

The collection of the primary data was undertaken based on a standardised questionnaire. The ENA team was complemented with a team of 10 enumerators that were trained over a two day period. The household and village questionnaires were field tested prior to their employment in the sample frame. Community and household interviews were undertaken between the 14th and 22nd of January 2005.

Once the household and community interviews had been completed, the responses were entered in a Microsoft Access database. The data was then cleaned and imported in to SPSS for analysis. Based on the principal economic activities of the sample villages, the impact of the tsunami and earthquake on productive assets was measured. However, to assess the impact of the disaster on sources of food, markets and prices the household and community responses

were stratified based on their location. Employing a GIS system, the affected area of Aceh Province was divided into three categories: west coast, east coast and urban. The west coast zone included all villages within the districts of Aceh Jaya, and Aceh Batat. The east coast zone incorporated all villages within the districts of Pidie, Bireuen, Lhoksumawe, and Aceh Utara. The third zone, or urban zone, is located in the district of Banda Aceh. Communities within district of Aceh Besar were subdivided into the three zones depending on their position to the coast or the district of Banda Aceh.

Aside from the quantitative information collected at the household and community level, qualitative information was also recorded. Requesting interviewees to identify their recovery strategies provided the assessment team with insights into sustainable approaches to complement the existing household recuperation mechanisms.

Annex I at the end of this report identifies the location of the sample villages and their livelihood category.

3.3. Sample limitations

The assessment is not intended to be representative of Aceh Province. The purposive selection of villages was designed to economize on time while providing sufficient information for analysis. The selection of sites based on the principal land use/economic activity at varying distances from the coast, allows an estimate of the number of people affected, the extent that they have been affected, and household resilience/coping mechanisms to the disaster. Consequently, the assessment did not attempt to quantify the levels of income, poverty and consumption within the sample group. Although this inter-household comparison within both the livelihoods and geographical zones would be germane, the resulting analysis would rely on a sample size between 2 and 3 households which is too small for comparisons.

The assessment sample frame, although designed to reach households throughout the west coast, was limited due to security restrictions and the finite endurance of both civilian and military helicopters. Consequently, the sample frame along the west coast was predominately focused in the districts of Aceh Jaya and Aceh Barat. In the east coast, the districts visited were Banda Aceh, Aceh Besar, Pidie, Bireuen and Aceh North.

4. Socio-economic Background of Aceh and North Sumatra

Aceh Province is rich with natural resources and therefore has a per capita GDP slightly above the national level. According to recent estimates, oil and gas production represent 43 % of the GDP of the Province. However, when excluding these natural resources, the GDP per capita reduces by 40 %. The second largest economic sector is agriculture which represents over 30 % of the Province output. Livestock and food crops have the largest shares with 10 % each. Nearly half of the people in the Province are employed in agriculture and 90 % of the coastal villages are rural. Amongst these villages, almost 70 % of the households rely on agriculture for their livelihoods. Food crop production is the main activity and is dominated by paddy rice which covers 82 % of the wet land area. Eighty percent of the dry land area

crops are produced by small farmers. The major areas of the total 348,000 ha cropped ha are Aceh North, Pidie, Bireun, Aceh Besar and Aceh Timur.

The fishing sector accounts for 6.5 % of the Province's GDP and provides employment to 100,000 people. The tsunami hit 5 districts where the coastal population was very high: Simeuleu and Kota Sabang (with respectively 93 % and 87 % of the total island population), Aceh Selatan (35 % of the district population), Aceh with 23 % of its population living on the coast and the island of Nias in North Sumatra with 24 % of the population being settled on the coastal areas. Most of the coastal populations were small fishermen working in inshore waters. Another important fishing activity was the production of water shrimps and fish in ponds owned by small farmers and fishers. These activities were particularly affected on the northern and eastern coast (districts of North Aceh, Aceh Timur, Bireun and Pidie). The sector experienced serious losses with 15 to 20 % of the fishermen having been killed and 65 % of the boats and equipment having been lost.

Though the economic activities create significant wealth, the social indicators for Aceh Province are not good and reflect inequalities in the distribution of income and discrepancies in access to basic services, in particular between the urban and rural areas, and districts. The conflict over the last two decades has cost 10,000 lives and resulted in the displacement of 35,000 persons who were dispersed over the Province. The conflict also impacted the physical infrastructure, in particular the road network and social services such as health and education.

According to official data[2], the number of poor people represents almost one third of the population or 1,2 million people (the national poverty line is established on the basis of the value in rupees of individual daily minimum food requirements set at 2,100 calories and non-food minimum needs) whereas the national level is just over 18 %. Aceh is the fourth lowest ranking province in Indonesia in terms of poverty and has the fourth highest number of ultra poor with 580,000 people or 14 % of the population unable to purchase sufficient food prior to the Tsunami disaster. Though data is not available for 2002, it is noticeable that in 1999, over 63 % of the population was below the minimum level of dietary energy consumption of 2100 Kcal per day. The major issues regarding food security is access to sufficient resources to purchase the items. Considering the major increases in food prices after the Tsunami of up to 100 % in some instances, including rice in remote areas, access to food is particularly worrying.

Poverty affects more severely the population groups directly affected by the conflict, such as the displaced, and discrepancies between the services available in urban and rural areas exist. This is particularly true in the more remote areas, where public health and education infrastructure is poor and staffing is a problem. Student's school attendance is therefore lower in these areas as is also the coverage of health programmes.

The neighbouring province of North Sumatra has the highest population after Java and the second largest economy (by province) in the country. However Nias is the poorest district of the Province with school net enrolment rates below the level of Aceh. The total population of the island is just over 430,000 people with over 60 % under the age of 26. Its main activities are agriculture and fishing.

[2] Calculated by the Bureau of Statistics of Indonesia on the basis of 2003 data.

Though the total amount of damages and losses represent only 2.2 % of Indonesia's GDP, and it is therefore considered to be relatively low in view of the size of the country economy, the impact on Aceh's economy is tremendous with 97 % of its GDP lost, according to recent estimates[3]. It will require major support to recover. The most affected sector was housing in rural and urban areas (32 % of total losses and damages), followed by agriculture and fishery (representing over 15 % of the total). Based on statistics of land use, livestock ownership and population density, FAO estimates that the agriculture production losses amount to US$ 30 million in the first year and to over US$ 80 million for the coming 5 years with 100 % rice production losses on 38,000 ha of paddy land and 68,000 ha of "dry land" crops (estate crops such as coconut, rubber, cashew and coffee). 37,000 ha of aquaculture area are damaged as is the irrigation infrastructure for an estimated US$ 40 million. In the reconstruction process, particular attention will have to be given to the provision of assets in those sectors, complemented by government investments in physical and social infrastructure such as for education, health, water supply, and transport and irrigation schemes.

5. Demographic impact

The population in Aceh Province was estimated at 4.3 million before the disaster with children under 15 making up for one third of the population and over half of the population under the age of 26. In North Sumatra, two districts on the north west coast were affected by the tsunami, in particular the island of Nias. The population of Nias is even younger than in the Aceh Province with over 40 % below the age of 15 years and over 60 % being less than 26.

The death toll of the disaster in the Aceh Province is estimated at over 230,000 while it is estimated at 261 in North Sumatra. The island of Nias was the most severely hit with 20 % of the district damaged. However, a significant number of people are still reported missing – many of whom are likely dead.

The worst hit districts are the city of Banda Aceh with 15 % of prior population accounted as dead and around 30 % still missing. Aceh Besar, the neighbouring district has over 8 % of its prior population dead and 15 % not found. Aceh Jaya on the west coast has lost almost 20 % of its population. Other districts with large populations such as Bireuen on the east coast (almost 250 000 inhabitants), North Aceh (almost 330 000 people) and East Aceh (over 250 000 people) have been less heavily affected but have received thousands of IDPs.

Some population groups have been disproportionally hit. It is estimated that 15 to 20 % of the 58,000 fishermen have been killed. Over 1,800 teachers also disappeared. Children were particularly vulnerable. According to estimates, 37 % of the casualties were children up to the age of 18 years, while 13 % of infants (over 12,000) died.

Displaced people have gathered in numerous sites, including public buildings and newly established IDP camps. The three districts of Banda Aceh, Aceh Besar and Pidie on the east coast have over 400 known sites. However, the situation remains very fluid. As time passes, a

[3] World Bank analysis in Damage Assessment

number of IDPs are leaving the camps to join their relatives, while spontaneously established camps are being identified in more remote areas. Still, the major concentration of internally displaced people is around Banda Aceh and in Aceh Bezar, in the districts of Bireuen, North Aceh and Pidie on the east coast, and in the districts along the west coast close to and north of Meulaboh.

Due to the on-going conflict, Aceh Province had already a high number of female headed households, at 19 %. The newly widowed women after the tsunami will substantially increase the actual number of women headed households. Of the 8,000 children who lost both their parents, only 20 % are living in extended families. In addition, almost 25,000 children lost either their father or mother. 75 % of the children living with their mother are not in extended families and therefore have reduced capacity to recover their disrupted livelihoods.

6. Impact on Livelihoods and Access to Markets

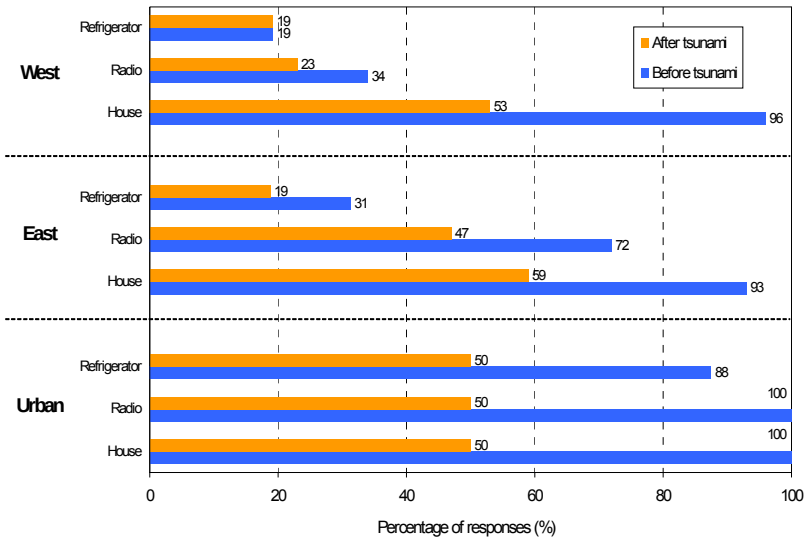
Livelihoods are the productive activities undertaken by households to meet both consumption needs and provide the means to participate in social networks. Access to markets provides households with the means to supplement or buy food required, or to earn income. Sharp increases in prices are an indicator of market abnormalities due to supply shortages or increased demand. This is particularly serious during the lean season which runs until the next paddy harvest due between March and May depending on locations.

According to the results of the household structured interview questionnaires, the impact of the earthquake and tsunami on livelihoods are as follows:

6.1. Durable goods

Based on the results of the interviewees, the loss of durable assets was extensive for all thee geographical categories of the study (urban, east coast and west coast). The effect of the tsunami on houses (half of the urban households have lost their house), radios, televisions, and refrigerator is illustrated in figure 1.

Figure 1 Impact of tsunmi on household assets



Aside from the destruction of durable assets, the earthquake and tsunami affected both productive assets and economic activities. Stepping outside of the geographical zones and grouping the responses of the households based on their livelihoods (fishing, farming, urban and plantation) are presented below[4].

6.2 Economic activities

In the following sub-sections, the principal economic activities undertaken by household respondents before and after the disaster will be presented. However, in all of the four livelihoods categories the responding households indicated that they undertook multiple activities.

For the purpose of standardisation, seven income activities groups were defined. They are as follow:

- **Fishing**: this activity includes fishing either by boat, aquaculture, and fishing by rod and reel.
- **Farming**: this category includes the activities of rice farming, horticulture, and other cereals
- **Plantation:** both large scale and household production and harvesting of rubber, palm oil, and coconuts.
- **Formal Employment**: These are all forms of gainful employment in the formal sector and includes civil service, formal service sector, and employment that is salaried.
- **Trading**: informal market exchanges (e.g. selling of handicrafts).
- **Casual Labour**: informal and irregular employment usually on a daily basis and involving low skill activities.
- **Formal business**: Ownership of and/or engaged in small scale or service sector activities.

Fishing communities

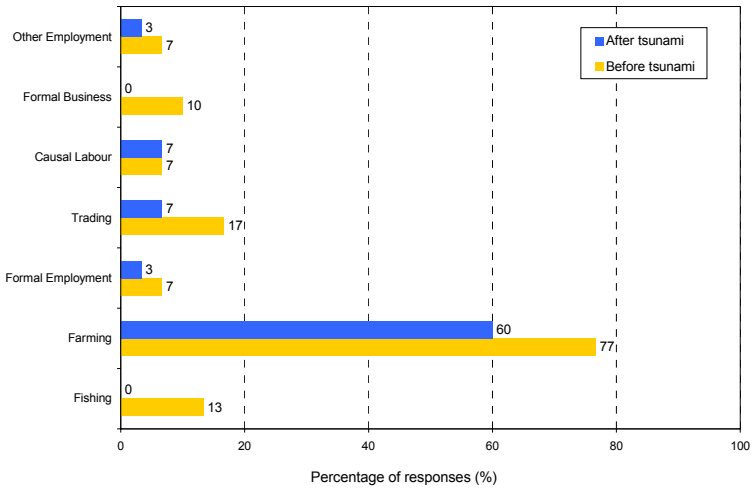
Drawing upon the responses of the households in fishing communities prior to the earthquake and tsunami, the principal activities engaged by the household were fishing, agriculture, trade and formal employment. After the disaster, the respondents within this livelihood category had stopped engaging in fishing and farming but continued to earn income from formal employment and trading.

[4] As discussed in the methodology section, the sample was constructed to include responders from households within five livelihood groups. However, the Forestry and Animal husbandry livelihood category do not demonstrate any impact on their livelihood strategies attributed to the tsunami. Consequently, the following sections will not comment/present the results for the Forestry and Animal Husbandry livelihood group.

Farming communities

Illustrated in figure 2 are the different economic activities undertaken by the respondents within the agriculture livelihood category before and after the earthquake and tsunami. Although farming is the dominant activity of the respondents within this livelihood category, the households also indicated a heterogeneous mix of activities.

Figure 2 Economic activities for rice farmers before and after tsunami

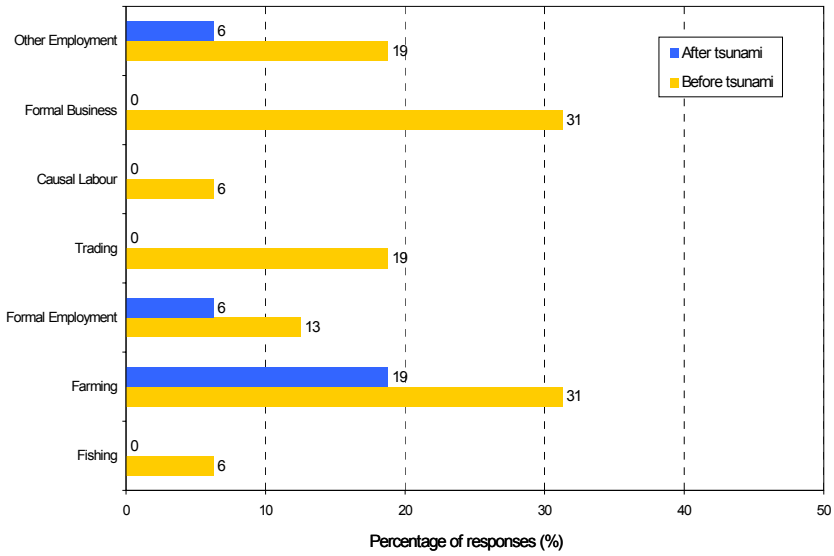


The effect of the tsunami as illustrated above, suggests that the impact of the disaster has stopped 67 % of the respondents from trading, over 50 % of the respondents were no longer were engaged in 'other' employment, and all the respondents neither fished nor participated any longer in formal businesses.

Urban communities

Urban livelihoods are communities that are within the limits of Banda Aceh and according to the 2003 Village Potential Statistics are villages that are classified as trading or "other". As presented in figure 3, urban livelihoods have a diverse and a heterogonous mix of activities with no dominant economic activity. Prior to the tsunami, urban households engaged in farming, trading, formal business dealings and other employment activities.

Figure 3 Economic activities for urban households before and after tsunami



After the earthquake, urban households indicated that the only activities available to them were farming, formal and 'other' employment activities.

Plantation communities

Unlike rice farming, plantation livelihoods are households that are either employed on a plantation or have small holdings of palm, coconut, or rubber trees. Based on the percentage of responses from the households interviewed within the plantation livelihood group, the economic activities employed by the households are farming, fishing, small amounts of formal employment, trading and other employment. After the tsunami, the only activities undertaken by the respondents were fishing and farming, which were undertaken by only 9% of the respondents.

6.3. Productive assets

Coupled with the decline in economic activities, communities in Banda Aceh and along the east and west coasts have also lost their productive assets. Unlike durable goods which can be used as a proxy measure of wealth, productive assets are goods that are employed to earn income directly (farm land) or indirectly (bicycle).

As with the types on economic activities, productive assets were standardised into a list of seven productive assets. They are as follows[5]:

- **Boat**
- **Bicycle**: In Indonesia although a bicycle could be viewed as a durable good, in Aceh Province, households use a bicycle to transport goods to and from the market as well as provide mobility to travel to and from work and government extension services.
- **Skilled Household Member**: This is a household member who is engaged in a "skilled" economic activity. Examples are: teachers, doctors, bricklayers, tailors, etc.
- **Farm Land**: this can be either agricultural land for cereals or vegetables, or plantations of rubber, coconut or palm oil trees
- **Others**: These are productive assets not included in the original list but were considered by the enumerators as goods that could be used to generate income either directly or indirectly. For example, these include fishing nets, plough, etc.

The following sub-sections will present the impact of the tsunami wave on specific productive assets for each of the livelihood communities.

[5] The survey also included taxi and truck but none of the respondents in the sample indicated owning these economic assets

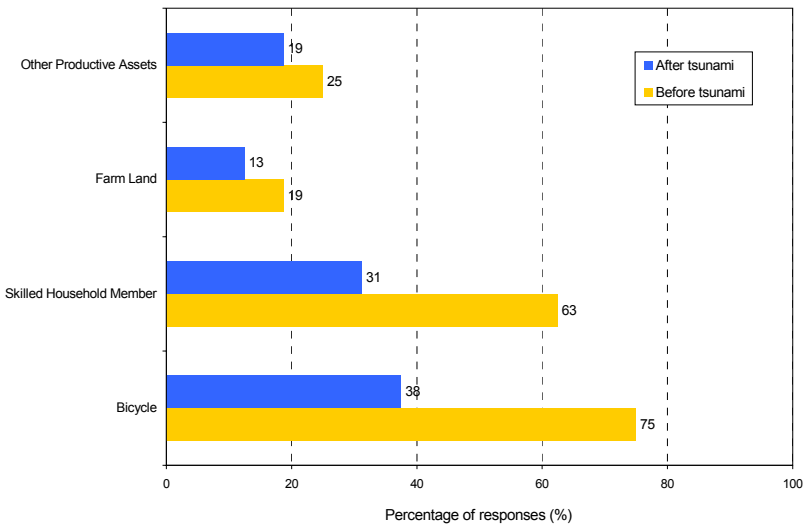
Fishing communities

According to the respondents within the fishing communities, prior to the tsunami 50% owned boats, 74% owned bicycles and 75% had farm land. After the disaster, all the respondents indicated that they lost or had damaged their boats and farm land. Likewise, 76 % of the respondents indicated that they had lost their bicycles.

Urban communities

As with the fishing communities, over half of the urban household respondents lost bicycles, but more importantly, over 50% of the households with a skilled household member lost them. The effect of the earthquake and tsunami on the productive assets of urban respondents is illustrated in figure 4.

Figure 4 Impact of tsunami on productive assets in urban communities



Farming communities

Discussed earlier, over 75% of the responding households in this livelihood typology identified agricultural activities as a key source of household income. However, due to the tsunami and earthquake, almost 40 % of the respondent households either lost or had severely damaged their farm land. Aside from the loss of farm land, respondents in the farming communities also indicated that they lost bicycles (50%), and/or a skilled household member (25%).

Plantation communities

Plantation communities, due to their various economic activities, indicated a significant loss in their productive assets. All the households that had boats were either lost or damaged, 75% of the households that owned bicycles prior to the disaster lost them, and 64% of the households that owned farm land indicated that it had either been damaged or destroyed.

6.4. Sources of household food by sector

Presented later in this report is the number of meals consumed in the three geographical zones. One indicator to measure the magnitude of the impact of the tsunami was the change in the source of the foods consumed within the previous 24-hours. Due to the limited sample, comparisons between the different livelihoods do not provide any significant information. However, comparisons between the different geographical zones do illuminate interesting findings. To simplify the analysis, household foods were grouped into 5 categories. The food groupings are as follows:

Staples: rice, noodles and possibly cassava
Animal Products: dried fish, fresh fish, sea food, eggs, poultry, meat
Pulses: peanuts, Soya beans and mung beans
Vegetables: all green leafy vegetables, tomatoes, cucumbers
Cooking Oils: peanut oil, vegetable oil, palm oil
Sugar

In the following section, the principal sources of food after the disaster for each of the three sectors based on the responses of the households are presented.

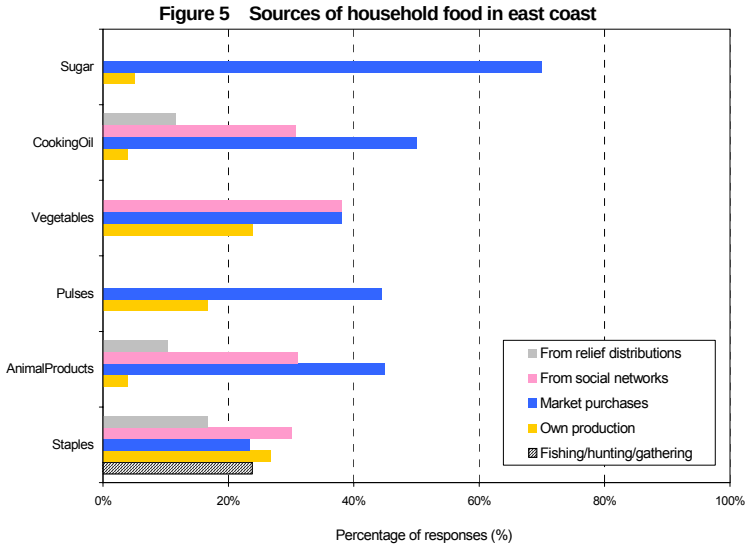
Urban sector

During the interview process this question was not properly answered and consequently, no immediate description for this geographical zone is possible. However, the unrestricted access to markets and the broad availability of food and non-food items in the urban sector would suggest that the principal source of food items, after the tsunami, is the market.

East coast

As presented in figure 5, the two greatest sources for the various components of the household diet are the market and social networks. This would suggest that sharp price increases could reduce the quantity of food accessible by the households. Likewise, if the availability of food items on the market becomes scarce, the household food basket could be significantly affected.

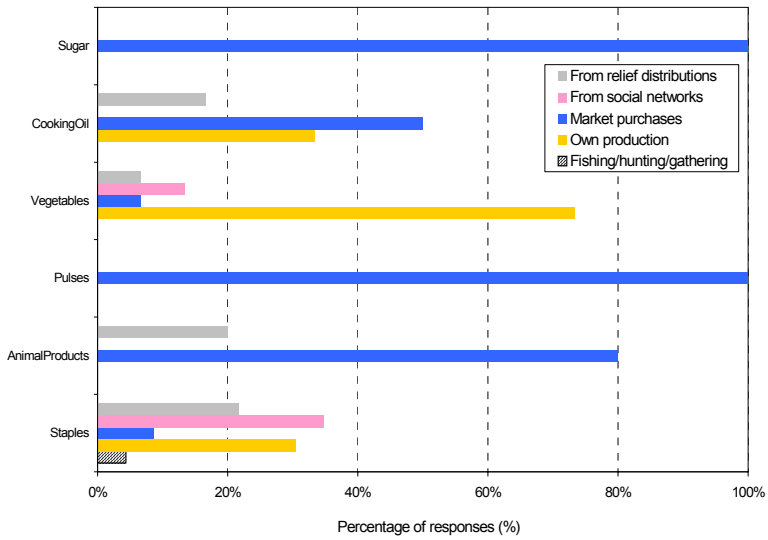
Figure 5 Sources of household food in east coast



West coast

Like the east coast, households on the west coast overwhelmingly depend on the market for pulses, animal products, cooking oil, and sugar. However, as indicated in figure 6, relief provides cooking oil, animal products, and staples to one fifth of the respondents. As with the east coast, west coast households that depend on the market for their food sources are vulnerable to both sharp changes in price and availability on the market.

Figure 6 Sources of household food in west coast



6.5. Markets

As illustrated above, markets play an important role in the sources of food that respondent households employ to meet their food needs (43% east coast and 30 % west coast). The following section will present the results by the responding households' access to markets, distance to the markets, and the availability of goods on community markets by the three sectors.

Access to markets by sector

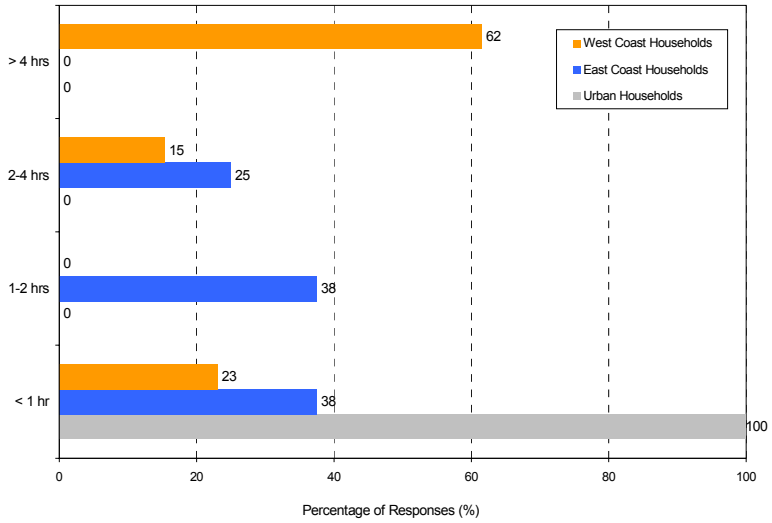
In the questionnaire, households were asked whether they currently had access to markets. Based on the responses of the households in the three geographical zones, 100% of households in urban centres indicated they had access to markets, 90% of households in the east coast sector indicated access to markets. However, in the west coast, based on the household's responses, only 57% of the respondents acknowledged having access to markets.

Distance to markets

Aside from indicating whether or not the household has access to a market, the distance required to travel to the market can be significant factor in determining the household's de facto accessibility. Based on the responses of the households, the time required to walk to the community's closet market is as follows:

As illustrated in figure 7, urban respondents have close access to markets with 100 % of the respondents having less than 60 minute walk to the market. For the east coast sector, approximately 72 % of the households have less than a two hour walk to their closest market. In sharp contrast, over 60 % of the respondents in the west coast sector indicated that the distance to their market was over four hours.

Figure 7 Access to market by foot after tsunami



Considering that only 57 % of the respondents in the west coast acknowledged that they had access to markets the significant distance required to reach the market could be a factor determining a household's access to markets. Likewise, the significant amount of time required to reach a market for households in the west coast suggests that market purchases can not be undertaken in a day. Resultantly, this reduces the number of productive days and raises concerns of safety for women and children who are required to travel such a long distance from their household. Some male respondents also underlined the difficulties in finding accommodation for overnights in the current situation.

6.6. Availability of goods on the market by sector

Aside from the distance and limited access to markets for particular sectors, the availability of items is also important. In the household survey questionnaire respondents were queried as to whether or not food and non-food goods were available on their local markets. The following sections will discuss the availability of goods on local markets by sector.

Urban households

Except for agricultural inputs, the responses from the interviewees (>90%) suggests that almost all food and non-food items were available on local markets. An explanation for the low percentage of agricultural inputs available in urban markets could be due to a possible low demand[6] for agricultural instruments.

[6] As presented earlier, over 70% of urban households indicated that they did not undertake agricultural activities.

East coast

Similar to the responses from the urban sector households, households in the east coast geographical areas indicated (>95%) that their local markets had food and non-food items available for sale.

West coast

Unlike either the urban or east coast sectors, more than 50 % of the households on the west coast indicated that their local markets did not stock either food or non-food goods. Returning to the dependence of the households on the market for components of the daily food basket, the low availability of food and non-food items could suggest an explanation for the low consumption frequency of pulses, animal products and sugar for the households in the west coast sector.

6.7. Prices

Aside from constraints of availability and accessibility to markets, the large percentage of households that depended on the market for food and non-food goods, sharp rises in prices can limit the quantity and quality of the household's food and non-food basket. Based on the responses of the households in each of the three geographical zones the affect of the tsunami and earthquake on prices will be discussed below.

Urban communities

Between 75 and 100 % of the household interviewed indicated that the price of the food and non-food items had dramatically increased. Examples given by the respondents indicated that prices for food items have increased between 50 and 100 %.

East coast

Drawing upon the responses of the households, 95% of the households indicated that the prices have increased. Based on the evidence provided by the households, the changes in prices for the east coast communities for food and non-food are as follows:

Item	Price Increase after the Tsunami
Staples	30%-80%
Animal Products	40%-100%
Pulses	100%
Vegetables	70%-95%
Cooking Oil	100%
Sugar	40%-100%
Soap	125%
Sanitation Products	50%-100%
Farm Inputs	50%

West coast

According to the respondents in the survey, 100% of the respondents indicated that the prices for food and non-food items had increased. The magnitude of this increase is presented below.

Item	Price Increase after the Tsunami
Staples	100%-225%
Animal Products	75%-105%
Pulses	100%
Vegetables	Not applicable
Cooking Oil	95%
Sugar	120%
Soap	80%
Sanitation Products	50%-100%
Farm Inputs	85%

7. Food Consumption, Nutrition and Health

In anticipation of a more detailed and representative survey dealing with nutrition, morbidity and mortality planned for February (a joint MoH/SEAMEO Tropmed and UNICEF/WFP/CDC survey), this assessment paid close attention to nutrition and health issues in the visited sites without actually conducting anthropometric or micronutrient measurement.

7.1. Food consumption

According to the latest available figures of 1999[7], the average calorie consumption per capita per day was 2043kcal or 93% of the 2,100 requirements. Unfavourable child feeding practices seem to be the major causes of high rates of malnutrition throughout the country with 40% stunting and 13% wasting in 1995. Infants often receive weaning food at a too early stage, starting from 3 months onwards. Infant formula, such as MP Asi, for children 6 to 12 months is being provided for vulnerable households. Various kinds of infant formula are promoted commercially. Not much attention is given to the home based preparation of healthy weaning food from the 'family pot'.

- Food frequency and diversity over last 24 hours

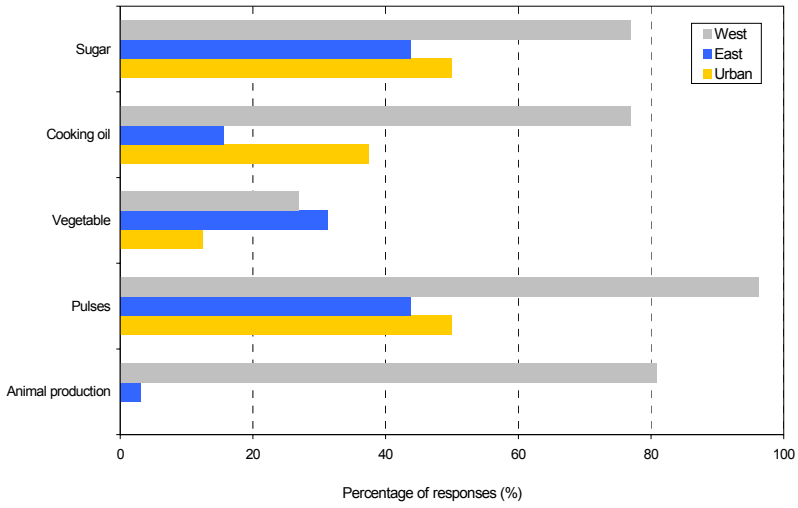
One of the major criteria of food distress is the number of meals that a household consumes per day. In addition, the variety of foods consumed indicates the quality of the diet and gives an indication of the potential nutritional deficiencies.

[7] Department of Health, 2003, Jakarta.

The household diet was categorized in the main food groups, i.e. staples, animal products, pulses, vegetables, cooking oil or fats. The frequency of intake of each food group was recalled over the day prior to the interview. A meal consisting of three food groups was considered as a "healthy meal". The consumption of three meals a day, including three food groups each, was considered as a 'healthy diet'.

Most of the displaced people have an imbalanced and monotonous diet. Still, differences between locations are significant. Access to adequate food has been particularly affected in the west coast. Respectively 15% and 31% of the households in that sector had only one or two meals while all households of urban areas and on the east coast had three meals a day.

Figure 8 Proportion of households without intake of respecitve food items in 24hr



Overall, the composition of the meals was very poor, and even poorer in the West. While almost all households had at least one animal product, such as dried fish, eggs or small amounts of meat a day, around 80% of the households on the west coast did not have any animal products. A similar deviation was observed regarding the consumption of pulses and vegetable oil. In all three geographic areas, 65% of the respondent households did not have any legumes or pulses, while 42% of them did not consume any oil or fats. On the west coast, almost none of the households had any pulses and almost 80% did not have any vegetable oil. Meals consisted mainly of cereals, either rice or rice plus noodles. All of these were previously regular components of the diet.

Access to food

The current period is particularly difficult as people have to face the end of the lean season and additional pressure was put on food stocks with the presence of IDPs. In the villages visited in the West, the population is depending on food aid as access to markets is disrupted due to damaged road network and food stocks are depleted. The main source was relief food distributed by the Government, WFP or NGOs.

In view of the fact that oil and fish planned in the food ration were not yet delivered, only rice and noodles were made available. Some of the sites also received rice from the Government. The food commodities delivered to the villages, were handed over to the camp or village head. Villagers often expressed their concern about not receiving their entitlement.

As people are reliant on food aid, it is important to ensure the distribution of a full general ration providing rice, fish and fortified oil. Oil and fish were being pre-positioned at the time of the assessment. The provision of iodized salt is also advisable. If other organizations can ensure the availability of additional commodities and are willing to synchronize targeting and distribution, WFP could proportionally reduce quantities and/or food basket. Close co-ordination is however a prerequisite to ensure complementarily. A food monitoring and tracking system will also contribute to more transparency in the overall management of food aid.

Where food is concerned, attention to quality, not only quantity, is essential in order to stabilize nutrition, and prevent further deterioration of the nutritional situation. The importance of enhancing nutrition in this context cannot be underestimated, since this is critical to preventing potential mortality linked to disease outbreaks. There is insufficient availability of nutritious foods, i.e. rich in micro-nutrients, fats, and proteins. Appropriate food for small children is rarely available (distribution and access issues).

Cooking stoves required for the food preparation were not of major concern as they were provided by NGOs to populations in easily accessible camps. In more remote places, traditional stoves were constructed, using firewood as fuel. In camps, cooking utensils, such as cooking pots were not available in sufficient amounts. Families staying with host populations were able to cope with the existing equipment. In big camps, the availability of kerosene stoves, kerosene and other utensils has to be ensured through partners. Availability should be monitored. The 'returnee package' should also provide a minimum of basic cooking utensils.

7.2. Nutritional status

Overall, the nutritional status of many people in Aceh is of concern. It appears that a potential public health emergency has so far been avoided, but health and nutrition threats remain.

A recent nutrition survey of around 600 children < 5 in selected camps in and around Banda Aceh reports a level of global acute malnutrition (wasting) of 12.7%, which is high (CDC/UNICEF 2005), the percentage for severe acute malnutrition is 1.5%. As is often the case, and as it is the case throughout Indonesia, boys appear to be worse off than girls. Nutrition studies in West Sumatra in the early 90s also showed a prevalence of 12% to 13% for wasting, while 8 years later the prevalence was reduced to 8% (WHO Global Data Base). The national prevalence rate in 1995 was 12.9%. Between 1989 and 1999, the national prevalence rate for underweight decreased from 25% to 15% in urban areas and from about 33% to 18% in rural areas.

Still, within the Tsunami affected area, the level of acute malnutrition probably reflects the worsening conditions among small children in many camps—a situation that could easily deteriorate without remedial action: urgent, targeted delivery of nutritious, age-appropriate foods, as well as vaccines, medicines, clean water and improvements in sanitary living conditions.

Throughout Indonesia malnutrition rates among adult women are very high, 22% of the women are at risk for chronic energy deficiency (MUAC below 23.5cm), 10-13.5% were malnourished (BMI below 18.5%). High malnutrition of mothers may be one of the causes for the relatively high percentage of infants born with low birth weight (national average 7%, range from 2 to 17%). The UNICEF/CDC rapid assessment in selected camps in Banda Aceh and Aceh Besar showed a very high level of malnutrition among women (15.3% below 18.5 BMI). For future interventions, more attention should be given to women, in particular to pregnant and lactating women.

A supplementary feeding programme, starting in IDP camps and gradually expanding its coverage to isolated villages may help to prevent further deterioration and ensure nutritional rehabilitation. The up-coming nutritional surveillance system should definitely also look at the nutritional status of mothers. WFP may further support the Government of Indonesia in its long term recovery phase of 5 years, including the implementation of a Mother Child Nutrition Programme, with the core component being a supplementary feeding programme for pregnant and lactating women, and children under five.

In addition, micronutrient deficiency diseases are of concern. Pre-tsunami levels of iron-deficiency anaemia, vitamin A deficiency, and deficiencies in zinc, iodine and other key nutrients are thought to have been high. A baseline survey conducted recently for the Institute of Agriculture in Bogor and WFP in selected villages in Bogor District found that more than half of the pregnant and lactating women (60% and 52%, respectively) and 42 % of school age children suffer from anaemia. Vitamin A deficiency was also relatively high (27%, 30% and 44% for school aged children, pregnant and lactating women respectively, as indicated by serum retinol levels). National data assessments show a prevalence of Vitamin A deficiency for children under five was 56% (in 2000). The prevalence of Xerophthalmia is 0.34% and night blindness among women is 6.4%, indicating a severe public health problem throughout the country.

With health shocks and constrained access to food-sources of vitamins and minerals within the Tsunami affected area, micro-nutrient deficiencies may get worse. Helen Keller International has just completed a Rapid Emergency Assessment and Prioritization[8] and underlined amongst others, concerns regarding the low coverage of measles immunization and vitamin A distribution, increasing the risks of children mortality. Thus, ensuring the delivery of fortified foods, such as fortified biscuits and noodles, especially rich in iron and vitamin A for vulnerable groups is important. Vitamin A fortified oil as part of the general ration will contribute to meet nutritional requirements of all beneficiaries. The potential for linking with other agencies distributing other sources of micronutrients such as Helen Keller International should be further explored.

Representative information on the child, maternal and micronutrient nutrition is required to identify the most vulnerable areas and population groups, to set priorities for action and to mobilize required resources. A government-led nutrition surveillance system supported by WHO, UNICEF, CDC and WFP, starting in February will offer more insights into the prevalence of nutrition problems in different parts of Aceh, possible trends, and likely causes.

[8] Helen Keller International, Tsunami Relief Report, 13 – 30 January 2005.

Additional nutrition surveys will complement these sources of information (including those underway by Helen Keller International and ACF, and planned by SCF), as well as further information gathered by line ministries in the coming weeks.

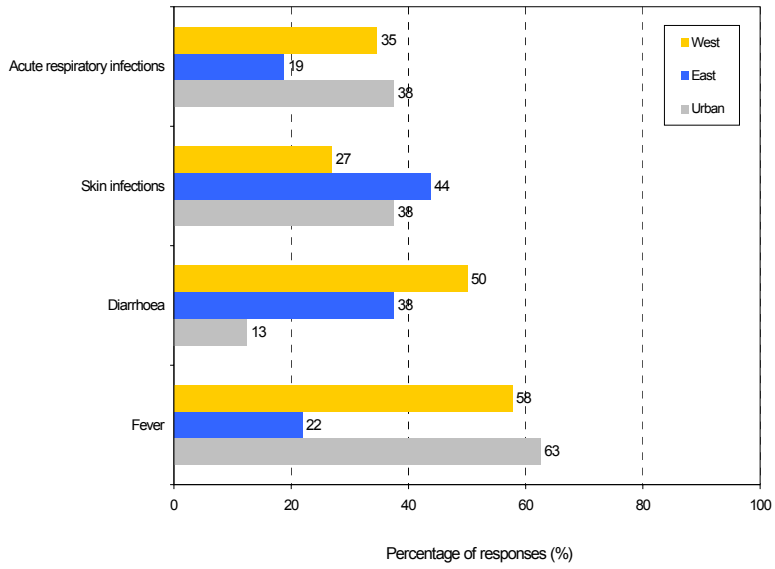
7.3. Health

- Diseases

Initially it was feared that outbreaks of diarrhoea, cholera and malaria might greatly increase the death toll. However, efforts to anticipate such problems have been relatively effective in controlling outbreaks—the distribution of clean water and medicines, coupled with vaccination campaigns and the distribution of micronutrient supplements, has interacted with food distribution to keep expected epidemics at bay.

There are many reported cases of diseases, which would be expected in such a large scale disaster, particularly among traumatized and displaced people, but not to uncontrollable levels. Since the tsunami occurred (17 to 24 days prior to the interview), about one third of the interviewed households had cases of diarrhoeal diseases, skin infections and respiratory infections (39%, 36%, 27% respectively), while almost half of the households had family members having fever (41%).

Figure 9 Type of diseases reported by respondents



Dysentery was reported in 2 out of 66 households, and no cholera outbreak was mentioned. No differences were observed in rates of diseases for children, female or male adults. The prevalence of diseases, particularly for respiratory infections and fever, are much higher among households living on the west coast or in urban settings, compared to households on the east coast. Diarrhoeal diseases were much more common on the west coast than on the east coast (50% and 12%, respectively), and the lowest in urban areas. The main reason may be that as urban areas are more easily accessible, the various NGOs can ensure a more regular supply of clean drinking water.

Local clinic staff and midwives reported high levels of infectious diseases for the time of year but not to unusually high levels. This pattern is consistent with findings of the Interagency Health-Focused Assessment off the USS Lincoln. However, UNICEF's rapid assessment in 19 camps in Banda Aceh and Aceh Besar revealed higher rates of diseases: 2 weeks prior to the interview, 43% of the children suffered from diarrhoea, 70% from respiratory infections,

and 56% from fever. The number of children vomiting was found to be very high (about one third). The reasons were difficult to diagnose but it may have been caused by the increased severity of intestinal parasites. Less than 2% of the children had measles.

The higher number of diseases shown by the UNICEF's study in camps compared to the WFP assessment results may indicate a worse health situation in camps compared to the situation among host families. It was also reported that IDP families with small children preferred to stay with host families seeking for more acceptable conditions to protect the health of their children.

Health infrastructure

Health infrastructure is damaged (or unserviced by staff) in many locations. According to Provincial Health Department: Within the 11 Districts affected out of a total of 77 Health Posts 20 are totally damaged, 23 are partly damaged and could be rehabilitated and 24 health posts lost their medical equipment. Half of them were located along the west coast. In addition, many health centres at sub-district level were destroyed. Finally, previously posted health personnel are now missing or absent.

Water and sanitation

According to the Consultative Group for Indonesia meetings (January 2005), most rural communities are highly vulnerable to disease since they lack basic medical attention, clean water, food and access to sanitation. Safe drinking water was made available by aid organizations in most accessible areas (along main roads and on the east coast), but much of the west coast and the highlands remain unserved. Latrines are un-common in most places visited (camps and host villages). Thus, hygiene and sanitation is far below acceptable standards in most places where large numbers of displaced people have settled—be it in camps and among host populations. Typically, camp facilities and host villages are overcrowded, while the number of people in host villages that were themselves heavily affected by the earthquake/tsunami, almost doubled—severely stretching water and sanitation systems that were already inadequate.

Devastated health structure and unfavourable hygiene and sanitation conditions mean that there is potential for health and nutrition to deteriorate over time.

8. Education Sector

According to the Provincial Department for Education, 1135 schools (or 32 %) were damaged in the 17 affected districts out of a total number of 3537 schools in the Province. Before the Tsunami, the affected schools counted approximately 177,000 students and 12,000 teachers. The total number of students in the Province in January 2004 was 719,401 and total number of teachers was 46,171. By 26 January 2005, 127,000 students were again enrolled. The Consultative Group of Indonesia/World Bank estimated that about 45,000 students and 1,870 teachers had disappeared.

The Government action plan covers a 3 year period and is supported by various donors, such as the multilateral Banks, represented by the World Bank, bilateral donors, represented by the Netherlands, and the UN agencies represented by UNICEF. The first emergency action will be the establishment of emergency schools for about 70,000 IDP students, the implementation of a learning programme, including the recruitment of required human resources for 3 to 6 months as well as guidance and counselling for traumatized teachers. The long term plan that will cover a period of 1 to 5 years comprises a comprehensive master plan under preparation, including the rehabilitation of educational infrastructure and investments to ensure good access and quality of education.

8.1. School feeding programme

Resuming or maintaining educational services in an emergency setting provides a structured environment, and basic numeracy and literacy training. It helps in restoring continuity and a sense of normalcy to an unstable situation.

In times of crisis, school feeding programs aim at improving children's health, increasing students' school attendance and retention, and improving learning. The educational performance of a child is, among other factors, determined by its health and nutritional status. A nutritional supplement to students in schools reduces short term hunger and thus enhances students' concentration span and absorption capacity.

In the current context, a mid-morning snack should be distributed to all school children attending the "emergency school programme" supported by UNICEF. Since kitchen, canteens and utensils are hardly available, the food commodities provided should not require further preparation or processing, hence the recommendation to provide fortified biscuits.

As the emergency school programme starts on 1 February, the school feeding programme should begin in all identified emergency schools as soon as possible. In close collaboration with the Government and partners supporting the education sector, a strategy needs to be developed for the medium term.

The involved partners may consider the possibility of expanding the school feeding programme gradually to areas of return, covering both the IDP children as well as the children of the host communities. During the consolidation phase, WFP Country Office experience and expertise in the school feeding programme under the PRRO 10069 should be called on, in particular to build the capacity of partners, develop implementation guidelines, establish formal agreements, and fulfil minimum standards, and monitoring and evaluation. The school feeding programme approach and targeting should also be harmonized.

In the medium term, the situation of primary education with regard to educational performance and its relation to poverty, food insecurity and malnutrition in Aceh Province should be assessed. In Indonesia, malnutrition and poverty is said to hamper access to education and limit children's learning capacity. The Central Bureau of Statistics (BPS) survey on the WFP Urban programme showed that 29% of urban families have at least one

school aged child not going to school. 27% of the students repeat once or more and 20% do not even complete primary education.

8.2. Parasite control

There is evidence that children and adults suffer from various types of intestinal parasites. Parasites cause abdominal pain, diarrhoea, stomach pain and vomiting. Parasite diseases lead to a depletion of iron levels and reduce the intestinal absorption of nutrients. Furthermore, the nutritional value of any food based intervention is significantly reduced if people remain heavily infected. A mass-deworming campaign is therefore recommended as soon as possible. UNICEF, HKI and WHO may support this type of actions. If mass de-worming is not feasible for the time being, WFP could take action to ensure regular de-worming treatments for school aged children, as they often suffer from highest infections rates.

9. Coordination

With the support of OCHA, UNHIC is undertaking a major data compilation exercise on the basis of information gathered on IDPs by the Government and partners who are intervening in specific sites. A questionnaire has been developed to collect basic information. This enables the establishment of a major database which unfortunately is not complete at this stage. Physical verification of sites has been done in Banda Aceh and the neighbouring areas.

The UNHIC assessment teams found out however that some IDP sites disappeared, could not be found or had reduced numbers of people, while the difficulty in assessing the numbers of IDPs living in host families remains in the absence of a systematic registration exercise. Some spontaneous sites are not accessible as they are remote and can not be reached by road, or are inaccessible for security reasons. Coding and discrepancies in site names have also made the exercise more difficult. The findings are shared in regularly issued occasional papers.

According to OCHA, the categories of affected people who would require assistance to cover their basic needs are IDPs living in temporary sites, IDPs living in spontaneous sites, host families and people who have had their livelihoods affected. WFP assessment identified communities inland of the west coast with no or restricted access to markets, which affected their income sources and access to food, and people with disrupted livelihoods. It also recommends distributing food aid to the IDPs living with host families. In this regard, it is to be noted that according to verbal information, the Government intends to provide 5000 rupees (USD 0.5 – the equivalent of one kilo of rice at the increased post-tsunami price level) per household per day to those IDPs living with host families. With regard to the host families, the Indonesia Country Office may consider to provide food assistance when the presence of IDPs outnumbers the host family.

OCHA has also undertaken a major compilation exercise regarding sector wise interventions, partners and geographical areas in order to facilitate coordination, complementarily and information sharing.

In order to better understand the possible contribution of various actors in assisting the displaced people with food aid, the assessment team consulted partners, namely ICRC, IFRC, IOM and the Government of Indonesia in order to determine complementarities and determine the planning figure for WFP operation. ICRC confirmed that beginning of January they had distributed a one week emergency ration to over 6,500 families, mainly in Banda Aceh. This distribution was done on the basis of specific requests by communities and in anticipation of WFP distribution. ICRC does not plan any further food distribution.

IFRC is working in close coordination with WFP and intends to provide through the PMI (Indonesian Red Crescent) complementary food items to relief food distribution undertaken by WFP, in particular additional protein, condiments and fresh vegetables. Iodized salt is one of the food items which should be distributed in conjunction with WFP distributions. IOM has distributed small quantities at the initial stage and plans to discontinue food aid distributions. The contributions of the Government to cover the food requirements of affected populations are not yet known. Consultations are going on with the Country Office in order to determine their inputs to cover the food requirements of displaced people.

Further on, the relief support will be phased over to recovery activities in conjunction with the Government plans and according to the Law on recovery to be passed by the Parliament of Indonesia on 26 March. The Law will formalize the budget contributions of donors and the State to the reconstruction.

10. Estimated Population Requiring Food Assistance

Based on calculations triangulating the estimates of UN/OCHA, population statistics of Indonesia, the information available on the extent of physical damage, the number of deaths, the number of people who lost their houses or had their houses severely damages, and responses from the households and communities surveyed, the total number of persons requiring food aid over the next six months is estimated at approximately 790,000[9]. The estimated number of IDPs in need of support is contingent on the provision of more detailed information, expected to be made available in the coming weeks. The estimated population requiring food assistance can however be deconstructed as follows:

10.1. Directly affected people

These include household that have lost their principal dwelling and are either living in IDP camps or with host families in Aceh Province or the northern districts of Northern Sumatra.

According to figures from the Government, over 700,000 persons are homeless and the number is expected to increase. However, for planning purposes, this assessment recommends categorizing as IDPs only 700,000 persons who were living in semi-modern and traditional houses[10]. According to the primary data analysis, they are in need of assistance to rebuild their

[9] For a more detailed explanation of the calculation of this figure, please refer to annex III.
[10] People who had modern houses are expected to come from wealthier families and are not considered to be food insecure. Through their social networks and the availability of human and physical assets, it is believed that they will be able to recover their livelihoods and re-build their income sources.

shelter and in most instances their livelihoods. Food aid will cover their immediate basic needs.

Drawing from the results of the household assessment, for almost half of the respondents who lost their residence, the key source of food (staples, animal products, pulses, vegetables and cooking oil) within the 24 hours prior to the assessment were social networks including non-affected relatives and neighbours. Similarly, the respondents indicated overwhelmingly that their remaining stocks of food would last between 1 and 3 days.

Aside from the loss of their residence, these households also lost most of their durable assets. However, surprisingly, over three quarters of the respondents indicated that they wanted to return to their place of origin in the near future.

Prior to the disaster, the respondents who lost their housing undertook a heterogeneous grouping of economic activities. These activities included: fishing (30%), farming (35%), daily labour (4%), formal employment (10%), and trading (21%). After the earthquake and tsunami, over 70% of the respondents were not engaged in any productive activity anymore. Of the 30 % of respondents that were still engaged in income activities, the majority (60%) were relying on agriculture.

To assist the large number of households there are no longer engaged in economic activities (70%), a significant amount of capital investment is needed over the short to medium term to replace, repair and restock the assets and goods to recover their economic activities. This would suggest that the IDP households will require on-going assistance to cover their basic needs before they will be in a position to rely again on farming, fishing and trading.

10.2. Disrupted livelihoods

This category consists of households along both the west and east coasts that retained their principal dwelling but have either lost or had their productive assets damaged which will require time to rebuild, repair or replace. An initial support of 3 month should enable these households to bridge the lean season while a re-assessment of their livelihoods situation and support needs will allow a determination of their requirements for continuing the assistance in the form of food aid or any other types of support, or possibly complementary interventions with cash, technical support and possibly food-for-work.

10.3. Isolated Communities

The principal access route between Banda Aceh and Meubola is located along the west coast. The tsunami severely damaged large parts of this road making direct access between Banda Aceh, Chalang and Meulaboh impossible. Consequently, this resulted in a large number of communities along the west coast being cut-off from markets which previously provided households with access to food. In general, based on the current figures, spatial analysis of the location of the villages, livelihood typologies, and principal access routes, the number of overall people in need of food aid for each of the four categories is as follows:

Category	Estimated Number of People in Need of Food Aid
IDPs living within camp like locations	450,000
IDPs living with host families	250,000
Disrupted Livelihoods[11]	60,000
Isolated Communities	30,000
Total Number	790,000

Applying the findings of the rapid needs assessment and reports issued by the Government, it is possible to estimate the number of beneficiaries by district or geographic sector.

IDP Population requiring assistance by district

Based on the estimation of 700,000 IDPs in the affected area of the earthquake and tsunami and employing the results of the household study coupled with information colleted by the Government and other United Nations Agencies, it is possible to deconstruct the global figure into beneficiary estimates by district. However, due to the ongoing movement of affected households from camps, host families and relatives, the actual number of people requiring food assistance per district may not be reflected in this breakdown.

District	Population(GOI)	Estimated number of IDPs by district
Banda Aceh	223,629	69,000
Aceh Besar	302,106	166,500
Sabang	24,106	6,000
Pidie	517,697	60,000
Biren	361,528	51,000
Aceh Utara	523,717	36,000
Lhokseumawe	167,362	14,000
Langsa/Medan	122,865	10,000
Aceh Jaya	98,796	58,500
Aceh Barat & Meulaboh	195,000	81,000
Negan Raya	143,985	20,000
Aceh Barat Daya	115,358	30,000
Aceh Selatan	197,719	26,000
Simeulu	77,761	29,000
Aceh Singkil	124,758	10,500
Aceh Tengah/Aceh Takengon	160,453	7,000
Medan		22500
Nias		3,000
Total		700,000

[11] This includes the following livelihood typologies: fishing, rice production for household consumption and plantations

Estimated number of people requiring assistance due to disrupted livelihoods

Based on the responses of the households in the three sectors, a snap shot of the current vulnerability of households can be made. Household answers regarding daily consumption, sources of food, access to markets, and the availability of food and non-food goods on the market and the distance from the coast, it is possible to estimate the number and location of people requiring assistance outside of the internally displaced persons cause by the earthquake and tsunami.

To estimate the number of people requiring assistance due to livelihood disruption, first the population of agrarian households[12] on the periphery of the affected area was calculated. Next, employing the results from the household questionnaire, the percentage of households that employed farming as a key livelihood strategy and lost neither their house nor their farm land by geographical zones was tabulated. The population figure was then multiplied by the percentage of affected farmers and resulted in the following number of beneficiaries being identified in the west and east coast zones.

Geographical Zone	Estimated Number of People requiring Assistance
East coast	37,000
West coast	23,000

Isolated communities

Based on the results of the household and village questionnaires the following table of sub-districts is the area identified to have the 30,000 beneficiaries within the category of isolated communities.

District	Sub-District
ACEHBARAT	JOHAN PAHLAWAN
ACEHBARAT	WOYLA
ACEHBARAT	KAWAY XVI
ACEHBARAT	MEUREUBO
ACEHBARAT	PANTAICEUREMEN
ACEHBARAT	SUNGAIMAS
ACEHJAYA	TEUNOM
ACEHJAYA	PANGA
ACEHJAYA	KRUENGSABEE
ACEHJAYA	SETIABAKTI
ACEHJAYA	SAMPOINIET

[12] This calculation is focusing on agrarian households (this includes both rice and plantation activities) for disrupted livelihoods as the results of the household questionnaire suggest that fishing and trading livelihoods affected by the tsunami and earthquake are predominantly IDPs and therefore already included in the 700,000 people requiring assistance.

11. Response Options and Targeting

In the annual meeting of the Consultative Group on Indonesia held on 19 January with the participation of the World Bank, the Government of Indonesia stipulated that the relief assistance should be terminated by end March, while the recovery phase would already start for possibly a two year period while the reconstruction would be launched before the end of the year. The Ministry of National Development Planning and the Ministry for economic Affairs will be in charge of a steering committee which will be negotiating support with major donors. A reconstruction strategy will be defined within the coming two month. WFP should ensure that it establishes a dialogue with the Ministry of Plan and the World Bank so that its role in the recovery phase is recognized.

Major donors have already pledged funds for the rehabilitation/reconstruction phase and specified their sectoral priorities and disbursement modalities. Consultations are going on with the Government, World Bank, ADB and UN agencies in order to coordinate funding and interventions within an action plan still to be established.

Regarding WFP's interventions, a number of response options are presented based on the findings of this assessment in view of re-establishing livelihoods and the nutrition status of affected people. They should be implemented in conjunction with partner programmes so as to ensure synergies and the appropriate technical and financial support required for recovery activities. Concerning food aid inputs, WFP will have to consult the Government and other possible food assistance providers in order to determine their respective contributions and avoid duplication in resourcing and support. This information was not available when writing this report.

The response and targeting strategies are based on various categories of beneficiaries established according to the level of affectedness and using a geographic approach. Some assumptions are made regarding the duration and type of assistance, which will need to be verified or adjusted as the food security and livelihood situation of the various categories of beneficiaries will be monitored. In addition, relief interventions will promptly shift to recovery activities and other support options, such as technical assistance, micro-credits, access to productive assets and distribution of non-food items will be made available according to the identified needs of the people affected by the disaster.

- The distribution of a full ration should be continued to all IDPs living in camp like locations. The current planning figure is 450,000 persons. It is expected that most IDPs will return to their place of origin. Still, the Government plans for semi-permanent camps to be established on 24 sites for between 100,000 and 150,000 persons. Therefore, the full ration shall be given for an initial period of 3 months subject to monitoring of the return movements, the access to livelihoods of IDPs in camps, in particular those close to urban areas, and the phasing over/out of food assistance. Particular attention should be given to the registration of IDPs living in spontaneous and remote sites.

- Displaced persons who have been hosted by their families should also receive a full ration for an initial period of three months. Their recovery and access to livelihoods will be verified prior to continuation of the support. The planning figure is 250,000 persons. Though it is difficult, at this stage, to identify the IDPs living with host families, in particular those in remote and inaccessible areas, the registration of the displaced persons is of prime importance to address their immediate food needs but also reach them with the forthcoming recovery interventions.

- The general ration consists of rice, canned fish and vitamin A-fortified cooking oil. The planned food basket should be enhanced to meet special nutrient needs that may emerge in the process of future surveys and assessments (such as, perhaps, inclusion of iodized salt within the general ration, to be possibly provided by IFRC); and food delivery must be dove-tailed with other non-food interventions (water, health) such that synergistic gains are possible.
- The composition and ration scale provided by WFP will be further reviewed with the Government and other partners who are providing food aid in order to ensure that additional commodities complement the food ration.
- The provision of food to host families, indirectly affected by the disaster and which vulnerability to food insecurity has increased due to the pressure on their own resources by the presence of IDPs in their household, should be considered. Their situation is of particular concern when IDPs outnumber the host family.
- People who have been directly affected and have lost their livelihoods but have not been displaced should also receive a full ration for an initial period of three months. The recovery or access to alternative support options to strengthen their livelihoods will be verified prior to continuation of the assistance. The number of beneficiaries under this category is 60,000 people.

- Households who have been indirectly affected by the lack of access to the markets and therefore have lost their income sources will receive full rations for an initial period of three months. This intervention will only concern the inland villages of the west coast. Two thirds of the population of these villages will require food assistance. The estimated number of people in need is 30,000 persons.

- A return package of three month full ration should be considered for people who are returning to their place of origin and should preferably be combined with appropriate non-food support. To ensure the success of the reinstallation, WFP must work in close cooperation with partners who will be providing support in shelter and productive assets, such as tools, seeds, fertilizers or access to soft loans. These beneficiaries are part of the IDP caseload. Support in shelter, building material and basic domestic goods will be sought from UNHCR and other involved partners in this sector to ensure a successful resettlement process. Social services such as health and education will also need to be ensured.

- Additional, targeted nutrition interventions are recommended that would a) focus on the special nutritional needs of vulnerable children <5 and pregnant and lactating

women, and b) enable health and other social sectors to be reactivated, that are needed to bolster gains in nutrition. This will entail blanket supplementary feeding to under fives and mothers in camps where the nutritional situation is already bad and/or shows a deteriorating trend, and targeted supplementary feeding through certain collaborating institutions. The proposed take home ration of 1100 Kcal includes 250 g fortified noodles and 75 g canned fish for women. Children will receive 150 g of fortified biscuits (600 Kcal).

- A programme to support school-aged children to return to school and increase their learning capacity by providing a nutritional supplement is recommended. It should supply a nutritious mid morning snack, possibly consisting of fortified biscuits. The programme should be targeted at all emergency schools as well as at the schools in the affected areas of the west coast. If no mass deworming is planned by the Government, UNICEF or any other partners, WFP recommends facilitating such an activity as one component of the school feeding programme.

Caseload of beneficiaries for supplementary and school feeding

	Population	Number of School Age Children (18%)	Number of Children for Supplementary Feeding (10%)	Number of Pregnant and Lactating Women (4.7%)	Total Number of Beneficiaries for School Feeding and Supplemental Feeding Programmes
IDP in camps	450,000	70,000	45,000	21,150	136,150
Isolated Communities	30,000	5,400	3,000	1,400	9,800

  - ✓ Children 6 to 12 months old will receive blended food (MP Asi) provided by the Government. Sufficient quantities are in stock;
  - ✓ WFP will assist in the distribution (6 to 12 months old are approximately 1% of the population, i.e. 4,500 children in camps and 300 children in isolated villages.

- Vulnerable groups should be receiving special attention. Recently widowed women heads of household with only minor children should be benefiting of a full ration for the initial period of three month. In conjunction, alternative options to enable the access to income sources through the provision of working capital, micro-credits, productive assets or to new skills with the support of partners and the use of FFT will have to be sought.

- Institutional feeding in orphanages, the 40 new child care centres and hospitals could also be considered until the economy of the Province has recovered, possibly in two years. The preferred option for orphans is the integration in foster families. The support with an individual ration for the child could also be provided during the initial relief period of 6 months. 8,000 children and their care takers will receive this

assistance. Nutritional support to orphans should be adapted to their specific needs and it is recommended to add 75 g of biscuits to the full ration. The Government blended commodity MP Asi will be added to the ration for the infants 6 to 12 months.

- Support TB patients is also recommended. As the expected prevalence of TB within the population is 321 per 100,000 persons and assuming an increase of 10% due to mental and nutritional stress, and higher relapse rates after the Tsunami, approximately 15,000 TB patients would receive a general food ration increased with additional 160g fortified noodles.

- WFP has received some request for FFW for the rehabilitation of social or agriculture infrastructure. This type of intervention is recommended primarily in rural areas and in conjunction with cash payment. The provision of tools, seeds and possibly fertilizer by FAO or other partners which are providing support to agriculture activities are essential for the recovery process.

- In urban areas, cash payment or voucher systems could be introduced in order to avoid possible price distortions. It is however recognized that voucher systems require appropriate technical and support capacities. OXFAM has expressed interest in introducing such a system.

12. Recommendations

1. Design and implement a detailed nutrition and livelihood surveillance system in partnership with UNICEF/WFP/CDC. This exercise should commence in February. During the design stage, WFP must take ownership by providing technical leadership regarding livelihood issues and developing the local capacity of the Government to ensure sustainability of the system.

2. Based on the findings of the initial surveillance, design and implement a monitoring system that measures the change in the nutritional status and livelihoods of the affected households. For more information on indicators please see annex III.

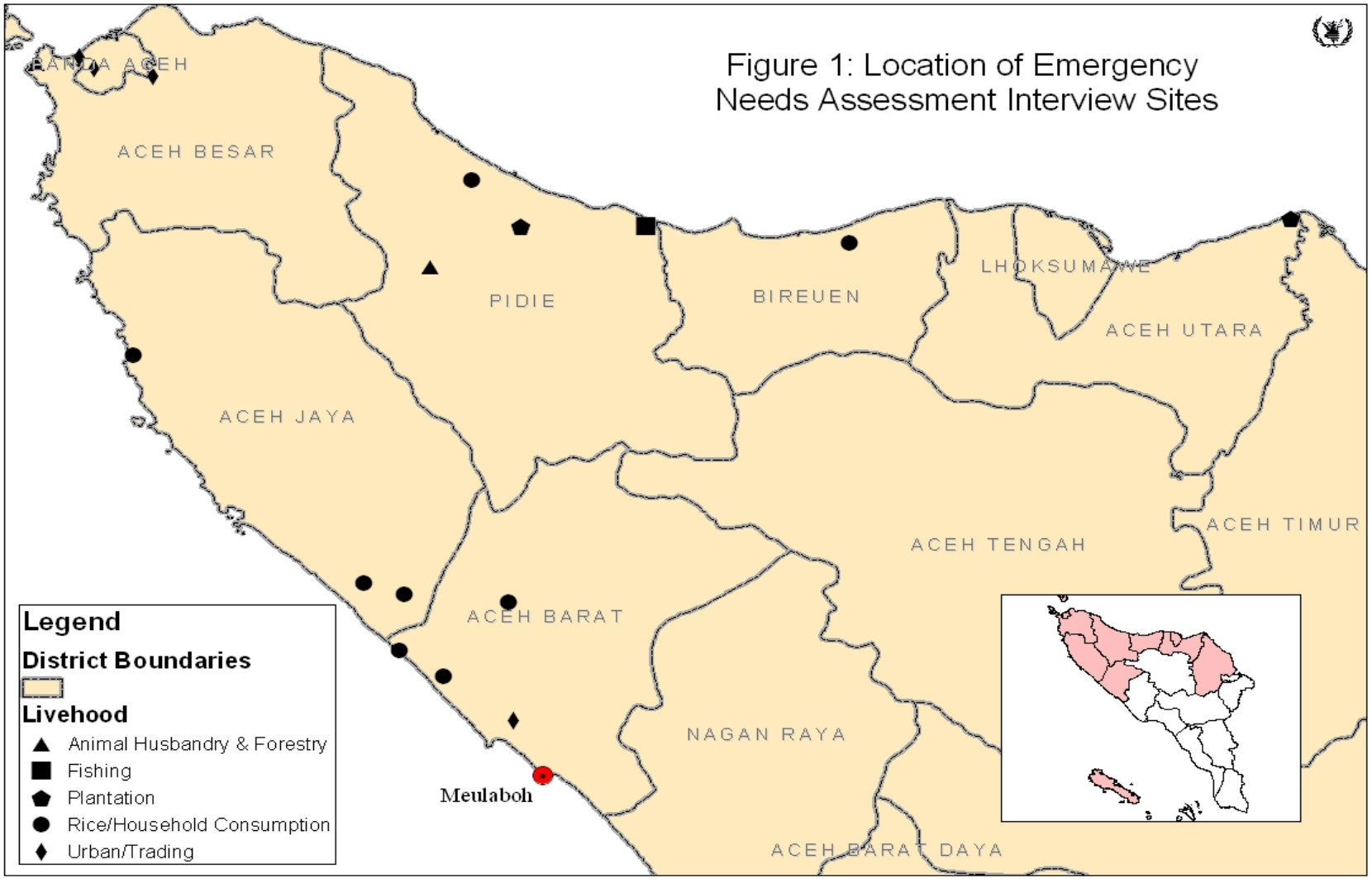
3. During the recovery period, it is recommended that links with the local/regional and national authorities be fostered to ensure cooperation in the health, nutrition and education sectors. This is of particular importance due to the up-coming sectoral emergency action plans by the Ministry of Health and Ministry of Education.

4. It is of utmost importance that a comprehensive registration of all affected households is undertaken in the immediate future. Under the leadership of the local and provincial authorities, the international community should provide logistical and technical support.

Annexes:

I. Map of Sample Frame
II. Criteria for Nutrition and Livelihood Surveillance System
III. Estimation of the Number of People Affected
IV. Recommended Food Basket
V. Household questionnaire
VI. Community questionnaire
VII. Terms of Reference

Annex I: Map of Sample Frame



Annex II: Criteria for Nutrition and Livelihood Surveillance System

The implementation of a joint Government of Indonesia-UNICEF/CDC/WFP nutrition surveillance system is recommended as an immediate action. The objective of the surveillance system is to provide representative and immediate information on the nutritional and livelihood situation within the affected areas. The collected indicators will provide information on trends and causes. This will allow:

- To identify most vulnerable areas and population groups (i.e. east-cost, west coast, urban areas, camp sites, host populations) and to target food based interventions accordingly
- To design appropriate interventions and to mobilise required resources
- To allow for immediate response if the nutritional status deteriorates.

The results of the first round of the surveillance system should serve as the EMOP baseline for RBM purposes. The initial round will cover the 9 Districts, and will randomly select 5 sites per District, within each site 30 child and their households will be selected. After the completion of the first round, the trained staff will continue their surveillance system within other sites of the district.

During the first session in depth information on the nutrition, health, food consumption and utilisation, food availability and access and livelihood systems should be collected. After the first round the key criteria for further surveillance and monitoring will be determined.

Information on the following criteria will be obtained:

- Nutritional status of children under 5 years (wasting, stunting, underweight)
- Micro-nutrient status (haemoglobin levels and clinic symptoms of MDDs)
- Nutritional status of women at the reproductive age (BMI)
- Health status, infectious diseases
- Composition of the household
- Hygiene and sanitation, water supply
- Mortality rates
- Utilisation of food (number of meals, food frequency, types of foods consumed, coping mechanisms, food aid vs. indigenous foods, availability of food for small children, intra-household food distribution)
- Means of food preparation (availability of stoves, cooking fuels, utensils)
- Availability and access to food (food sources, stocks, seasonality, production, market supply)
- Basic components of livelihood security (housing, rehabilitation of productive assets by category of livelihood, source of income, recovery of basic infrastructure, markets, transportation and road network).

Annex III: Estimation of the Number of People Affected

According to figures available at the beginning of the assessment, OCHA reported that approximately 703,518 (≈ 700,000) people were homeless/displaced (IDPs) (Regional overview data as of 14 January 2005, UN/OCHA Reliefweb). This figure was verified by the assessment using the following three methods:

Method 1

a. Employing 2003 LandSat data on population density per km² for the island of Sumatra, estimated population figures by district within 10 km from the coast were calculated.
b. Within this 10 km strip, the percentage in each district of geographic area (km²) affected was estimated based on initial information regarding the extent of the damage (e.g. based on the initial damage report, height of the wave, extent of the wave inland, elevation).
c. The estimated number of people affected was then calculated as a product of the percentage of areas affected and the LandSat population estimate for these areas (b x a).
d. This resulted in an initial estimate of people affected of approximately **751,000**.

Method 2

a. The estimated number of destroyed/damaged semi-modern and traditional houses and 50% of damaged semi-modern houses was calculated[13].
b. This figure was multiplied by the average household size to produce a total estimated number of people who lost their houses.
c. The estimated number of dead and missing people was subtracted from this figure, resulting in an estimate of **770,000** homeless/displaced people.

Method 3

a. Employing the spatially referenced 2003 Village Potential Statistics (VPS) issued by the Government of Indonesia, the population of all villages within the affected area of the tsunami by district was calculated
b. Drawing upon the results of the household interview survey of this assessment (n = 70), the percentage of respondents who indicated that they had lost their dwelling was determined. This figure took into consideration the estimated number of dead[14] as a percentage of the population.
c. This percentage of houses lost was then calculated for three geographical zones (west coast, east coast and urban).
d. The population estimates by district were multiplied by the respective percent of damaged/destroyed houses reported by the survey for each district, resulting in an estimated **688,000** people affected.

[13] Modern houses were not included in this figure as we assumed that the households within these dwelling are wealthier and would have strong coping mechanisms
[14] Estimated number of dead was drawn from the OCHA report released the third week of January, 2005

By comparing the estimates derived from these three methods with the original OCHA-reported figure, it appeared that the original estimate of homeless/displaced persons was sufficiently reliable. This is because 703,518 is in the range between 668,000 (minimum) and 770,000 (maximum) and is close to the mean of the three WFP-derived estimates (=736,000). However, the figure should be rounded off because the level of precision of 703,518 is questionable. Therefore, this assessment employed 700,000 as the estimated number of IDPs for planning purposes.

Aside from the calculation of IDP, the calculation of the number of people in the need of food aid due to disrupted livelihoods and isolated communities was calculated as follows.

1. Disrupted livelihoods.
    a. Employing the VPS a population estimate was calculated of the number of people within 10 kms from the coast that relied on agricultural activities area their principal livelihood.
    b. Based on the responses of household from the ENA assessment, the percentage of agrarian households that were still attempting to farm after the earthquake and tsunami were calculated. The criteria for this calculation is as follows
        i. that did not have their house destroyed by the tsunami
        ii. indicated that they were continuing to farm
        iii. that their farmland was not destroyed by the tsunami

    c. This percentage was the prepared for both the west and east coast zones and the coefficients were then multiplied by the calculated population in step a.
    d. This resulted in **60,000** people being calculated that would require food assistance

2. Isolated Communities
    a. Based on a remotes sensed calculation of the extent of the tsunami wave on the west coast, areas were the principal route was cut were identified
    b. Employing the geo-referenced VPS all communities that fell within this area were identified and the total population for these communities was calculated.
    c. This resulted in **29,300** people being identified as requiring food assistance.

Annex IV Recommended Food Basket

1) General Food Ration

	Daily ration	Energy	Protein	Fat	Calcium	Iron	Iodine	Vit. A	Thiamine	Riboflavin	Niacin
	g	kcal	g	g	mg	mg	µg	µg RE	mg	mg	mg
Rice	450	1,620	31.5	2.3	36	7.7	0	0	0.45	0.14	25.1
Veg. oil	25	221	0.0	25.0	0	0.0	3	225	0.00	0.00	0.0
Canned fish	75	229	16.5	18.0	248	2.0	0	0	0.30	0.23	4.9
Iodized salt	5	0	0	0	0	0	150	0	0	0	0
Total	555	2,070	48	45	288	10	153	180	0.6	0.27	31
Minimum requirements		2,100	52.5	40.0	450	41.0	150	500	0.9	1.40	12.0

Iodized salt will be provided by partners, possibly IFRC.

2) Supplementary Food for Pregnant and Lactating Women (Take Home Ration)

	Daily ration	Energy	Protein	Fat	Calcium	Iron	Iodine	Vit.A	Thiamine	Riboflavin	Niacin
Fortified noodles	250	825	23	5	750	20	88	675	0.75	0.75	3.3
Canned Fish	75	229	16.5	18.0	248	2.0		0	0.30	0.23	4.9
Total Ration	325	1054	39	23	998	22	88	675	1.05	0.98	8.1

Food basket will be adjusted according to the results of the up-coming nutrition survey.

3) Supplementary Feeding for Children 2 to 5 years (Take Home Ration)

	Daily ration	Energy	Protein	Fat	Calcium	Iron	Iodine	Vit.A	Thiamine	Riboflavin	Niacin
Fortified Biscuits	150	600	12.0	15.0	300	12	150	675	0.90	0.90	12.0

2 packets of biscuits for all children under five in sites/villages were high malnutrition rates are identified. Children 6 to 12 months will receive MPAsi (Government product).

4) School Feeding Programme (on site feeding)

	Daily ration	Energy	Protein	Fat	Calcium	Iron	Iodine	Vit.A	Thiamine	Riboflavin	Niacin
Fortified Biscuits	75	300	6.0	7.5	150	6	75	338	0.45	0.45	6.0

Will start in emergency school (about 70,000 children) and expand gradually to all schools in Tsunami affected areas.
Micro-nutrient interventions by Helen Keller International will cover the same target areas.

Annex V Household Questionnaire

Earthquake and Tidal Wave disaster in Aceh Province/Indonesia

Outline for a household visit/interview guide

Province: Aceh	District/sub-district:
Surveyor:	Village/neighbourhood:
Signature:	IDP site (if relevant): Village of origin:
Date:	Household visit #

Household composition		Number before	Number died/missing	Number under same roof
	Men >18 years Women > 18 years			
	Boys 5-17 years Girls 5-17 years			
	Boys <5 years Girls < 5 years			
	Total household size			
Housing	Before • House • Radio • TV • Refrigerator • Stove • Others	Lost or destroyed: • House • Radio • TV • Refrigerator • Stove • Others	If displaced, do you want to return to your village Yes No	

Principal means of livelihood	Before: fishing farming employed trade casual labour own business (taxi, truck, etc.) others		Now: fishing farming employed trade casual labour own business (taxi, truck, etc.) others		
Principal productive assets	Before: boat, bicycle skilled household member farming land truck owner taxi others		Now: boat bicycle skilled household member farming land truck owner taxi others		
Access to a market	Does the household have access to a functioning market? Yes / No If so, how far is it? How long does it take to walk there? …	Items on sale	Available? Yes	Available? No	How do price compare with what would be normal at this season?
		Staple foods such as rice/ noodles			
		Animal products such as milk/eggs/meat/ fish			
		Pulses such as beans, tahu/tempeh			
		Vegetables and fruits			
		Cooking oil			
		Sugar			

		Soap Basic sanitation supplies Inputs for productive activities (seeds, fishing nets and lines, fertilizers, tools, machete)			

		Which was/is the most important source of food (#1), then #2, #3?		How are things expected to change in the next few weeks?
		Before	Now	
Sources of food	Fishing/hunting/gathering Own production Market purchases From social networks From relief distributions Other sources…			

		How many times did you have foods of the following food groups		
			Number	Where did it come from
Current consumption	Yesterday, how many meals did you have yesterday? … How many days will household stocks last? ... Suitable foods for young children Yes/no	Staple foods such as rice/ noodles Animal products such as milk/eggs/meat/ fish Pulses such as beans, tahu/tempeh Vegetables and fruits Cooking oil Sugar		

<table>
<tr><td rowspan="3">Sources of income</td><td rowspan="3">Employment
Sale of produce
Cash received from social networks
Cash relief
Other sources…</td><td colspan="2">Which was/is the most important source of income (#1), then #2, #3?</td><td rowspan="2">How are things expected to change in the next few weeks?</td></tr>
<tr><td>Before</td><td>Now</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td rowspan="3">Ability to prepare food now</td><td rowspan="3">Water
Cooking stove
Cooking fuel
Utensils</td><td colspan="2">Available?</td><td colspan="2" rowspan="2">Are the quantities sufficient?</td></tr>
<tr><td>Yes</td><td>No</td></tr>
<tr><td></td><td></td><td colspan="2"></td></tr>
<tr><td>Access to water and sanitation</td><td>Drinking water
Water for washing/bathing
Latrines</td><td></td><td></td><td colspan="2"></td></tr>
<tr><td>Diseases</td><td>How many people suffered from diseases since Tsunami
• Children under 5
• Mother
• others</td><td colspan="2">What kind of diseases
• diarrhoea
• dysentery/cholera
• Malaria
• skin infections
• measles
• Acute respiratory infections
• Fever
• others</td><td colspan="2"></td></tr>
<tr><td rowspan="2">General observations of surveyor</td><td colspan="4">Concerning needs to improve food security:</td></tr>
<tr><td colspan="4">Concerning other priority needs:</td></tr>
</table>

Additional observations

Annex VI Community Questionnaire

Earthquake and Tidal Wave disaster in Aceh Province/Indonesia

Outline for a community group interview guide

Province:	District/Sub-district:
Surveyor:	Village/neighbourhood:
Signature:	IDP site (if relevant): Village of origin:
Date:	

Extent of damage	Area completely devastated: Partial damage : what is left • Housing • Water supply • Livelihood sources • Schools • Health centres • Other community facilities None

Population details	How many households were dependent on the following activities for their livelihoods?		How many people does the community have now?	
	a) fishing b) wage employment c) trading d) cultivation e) casual labour f) other…	a) b) c) d) e) f)	Men >18 years Women > 18 years	
			Boys 5-17 years Girls 5-17 years	
			Boys <5 years Girls < 5 years	
	Total number of households		Total no. died/missing	

	How many households have: • A women headed household • An adolescent headed household	Number of orphans …. Number of disables (physically and mentally) ….	Total population before	
Displacement		Estimated number of people displaced	The number expected to return	When they are expected to return
	Displaced within the community			
	Gone to other places			
	Where, if there is a common place			
Markets	Distance from the community to the nearest functioning market? … What has been the impact on the availability and movement of goods? …	Items for sale	Quantities compared with the seasonal norm	Prices compared with seasonal norm
		Basic staples such as rice, noodles, etc. Animal products, such as fish, chicken, meat, eggs Pulses/legumes such as soy beans, mung beans, peanuts, etc. Vegetables and fruits Cooking oil Sugar Cooking fuel		
		Soap for bathing and cleaning Basic sanitation supplies such as brooms, mops, etc Inputs for productive activities		

Impact on means of livelihood	Livelihood group	What has been the impact on these means of livelihood – on households' livelihood assets and on employment and marketing opportunities?
	a) fishing b) employed c) trading d) cultivation e) casual labour f) other…	a) b) c) d) e) f)

Prospects for recovery of livelihoods	Livelihood group	What are the prerequisites for recovery?	When may livelihoods recover?
	a) fishing ….. b) employed……. c) trading…… d) cultivation….. e) casual labour….. f) other…	a) b) c) d) e) f)	a) b) c) d) e) f)

Availability of food, water and other essentials for the affected people		Available?		What are the sources? Are the quantities sufficient?
		Yes	No	
	a) Basic food items b) Foods suitable for young children & sick/elderly people c) Water d) Cooking stoves & fuel e) Cooking utensils f) Sanitation supplies g) others			a) b) c) d) e) f) g)

<table>
<tr><td>Health</td><td>a) Major health problem of children under 5 before
b) Major health problem of adults before
c) is health centre operational

d) Disease outbreak since Tsunami
e) Any organization/agency working in community to develop health sector. Name ….</td><td colspan="3">a) List ……
b) List…..

c) Distance ….
• Type of services provided …….
• sufficient (yes/no)
• medicines handed out (yes/no)
d) Diarrhoea…. How many people…..
Dysentery …..How many people….
Malaria …. How many people….
Skin infection… How many people ……
Measles……How many people…
Acute respiratory infections…. How many people
Fever…… How many people…..
Others…… how many people….</td></tr>
<tr><td rowspan="2">Education</td><td rowspan="2">a) Is there a school in the community
a) Are there enough desks for the children in the school
b) Do all children go to primary school</td><td>Yes</td><td>No</td><td rowspan="2">c) if no, how many are not going and why</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Capacities of the community to cope with the situation</td><td colspan="4">(e.g. traditional support networks; community-based organizations, external support and in what sector)</td></tr>
</table>

Constraints	(e.g. logistics constraints; institutional/administrative constraints) What do the community networks need to function better
Additional observations	

Annex VII: Terms of Reference for Tsunami Emergency Needs Assessment Team

Background

On December 26, 2004 a massive earthquake (9.1 on Richter scale) struck off the coast of Aceh province in Indonesia setting off a series of large tidal waves (tsunamis) that have killed over 135,000 people, displaced about 1.5 million people and affected millions more in about ten countries in Asia and East Africa. In response to the tsunami disaster and based on an initial assessment WFP is launching a regional EMOP to cover Indonesia, Sri Lanka, the Maldives and other affected countries.

In order to validate, refine and update the needs for food assistance –and other food-security related assistance– in light of the evolving situation in the affected areas, WFP is deploying special emergency assessment missions to Indonesia, Sri Lanka and the Maldives for 3 to 4 weeks.

Expected outputs

> Assessment report providing a refined description of the tsunami disaster food security impact, people in need of food assistance, response/targeting options and any longer-term assistance needs.
> Documented arrangements to monitor and up-date the food security situation and food needs, either in the context of WFP's M&E system or as part of a food security monitoring system with the government/partner agencies.

Roles and Responsibilities

The emergency assessment teams will report directly to the WFP Country Director / Coordinator while in-country and to the Regional Director while in the region. Changes to mission deployments must be agreed upon by WFP HQ, Rome (ODAN). The following are specific tasks of the teams:

- Liaise with UN country team, other humanitarian agencies and relevant government authorities to take stock of the assessments to date of the needs for food and non-food assistance, and ensure effective coordination and partnerships in improving assessment information.
- Travel to affected areas to conduct a rapid assessment of changes in food availability, access and utilization as a result of the tsunami disaster, paying particular attention to the situation of people who have taken shelter in relief camps and with host families as well as households who lost their livelihoods.
- Based on the field visits and information from other sources, verify and update estimates of population in need of immediate food assistance and the duration of assistance, taking into account observations on the targeting effectiveness of ongoing food distributions. Also judge the role markets are playing and could play in enabling access to food (prices, volumes).
- Propose options for programming food assistance over the next 6 months and beyond, as appropriate, including duration and scope of relief assistance/general distributions and when and if food-for-work activities related to clean-up, shelter construction, road repairs, building of community infrastructure (schools, water and sanitation facilities) and rebuilding of livelihoods could be implemented.

- Review data on the pre-disaster nutritional and health status of the populations and provide updates on the nutritional and health status of vulnerable groups, especially young children and mothers. The teams should consult with other agencies to determine the need for special feeding programmes to prevent declines in nutritional status of these populations as well as the need for anthropometric surveys in the affected areas. Regarding health, the mission should review the relationship of nutritional status and the availability of health infrastructure, essential drugs, immunization and safe water.
- The teams should also examine the livelihood activities of the affected populations before the disaster, the impact of the disaster on livelihoods and long-term food security, and the potential for rebuilding these livelihoods over the next months. Special consideration should be given to possibilities to contribute to rehabilitating agricultural/fishery activities (including the inputs needed) and to expediting the re-establishment of markets.
- Lastly, the team should work with WFP country staff and Government/aid agency counterparts to make arrangements for tracking changes in food security situation and food aid needs in the medium term. This monitoring function could be attached to WFP's programme monitoring or, preferably, to a Government / inter-agency food security monitoring system. It should also track the pace of recovery of the affected populations

ODAN will provide the assessment teams with a standard report outline, a checklist and assessment design guidance that are drawn from the forthcoming EFSA handbook.