

Older people and Cyclone Nargis

A study of the situation of older people 100 days on

Full report



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Older people and cyclone Nargis

A study of the situation of older people 100 days on
(Full report)

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Contents

- 1 Foreword
- 2 Executive summary
- 3 Key findings
- 6 Chapter 1: Introduction
 - **Background**
 - **Objectives**
 - **Research methodology**
- 11 Chapter 2: Defining older people in Myanmar
- 13 Chapter 3: Older people in emergencies
 - **General profile of the target group**
 - **Socio-economic condition of the target group**
 - **Access to food and food security**
 - **Access to shelter**
 - **Social protection**
 - **Disability**
 - **Access to drinking water and sanitation facilities**
 - **Socio-economic impact on older people and their families**
 - **Livelihoods**
- 35 Chapter 4: Needs of older people
- 36 Chapter 5: Psychosocial needs
- 39 Chapter 6: Recommendations

Foreword

Every emergency is different. Thus, understanding as early as possible the particular context and its social, economic and political determinations becomes crucial for designing effective and inclusive programmes.

This research shows that older people play an important role in supporting families and communities, not only in their normal lives, but also in situations of emergency. Older people not only possess the wisdom of age and experience, but also demonstrate the willingness and generosity so necessary in times of upheaval.

It is our hope that this research is used as a tool for inclusive design of relief and rehabilitation programmes, in the scope of PONREPP in the Nargis-affected areas and elsewhere.

This research, carried out within the scope of the Tripartite Coordination group (TCG), will also serve as baseline for a comparative study to be carried out in February 2009.

Eduardo Klien
Regional Representative
HelpAge International – Asia/Pacific



Executive summary

Cyclone Nargis, the most devastating natural disaster in Myanmar's history, struck the Ayeyarwady Delta on the 2nd and 3rd of May 2008, killing over 84,530 people, with a further 53,836 still reported missing. The cyclone and resulting storm surge destroyed about 450,000 homes and damaged 350,000 others. 75 per cent of health facilities in the affected areas were destroyed or severely damaged, together with approximately 4,000 schools.

Overnight the cyclone wiped out the livelihoods of older people and their families, flooding over 600,000 hectares of agricultural land, killing up to 50 per cent of draught animals, destroying fishing boats and sweeping away food stocks and farming tools. The destruction left residents of every age extremely vulnerable to exposure, disease, and hunger.

At the time of this report, a little over three months after the cyclone struck, those living in the affected areas are still dependent on the steady stream of food aid provided by local and international organisations.

It has been estimated that 208,000 older people were affected by Cyclone Nargis. HelpAge International has been working with the YMCA in Myanmar, in collaboration with the Department of Social Welfare of the Ministry of Social Welfare, Relief and Resettlement for over five years to deliver home care for vulnerable older people. HelpAge International is also supporting the efforts of the YMCA to bring relief to those affected by Cyclone Nargis. In July 2008, HelpAge International and the YMCA hoped to expand their activities to reach two further districts affected by the cyclone. They were also seeking ways to continue their relief efforts for a further six months.

This report is the culmination of a micro-research study conducted in July 2008 with older people living in the townships of Kyiak Lat, Dedeye and Pyapon in order to determine the specific needs of vulnerable older people affected by Nargis. Out of the 1,206 villages in those areas, 30 were chosen for inclusion. The methods used included PRA exercises, focus group discussions, in-depth interviews, one-on-one surveys, observation, and case studies.

The results clearly show the immediate and long-term needs of older people living in the areas struck by the cyclone. The purpose of this study aims to equip relief service providers and long-term aid organisations a better understanding of appropriate responses to support the specific needs of older people in this situation, and to encourage those organisations to include older people in their future plans for recovery. Specific recommendations to improve the status of older people during this period and in the long term include income-generating activities, food aid, home care, counselling, more permanent living shelters and the means for safe drinking water.

Key findings

- This study was conducted in July 2008 with 600 older people residing in 30 villages affected by the Cyclone Nargis.
- 56.5 per cent of the total respondents were female and 43.5 per cent were male. The minimum age of the participants was 55 and maximum was 99. The average age was 69 years old. Since vulnerable older people were the specific target group, the majority (43.7 per cent) were over age 70.
- 20.4 per cent of those interviewed were illiterate. Of those who were literate, about 56 per cent of were educated in a monastery, 21.2 per cent completed primary education and only 2.2 per cent of those interviewed attended middle school.
- Dependency ratio of the total respondents was 51.8 per cent with the highest dependency ratio found in the poorest, female, old-old group.
- 6.8 per cent of those surveyed live alone. The highest percentage of loneliness was found in the poorest male, old-old group.
- 59.8 per cent of the respondents have no means of earning a living and 82 per cent do not own property. 63.2 per cent of the participants are classified as the poorest of the poor. 29.2 per cent are considered poor and only 7.7 per cent are moderately self-sustainable. The highest percentage of the poorest was found in the oldest female group.
- After Nargis, daily meals and food stuffs were severely reduced. Local and international non-governmental organisations, as well as religious groups played a vital role as major food providers. Most of the participants continue to rely on food provided by aid organisations. Older people have adopted a number of strategies to cope with loss of daily food. These include reducing meals (35.3 per cent), skipping meals (31.5 per cent), not eating for an entire day (10.8 per cent), asking relatives for help (14.5 per cent), and asking a religious leader for assistance (6.3 per cent).
- 79.2 per cent of participants' houses were totally destroyed by Cyclone Nargis. 13.2 per cent of the houses were partially damaged and 6.7 per cent sustained little damage. Due to lack of money and the high price of raw materials, the number of houses constructed of bamboo, wood and brick have dramatically decreased since Cyclone Nargis. Only 55.2 per cent of the houses have been repaired completely . 7.2 per cent of the houses are still in need of repair. Of those that were rebuilt or repaired, only 14.3 per cent can be considered a permanent shelter.
- Although 29.7 per cent of the respondents claimed they did not have illnesses or diseases before the cyclone, the number of healthy persons significantly decreased to 2 per cent after Cyclone Nargis. After the cyclone, the prevalence of jaundice (15.2 per cent), respiratory ailments (11.5 per cent), fever (6.5 per cent), diarrhoea (5.5 per cent), malaria (4.2 per cent) and mental health problems increased. 26.5 per cent of the participants use traditional home remedies when they experience health problems. However 42.8 per cent seek more professionally-based health care services: 0.5 per cent visit a specialist practitioner, 7.0 per cent visit private clinics, 2.5 per cent go to township hospitals, 0.7 per cent to station hospitals, 3.8 per cent visit a rural health centres 26 per cent visit sub-rural



health centres, and 2.3 per cent use community health staff. In regards to available health services, participants appeared to visit sub-rural health centres (RHC) the most. There is only one sub-RHC for every eight villages, often making it difficult for older people to make the journey to these centres. 59.2 per cent of the respondents reported that it took less than 30 minutes to visit to nearest health services. 4.7 per cent mentioned that it took about two hours to visit the nearest health services.

- Two-thirds of older people interviewed had disabilities. 44.5 per cent of the older people in this study had difficulties with their vision. More than one-third of the respondents (35 per cent) had trouble with mobility. More than one out of 10 had difficulties with their hearing. 7.5 per cent of the respondents needed psychosocial support or counselling due to the emotional trauma caused by the effects of the cyclone.
- 4.5 per cent of the respondents reported that a family member killed by the Cyclone Nargis.
- Rainwater (91.7 per cent), unprotected ponds (78 per cent), protected ponds (9.2 per cent) and riversstreams (4.5 per cent) were the main sources of drinking water. Riversstreams (52.3 per cent), rainwater (49.2 per cent), unprotected ponds (49 per cent), protected ponds (5.3 per cent) and unprotected wells (2.2 per cent) were the main source of domestically used water. 16.3 per cent of the participants had to spend more than 30 minutes to fetch water. 19 per cent of the older respondents said they must fetch water by themselves .
- 73 per cent of those interviewed have latrines in their home. However, it was observed that only 14.2 per cent of the households have sanitary latrines. 15.3 per cent of the total latrines are located inside the home, and because older people have difficulties with mobility, a simple hole had been made in the floor for use as a latrine.
- 99.5 per cent of the houses surveyed were damaged by Cyclone Nargis. Among these 79.7 per cent have been totally destroyed.
- 14.8 per cent reported that they had granary or storehouse in their compound before Cyclone Nargis. The cyclone totally damaged nearly 47.2 per cent of these granaries.
- 11.3 per cent of the respondents had already planted the rice during the dry season growing season. Nargis hit during harvest time. Therefore, more than 50 per cent of the farmers stated that their harvest had been totally lost. 16.2 per cent of the respondents stored locally adaptable seeds for monsoon rice cultivation. Only 5.2 per cent of who had stored seeds said that there was no damage.
- 56.8 per cent of the paddy fields were flooded by salt water. The physical properties of the paddy soil changed due to the salinisation caused by the storm surge of the cyclone. This resulted in poor quality soil, poor germination of seeds, and a rise in labour costs. Salinisation also causes a reduction of arable land available for rice cultivation which will most likely impact the food security of the region and livelihood of vulnerable older people. 25.3 per cent of the rice paddies are estimated to become fallow for the growing season.

- 60.4 per cent of fishing boats and 72.1 per cent of fishing nets were destroyed by Cyclone Nargis.
- The dropout rate of school children since the disaster is about 9.65 per cent.
- 92 per cent of the respondents stated there was relief work after Cyclone Nargis.
- 23.2 per cent of the respondents were able to earn some kind of income while 76.8 per cent were dependents. The main source of their income changed slightly after Cyclone Nargis – agriculture, fishing and informal labour decreased, but the buying and selling of goods increased after the cyclone.
- 22.2 per cent of those interviewed took part in some form of income-generating activity to support their family before Cyclone Nargis. Since the cyclone, only 10.5 per cent of the total respondents still have a desire to work.
- 99 per cent of the participants stated they did not receive adequate warning about the cyclone in time. Only 9.5 per cent said they have sufficient village disaster response plans .
- Psychosocial support or counselling is needed for vulnerable older people due to overwhelming loses they sustained from the cyclone. They have lost family members and relatives, material goods, opportunities to earn a living, dignity, a sense of safety, positive self-image and trust in the future.





Chapter 1: Introduction

Background

Cyclone Nargis, the most devastating natural disaster in Myanmar's history, struck Myanmar on the 2nd and 3rd of May 2008, killing over 84,530 people, with a further 53,836 still reported missing. The cyclone and resulting storm surge destroyed about 450,000 homes and damaged 350,000 others. 75 per cent of health facilities in the affected areas were destroyed or severely damaged, together with approximately 4,000 schools.

The cyclone wiped out the livelihoods of families overnight, flooding over 600,000 hectares of arable land, killing up to 50 per cent of draught animals, destroying fishing boats and sweeping away food stocks and farming tools. This has left households extremely vulnerable – in mid-June, 55 per cent reported having only one day of food on hand or less, and victims have relied in part on the steady flow of relief supplies.

The total economic losses amount to about 2.7 per cent of the projected 2008 GDP, with the effects of the cyclone concentrated on an important region in the country for agriculture and fishing.

National, regional and international responders have been working since early May to urgently bring assistance to the affected communities, especially the most vulnerable groups, in the face of continuing logistical and operational challenges. The government of Myanmar and its humanitarian partners are continuing to assist the needs of vulnerable communities struck by the disaster.

Older people face particular challenges during emergencies, but are not often identified as a vulnerable group. Older people and children are the most vulnerable. Older people in particular have difficulty reaching aid distribution points or carrying relief goods, even if they can get to them. Their special medical and nutritional needs often go unrecognised.

HelpAge International is the only international organisation focusing on the needs of older people. It was estimated that 208,000 older people have been affected by Cyclone Nargis. HelpAge International has been working with the YMCA in Myanmar, in collaboration with the Department of Social Welfare of the Ministry of Social Welfare, Relief and Resettlement for over five years to deliver home care to vulnerable older people. HelpAge International is supporting the efforts of the YMCA to bring relief to those affected by Cyclone Nargis.

In July 2008, HelpAge International and the YMCA hoped to expand their activities to reach two further districts affected by the cyclone. They were also seeking ways to continue their relief efforts for a further six months.

It is important to assess older people's needs and ensure that they are included in the relief effort. It is essential that in addition to providing short-term aid such as food, water, shelter and healthcare, long-term mechanisms to rebuild livelihoods are also put in place.

HelpAge International, together with, Help the Aged, is committed to supporting efforts to alleviate the situation of older people affected by the disaster.

Objectives

The objectives of this study are as follows:

- to get a better understanding of the status of older people after the disaster.
- to understand the specific needs and issues of older people in order to plan for interventions with older people.

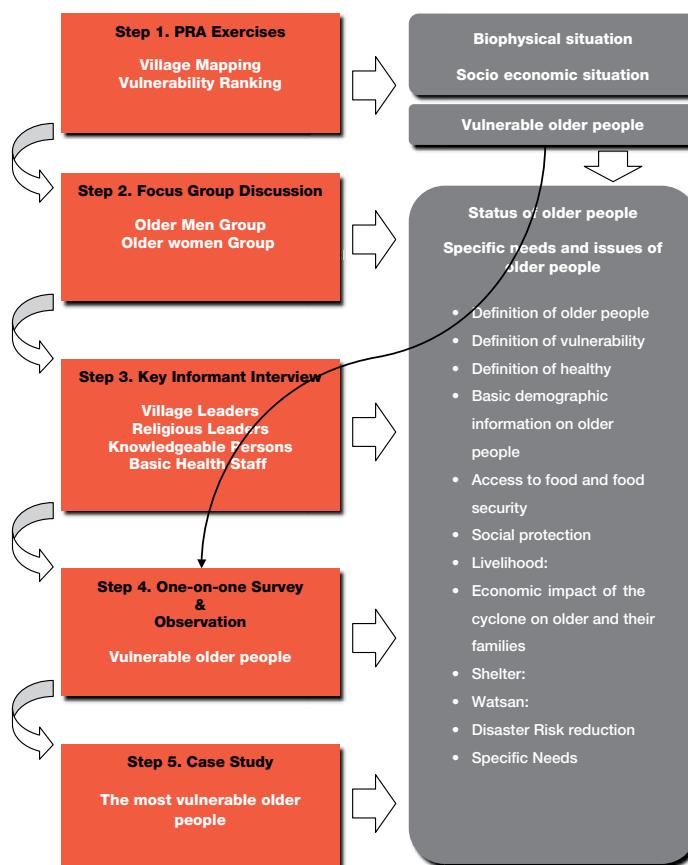
Research methodology

To achieve the above mentioned objectives, both qualitative and quantitative data collection methods were used. These included PRA exercises, focus group discussions, in-depth interviews with key sources, one-on-one surveys with observation, and case studies.

Six teams, each containing a team leader and four enumerators, were organised for field based research. The members of the research teams were from Social Research Team of Myanmar Marketing Research and Development Research Service (MMRD) and all enumerators were very experienced. The six team leaders were senior researchers from MMRD.

The task of the enumerator was to administer the one-on-one survey to all households at the chosen sites, while the focus group discussions and PRA exercises were conducted by the team leaders who had proven skills in qualitative research techniques.

Before the research teams were sent to the selected townships, three days intensive training was conducted on the objectives of the research, the design and the tools.



Step 1: PRA exercises

Village mapping and vulnerability ranking methods were applied as PRA tools at the beginning of the study. During the initial walk through, village mapping exercises were done to get a better understanding of the biophysical and socio-economic condition of the concerned village.

Villages leaders, religious leaders, knowledgeable persons, health extension workers and respected older persons groups were invited to conduct vulnerability ranking. The participants were asked the definition of older persons and what defined the concept of vulnerability. Based on their definitions, a criterion for the selection of vulnerable older people was developed.

All participants provided a list of older people in their community. According to their criteria and the lists of older people, the vulnerability ranking was completed. This ranking was used to select participants for one-on-one surveys.

Step 2. Focus group discussions

Focus group discussions with older women and older men were conducted separately to gain a better understanding of the status of older people after the disaster and to understand their specific needs and issues.

Step 3. Key source interview

The most important aspect of the study was involving people who had an interest in older people's issues. These sources were therefore encouraged to take part in this micro research. Interviews with village leaders, religious leaders, knowledgeable persons and health extension worker were conducted to explore their perception of the status of older people after the cyclone and the specific needs and issues of older people.

Step 4. One-on-one surveys with observation

Based on the findings of the vulnerability ranking, gender-specific information was collected by one-on-one surveys. Structured observation was included in the questionnaire to assess the status of shelter, living conditions, older person's health, drinking water sources, location of water sources, and sanitation facilities.

- Basic demographic information on older people in target areas
- Access to food and food security
- Social protection – health issues, access to health services, psychological health and home care needs
- Livelihood of older people before and after the cyclone
- Economic impact of the cyclone on older people and their families
- Shelter – where and how older people were living after cyclone; need for shelter
- Access to drinking water and sanitation facilities
- Disaster risk reduction – community disasters response or mitigation plans

Step 5. Case studies

After conducting household surveys, the research team selected the participants to conduct the case study. In consultation with a team leader, the most vulnerable older people were selected and interviewed.

Selection of target area

According to the needs of project, the following three townships were selected for micro research on the status of older people in target areas.

- Kyiak Lat
- Dedeye
- Pyapon

There were 1,026 villages in the study areas. Most of the villages were located near the sea. It took about two hours from Yangon to the nearest city. From the city to the villages was a one to three hour journey by boat. The townships were located in Pyapon District, Ayeyarwady Division .

To meet the geological coverage, 15 village tracts in three townships were selected in the first stage. In each village tract, two villages were selected at the second stage. Based on the findings of the vulnerability ranking, households that had vulnerable older people were purposively selected to for the one-on-one survey. In total, 600 one-on-one surveys, 60 sets of focus group discussions, 120 sets of key source interviews and case studies, and 30 PRA exercises were conducted by the research team.

Research Tools	Sample Size	Location
One-on-one survey	600	Household level
Observation	600	Household level
Focus group discussion	60	Village level
Key source interview	120	Village level
PRA exercises	30	Village level
Case study	120	Village level

Selection of participants

To select the participants, the following criteria were used:

- Age
- Land ownership
- Ability to earn income
- Access to family support
- Degree of disability



‘I am proud to be an older person. As you know, older people are respected by the young in our society. As we are Buddhists, parents are viewed as having the same role as Buddha. They respect the older person.’

*U Ohn Maung, 82
Kyiak Lat Township*

Name	Age Group	Land Ownership	Workability	Access to family support	Degree of Disability	Total score
	55-60	> 10	Still working	Fully support	1 <-----> 5	
	61-70	10-6	Able to work	Partially support		
	> 70	5-1	Unable to work	No support		
		0				

According to the above mentioned criteria, 600 participants were interviewed in a one-on-one survey. The list of older people who participated is as follows:

Township	Ward/village tract	Sample	Ward/Village	Sample
Kyiak Lat	Ward 6	40	East	20
			West	20
	Khanaung	40	Khanaung	20
			Ywathit	20
	Tapaytamaut	40	Tapaytamaut	20
			Kyichaung	20
	Hleseik	40	Ywatharyar	20
			Ywama	20
Dedeye	Kanseik	40	Kanseik	20
			Aukkyonekammingyi	20
	Thaukkya	50	Thaukkya	25
			Gwaychaung	25
	Kadar	50	Kadarywama	25
			Kadarauksu	25
	Tatarchaung	20	Thaayewa	20
Pyapon	Thonehtut	40	Thonehtutywama	20
			Hteinwaine	20
	Kyeikkapar	40	Kyeikkaparywama	20
			Kyeikpoe	20
	Kyeehnabin	40	Kyeehnabin	20
			Kyonewar	20
	Kyonekadone	40	Quarter 1	20
			Quarter 2	20
	Kezaung	40	Kanbe	20
			Yaykyaw	20
	Thapyaykan	40	Kadar	20
			Achan	20
	Kyonettuttanyi	40	Quatthit	20
			Kyaungsuywama	20
Total				600

Chapter 2: Defining older people in Myanmar

The United Nations has classified population in three categories: “young”, “mature” and old”. The United Nations defines 60 years as the age transition of people into the older segment of the population.

Both developed and developing countries tend to define old age at a certain pre-established point, usually retirement from full-time gainful employment – this is used as the artificial cut-off point at which an individual is known as an older person.

The United Nations considers “young old” as persons aged 60-74, and the “old old” as 75 and above. The “young old” group can participate in the community and greater society in numerous ways and are often economically and socially productive. The “old old”, usually over 75-80 years of age, are often more vulnerable to infirmity and health threats thus requiring more care.

In Myanmar the retirement age from government service is 60. In accordance with the UN standard and based on the retirement age in Myanmar, UNFPA defines the ageing population of Myanmar as the population belonging to the age group 60 and over. Most of the analysis divides the older population in this study into three age groups: 55-60, 61-70, and 71 and over.

In Myanmar, 6.5 million people (11.8 per cent) are older than 55. The older population (60+) in Myanmar will reach an estimated 22.71 per cent in 2050.

Age group	Male	Female	Total	per cent of Total Population
55-59	904,939	980,852	1,885,791	3.4
60-64	720,786	802,829	1,523,615	2.8
65-69	557,683	649,792	1,207,475	2.2
70-74	404,009	487,230	891,239	1.6
75+	432,327	560,597	992,924	1.8

U Mya Han, 78
Dedeye Township

Source: *Human Resource Development Indicators 2006, UNFPA*

However, the definition of older people is different between the UNFPA and this study's target group. Most of the participants defined an “older person” as aged 70 and above. This is mostly likely due to cultural issues. According to Myanmar cultural traditions, older people are recognised as persons who can share their experiences, knowledge and skill with younger generations. Therefore they are respected by the community and they are proud to be an older person.

Some people who are more than 60 years old argued that they are not considered older people by others. They are able to continue leading an active life in society.

However, some older people accept that older people should be defined as the person belonging to the age group 60 and over. Old age status appears to be strongly related with the status of one's health.

‘In our community, we make a devotional offering to aged persons who are more than 70 years old. Yes, they are old. But they are knowledgeable people. They can share their experiences, knowledge and skills with us.’

‘Look at me. My hair is gray. My tooth is broken. I cannot walk very well. I have difficulty getting around. I am 60 years old but I think that I become an older person.’

U Pu, 60
Kyiak Lat Township

The definition of older people varied from one older person to the next. In general, persons who are above 70 years old were defined as “older” among the participants but those over 60 years of age generally were not considered “older”.

Some participants mentioned that the definition of older people should be based on not only their age but also their participation in society and their mobility.

It was observed that the poorest people seemed older than their age, while in their 60s. If their life was harder, they seemed older. Chronological age, health status, mobility, morale, and life style should be taken into account for the definition of an older person.

“I think the definition of an ‘older person’ is not related to age. It is application only. It may be related to their capability and their own perception. You see, mental and physical states are highly related to each other. I am sustained by will power. Therefore I am healthy. If I am disappointed, I will get older. You can see many older people in the village. Some are about 60. They are younger. But their appearance may be older than me. They walk slowly. They talk softly. They are not active. They are unable to conduct daily activities. What is the difference between those people and me?”

U Myint Hlaing, 78, Dedeye Township



Chapter 3: Older people in emergencies

General profile of the target group

One-on-one surveys were conducted with 600 older persons in 30 villages. Participants were selected based on the established vulnerability ranking. The criteria for selection of those who were considered vulnerable were:

- Status of poverty
- High dependency
- Lack of care giver
- Health problems
- Disabilities
- Chronological age

‘I am actively involved in social, economic and religious affairs. Even though I am older than 60, I never consider myself as an older person.’

*U Tin Sin, 60
Kyiak Lat Township*

Gender and age of participants

- As shown in Figure 1, 56.5 per cent of the total respondents were female and 43.5 per cent were male.
- The minimum age was 55 and the maximum was 99.
- The average age of the participants was 69.

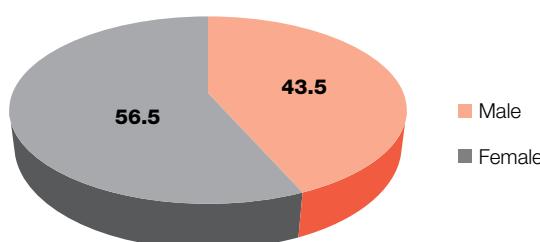


Figure 1 - Gender

Age group of the respondents

In this study, the participants were placed into three age groups: 51-60, 61-70 and above 70. Since the selection of the target group was vulnerable older people, the highest percentage was found in the age group of above 70 years.

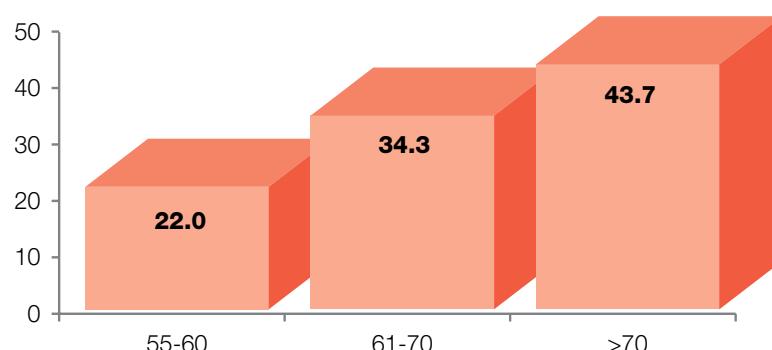
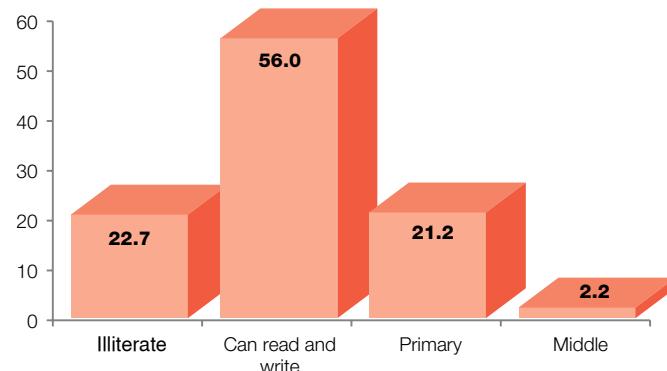


Figure 2 - Age groups of the participants

Education level of older people

- According to Figure 3, it was found that 20.4 per cent of the participants were illiterate.
- About 56 per cent received education at a local monastery. 21.2 per cent had completed primary education and only 2.2 per cent attended middle school.

**Figure 3 - Education level of older people****Ethnicity and religion**

- According to the purposeful sample method, the ethnicity of the participants could not represent the national data.
- It was found that 99.2 per cent of those interviewed were Bamar and their religion was Buddhism.

Socio-economic condition of the target group

The average household size of the studied villages was 4.56. It was less than the national average of 5.2 persons. The cyclone killed family members of some of the participants, possibly indicating a reason for the further reduction of the household numbers.

Dependency ratio

The dependency ratio is defined as the number of dependents within a given household in comparison to the number of self-reliant household members.

- In general, the dependency ratio within the households of the older people interviewed was only .518.
- The highest dependency ratio was found in the poorest, female, old-old group. Even though the older people in this study seemed to be very dependent, they still took some responsibility within their families. Older people often had to take care of the grandchildren, to cook the family meals, to feed the family livestock, and to work as hired labour if at all possible.



Gender	Female Male	.632 .619
Age Group	55-60 61-70 >70	.568 .588 .687
Status of poverty	The poorest Poor	.633 .597

Loneliness

Of the older people interviewed 6.8 per cent lived alone, not with family. The highest percentage of loneliness was found in the poorest, male, old-old group.

Gender	Female Male	5.0 8.3
Age Group	55-60 61-70 >70	3.8 5.3 9.7
Poverty	The poorest Poor Moderately well off	9.3 3.2 0.0

Productive assets

- To indirectly measure the status of poverty, participants' productive assets and household items were taken into account.
- As seen in Figure 4, 59.8 per cent of those interviewed had no productive assets.
- About one-fourth owned cultivated land.
- Some people owned hand tractors or power tillers (5.3 per cent), water pumps (1.0 per cent), draught cattle (13.3 per cent), ploughs (14.2 per cent) and harrows (9.5 per cent).
- About 25 per cent of the participants were farmers and most of their practice was not mechanised farming.
- Additionally, the main source of income for some was related to fishing. They owned fishing nets (4.8 per cent), fishing tools (7.5 per cent) and boats (23.8 per cent).
- The means of transportation in the selected areas is via waterways. Therefore, people use engine boats (3.3 per cent) and row boats (23.8 per cent) to travel.

63-year-old woman
Kyiak Lat Township

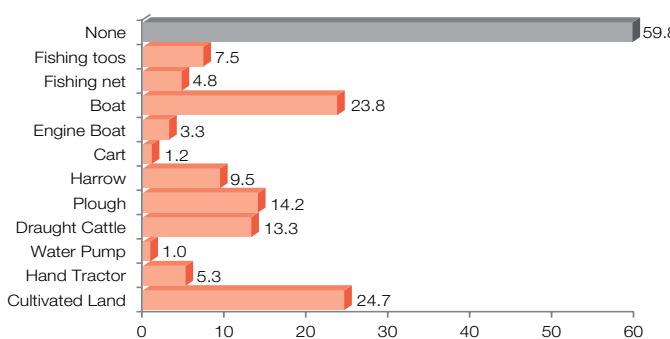


Figure 4 - Productive Asset

' My son cultivated the dry season rice. All was destroyed by Nargis. We (now) depend on food that donors have provided. At present, there is a food shortage. Do you know when organisations will provide more food for us?'

' Being an older person, I used to eat four meals every day. But the amount of the food was a little. I could eat whenever I was hungry. Now I have to eat two meals per day. We do not have enough food.'

*82-year-old woman
Dedeye Township*

Household items

Nargis destroyed not only homes but also much-needed household items. 82 per cent responded that they no longer had any household items, such as furniture and cooking utensils. Ownership of various household items indirectly indicated the status of their wealth.

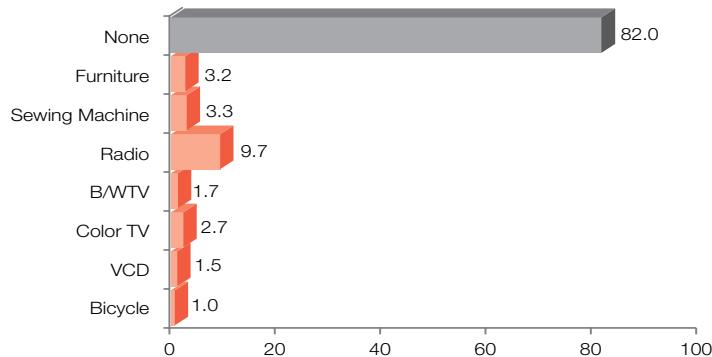


Figure 5 - Household items

Status of poverty

In Myanmar, asking about monthly income and expenditures is a very sensitive a topic for discussion. Interviewers did not expect to get accurate data on income and expenditures.

Therefore the status of poverty was indirectly measured based on following criteria developed by community themselves:

- Type of house
- Productive assets
- Household items
- Main source of income
- Disability
- Ratio of income earners and dependents

Figure 6 shows the percentage of poverty in the selected villages. According to the above mentioned criteria, 63.2 per cent of the participants were categorised in the poorest of the poor category. 29.2 per cent were poor and only 7.7 per cent were considered moderately well off.

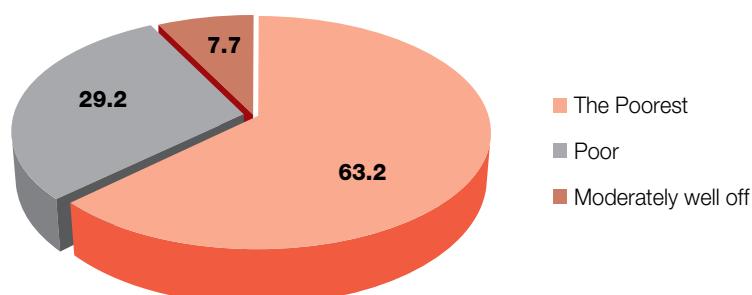


Figure 6 - Status of poverty

The highest percentage of the poorest was found in the female and oldest people categories.

		The Poorest	Poor	Moderately well off
Gender	Female	64.0	29.5	6.5
Age Group	Male	61.7	33.0	5.4
		59.4	34.6	6.0
		63.0	33.2	3.8
		64.9	27.4	7.7

Access to food and food security

Cyclone Nargis destroyed the paddy fields and ecosystem of the study areas. A severe food shortage was evident throughout the cyclone-affected areas. Therefore access to food and the status of food security was studied.

Number of meals per day

Rice, fish and fish-based products such as fish paste were the staple food of villagers living in cyclone-affected areas. The cyclone and storm surge destroyed participants' paddy fields and a significantly high amount of the food in storage. Home gardens were totally damaged, and backyard farming was ruined. The ecosystem changed and fish became scarce. As a consequence, villagers faced a severe shortage of available food. In response to the sudden lack of food, the numbers of meals eaten per day by participants changed after Nargis struck as seen in Figure 7.

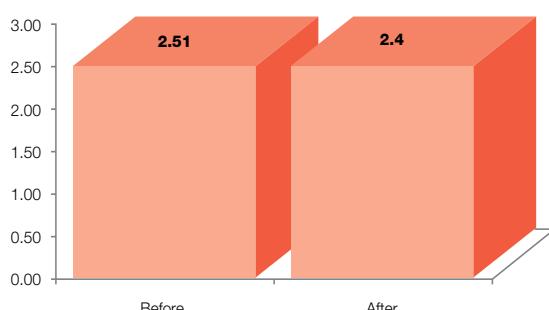


Figure 7 - Average number of meals per day

- As seen in Figure 7, the average number of meals eaten per day before Nargis was 2.51. After the cyclone, the average number of meals became 2.4.
- Older people tend to eat more frequently in smaller amounts.
- 48.5 per cent (291 out of 600) said they have started eating less.
- 2.33 per cent (14 out of 600) said they currently eat only one meal per day.
- It was assumed that reducing the daily intake of food would result in older people becoming weak and create poor health.

'I like potatoes. But I cannot buy them to eat anymore. I have no money to buy what I like. I remember that I have eaten them only one time since Nargis. They were provided by donor.'

70-year-old woman
Kyiak Lat Township

‘Living in a rural area, fish paste is our main food. It is salty. It is not proper food for the person who has suffered a stroke. But we eat it every day.’

55-year-old woman
Pyapon Township

Stored foods

As shown in Figure 8, the food items found in most household pantries changed after the disaster. Except for rice, their staple food, all other foods decreased. A lack of food and/or nutritional foods can significantly contribute to a decline in health for older people. Therefore the ability to eat nutritional food on a daily basis for vulnerable older people should be considered a priority for organisations working in the area after the cyclone.

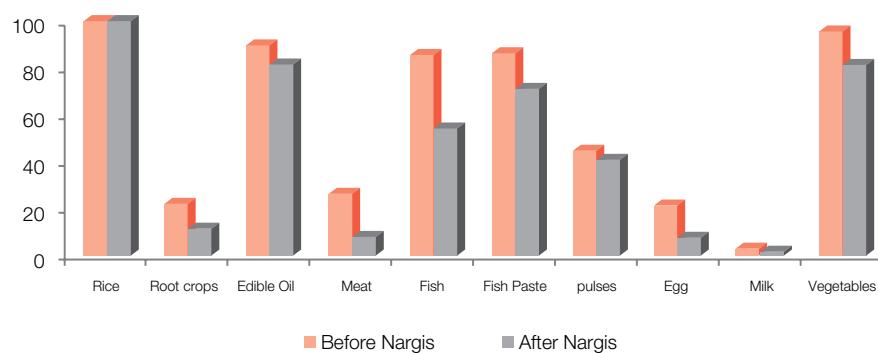


Figure 8 - Stored Foods

Main source of food for the family

In this study, not all participants were farmers – some were fishermen while some engaged in informal labour. Some farmers could eat the food they grew on their farms (22.5 per cent) before the cyclone struck. After Cyclone Nargis, only 9.8 per cent of the farmers had food from last year’s stored food stuffs.

At the time of this report, it was monsoon rice cultivation season and farmers had to wait about five months until the harvest. During the growing seasons, farmers do not have sufficient food to eat on a daily basis. Food aid should be a priority before harvest.

It was noted that 73.2 per cent of the participants bought their food from grocery shops or markets before Cyclone Nargis. After the cyclone, they lost their purchasing power. Only 44.8 per cent mentioned that they continued to buy food from the markets.

Local non-governmental organisations, international non-governmental organisations and religious groups have played a vital role as most victims of the disaster have to rely on food provided by these organisations.

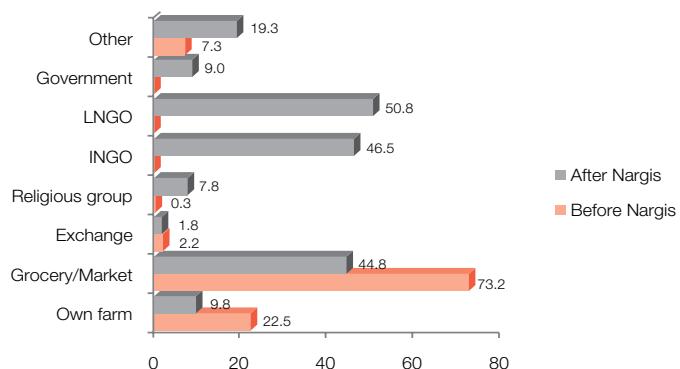


Figure 9 - Main source of food for the family

‘We mostly eat fish paste and vegetables. When we have edible oil, we fry them. If not, we boil them. Fish? It is rare. My granddaughter catches fish when she can.’

84-year-old woman
Dedeye Township

According to those interviewed, older people did not receive proper nutritional support because of the international NGOs inability or reluctance to go directly to houses, and the food provided was not age-friendly. There were no international NGOs that focused specifically on the needs of older people. It was observed that these organisations provided rice only. At the beginning of the relief efforts, they also provided canned fish which is not good for older people as it can increase the blood pressure. Older people living at home were the last to receive aid and usually it was food that was not health for them. Those who lived alone or only with their partners had greater problems accessing food aid. 62.8 per cent of the participants said they did not like the food that their family cooked. They are used to a high quality, soft variety of rice – the rice that is given as aid is of the hard variety.

Food providers for older people

Before Cyclone Nargis stuck, some older people were able to provide food for themselves (30.8 per cent) while others received food from their families (71.2 per cent). Currently, local and international NGOs are the major food providers for the areas included in the study. However, older people in these areas would rather take care of themselves.

"After Nargis, we had to move to the monastery. The monk gave us shelter. The monastery was a temporary camp for our villagers who had no place to go. There were about 100 people in this monastery. The monk provided not only shelter but also food. He provided what he had. Some people needed clothing. He also provided this. It is our culture. It is our tradition. Strong culture saved us from food insecurity after Nargis."

58-year-old man, Kyiak Lat Township

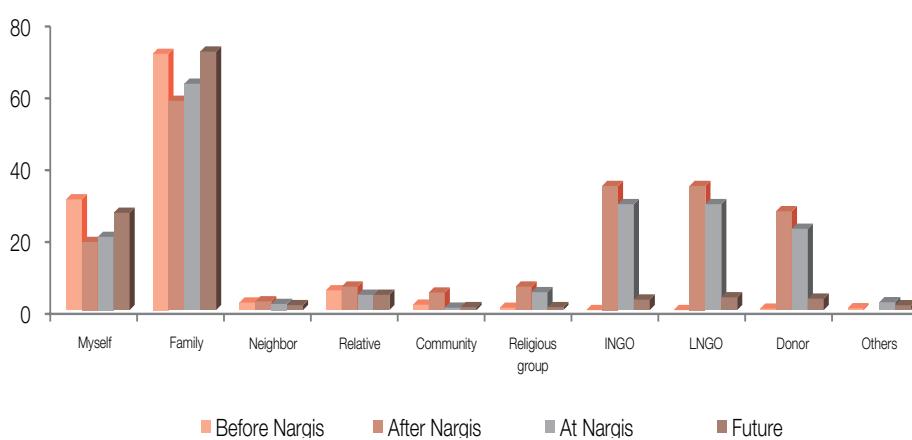


Figure 10 -Food providers for older people

Coping strategy for lack of food

Immediately after Cyclone Nargis, food shortage was considered a serious threat among those interviewed. Their coping strategies for this food insecurity were to reduce meals (35.3 per cent), skip meals (31.5 per cent), and sometimes they did not eat the entire day (10.8). Some went to relatives for help (14.5 per cent), and others went to religious leaders for assistance (6.3 per cent).

'I was ashamed to stand in line to get food in front of the donor. I never thought that this would happen in my life. I have to live by begging for food. 'Am I beggar?' I asked myself. I feel so sad. I really hate that Nargis destroyed my life. However, I must depend on their food aid until the harvest of my rice field.'

67-year-old male
Pyapon Township

'After Nargis, donors provided food for our family. We had to eat what they provided. If there were no donors, we could not survive. I had to eat whatever my daughter cooked.'

*78-year-old woman
Pyapon Township*

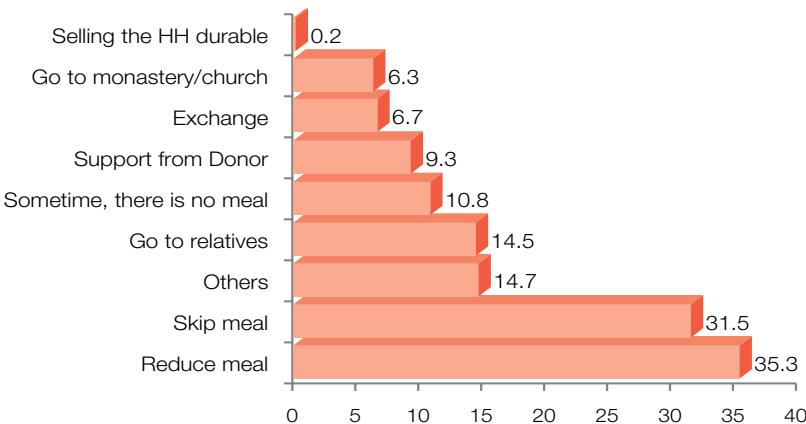


Figure 11 - Coping strategy for food insecurity

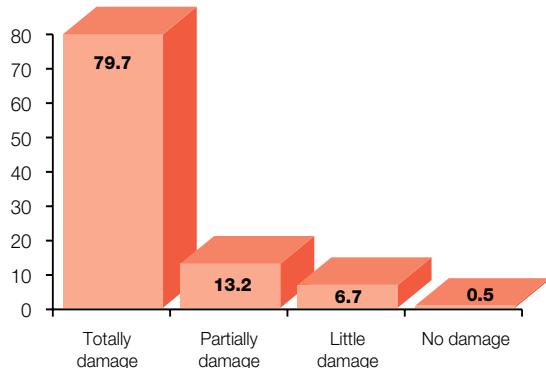
- 32.8 per cent of the older people responded that they had problems with their teeth, making it difficult for them to eat all kinds of food. 69 per cent of participants stated they could not eat the same food they ate when they were younger.
- Only 29.3 per cent said that special, age-friendly food had been provided for them. These special foods are cooked in a style that makes them easy to consume, and include fried fish, fried prawn or chicken soup.
- Older people had to eat coconuts and drink coconut juice when they were hungry just after the cyclone.

Access to shelter

Most of the respondents (99.2 per cent) have been living in the target villages for many years. During the cyclone, most of their homes were destroyed. After Cyclone Nargis, residents rebuilt or repaired their homes. However, the type of shelter and materials used for those repairs has dramatically changed and some villagers have difficulty in accessing permanent shelter.

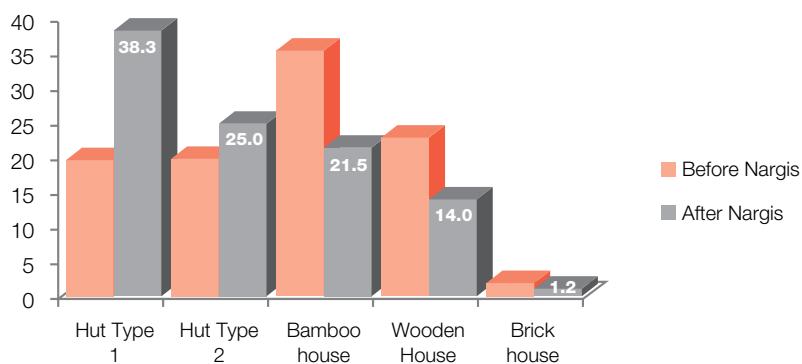
Degree of damage

- It was found that 79.2 per cent of the respondents' houses were totally destroyed by the cyclone.
- 13.2 per cent of the houses were partially damaged and 6.7 per cent sustained little damage.
- Only 0.5 per cent of the houses had no damage.
- The degree of damage was related to the type of materials used to build the house and the direction of the cyclone. Wooden huts and bamboo houses were easily damaged when Cyclone Nargis hit.

**Figure 12 - Degree of damage**

Type of house

According to Figure 12, older people's standard of living decreased significantly after the cyclone. The number of non-permanent huts built increased after Cyclone Nargis. Because of lack of money and the high price of raw materials, the number of bamboo houses, wooden houses and brick houses decreased dramatically after the cyclone.

**Figure 13 - Type of house**

Rebuilding and repairs

As mentioned earlier, 79.7 per cent of the shelters were totally destroyed. 13.2 per cent of the houses were partially damaged and 6.7 per cent sustained little damage. After Cyclone Nargis, residents tried to rebuild and/or repair their homes. They used old recovered material for the repairs. However only 55.2 per cent of the houses were completely repaired and 21.2 per cent were mostly repaired. 16.5 per cent of the houses were partially repaired. 7.2 per cent of the houses still need repairs.

Of the homes that were rebuilt or repaired, only 14.3 per cent serve as actual permanent shelters. More than half of the houses are only emergency temporary shelters and will most likely not last after current rainy season. Because of a lack of funds, residents have built very small huts for their families.

'Nargis hit my hut and it was totally destroyed. I cannot afford to buy thatch and walls of bamboo matting. You see, my roof and walls are made of water proof canvas. I feel that it is not safe. If it rains and strong winds come, I cannot sleep because I worry about possible damage'

61-year-old man
Pyapon Township

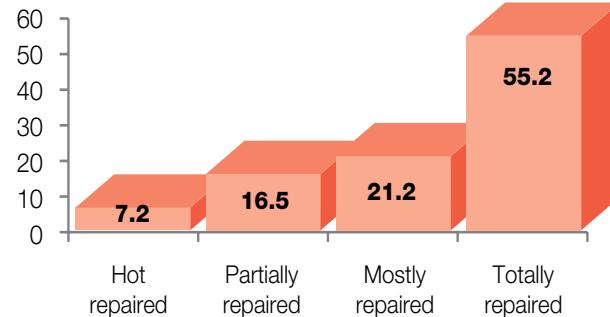


Figure 14 - Rebuilding and repairs

Most of the temporary shelters are not easy to live in for older people. They experience many difficulties living in these temporary shelters. They cannot sleep well during rainstorms because the roof leaks in various places and they must move their bed around in order to keep dry. If the rain is heavy, they get wet. This weakens the health of older people.

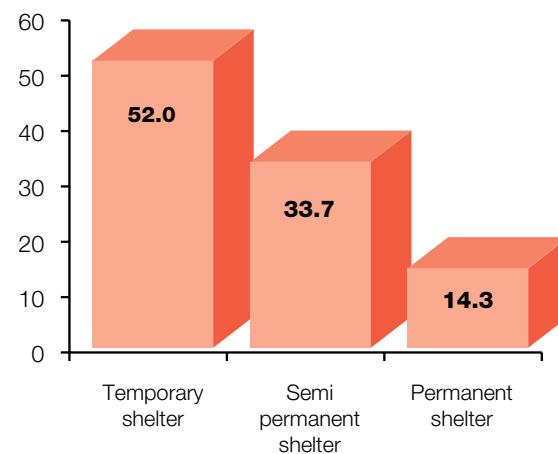


Figure 15- Types of shelter

"You see, we used the areca palm tree for posts. We used coconut palm leaves for a roof and walls. We cut the areca palm tree and used it for the floor. Can this structure protect us from heavy rain? Can it protect from strong winds? When the wind blows very hard, it shakes our house. You know, we cannot tolerate the cold. Do you think our shelter is suitable for older people?"

64-year-old man, Kyiak Lat Township

It was also reported that some older people need non-food items like blankets, jackets, mosquito nets, and warm clothing to protect from the oncoming colder weather, as older people are not able to endure difficult weather conditions. Their blankets and their clothing were lost during the cyclone.

Home owners

It was reported that 73.7 per cent of the houses belong to the participants of the study. Others belong to their sons/daughters (19.5 per cent) and some belong to their relatives (4.7 per cent).

“After Nargis, I have no shelter. I cannot rebuild. That is why I have been living here with my niece. There are many kids in this home. They play like monkeys. They shout at each other. Sometimes they cry. It is too noisy. I am used to living alone. I prefer quiet but I have no choice. My niece, she is kind to me. But I don’t want to be a burden to her. I want to rebuild my house and live there before my death.”

64-year-old man, Pyapon Township

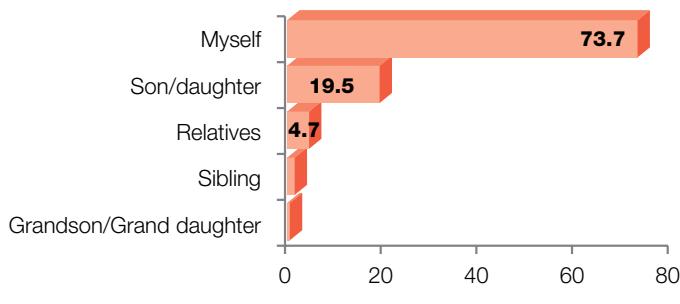


Figure 16- Home owners

Social Protection

Health problems

After Cyclone, the physical well-being of older people became worse and many complained of health problems after the cyclone. Although 29.7 per cent of the participants claimed that they did not have any diseases before the cyclone, the numbers of healthy persons significantly decreased to 2 per cent after the cyclone. The prevalence of jaundice (15.2 per cent), respiratory problems (11.5 per cent), fever (6.5 per cent), diarrhoea (5.5 per cent), malaria (4.2 per cent) and mental health problems increased after the disaster.

Disease	Before	After
No disease	29.7	2.0
Diarrhoea	2.8	5.5
Fever	7.2	6.5
Physical injury	4.2	4.7
Jaundice	1.0	15.2
Respiratory problems	10.7	11.5
Skin infection	1.3	1.8
Skin rashes	0.3	1.2
TB	1.8	1.8
Malaria	0.5	4.2
Mental health problems	1.3	2.3
Other ailments (such as strokes)	40.2	43.2

- This research attempted to understand how older people in the selected areas seek medical attention.
- 26.5 per cent of the participants take home remedies when they experience health problems.
- However 42.8 per cent seek more professionally-based health care services: 0.5 per cent visit a specialist, 7.0 per cent visit private clinics, 2.5 per cent go to township hospitals, 0.7 per cent to station hospitals, 3.8 per cent visit a rural health centres 26 per cent visit sub-rural health centres, and 2.3 per cent use basic health staff (community health volunteers?).
- Among the health services, the highest percentage of older people used sub-rural health centres (sub-RHC). There is only one sub-RHC for every eight villages, often making it difficult for older people to make the journey to the centre. 59.2 per cent of the respondents reported that it took less than 30 minutes to visit to nearest health services while 4.7 per cent said it took about two hours to visit the nearest health services.
- There is no doctor or advanced facilities in either rural health centres or sub-rural health centres. If a medical condition is serious, the basic health staff refer patients to the hospital located in the nearest city.
- Moreover, 75 per cent of health facilities in the affected areas were destroyed or severely damaged.
- Therefore many non-governmental organisations including HelpAge International sent mobile medical teams directly to the affected areas after the cyclone.

'I have high blood pressure. Sometimes I feel tired after working only a few hours. I suspect that I have heart disease. But I cannot afford to get a health check at a private clinic. It may be costly. I have no income and my niece is also poor. I don't want to tell her.'

64-year-old woman

Pyapon

Home remedy	26.5
Visit to sub-RHC	26.0
Traditional medicine	14.0
Visit to unqualified health staff	9.5
Visit to clinic	7.0
Visit to RHC	3.8
Township Hospital	2.5
Visit health staff	2.3
Traditional healer	1.2
Station hospital	0.7
Visit to specialist	0.5
Other	6.0

“As you know, most of the people living in this area are engaged in fishing and farming. We have to work in the rice fields when we transplant the seedlings. Sometimes we work in the rain. Although we are totally wet, we never change our clothes. We wear wet clothes for many hours. When we fish, we have to work in the water. Most of our working time is under the rain or in the water.... Here in this village, the wind is too strong. It is located near the sea. Living in this area, in unsafe temporary shelter, eating salty food and working in the water causes us to have strokes. Because of this, I can do nothing. My children became impatient after I had a stroke. I want to die because I am so disappointed.”

55-year-old woman, Pyapon Township

‘My wife, she has TB. She cannot do hard work. She can do only housework. I am the only person to earn income for my family.’

Visiting the nearest health service

As sub-RHCs are located in only one out of eight villages, it takes time to visit the nearest health service provider for older persons. 59.2 per cent of the participants reported that it took less than 30 minutes to visit the nearest health services. 4.7 per cent stated it took about two hours to visit to nearest health services. 12.3 per cent said that they never visit clinics or health centres.

60-year-old man
Pyapon Township

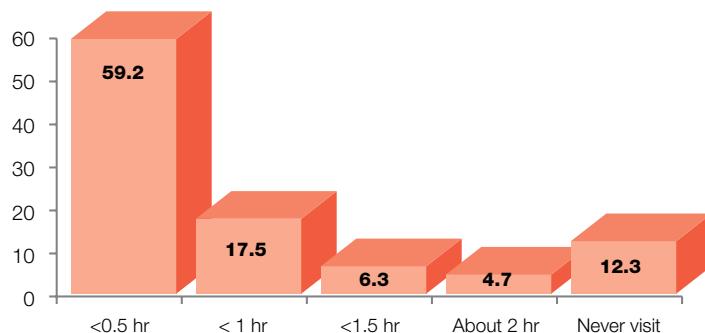


Figure 17- Time taken to visit to nearest health service

Frequency of visits to nearest health service

Of those interviewed 3.7 per cent said they often visit clinics or some type of health services. More than one-third of the participants seldom visit to the health services. 61.5 per cent believe that health staff is fully aware on the specific health needs of older persons. 64.3 per cent of the participants also mentioned that they were satisfied with services provided by the staff at health service centres.

“When I am sick, I normally take a home remedy concocted from readily available ingredients. If I become worse, I visit the practitioner of traditional medicine. Why do I never visit the RHC? Neither nurse nor health staff can treat a stroke. They are useful for the treatment of minor diseases. They are not experts in treating stroke patients. The practitioner, U Kyi, sometimes visits us. He is not concerned about money. If I do not have enough money, he takes what I can give. Sometimes, it is free of charge. Now I have no money. Therefore I can’t invite him to check my health status.”

68-year-old man, Pyapon Township

'I live here with my wife. We are only two. My wife made a hole in the floor to use as a latrine. She provides health care for me.'

*68-year-old man
Pyapon Township*

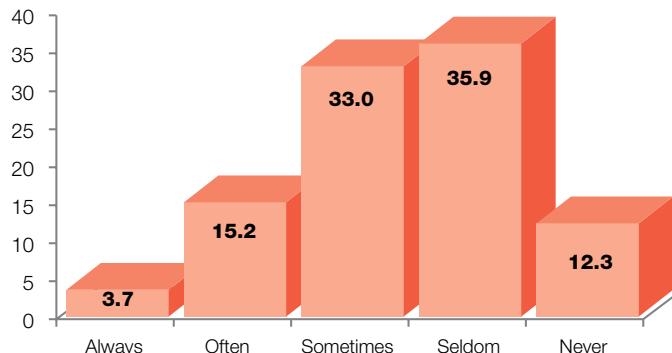


Figure 18- Frequency of visits

Care givers for older people

When they have health problems, family members often act as the health care giver for their older relatives. 57.2 per cent of the participants said their sons and/or daughters take care of them while 19.7 per cent mentioned that their spouses are their care givers. Some older people are taken care of by their siblings (1.5 per cent), their relatives (0.8 per cent) and their neighbours (0.8 per cent) 4.7 per cent of the respondents have no care givers. They must care for themselves.

Son/Daughter	57.2
Wife/husband	19.7
Grandson/grand daughter	6.7
Son in law/Daughter in law	4.8
Myself	4.7
Nice/nephew	3.0
Sibling	1.5
Relatives	0.8
Neighbor	0.8

Disability

Two-thirds of older people have a disability of some kind, most likely due to their health and vulnerable socio-economic condition.

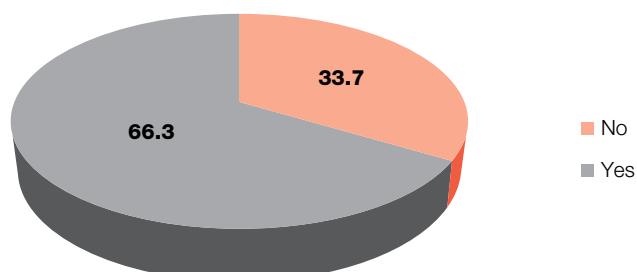


Figure 19- Disabilities

- 44.5 per cent of the older people in this study have difficulties with their vision.
- More than one-third of the respondents (35 per cent) have difficulties with mobility.
- More than one out of 10 participants has difficulties with their hearing.
- 7.5 per cent expressed a need for psycho-social support.

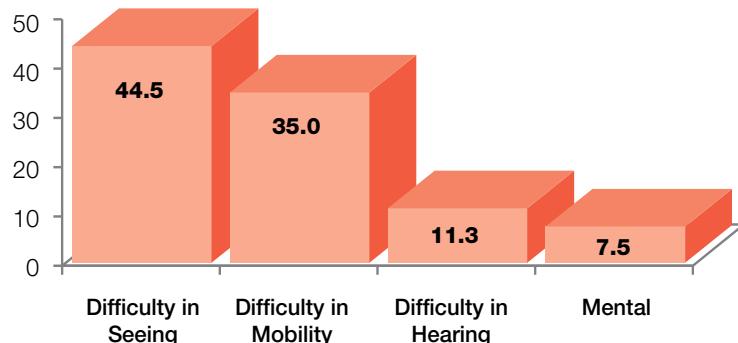


Figure 20- Types of disabilities

"I have been disabled for 10 years. I lost my eldest daughter when Nargis hit. I feel so sad when I think about my daughter. She was killed by the cyclone. She left her five children. Her husband has already married with our neighbour. I am old enough. I cannot work anymore. My son-in-law only work as hired labour. It is not regular work. Sometimes he can support us and sometimes, he can't."

85-year-old woman, Dedeyle Township

"In our home, there are 10 people. Only three work as hired labourers. Three grandsons are school boys. My husband and my son have had strokes. I have difficulty with my vision. We are disabled. Due to my eyes, I can't take care of my grandsons. I can't go to the temple by myself. I have a responsibility to take care of my husband and my son. Because of their strokes, they cannot work. We rely on the income of my three sons."

69-year-old woman, Dedeyle Township

Access to drinking water and sanitation facilities

Access to drinking water

Rainwater (91.7 per cent), unprotected ponds (78 per cent), protected ponds (9.2 per cent) and rivers/streams (4.5 per cent) were the main sources of drinking water for those interviewed. However, only protected ponds, rainwater collection tanks and bottled drinking water are normally considered safe drinking water.

Source	per cent
Rainwater	91.7
Unprotected pond	78.0
Protected pond	9.2
Rivers/streams	4.5
Unprotected well	1.0
Rainwater collection tank	0.8
Bottled water	0.2

Access to domestic use water

Rivers/streams (52.3 per cent), rainwater (49.2 per cent), unprotected ponds (49 per cent), protected ponds (5.3 per cent) and unprotected wells (2.2 per cent) were their main source of domestic use water. According to the definition of safe water, only protected ponds, rainwater collection tanks and hand pumps are considered safe water sources for domestic use water.

Source	per cent
River/stream	52.3
Rainwater	49.2
Unprotected pond	49.0
Protected pond	5.3
Unprotected well	2.2
Rainwater collection tank	0.5
Shallow-dug well	0.5
Hand pump	0.2

It is important to note that 16.3 per cent of the participants had to spend more than 30 minutes to reach a water source.

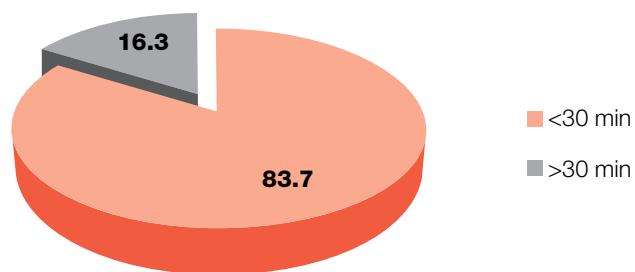


Figure 21- Time taken to fetch water

Nineteen per cent of the older participants stated they had to fetch water themselves. Fortunately, 96.3 per cent of the respondents use water treatment for drinking water. These water treatment methods include using a sieve (48.3 per cent), boiling before drinking (44.2 per cent) and putting put alum (7.3 per cent) in the water storage container.

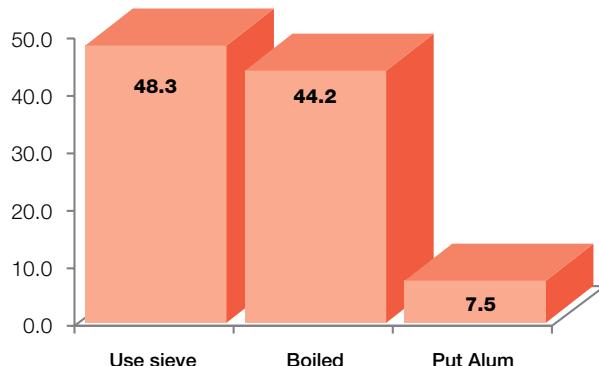


Figure 22- Water treatment for drinking

Access to sanitation facilities

Seventy-three per cent of those surveyed stated that they have latrines in their homes. However, it was observed by researchers that only 14.2 per cent of the interviewed households have sanitary latrines. 85.8 per cent of the participants who have latrines stated that it takes less than five minutes to go to the latrine.

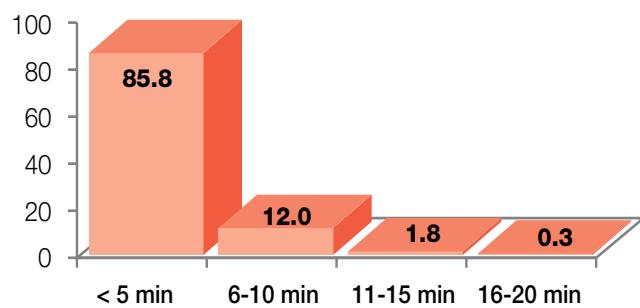


Figure 23- Time taken to go to latrine

It was observed that 15.3 per cent of total latrines were located within the house. Since older people have difficulties with mobility, some simply made a hole in the floor and used this whole as a latrine. It was also observed that most of latrines did not have a pit. They were built on the embankment of the river and waste went directly into the river, making the river water more polluted.

The use of unsafe water and lack of sanitary latrines most likely increased the prevalence of diarrhea as the prevalence of diarrhea before Cyclone Nargis was only 2.8 – it increased to 5.5 per cent after the cyclone struck.

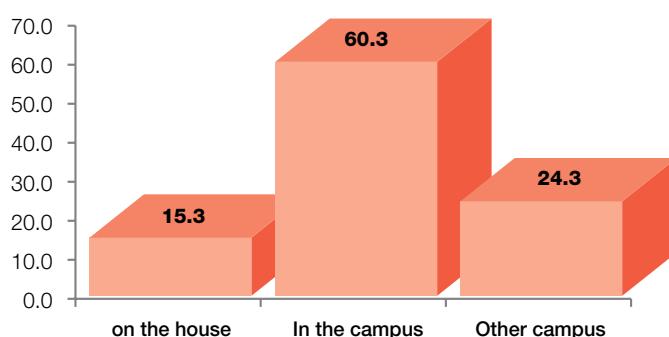


Figure 24- Time taken to go to latrine



Socio-economic impact on older people and their families

Damage of shelter and death of family members

As mentioned previously, 99.5 per cent of the houses were damaged by Cyclone Nargis and among those 79.7 per cent were totally destroyed, leaving many older people in the cyclone-affected areas homeless. Even the homes that only sustained damage will impact the safety of vulnerable older people.

Cyclone Nargis not only destroyed houses but also killed many people. 4.5 per cent of the total those interviewed stated that at least one of their family members was killed by the cyclone. Based on the number of deaths reported in the surveys and the apparent reduction of household size, it has been concluded that approximately 2.6 per cent of total population who live in the villages included in this study were killed by Nargis.

The impact of the loss of life within family units will most likely negatively affect older people as they will suffer the loss of care givers and those who earn a living for their families. Most importantly, the emotional effects of the death of a family member causes trauma on many levels for older people.

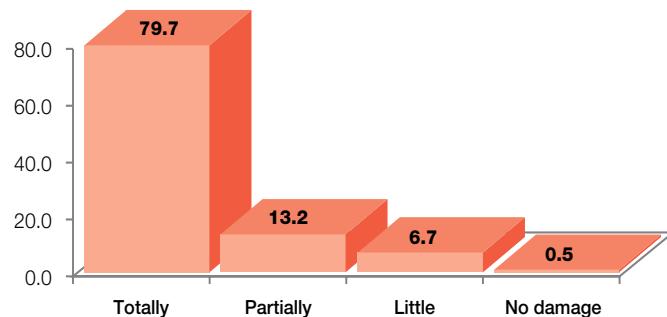


Figure 25- Damage of houses

Damage of storehouses

It was observed that some farmers built a granary in their compound in order to store grain as a means of having food available year-round. 14.8 per cent of the participants reported that they had a granary before Cyclone. When the cyclone struck, 47.2 per cent of the granaries were totally damaged. 21.3 per cent of the storehouses were 75 per cent destroyed, and 13.5 per cent was 50 per cent destroyed. This will most likely impact the food security of older people and their families in the months to come.

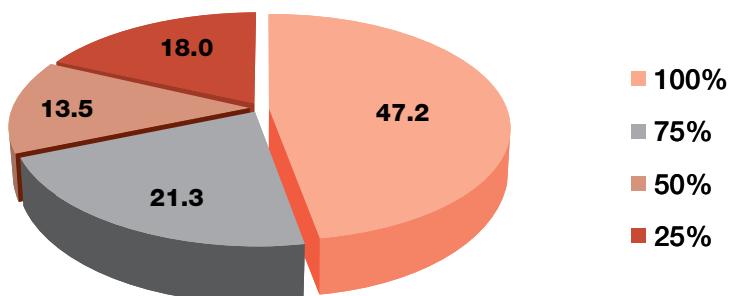


Figure 26- Damage of granaries

Damage of dry season rice¹

When Nargis hit, it was almost time to harvest the dry season rice crop – the cyclone and resulting storm surge decimated rice paddies ripe for the harvest – therefore, more than 50 per cent of the farmers had no harvest. A little over eleven per cent of the participants in the selected villages had planted rice for the dry season in their paddies. Only 11.8 per cent of the farmers were able harvest their paddies before Nargis struck.

Additionally, harvesting and drying machines for rice were lost during the storm so most of the dry season rice crops were lost. This will also most likely negatively impact food security and the income of affected households.

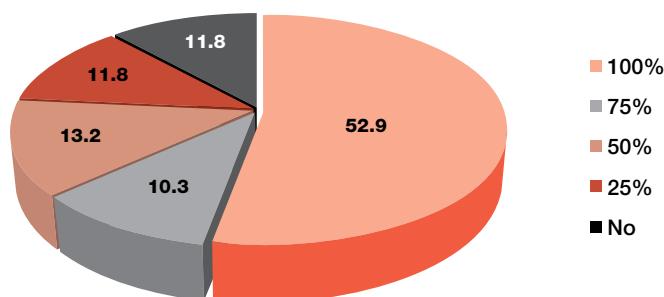


Figure 27- Damage of dry season rice harvest

Damage of stored seeds

In the areas selected for this study, most of the rice farmers produce seeds by themselves. They stored these seeds in containers to plant for the next growing season. 16.2 per cent of the participants stored the locally adaptable seeds for monsoon rice cultivation. However, these stored seeds were destroyed by Cyclone Nargis and at the time of this report, 55.7 per cent of the farmers had no seeds to cultivate for later this year. Only 5.2 per cent of those interviewed did not lose the seeds they had stored for the next growing season. This will most likely directly impact the rice production and food security in the coming year.

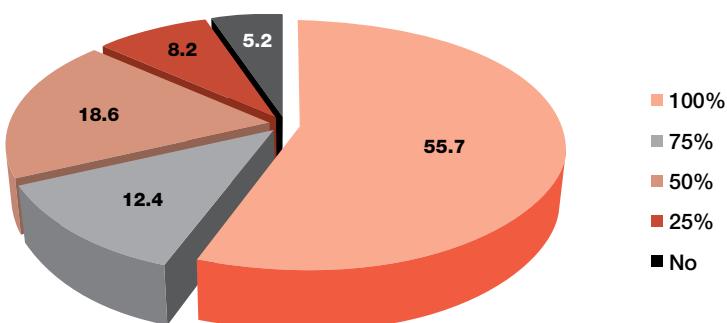


Figure 28- Damage of stored seeds

Decreased rice production

Because so many farmers lost their stored seeds, international and local organisations provided seeds to farmers in the affected areas. However, these donated seeds germinated poorly and were found to not be locally adaptable. In order to encourage these new seeds to grow, the farmers broadcasted or planted the seeds haphazardly, three to four times. This made the farmers more vulnerable.

¹ Generally speaking, Myanmar has two rice growing seasons – “dry season” and “monsoon season” or “rainy season”. Dry season is from approximately October/November through April/May, and monsoon season is from about May/June through November/December.

Another problem that arose with rice cultivation after the cyclone was the lack of draught animals (buffalo and cows). 64.4 per cent of the farmers surveyed stated that their draught cattle had been killed by Nargis. In order to compensate for the loss, farmers hired power tillers and purchased diesel fuel in order to prepare the land in the absence of draught animals. Since they had already prepared the land, they had no choice but to buy locally adaptable seeds at unreasonably high prices. Additionally farmers could not afford to buy expensive chemical fertilizers.

All of these factors indicate that the number of rice paddies cultivated for the monsoon growing season will significantly decrease. Last year, the average monsoon rice cultivated area was 11.9 acres per farmer, but this year only 8.9 acres on average per farmer have been planted with rice. This means that approximately 25.3 per cent of the rice paddies will become fallow in the coming growing season.

It was also observed that 56.8 per cent of the paddy fields were flooded by sea water. Due to the saline content, the physical and chemical properties of paddy soil will most likely change. Problematic soil, poorly germinating seeds, increasing labour costs, lack of fertilizer, and reduction of the total area cultivated for rice will most likely impact the food security of the region and livelihood of vulnerable older people.

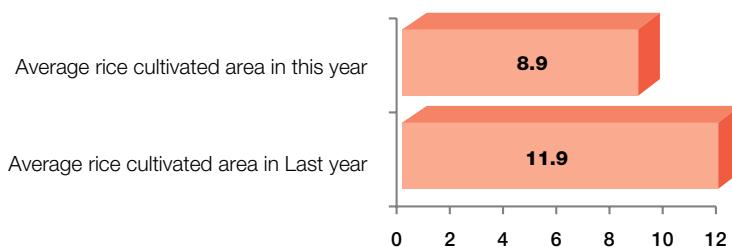


Figure 29- Monsoon rice cultivated area

Damage to fishing boats and fishing nets

Fishing is one of the main sources of income in the Irrawaddy Delta region of Myanmar. In the areas selected for this study, 60.4 per cent of the fishing boats and 72.1 per cent of the fishing nets were destroyed when the cyclone struck. Only 8.8 per cent of the participants said they currently have fishing nets and fishing boats.

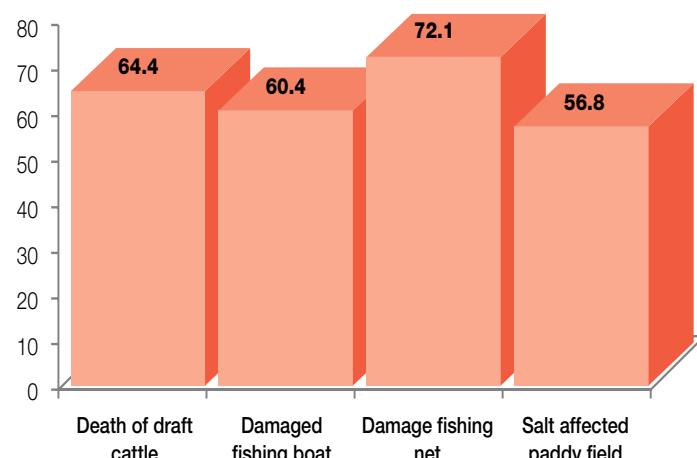


Figure 30- Damage to fishing boats and nets

Enrolment and dropout rate

About one-third of the interviewed households had school-age children. 349 children enrolled in school last year. This year only 313 children enrolled in school. This indicates that 36 out of 349 school age children (10.3 per cent) have dropped out of school. This figure indirectly indicates yet another negative impact of Nargis. Due to lack of income, some parents cannot find the money for their children to attend school this year.

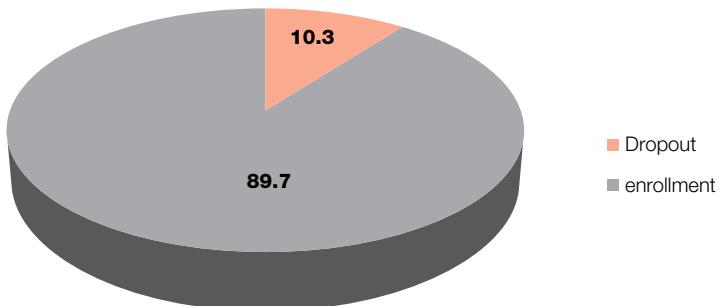


Figure 31- School dropout rate of primary school children



Access to emergency relief

Of those interviewed, 92 per cent said they had observed relief efforts after Cyclone Nargis. In regards to more specific efforts provided, 36.1 per cent of older people received food aid, 25.5 per cent of older people received clothing and 4.7 per cent of older people received health care. These are the normal aid services provided by emergency relief programmes. Only 9.5 per cent of the participants stated that specific attention was given to older people during the relief efforts.

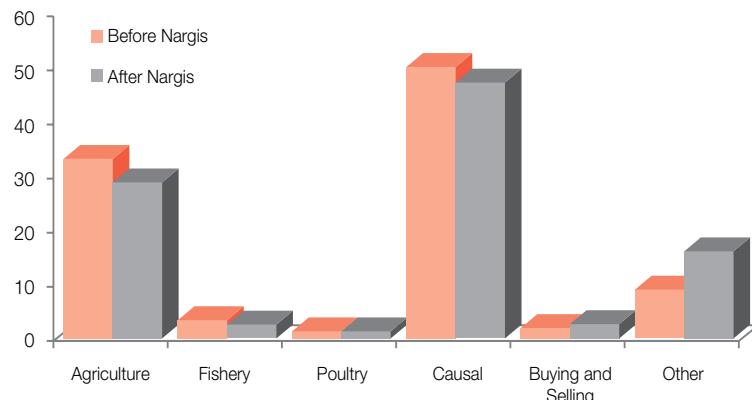
Food	36.1
Clothing	25.5
Health care	4.7
Clean water	1.6
Shelter	0.5
Psycho social support	0.0

Livelihoods

Main sources of primary income

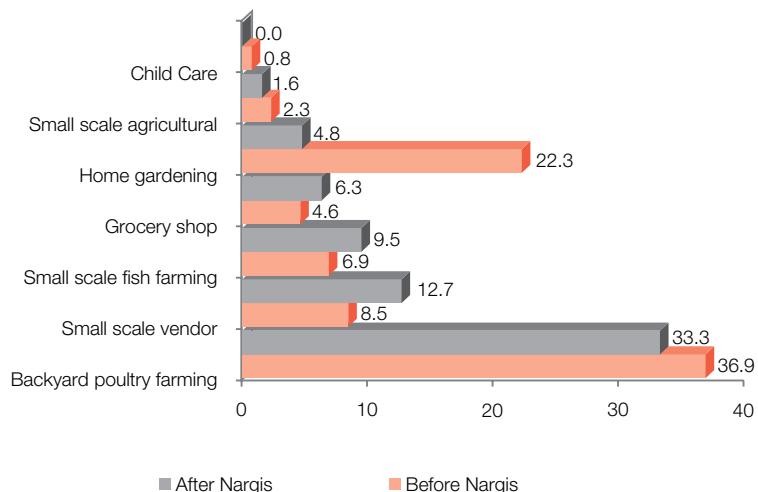
It was found that 23.2 per cent of the participants were able to earn an income while 76.8 per cent were dependent on others for care. The main source of income for older people changed slightly after Nargis. Livelihoods such as agriculture, fishing and hired labour decreased after the cyclone but buying and selling of goods increased.

As mentioned earlier, 64.4 per cent of the participants stated their draught animals had been killed in the cyclone. Draught cattle are essential to agricultural production for their use in ploughing, harrowing and carrying heavy loads. In the selected study areas, raising ducks and poultry was also common. Nargis had little impact on these businesses and they were still used as a main source of income by some.

**Figure 32-** Main sources of primary income

Main sources of secondary income

According to the findings, 22.2 per cent of the participants took part in some form of income-generating activities in order to support their family before Cyclone Nargis. After the cyclone, only 10.5 per cent still indicated a desire to work. Additionally, secondary income-generating activities such as backyard poultry farming and home gardening decreased after the cyclone. Small scale vendors, small scale fish farming and the establishment of grocery shops increased after the cyclone.

**Figure 33-** Main sources of secondary income

Disaster Management

Almost every participant (99 per cent) responded that they did not receive adequate warning about the danger of the approaching cyclone in time. This left older people especially vulnerable as they move more slowly than others and did not have enough time to reach a safe place to wait out the storm. Only 9.5 per cent stated that their villages had a sufficient disaster response plan.

Chapter 4: Needs of older people

There were no community-based organisations (CBOs) which support the livelihoods of older people in the selected areas of the study. All of those interviewed mentioned that community-based organisations should be created to support vulnerable older people, and that most were willing to participate in these organisations.

The greatest expectations from CBOs formed to support vulnerable older people were health care (74 per cent), food aid (58.5 per cent), home-based care (41.2 per cent), nutritional supplements (38.5 per cent), counselling (23.7 per cent), microfinance (21.2 per cent) and income-generating activities (15.0 per cent).

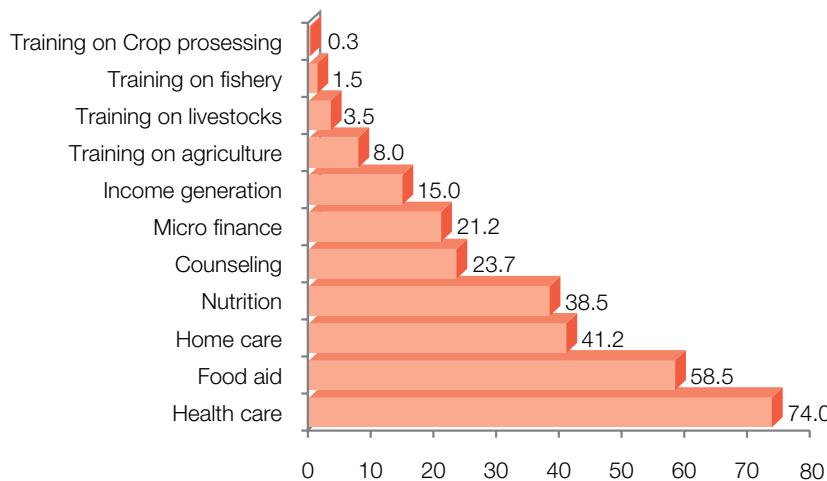


Figure 34- Needs of older people

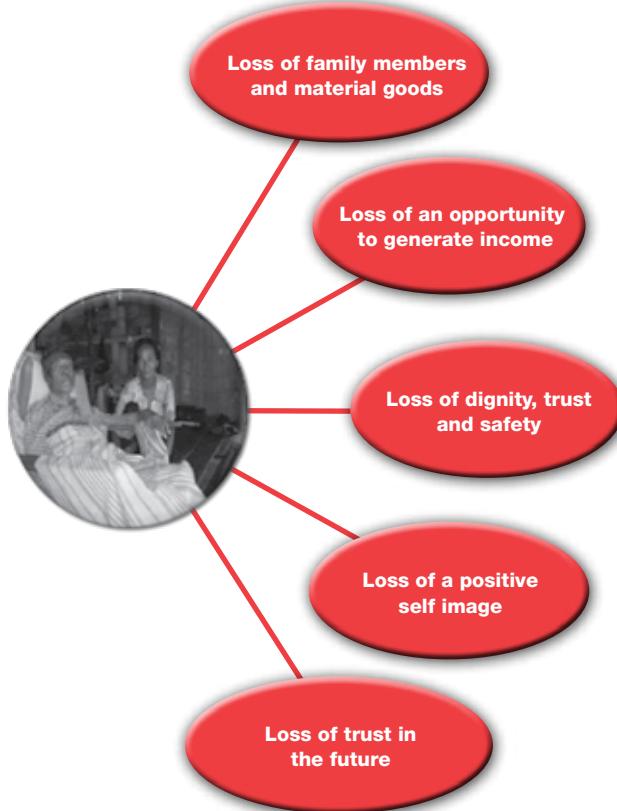
The following table shows the needs of older people, as listed by the research participants, sorted into categories of age, gender, and economic status.

	Male	Female	55-60	61-70	>70	The poorest	Poor	Moderately well off
Home care	41.8	40.7	39.1	41.8	41.7	42.1	38.7	44.4
Counselling	25.7	22.1	27.8	23.1	22.0	22.2	26.3	25.0
Health care	69.3	77.6	73.7	72.6	75.3	71.2	78.5	80.6
Food aid	59.8	57.5	57.1	59.1	58.7	58.7	58.1	58.3
Nutrition	37.9	38.9	33.8	39.9	39.8	36.5	41.9	41.7
Microfinance	21.5	20.9	27.8	20.7	18.1	21.4	19.9	25.0
Income generation	16.9	13.6	15.8	15.4	14.3	15.6	11.8	25.0
Training on agriculture	8.4	7.7	9.8	8.7	6.6	6.1	9.7	19.4
Training on fishing	1.9	1.2	1.5	2.4	0.8	1.3	2.2	
Training on livestock	4.2	2.9	5.3	3.4	2.7	3.4	2.2	11.1
Training on crop processing		0.6			0.8	0.5		

Chapter 5: Psychosocial needs

Psychosocial Support

When Cyclone Nargis struck the Ayeyarwady Delta region of Myanmar, many losses were incurred. These included not only physical but also mental detriments for older people living in the region.



The overwhelming characteristic of the problems faced by older people affected by the cyclone was that of “loss” as described in the illustration above.

Loss of opportunity to earn a living

About 50 per cent of the respondents, who earned an income, said that their main source of income was working as hired labour. However, opportunities to earn an income were lost after Cyclone Nargis struck. Due to the current lack of stable job opportunities, many older people are stressed and experiencing depression.

“My son-in-law held me in his arms and ran to a granary. But the heavy wind flattened it. We ran to the monastery, the biggest and strongest building in our village. The wind was pulling off the metal sheets. I was shaking with fear. I was in shock. I don’t want to go out when it rains now. When the thunder comes, I am afraid.”

75-year-old woman, Thaukya village

Loss of family members and material goods

The loss of family members and material goods makes older people more vulnerable, especially if their care givers and income providers are the ones lost. As previously mentioned, 99.5 per cent of the respondents' homes were damaged by Cyclone Nargis. Among them 79.7 per cent of the houses were totally destroyed. And 4.5 per cent of the total respondents stated that one of their family members was killed by the cyclone.

"I am 63 years old. However, I am healthy. I can do anything. A regular job is the most important thing for me. If there is work, there is money. If there is money, there is food. I never thought that I would get older. Sometimes, I can't find a job. On those days, I can't sleep. I have am fully responsible for my entire family. They totally depend on me. When I don't find a job, I borrow food from a grocery shop to provide food for my family. Sometimes we have no curry. I have to eat rice only. No one ever wants to be a hired hand. They have no money to invest. They have no capital. I want to work a stable job. A regular job and opportunities to earn income are crucial for us."

63-year-old man, Kadar Ywama



Loss of dignity, trust and safety

Before Cyclone Nargis, some of the older people were relatively financially stable. They could provide for themselves and stand on their own two feet. At present, nearly 95 per cent of the older people must rely on food aid provided by aid organisations, non-governmental organisations and donors. This situation makes them feel that they have lost their dignity, trust in life and a feeling of safety.

"I was ashamed as I stood in line to receive food from a donor. I never thought that this would happen in my life. I have to live by begging for food. Am I beggar? I asked myself. I feel so sad. I really hate that Nargis has destroyed my life. However, I must depend on their food aid till the harvest of my rice field."

67-year-old man, Pyapon Township

Loss of a positive self-image

When older people were forced to rely on food aid due to their dire circumstances after Nargis, they seemed to lose their positive self-image.

"Nargis shook our livelihood. It destroyed my fishing net. It made it difficult for me to fish. But I am not depressed. At present, we have to accept the donations. I want to work. I don't want to request food. It makes me ashamed. I want to be proud by working for my food."

75-year-old man from Kyiak Lak, Township

Loss of trust in the future

Living with many others in temporary shelters and living with nothing are common scenarios of older people in cyclone affected areas. These people have lost all trust in what the future may hold.

"I had a stroke and high blood pressure. Before Nargis, we had no problems with our livelihood. Nargis took all our wealth. I am still alive but my life is dead. After Nargis, my wife also became disabled because she had a stroke. Now we are still surviving because our community has provided some food for us. I am not willing to accept any assistance. But we must accept it. My life now is to wait for the food providers. Sometimes I think that I am useless to my wife, to my community. After Nargis, I became short tempered. I feel lonely. I am more aggressive. I blame my wife. I have to wait the coming of death."

72-year-old man, Pyapon Township



Chapter 6: Recommendations

Raising awareness and social mobilisation

- Most people lack an awareness of ageing issues. Moreover, non-governmental organisations and implementing partners also do not understand the depth of ageing issues and concerns of older people. Systematic awareness building should be undertaken and lead by experienced staff from HelpAge International for the implementing partners of long-term relief aid to the disaster areas.
- Social mobilisation is crucial for sustainability of projects and result-oriented project design. Stakeholder analysis and social mobilisation at the community level are recommended.

Establishment of community based organisations

- Volunteer spirit among Myanmar communities is an advantage for HelpAge International. After social mobilisation, CBOs related to ageing issues should be established using the bottom-up approach and the participatory approach– both are highly recommended.
- The volunteer-based home care approach is also highly recommended. It can reduce overhead costs and increase beneficiaries.

Priority and criteria for selection of beneficiary

- The older people in this study have been grouped into three categories by age: 55-60, 61-70 and above 70. In general the most vulnerable older people are persons who are over 70 years old. Therefore assistance for older people should be prioritised according to age groups with the old-old considered the first priority.
- The following criteria should be used to identify the most vulnerable older people:
 1. Age of older people
 2. Number of family members in their family
 3. Number of income earners
 4. Number of dependents
 5. Main source of income for their family
 6. Financial status
 7. Land ownership
 8. Amount of land owned
 9. Productive assets
 10. Household items
 11. Physical fitness and health status

12. Willingness to earn an income
13. Cost and benefit of the income earned
14. Availability of marketing
15. Comparative advantages
16. Existing disabilities

Proposed inputs

1. Income-generating activities

- Proper income-generating activities are only applicable for active older people. Based on the selection of beneficiaries by using the above mentioned criteria, older people most likely to be able to earn an income by themselves are in the age groups 55- 60 and 61-70.
- It should be noted that people aged over 50 years also engage in informal hired labour which is not regular or stable work. Income-generating activities can be encouraged for these older people as well.
- Possible income-generating activities with high potential have been identified as duck raising, pig raising and chicken raising, home gardening, operating a small grocery shop, and small scale buying and selling of goods. These activities automatically generate capital, need few human resources and their products are in high demand with an available market.

2. Food aid and home care

- For the most vulnerable older persons, regular food aid and home care are recommended. These older people cannot participate in income-generating activities; they cannot visit proper health services; they have few or no care givers, and they must rely on other family members who usually work as hired labour.
- The most urgent need of older people is food aid. At the time of this study, most interviewed said they have food for next 15 days only.
- Mobile health service teams which include an eye specialist and orthopaedic surgeon should be sent to provide health care for older people and disabled older people before the establishment of home care.

3. Psychosocial support

Psychosocial support should be introduced for the vulnerable older people because they have suffered personal loss of family and relatives, material goods, opportunities to earn a living, dignity, trust and safety, their positive self-image and trust in the future.

4. Shelter

Most of the older people are living in temporary shelters that may last less than one year. Technical and physical inputs should be provided for the most vulnerable older people through CBOs.

5. Safe drinking water

Ceramic water filters should be given to older people for safe drinking water.



Older people and Cyclone Nargis

A study of the situation of older people 100 days on
Full report

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