

HOUSEHOLD NEEDS OF EARTHQUAKE AND TSUNAMI VICTIMS, NIAS ISLAND

**HelpAge Indonesia/YEL in cooperation with RI Ministry of Social Affairs, RI
Ministry of Health and HAI.
Nias Island, January 18-22, 2005**

This report is dedicated to our dear friend Alain Pillet who died on January 20th, 2005, during this humanitarian mission on the road to Lahewa from Afulu, Nias Island.

He was 58 years old and left a wife and a daughter in France.

Background

Geography

Nias Island lies within the latitude of 0° 12' - 1° 32' North and longitude of 97° - 98° East. Its total area is 5,625.00 km² or occupying 11.54% land of North Sumatra province, and it consists of 29 islands where 13 are inhabited (44.8%).

Gunung Sitoli is the capital of Nias Island. It administratively consists of 14 sub-districts and 443 villages.

Twenty-four percent is lowland and 51.2% is upland. It is between 0-80 m above sea level. Nias district has 70 river, both large and small, as well as lakes and water falls.

It has a tropical climate and high rainfall of 2,927.6 mm annually, while rainy season is 200-250 days in a lunar year (86%). Humidity on average is 80-90% with temperatures between 17-32.6° C.

Demography

Total population in 2003 is 441,174 consisting of 218,224 males (49.0%) and 222,950 females (51.0%), with 97,109 households. The Annual growth rate between 2001-2003 is 1.4%

The number of poor families is 34,623 households (35.7%) based on National Family Planning Body criteria namely access to health care, family planning participation, health sanitation of house, etc. Proportion of population with low education (primary and no schooling) is 73.23%, and the majority of Nias population works in the field of agriculture (74.50%).

The number of people affected by the earthquake and tsunami in Nias District is the following (based on Nias District Health Service report, 2005):

Sub-district:	Number (percentage) of total population
Sirombu	729 (3.6%)
Mandrehe	4,186 (9.2%)*
Lahewa	2,001 (7.9%)
Afulu	6,621 (74.7%)

Note: * not including Muara Sungai village; Record as of January 4th, 2005

The number of people dead and missing by the earthquake and tsunami in Nias District is the following (based on Nias District Health Service report, 2005):

Sub-district:	Number dead, missing
Sirombu	7 (1)
Mandrehe	106 (29)*
Lahewa	0 (0)
Afulu	1 (0)

Note: * not including Muara Sungai village; Record as of January 4th, 2005

The number of houses destroyed and damaged by the earthquake and tsunami in Nias District is the following (based on Nias District Health Service report, 2005):

Sub-district:	Number houses destroyed, damaged
Sirombu	259, -
Mandrehe	39, -
Lahewa	51, 22
Afulu	9, 51

Note: Record as of January 10th, 2005

The number of places of worship destroyed by the earthquake and tsunami in Nias District is the following (based on Nias District Health Service report, 2005):

Sub-district:	Number of churches, mosque, temple
Sirombu	2, 3, 1
Mandrehe	3, -, -
Lahewa	-, 1, -
Afulu	none

Note: * not including Muara Sungai village; Record as of January 4th, 2005

The number of public building (health center, school) destroyed by the earthquake and tsunami in Nias District is the following (based on Nias District Health Service report, 2005):

Sub-district:	Number
Sirombu	4
Mandrehe	5
Lahewa	3
Afulu	13

Note: * not including Muara Sungai village; Record as of January 4th, 2005

The objectives of the study was to determine the needs of affected households in the affected sub-districts of Nias district namely in Sirombu, Mandrehe, Lahewa and Afulu sub-districts.

Method

The study was a cross-sectional observation. The study team was a multi sector, multi disciplinary team consisting of 2 persons from HAI, 2 from YEL, 2 from InResAge Trisakti University Jakarta, 2 from central Health & Social Affairs Ministries, and 2 persons from provincial Health & Social Services. The study team was assisted by 3 local surveyors consisting of 2 from social services and 2 from local NGO namely Yayasan Melati, an relief local NGO based in Sirombu village, as well as 2 personnel from the provincial health services who assisted in the qualitative study.

The team collected secondary data of the provincial health service in Nias Island, primary data were 1) qualitative consisting of semi-structured group discussions on affected family informants representing older persons, household heads, youths, as well as in-depth interviews with village head, NGO, older males, older females, household head, and youth. The discussions and interviews consisted of the following themes namely 1) Your current situation, 2) Help already received, 3) Your short and

long term needs, 4) Your priority needs, and 5) Your role in community rebuilding specifically for older members of affected families.

Second, the quantitative study used a closed questionnaire that consisted of demographic data of household head, destruction and environmental health, assistance received, access to health facility, prevention and diseases suffered by small children, and assistance for older persons. The respondent were wives as heads of household, in certain conditions such as the wife died during the tsunami, the husband will be interviewed. In special cases, the substitute household head such as the oldest child was interviewed if the parents had died in the tsunami.

In the affected village, the surveyor interviewed 1 household out of 10 households. If the household sampled had an older member then she/he was also surveyed. The older household member surveyed were those aged 50 years and above.

The number of household sampled in the survey were 1) 20 out of 152 (13.2%) affected household in Sirombu village, 41 out of 407 (10.1%) affected household in Mandrehe village, and 5 out of 64 (7.8%) affected household in Lahewa village.

Results of study

Qualitative study

In Sirombu

Semi-structured group discussions

Older women group

3 older women aged 53 - 90 years

After the tsunami, some lost their daily income, some had to live with relatives, and some had to live alone. All relied on day-to-day assistance consisting of 2 kilos of rice every other day, 2 pieces of cloth, and a frying pan. They all still need more food (quality and not only quantity) and clothes. Priority should be focused on income generating programs for active older persons. One had to nurse an ailing older husband.

Older men group

4 older males aged 50-65 years

When the tsunami struck, they were able to flee because they knew the signs of an impending tsunami. However, they could not save their belongings. The houses were destroyed and they sought shelter on higher ground. One older male had a mother who was swept away by the tsunami and was found dead 3 days later. Assistance received in the camp was ready to prepare food, sugar, rice, eating utensils, and milk formula for infants (for younger affected household members).

Assistance still needed is kitchen utensils and blankets (short term) and income generating assistance for agriculture, fishery, and financial assistance. Priority needs should be focused on community rebuilding such as housing and micro financing.

Mixed older person group

3 female and 2 males aged 52 – 60 years. The tsunami struck when they were about to begin work as seamstress and fishermen. They locked their houses and fled to higher ground (a sub-district meeting hall presently used as a local disaster command post). Assistance received were rice, bread, noodles, salted fish, and eating utensils.

Assistance still needed is kitchen amenities such as utensils, furnace, cooking pans (short term) and income generating assistance for tailoring, and fishery. Their role as older persons in the village is focused on providing knowledge and experience to younger members in the extended family.

In Lahewa

Older men group

3 older males aged 50-65 years

When the tsunami struck, their group of affected families (49 households) was able to flee because they knew the signs of an impending tsunami. The sign was that the water below the bridge was suddenly empty. Legend says that in 1907, a similar event happened and they hurriedly left for higher ground. However, they could not save their belongings. Water slowly crept above the tiles of their houses. They stayed on higher ground for 6 hours, the village head found them at the district market. It was also flooding there but only slightly. Assistance received in the camp was medicine, food, rice, noodles, bottled water, and monetary donations (USD \$ 10.00 per household).

Assistance still needed is boats for fishing, housing, kitchen utensils and cash. In the run term, they want to rebuild their schools, health clinic, and village meeting place.

They all are willing to contribute in the rebuilding of their community. They also emphasized the importance of forming fishermen cooperatives to jump-start the rebuilding process.

Heads of household group

1 female and 4 males, aged between 27 – 45 years

The tsunami struck when they were about to begin work as seamstress and carpenter. They locked their houses and fled to higher ground (a local mosque). The water was up to throat level. Assistance received were rice, bread, noodles, salted fish, and eating utensils.

Assistance still needed is kitchen utensils (short term) and income generating assistance for tailoring, carpenter (sawing machine) and fishery.

Youth group

3 males aged 21-30 year

After the tsunami, they fled to higher ground and were evacuated by the police to Lahewa village market. Their houses were intact but all furniture and fishing boats were swept away. One informant was also a carpenter as a side profession. Assistance was given through their families namely sugar, rice, noodles, milk, used cloths and money of USD \$ 10.00 per family. They still need instruments for fishing and cash for renting fishing boats. In the long term they needed a local market to sell their produce in Lahewa village to increase their household welfare. Other needs are clean water because the burden for collecting clean water was placed on the youth of the village. However, in other village such as Mandrehe where clean water source lies more than 3 kilometers away, the burden is mostly on women of the households who collect it early in the morning for household purposes.

In-depth interview

Abdul Hasan, village head, 58 years

Our community is mostly fishermen. On Sunday, December 26th, 2004, a tsunami struck and destroyed 160 houses, affected 253 households, killing 8 villagers, 7 were found and 1 is still missing. The local government and domestic as well as foreign donations in the form of food, clothing, and free health services have given assistance. Our current needs are thick blankets, kitchen utensils such as furnace, plates, glasses, hot water container, etc.

His Comment: if you desire to give assistance, please provide for 253 IDP households. If not, then it will be hard to distribute equally and fairly to the IDP households. He personally does not want to be relocated.

Lukman Zebua, 45 years, fishermen, head of household

After the tsunami, his home was slightly damaged, but his kitchen was totally damaged. He fled with his family (wife and 2 children) to higher ground (the sub-district meeting hall). His motorboat for fishing was lost and his wife's 3 sewing machines were totally destroyed. Assistance still needed is kitchen utensils (short term) and income generating assistance for fishery and tailoring.

Binti Janah, 27 years, seamstress, youth

After the tsunami, her home was slightly damaged, but her kitchen was totally damaged. She fled with her family (2 parents and 5 siblings) to higher ground (the local mosque). She lost 6 sewing machines, which was acquired through micro financing. Assistance given was rice, noodles, cooking oil, and used clothes. Assistance still needed are kitchen utensils and under wear (short term) and income generating assistance for tailoring.

Ina Sahrul, 55 years, farmer, older female

When the tsunami struck, her house was totally damaged. She lives presently at the village head home. His house was also damaged but it is still livable. An earthquake startled them and 15 minutes later the tsunami struck. They fled 3-4 kilometers to another village. Nothing was left of their belongings. She has 9 children, 5 live in Nias Island, and the rest are presently living on the main land. Four sewing machines were lost.

Amir, local NGO, Yayasan Melati

After the tsunami struck, they lost 5 boats donated by sponsors. The Well water around the villages is too salty and drinking water has to be brought from other villages. All his woodcarving and boat making tools were destroyed. Distribution of donated clothes should be better organized. The villager's needs are tools for fishing and farming as well as infant food and clothing.

Inventory of items needed for income generation activities for affected families based on local prices stated by informants in Nias district are the following

Item	Price per item (in million rupiahs)
Motor boat	6-7.5
Electric Generator	0.5
Fishing net set	1
Fishing bait set	1
Sewing machine	4-6
Carpenter tools:	
Wood machine	2
Sawing machine	1
Wood cutter	0.75

Quantitative study

In Sirombu, Mandrehe and Lahewa

Twenty out of 152 affected households (13.2%) were surveyed in Sirombu village, 41 out of 407 (10.1%) affected household in Mandrehe sub-district where 5 out of 0 villages were covered or 407 out of 1,993 households (20.4%), and 5 out of 64 (7.8%) affected household in Moawo village of Lahewa sub-district .

The respondents were mostly female in Sirombu, male in Mandrehe and Lahewa villages. They were mostly aged between 20-60 years in all 3 sub-districts, mostly wives in Sirombu and husbands in Mandrehe and Lahewa, education was no schooling in Sirombu, primary in Mandrehe, and low education in Lahewa. Their occupation were mostly housewives in Sirombu, farmers in Mandrehe and factory workers in Lahewa, however, currently they are jobless (refer to table 1).

Destruction and environmental health

Water source is mostly well water in Sirombu, well water in Mandrehe, and piped water in Lahewa.

Water is mostly stored in jugs daily in Sirombu, plastic buckets more than 2 days in Mandrehe, and not stored in Lahewa.

Toilet used before was closed pit latrine and after tsunami were no latrine in Sirombu, open pit latrine before and no latrine after tsunami in Mandrehe, and open pit latrine before and open pit latrine after tsunami in Lahewa

They were mostly living with friends and relatives before tsunami in Sirombu, living in relocation in Mandrehe, and in their own house in Lahewa. However, their houses were mostly totally destroyed

Electricity was not available in Sirombu and Mandrehe, however, it was available in Lahewa. While all villages were accessible in Sirombu, Mandrehe and Lahewa.

Belongings mostly destroyed were fishing boat in Sirombu, everything in Mandrehe and fishing boat in Lahewa (refer to table 2).

Assistance received since tsunami were provided by the following:

Assistance was given mostly by Social workers (of local NGO) in Sirombu and Mandrehe, as well as Government health providers in Lahewa.

Mostly food, and clothing were given in Sirombu and Mandrehe, and mostly food and finding missing persons in Lahewa.

Needs were mostly shelter in Sirombu, mostly food and clothing in Mandrehe, and mostly reconstruction in Lahewa.

Priority is mostly for housing in Sirombu and Lahewa, and for seed money in Mandrehe (refer to table 1).

Access to health facility

Distance of health facility is between 1 – 3 km in Sirombu and Mandrehe, and more than 3 kilometers in Lahewa.

Health center facility is health center in Sirombu and Mandrehe, and equally distributed between self-treatment, health provider and health center in Lahewa (refer to table 3).

Older persons

Older persons were males and female, aged below 60 years, married, with no schooling, can not speak, read and write in Bahasa, Nias ethnicity, had not been assisted by volunteer, received clothing, food and cash in Sirombu and Lahewa, and clothing and food in Mandrehe. Older person needs were housing in Sirombu, shelter in Mandrehe, and reconstruction in Lahewa. Older person priority was housing in Sirombu, shelter in Mandrehe, and housing and seed money in Lahewa (refer to table 4).

Conclusion

There were four tsunami affected areas in Nias island namely Sirombu, Mandrehe, Lahewa and Afulu. Each affected area had its own characteristics in terms of needs of affected families and types of destruction specific to the area. In Sirombu, the

destruction of houses were mainly along the coastline, there were households that lost family members, however, the loss was not severe compared to those in Mandrehe. In Sirombu, the main occupation was fishermen and all occupations related to fishery. The occupation was similar to Lahewa, but in Mandrehe the main occupation was farmers besides fishermen. In Afulu, many houses were destroyed along the coastline. It was relatively isolated such as in the case of Mandrehe, because those areas could only be reached by motorcycle, in the case of Afulu halfway to the coast by foot. Thus, people in Afulu have begun reconstruction of their own homes based on their local capacity. This was different than the people in Sirombu and Mandrehe where most of the affected families were still dependent on assistance both government as well as community social workers such as the local NGO, Yayasan Melati, in Sirombu village.

In terms of relief assistance, there are many in the form of food, clothing and a sum of money (USD 10.00) per family. However, baby food and women underwear are still in great demand especially in Sirombu village. In the long term, the affected families would like to rebuild their former houses, however, there seems to be some resistance in their relocation from their former location especially in Sirombu village, which is strategically located to the harbor. Most of the affected families in this area had their former livelihood from activities related to the harbor.

In terms of environmental health, clean water source is still a problem. In Sirombu, most of the well water is salty, while in Mandrehe and Lahewa clean water sources is far from their homes and concentrated in the temporary camp sites such as in Mandrehe is a local primary school. In fact, many children especially those of intermediate school cannot afford to pay school tuition.

The affected families health needs are fulfilled by the local health center and its staff. Affected families with small children who are sick receive treatment from the local health provider and disease prevention is through immunization and vitamin supplementation.

Older persons are not personally visited by volunteers because they are considered members of the extended family. Their needs are similar to other family members such as food, clothes, and cash (immediate) as well as housing and seed money (long term). Their role in the rebuilding process is providing knowledge and sharing experience with younger family members. They stressed the importance of village cooperatives, rebuilding of markets, health clinics, and availability of clean water source in their villages. In terms of their knowledge and experience in disaster mitigation, many of them still inform younger members of their experience in disaster responsiveness such as the early signs of tsunami and an exit strategy towards higher ground so that in the case of Afulu and Lahewa many lives were saved even though their houses were totally destroyed.

Appendix

Table 1. Demography of Respondents in Nias district

Variable	SB	MH	LH
Age			
<20		1	
20-60	13	37	4
>60	1	3	1
	14	41	5
Sex			
1	2	22	5
2	12	19	
	14	41	5
Status			
1	1	23	5
2	12	17	
3		1	
4			
	13	41	5
Education			
1	6	12	2
2	3	19	2
3	3	8	1
4		2	
	12	41	5
Volunteer			
1	5	8	1
2	2	13	3
3	5	14	2
5	2		
6	1	1	2
7	1	3	
8		1	1
	16	40	9
Assist			
1	3	4	1
2	1		1
4		1	
6	2	1	
7	4	12	
8	7	22	4
9	4	2	3
	21	42	9

Need			
1		1	
2	1		
4	7	25	1
6			1
10	3	6	1
8		3	
7			1
11	7	1	2
14			3
	18	36	9
Priority			
1	8	4	3
2	1	1	1
3	1		
4	4	8	4
9	2		2
	16	13	10
Occupation			
1	1	39	
2			1
3			4
4	6		
5	5	1	
10		1	
11	1		
	13	41	5

Table 2. Destruction and environment in Nias district

Variable			
Water_be			
2	13	41	
5			5
1			
	13	41	5
Water_af			
2	12	41	
5			5
1	1		
	13	41	5
Storage			

1	4	1	
3	5	2	3
4	4		
5			1
6		38	1
	13	41	5
Capacity			
1	4	1	3
3	6		2
4	2		
5	1	39	
	13	40	5
Toilet_bef			
1	3	26	
2	3		
3	7		
4		15	5
	13	41	5
Toilet_af			
1	12	40	
2			1
4	1	1	4
	13	41	5
House			
1	4	8	4
2		20	
3	9	3	1
4		10	
	13	41	5
Condition			
1	8	33	3
2	3	1	
3	2	4	2
4		3	
	13	41	5
Elec_bef			
1	12	11	5
2	1	30	
	13	41	5
Elec_af			
1	5	6	5
2	8	35	
	13	41	5
Access_bef			

1	13	31	5
2		10	
	13	41	5
Access_af			
1	13	27	5
2		13	
	13	40	5
Others			
1	4		5
2	1	2	4
3	2		
4	1	1	
5	1	8	
6	1	10	
8	7	24	
9	1	1	1
	18	46	10

Table 3. Health in Nias district

Variable	SB	MH	LH
Distance			
2	1		
3	10	29	1
4	1	5	3
	12	34	4
Help			
1	4		1
2	4	11	1
3	7	22	1
4	1		
	16	33	3
Reason			
2	1		
3	3		1
7	1		
	5	0	1
Illness			
1		1	
2	1		
3		2	
4	1		1
5	1	2	

	3	5	1
Treat			
1		1	
3	1	2	1
	1	3	1
Children			
1	1	9	
2	2	1	2
	3	10	2
Imun			
1		10	
2	1	1	2
	1	11	2
Vit A			
1		10	
2	1	1	1
	1	11	1

Table 4. Older Person in Nias district

Variable	SB	MH	LH
Age			
>60	2	3	2
<60	2	4	3
	4	7	5
Sex			
1	2	4	2
2	2	3	3
	4	7	5
Status			
1		1	
2	2	3	3
3	1	3	
4	1		2
	4	7	5
Education			
1	4	6	3
2		1	2
	4	7	5
Language			
2	1	1	1
3			1
4	3	6	3
	4	7	5
Literate			

1		3	
2	1	1	1
4	3	3	4
	4	7	5
Ethnic			
2	1		
5	3	7	5
	4	7	5
Volunteer			
1		3	2
2	4	4	3
	4	7	5
Assist			
1		1	
2	1		1
3		1	
4		1	
5	1		1
7	4	5	4
8	4	5	4
9	4		4
	14	13	14
Need			
3	1		
4	1	3	
8	2	2	
7		1	
9			1
11	1	1	2
14	1		3
	6	7	6
Priority			
1	3	3	2
2	1	2	1
4	2	1	2
9			2
14		2	
	6	8	7
Role			
1	2		1
	2	0	1

