INDONESIA

Central Sulawesi Earthquake, Tsunami, and Liquefaction: Population Needs

Multi-Sector Needs Assessment: Sub-District Profiles, Sigi Regency

February 2019
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

To fill this gap, a Multi-Sector Needs Assessment (MSNA) was conducted by Humanitarian Forum Indonesia (HFI) and Universitas Muhammadiyah Palu (UNISMUH) with oversight from the Ministry of Social Affairs (Kemensos) and technical support from REACH, in 38 of 62 sub-districts in the four affected regencies of Central Sulawesi Province.

A sample of 98 out of a total population of 253,265 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

- 4% 60+ years
- 28% 18–59 years
- 7% 13–17 years
- 7% 6–12 years
- 6% 1–5 years
- 1% <1 year

There was an average of 5 individuals reported per household

Head of Household

- 8% of heads of households were female
- 16% of heads of households were elderly
- 45% average age of the head of household in years

Dependency ratio

- 0.8 average youth dependency ratio
- 0.2 average elderly dependency ratio
- 0.9 average age-dependency ratio

% of households by current living location:

- 72% Own home
- 6% Shelter next to original home
- 0% Renting (non-displaced)
- 1% Renting (displaced)
- 11% Staying in another home that is not their own
- 10% Informal settlement
- 0% Other

Respondent metadata

- 98 Total households interviewed
- 44 Average age of respondent in years
- 29% of respondents were female

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2. The boundaries and names used on this map do not imply official endorsement or acceptance by REACH, UNICEF, HFI, or UNISMUH. Population data was extracted at desa-level from SIAK (Population Information Administration System) database, Ministry of Home Affairs (MoHA, 2017). Population of missing desas was imputed using data from the Indonesia Bureau of Statistics, 2010.
3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their
Displaced population

28% of households were no longer living in their original house due to the disaster.

% of households no longer living on land they own by distance from their current living location to their original house:
- 76% Nearby/on site
- 19% Within 2km
- 0% Between 2km–5km
- 5% More than 5km or Don’t know

Non-displaced population

9% of non-displaced households were hosting at least one displaced household in a house that they own.

There is an average of 2 IDP individuals in each displaced household hosted by a non-displaced household.

average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs:
0.4

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:
- 87% Remain in the current location
- 6% Move into the Government Transitional Shelter
- 5% Move to a new location

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:
1. House destroyed/severely damaged
2. Heavy damage to house
3. Lack of livelihood opportunities

Disabilities, Elderly, Minorities

4% of households contained at least one member with a self-reported physical or mental disability.

Child Protection

4% of households contained at least one child that was separated from their usual caregiver.

Psychosocial Support

46% of households reported having at least one member experiencing emotional distress from the disaster.

Shelter

Shelter conditions

% of households by type of shelter they are currently living in at the time of data collection:
- 84% House
- 1% Apartment
- 5% Transitional shelter (individual)
- 2% Makeshift Shelter
- 8% Tent
- 0% Don’t know
- 0% Other

79% of households reported that their original shelter was either destroyed or damaged by the disaster.

% of households by state of tenure for house at the time of data collection:
- 69% Household owns the land
- 0% Written agreement (still valid)
- 0% Written agreement (expired)
- 31% Verbal/No agreement
- 0% Don’t know

Preferred Shelter Assistance

90% of households reported that they would prefer to rebuild or repair their original home in the next 6 months.

Protection of Women’s Needs

17% of households contained at least one pregnant or lactating woman.

original home were living on their original land and considered to be non-displaced. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and had been displaced by the disaster. For households living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:10

1. Assistance to build/repair shelter 67%
2. Shelter building materials 55%
3. Provide water to shelter 12%

Top 3 most needed Non-Food Items (NFIs):10

1. Bedding items (bedsheets, pillows) 59%
2. Cooking utensils/kitchen set 57%
3. Blankets 55%

Water, Sanitation and Hygiene

Access to Water

% of households acquired most of their drinking water from the following sources:

- Piped water 37%
- Public tap 40%
- Protected well/spring 6%
- Water tank/trucking 14%
- Bottled water 0%
- Unprotected source 0%
- Don’t know 0%

97% of households reported drinking water that had been treated and was safe to drink.

93% of households reported having enough water to meet their total needs for drinking, cooking, bathing, and washing.

% of households by reported amount of time it takes to walk to main water source, fetch water, and return (including queuing at the water source):

- Water source located on site 90%
- Less than 10 minutes 8%
- 10–20 minutes 2%
- More than 20 minutes 0%
- Don’t know 0%

Hygiene practices

% of households by location used for hand washing:

- Pouring device/sink faucet 69%
- Basin/bucket 16%
- No device 15%
- Don’t know 0%

100% of households have water available for hand washing.

81% of households have soap available for hand washing.

Sanitation conditions

% of households by most common defecation practice:

- Household latrine/toilet 76%
- Communal latrine/toilet 19%
- Open defecation 5%
- Don’t know 0%

There is an average of 14 households reported to be sharing each communal latrine.11

Household and communal latrine conditions

- 86% of households with communal latrines reported their toilet had adequate lighting.
- 4% of households with communal toilets reported that there are separate toilets for men and women.
- 81% of households with communal toilets reported their toilet is not inside the household and has locks on the doors.

Economy

Main occupation of the household reported by households before the disaster and in the last month:12

Before Disaster | January 2019
--- | ---
Agricultural | 31% | 19%
Vocational profession | 19% | 19%
Small business owner | 13% | 17%

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

- **Before Disaster**: 5%
- **January 2019**: 18%

41% of households had at least one working-age household member that is not working.

Top 3 reported reasons why school-aged children were not attending school by households with children not attending school:

1. NA (0%)
2. NA (0%)
3. NA (0%)

Condition of school facilities

- % of households reported the condition of the nearby school to be:
  - Good condition: 13%
  - Lightly damaged: 30%
  - Moderately damaged: 38%
  - Severe damage: 10%
  - Don’t know: 9%
  - Other: 0%

There is an average reported loss of 10% of household income due to the disaster.

### Food Security

**Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)**

- **Food Consumption Score**: 82% Acceptable, 18% Borderline, 0% Poor

- **% of households per main reported source of food in week prior to data collection**: 97% Purchased with own cash, 2% Gift from family or friends, 1% Received in-kind for labor or other items

### Health

**Immunization**

- 8% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

**Illness and injury**

- 34% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.

14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).

15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).

16. Single-choice question; only the top three responses are shown.

17. Respondents could select multiple responses; only the top three choices are shown.
**Multi-Sector Needs Assessment**
Central Sulawesi Province
Sigi Regency, Dolo Sub-District

February 2019

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### Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:

<table>
<thead>
<tr>
<th>Health Concern</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>52%</td>
</tr>
<tr>
<td>Coughing</td>
<td>42%</td>
</tr>
<tr>
<td>Other health issue</td>
<td>18%</td>
</tr>
</tbody>
</table>

### Main barriers to accessing healthcare reported by households who needed to access medical treatment the 30 days prior to data collection:

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No issues</td>
<td>85%</td>
</tr>
<tr>
<td>No medicine/treatment available</td>
<td>6%</td>
</tr>
<tr>
<td>No information where health facilities are</td>
<td>6%</td>
</tr>
</tbody>
</table>

### Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>60%</td>
</tr>
<tr>
<td>Get regular medications</td>
<td>26%</td>
</tr>
<tr>
<td>Treat health problems</td>
<td>18%</td>
</tr>
</tbody>
</table>

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### Priority Needs

#### Top 3 most important priority needs as reported by households:

<table>
<thead>
<tr>
<th>Need</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>85%</td>
</tr>
<tr>
<td>Water</td>
<td>36%</td>
</tr>
<tr>
<td>Other NFIs</td>
<td>33%</td>
</tr>
</tbody>
</table>

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### Communication with Communities

#### Information Needs

<table>
<thead>
<tr>
<th>Information Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livelihoods</td>
<td>44%</td>
</tr>
<tr>
<td>Status of housing</td>
<td>31%</td>
</tr>
<tr>
<td>Humanitarian assistance</td>
<td>9%</td>
</tr>
</tbody>
</table>

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### Humanitarian assistance

#### Top 3 most common types of aid that households reported having received:

<table>
<thead>
<tr>
<th>Aid Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>93%</td>
</tr>
<tr>
<td>Water</td>
<td>54%</td>
</tr>
<tr>
<td>Sanitation</td>
<td>32%</td>
</tr>
</tbody>
</table>

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#### % of households by most preferred source from which they would like to receive new information:

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face communication (e.g. from friends)</td>
<td>52%</td>
</tr>
<tr>
<td>Television</td>
<td>41%</td>
</tr>
<tr>
<td>Social media</td>
<td>2%</td>
</tr>
</tbody>
</table>

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#### % of households by most common reported source of aid:

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGO distribution</td>
<td>32%</td>
</tr>
<tr>
<td>Private Company</td>
<td>30%</td>
</tr>
<tr>
<td>Government distribution</td>
<td>23%</td>
</tr>
</tbody>
</table>

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82% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection.

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18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.
19. Single-choice question; only the top three responses are shown.
20. Respondents could select up to three responses, therefore results may exceed 100%; only the top three choices are shown.
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

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A sample of 110 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

- 2% 60+ years
- 6% 61–70 years
- 12% 71–80 years
- 27% 18–59 years
- 8% 13–17 years
- 7% 6–12 years
- 5% 1–5 years
- 1% <1 year

There was an average of 4 individuals reported per household.

Head of Household

- 14% of heads of households were female
- 12% of heads of households were elderly
- 48 average age of the head of household in years

Dependency ratio

- 0.8 average youth dependency ratio
- 0.2 average elderly dependency ratio
- 1 average age-dependency ratio

% of households by current living location:

- 70% Own home
- 12% Shelter next to original home
- 0% Renting (non-displaced)
- 1% Renting (displaced)
- 11% Staying in another home that is not their own
- 6% Informal settlement
- 0% Other

Respondent metadata

- 110 Total households interviewed
- 46 Average age of respondent in years
- 41% of respondents were female
## Displaced population

30% of households were no longer living in their original house due to the disaster.

<table>
<thead>
<tr>
<th>Distance from current living location to original house</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearby/on site</td>
<td>63%</td>
</tr>
<tr>
<td>Within 2km</td>
<td>32%</td>
</tr>
<tr>
<td>Between 2km–5km</td>
<td>0%</td>
</tr>
<tr>
<td>More than 5km or Don’t know</td>
<td>5%</td>
</tr>
</tbody>
</table>

## Non-displaced population

9% of non-displaced households were hosting at least one displaced household in a house that they own.

There is an average of 2 IDP individuals in each displaced household hosted by a non-displaced household. The average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs is 0.6.

## Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

- Remain in the current location: 86%
- Move into the Government Transitional Shelter: 9%
- Return back to original home: 3%

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. Heavy damage to house: 60%
2. House destroyed/severely damaged: 43%
3. Basic services are not available: 27%

## Disabilities, Elderly, Minorities

4% of households contained at least one member with a self-reported physical or mental disability.

## Child Protection

0% of households contained at least one child that was separated from their usual caregiver.

## Psychosocial Support

38% of households reported having at least one member experiencing emotional distress from the disaster.

## Shelter

86% of households reported that their original shelter was either destroyed or damaged by the disaster.

% of households by type of shelter they are currently living in at the time of data collection:

- House: 80%
- Apartment: 1%
- Transitional shelter (individual): 3%
- Makeshift Shelter: 4%
- Tent: 12%
- Don’t know: 0%
- Other: 0%

## Displacement and Protection

30% of households were no longer living in their original house due to the disaster.

% of households no longer living on land they own by distance from their current living location to their original house:

- Nearby/on site: 63%
- Within 2km: 32%
- Between 2km–5km: 0%
- More than 5km or Don’t know: 5%

## Non-displaced population

9% of non-displaced households were hosting at least one displaced household in a house that they own.

## Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

- Remain in the current location: 86%
- Move into the Government Transitional Shelter: 9%
- Return back to original home: 3%

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. Heavy damage to house: 60%
2. House destroyed/severely damaged: 43%
3. Basic services are not available: 27%

## Protection of Women’s Needs

17% of households contained at least one pregnant or lactating woman.

Original home was living on their original land and considered to be non-displaced. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and had been displaced by the disaster. For households living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:10

1. Assistance to build/repair shelter 66%
2. Shelter building materials 44%
3. Space in Transitional Shelter 13%

Top 3 most needed Non-Food Items (NFIs):10

1. Cooking utensils/kitchen set; 64%
2. Bedding items (bedsheets, pillows); 58%
3. Mattresses/Sleeping mats 50%

Hygiene practices

% of households by location used for hand washing:

- 74% Pouring device/sink faucet
- 22% Basin/bucket
- 4% No device
- 0% Don’t know

98% of households have water available for hand washing
74% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:

- 56% Household latrine/toilet
- 33% Communal latrine/toilet
- 7% Open defecation
- 4% Don’t know

There is an average of 9 households reported to be sharing each communal latrine11

Household and communal latrine conditions

- 76% of households with communal latrines reported their toilet had adequate lighting
- 7% of households with communal toilets reported that there are separate toilets for men and women
- 76% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month;12

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>42%</td>
</tr>
<tr>
<td>Construction</td>
<td>22%</td>
</tr>
<tr>
<td>Vocational profession</td>
<td>7%</td>
</tr>
<tr>
<td>Agricultural</td>
<td>1</td>
</tr>
<tr>
<td>Construction</td>
<td>2</td>
</tr>
<tr>
<td>Unemployed</td>
<td>3</td>
</tr>
</tbody>
</table>

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

Before Disaster | January 2019
--- | ---
6% are unemployed | 14%

32% of households had at least one working-age household member that is not working

Main reported barriers to finding work:13

Available jobs are too far away | 54%
Disaster destroyed cultivation land for planting | 23%
Disaster destroyed business/job opportunities | 17%

There is an average reported loss of 10% of household income due to the disaster13

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

Food Consumption Score14 | average rCSI score15
--- | ---
83% | Acceptable
17% | Borderline
0% | Poor

% of households per main reported source of food in week prior to data collection:18

Purchased with own cash | 96%
Gift from family or friends | 3%
Own production (hunting, fishing, farming) | 1%

Education

Student attendance

0% of households with children reported having school-aged children who were not attending school following the disaster

Among households where children were not attending school, there was an average of 0 child(ren) reported to not be attending school

Top 3 reported reasons why school-aged children were not attending school by households with children not attending school:19

1. NA | 0%
2. NA | 0%
3. NA | 0%

Condition of school facilities

% of households reported the condition of the nearby school to be the following:

- 14% Good condition
- 28% Lightly damaged
- 46% Moderately damaged
- 6% Severe damage
- 6% Don’t know
- 0% Other

Health

Immunization

4% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

Illness and injury

27% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.
14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).
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16. Single-choice question; only the top three responses are shown.
17. Respondents could select multiple responses; only the top three choices are shown.
### Top 3 Types of Health Concerns

- **Coughing**: 43%
- **Fever**: 40%
- **Diarrheal diseases**: 17%

### Main Barriers to Accessing Healthcare

- **No issues**: 93%
- **Cost of medicine/treatment too high**: 7%
- **Don’t know**: 0%

### Main Reasons for Accessing Health Services

- **None**: 62%
- **Get regular medications**: 24%
- **Treat health problems**: 17%

### Priority Needs

- **Food**: 92%
- **Shelter support**: 41%
- **Other NFIs**: 30%

### Communication with Communities

<table>
<thead>
<tr>
<th>Information Needs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livelihoods</td>
<td>44%</td>
</tr>
<tr>
<td>Status of housing</td>
<td>32%</td>
</tr>
<tr>
<td>Don’t want more information</td>
<td>8%</td>
</tr>
</tbody>
</table>

### Humanitarian Assistance

- **58%** of households reported that they had received humanitarian aid in the 30 days prior to data collection.

#### Top 3 Most Common Types of Aid

- **Food**: 97%
- **Water**: 31%
- **Sanitation**: 27%

#### Most Common Reported Source of Aid

- **Private Company**: 34%
- **Government distribution**: 31%
- **NGO distribution**: 20%

- **78%** of households reported that they were happy with the aid that they had received in the 30 days prior to data collection.

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18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.
19. Single-choice question; only the top three responses are shown.
20. Respondents could select up to three responses, therefore results may exceed 100%; only the top three choices are shown.
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

To fill this gap, a Multi-Sector Needs Assessment (MSNA) was conducted by Humanitarian Forum Indonesia (HFI) and Universitas Muhammadiyah Palu (UNISMUH) with oversight from the Ministry of Social Affairs (Kemensos) and technical support from REACH, in 38 of 62 sub-districts in the four affected regencies of Central Sulawesi Province.

A sample of 120 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

- Male
  - 2% 60+ years
  - 3% 1–5 years
  - 1% <1 year
- Female
  - 30% 18–59 years
  - 9% 6–12 years
  - 30% 18–59 years
  - 7% 13–17 years
  - 6% 7–13 years
  - 6% 1–5 years
  - 1% <1 year

There was an average of 5 individuals reported per household.

Head of Household

- 10% of heads of households were female
- 8% of heads of households were elderly
- 43 average age of the head of household in years

Dependency ratio

- 0.7 average youth dependency ratio
- 0.1 average elderly dependency ratio
- 0.8 average age-dependency ratio

% of households by current living location:

- 54% Own home
- 22% Shelter next to original home
- 0% Renting (non-displaced)
- 0% Renting (displaced)
- 9% Staying in another home that is not their own
- 15% Informal settlement
- 0% Other

2. The boundaries and names used on this map do not imply official endorsement or acceptance by REACH, UNICEF, HFI, or UNISMUH. Population data was extracted at desa-level from SIAK (Population Information Administration System) database, Ministry of Home Affairs (MoHA, 2017). Population of missing desas was imputed using data from the Indonesia Bureau of Statistics, 2010.
3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their
### Displacement and Protection

#### Displaced population

- **46%** of households were no longer living in their original house due to the disaster

#### Non-displaced population

- **9%** of non-displaced households were hosting at least one displaced household in a house that they own

There is an average of **2** IDP individuals in each displaced household hosted by a non-displaced household, with an average dependency ratio of **0.4** displaced household size to hosting household size for non-displaced households hosting IDPs.

#### Movement intentions in the next 6 months

- **82%** of households want to remain in their current location
- **10%** want to move into the Government Transitional Shelter
- **5%** don’t know

#### Top 3 reasons for movement

1. House destroyed/severely damaged: **71%**
2. Mild damage to house: **40%**
3. Heavy damage to house: **27%**

### Protection of Women’s Needs

- **14%** of households contained at least one pregnant or lactating woman

### Disabilities, Elderly, Minorities

- **2%** of households contained at least one member with a self-reported physical or mental disability

### Child Protection

- **1%** of households contained at least one child that was separated from their usual caregiver

### Psychosocial Support

- **52%** of households reported having at least one member experiencing emotional distress from the disaster

### Shelter

#### Shelter conditions

- **62%** House
- **0%** Apartment
- **2%** Transitional shelter (individual)
- **10%** Makeshift Shelter
- **25%** Tent
- **0%** Don’t know
- **1%** Other

#### Movement intentions in the next 6 months

- **98%** of households reported that their original shelter was either destroyed or damaged by the disaster

#### Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. House destroyed/severely damaged: **71%**
2. Mild damage to house: **40%**
3. Heavy damage to house: **27%**

### Protection of Women’s Needs

- **14%** of households contained at least one pregnant or lactating woman

---

6. Dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
7. Single-choice question; only the top three responses are shown.
8. Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
9. In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:10

1. Assistance to build/repair shelter 79%
2. Shelter building materials 37%
3. Provide water to shelter 23%

Top 3 most needed Non-Food Items (NFIs):10

1. Cooking utensils/kitchen set; 65%
2. Mattresses/Sleeping mats 52%
3. Bedding items (bedsheets, pillows); 51%

Hygiene practices

% of households by location used for hand washing:
- 68% Pouring device/sink faucet
- 20% Basin/bucket
- 12% No device
- 0% Don’t know

99% of households have water available for hand washing

79% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:
- 47% Household latrine/toilet
- 33% Communal latrine/toilet
- 20% Open defecation
- 0% Don’t know

There is an average of 8 households reported to be sharing each communal latrine.11

Household and communal latrine conditions

81% of households with communal latrines reported their toilet had adequate lighting
- 3% of households with communal toilets reported that there are separate toilets for men and women
- 58% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Water, Sanitation and Hygiene

Access to Water
% of households acquired most of their drinking water from the following sources:
- 38% Piped water
- 25% Public tap
- 12% Protected well/spring
- 14% Water tank/trucking
- 10% Bottled water
- 0% Unprotected source

98% of households reported drinking water that had been treated and was safe to drink

87% of households reported having enough water to meet their total needs for drinking, cooking, bathing, and washing

% of households by reported amount of time it takes to walk to main water source, fetch water, and return (including queuing at the water source):
- 65% Water source located on site
- 23% Less than 10 minutes
- 10% 10–20 minutes
- 2% More than 20 minutes
- 0% Don’t know

Economy

Occupation and employment
Main occupation of the household reported by households before the disaster and in the last month:12

Before Disaster January 2019

| 59% Agricultural    | 1 Agricultural    | 51% |
| 12% Construction    | 2 Construction    | 12% |
| 5% Teacher, lawyer, engineer | 3 Unemployed | 12% |

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
Among households where children were not attending school, there was an average of 0 child(ren) reported to not be attending school. The top 3 reported reasons why school-aged children were not attending school by households with children not attending school:

1. NA 0%
2. NA 0%
3. NA 0%

Condition of school facilities

% of households reported the condition of the nearby school to be the following:

- 4% Good condition
- 18% Lightly damaged
- 48% Moderately damaged
- 26% Severe damage
- 3% Don’t know
- 1% Other

Condition of school facilities

% of households reported the condition of the nearby school to be the following:

- 4% Good condition
- 18% Lightly damaged
- 48% Moderately damaged
- 26% Severe damage
- 3% Don’t know
- 1% Other

There is an average reported loss of 10% of household income due to the disaster.

Food Security

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

Food Consumption Score

- 70% Acceptable
- 28% Borderline
- 2% Poor

Average rCSI score

- 0.5

% of households per main reported source of food in week prior to data collection:

- Purchased with own cash 91%
- Gift from family or friends 7%
- Food assistance (charity, private company) 2%

Education

Student attendance

- 1% of households with children reported having school-aged children who were not attending school following the disaster

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.

14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).

15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).

16. Single-choice question; only the top three responses are shown.

17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:  
1. Fever 47%  
2. Diarrheal diseases 34%  
3. Coughing 34%  

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection:  
- No issues 94%  
- Patient cannot physically access treatment 3%  
- Health center too far away 3%  

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:  
1. None 55%  
2. Get regular medications 32%  
3. Treat health problems 14%  

% of households by most preferred source from which they would like to receive new information:  
- Face-to-face communication (e.g. from friends) 47%  
- Television 32%  
- Social media 18%  

Humanitarian assistance  
76% of households reported that they had received humanitarian aid in the 30 days prior to data collection  
Top 3 most common types of aid that households reported having received:  
1. Food 98%  
2. Water 50%  
3. Tarpaulin 37%  

% of households by most common reported source of aid:  
- Private Company 35%  
- NGO distribution 35%  
- Government distribution 15%  
87% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection  

18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.  
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Background and methodology

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A sample of 111 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

- **Male**
  - 5% 60+ years
  - 28% 18–59 years
  - 8% 13–17 years
  - 9% 6–12 years
  - 4% 1–5 years
  - 1% <1 year

- **Female**
  - 28% 18–59 years
  - 8% 13–17 years
  - 9% 6–12 years
  - 4% 1–5 years
  - 1% <1 year

There was an average of 5 individuals reported per household.

Head of Household

- 4% of heads of households were female
- 16% of heads of households were elderly
- 49 average age of the head of household in years

Dependency ratio

- 0.7 average youth dependency ratio
- 0.2 average elderly dependency ratio
- 0.9 average age-dependency ratio

% of households by current living location:

- 82% Own home
- 6% Shelter next to original home
- 0% Renting (non-displaced)
- 1% Renting (displaced)
- 7% Staying in another home that is not their own
- 3% Informal settlement
- 1% Other

Respondent metadata

- **111** Total households interviewed
- **44** Average age of respondent in years
- **40%** of respondents were female

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5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their
Displaced population

18% of households were no longer living in their original house due to the disaster

% of households no longer living on land they own by distance from their current living location to their original house:
- 62% Nearby/on site
- 38% Within 2km
- 0% Between 2km–5km
- 0% More than 5km or Don’t know

Non-displaced population

2% of non-displaced households were hosting at least one displaced household in a house that they own

There is an average of 6 IDP individuals in each displaced household hosted by a non-displaced household

1.2 average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:
- Remain in the current location: 94%
- Move into the Government Transitional Shelter: 4%
- Return back to original home: 3%

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:
1. House destroyed/severely damaged: 80%
2. Fear that house is still unsafe: 43%
3. Heavy damage to house: 29%

Disabilities, Elderly, Minorities

1% of households contained at least one member with a self-reported physical or mental disability

Child Protection

3% of households contained at least one child that was separated from their usual caregiver

Psychosocial Support

32% of households reported having at least one member experiencing emotional distress from the disaster

Shelter

86% House
2% Apartment
0% Transitional shelter (individual)
5% Makeshift Shelter
6% Tent
0% Don’t know
1% Other

65% of households reported that their original shelter was either destroyed or damaged by the disaster

% of households by state of tenure for house at the time of data collection:
- Household owns the land: 32%
- Written agreement (still valid): 2%
- Written agreement (expired): 1%
- Verbal/No agreement: 65%
- Don’t know: 0%

Preferred Shelter Assistance

91% of households reported that they would prefer to rebuild or repair their original home in the next 6 months

6. Dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
7. Single-choice question; only the top three responses are shown.
8. Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
9. In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.

Protection of Women’s Needs

9% of households contained at least one pregnant or lactating woman

9443804329

+62+38+0+B

+32+2+1+65+B

KlasNas PP
KEMENTERIAN SOSIAL
REPUBLIC INDONESIA

Multi-Sector Needs Assessment
Central Sulawesi Province
Sigi Regency, Gumbasa Sub-District

INDONESIA
February 2019
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:

1. Assistance to build/repair shelter: 68%
2. Shelter building materials: 65%
3. Provide water to shelter: 15%

Top 3 most needed Non-Food Items (NFIs):

1. Cooking utensils/kitchen set: 72%
2. Bedding items (bedsheets, pillows): 65%
3. Mattresses/Sleeping mats: 40%

Water, Sanitation and Hygiene

Access to Water
% of households acquired most of their drinking water from the following sources:

- Piped water: 53%
- Public tap: 14%
- Protected well/spring: 9%
- Water tank/trucking: 6%
- Bottled water: 18%
- Unprotected source: 0%
- Don’t know: 0%

94% of households reported drinking water that had been treated and was safe to drink.

88% of households reported having enough water to meet their total needs for drinking, cooking, bathing, and washing.

% of households by reported amount of time it takes to walk to main water source, fetch water, and return (including queuing at the water source):

- Water source located on site: 74%
- Less than 10 minutes: 21%
- 10–20 minutes: 4%
- More than 20 minutes: 0%
- Don’t know: 1%

Hygiene practices
% of households by location used for hand washing:

- Pouring device/sink faucet: 40%
- Basin/bucket: 50%
- No device: 10%
- Don’t know: 0%

78% of households have water available for hand washing.

42% of households have soap available for hand washing.

Sanitation conditions
% of households by most common defecation practice:

- Household latrine/toilet: 77%
- Communal latrine/toilet: 7%
- Open defecation: 15%
- Don’t know: 1%

There is an average of 6 households reported to be sharing each communal latrine.

Household and communal latrine conditions

- 88% of households with communal latrines reported their toilet had adequate lighting.
- 2% of households with communal toilets reported that there are separate toilets for men and women.
- 66% of households with communal toilets reported their toilet is not inside the household and has locks on the doors.

Economy

Occupation and employment
Main occupation of the household reported by households before the disaster and in the last month:

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>Agricultural</td>
</tr>
<tr>
<td>Teacher, lawyer, engineer</td>
<td>Teacher, lawyer, engineer</td>
</tr>
<tr>
<td>Service industry</td>
<td>Unemployed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agricultural</td>
<td>Agricultural</td>
</tr>
<tr>
<td>2</td>
<td>Teacher, lawyer, engineer</td>
<td>Teacher, lawyer, engineer</td>
</tr>
<tr>
<td>3</td>
<td>Unemployed</td>
<td>Unemployed</td>
</tr>
</tbody>
</table>

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

Before Disaster | January 2019 | 0% are unemployed 3%

10% of households had at least one working-age household member that is not working

Main reported barriers to finding work:

- Disaster destroyed cultivation land for planting 46%
- Available jobs are too far away 18%
- Disability 18%

There is an average reported loss of 10% of household income due to the disaster

**Food Security**

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

Food Consumption Score 86% Acceptable 14% Borderline 0% Poor

% of households per main reported source of food in week prior to data collection:

- Purchased with own cash 99%
- Purchased on credit (debt) 1%
- Received in-kind for labor or other items 0%

**Health**

Immunization

7% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

Illness and injury

33% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.

14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).

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16. Single-choice question; only the top three responses are shown.

17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection: 18

1. Fever 57%
2. Coughing 43%
3. Other health issue 14%

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection: 19

- No issues 78%
- Cost of medicine/treatment too high 14%
- Health center damaged / destroyed 3%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection: 20

1. Get regular medications 54%
2. None 32%
3. Treat health problems 25%

### Priority Needs

Top 3 most important priority needs as reported by households: 20

1. Food 89%
2. Kitchen ware 57%
3. Shelter support 28%

### Communication with Communities

#### Information Needs

% of households by the type of information that the household reported needing the most: 19

- Livelihoods 39%
- Humanitarian assistance 24%
- Status of housing 13%

---

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Demographics

<table>
<thead>
<tr>
<th>Household composition by gender and age</th>
<th>3%</th>
<th>60+ years</th>
<th>2%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28%</td>
<td>18–59 years</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>13–17 years</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>6–12 years</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>4%</td>
<td>1–5 years</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>1%</td>
<td>&lt;1 year</td>
<td>2%</td>
</tr>
</tbody>
</table>

There was an average of 4 individuals reported per household.

<table>
<thead>
<tr>
<th>Head of Household</th>
<th>2%</th>
<th>of heads of households were female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10%</td>
<td>of heads of households were elderly</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>average age of the head of household in years</td>
</tr>
</tbody>
</table>

Dependency ratio

<table>
<thead>
<tr>
<th>Dependency ratio</th>
<th>0.8</th>
<th>average youth dependency ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.1</td>
<td>average elderly dependency ratio</td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td>average age-dependency ratio</td>
</tr>
</tbody>
</table>

% of households by current living location:

<table>
<thead>
<tr>
<th>%</th>
<th>98%</th>
<th>Own home</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0%</td>
<td>Shelter next to original home</td>
</tr>
<tr>
<td></td>
<td>1%</td>
<td>Renting (non-displaced)</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>Renting (displaced)</td>
</tr>
<tr>
<td></td>
<td>1%</td>
<td>Staying in another home that is not their own</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>Informal settlement</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>Other</td>
</tr>
</tbody>
</table>

2. The boundaries and names used on this map do not imply official endorsement or acceptance by REACH, UNICEF, HFI, or UNISMUH. Population data was extracted at desa-level from SIAK (Population Information Administration System) database, Ministry of Home Affairs (MoHA, 2017). Population of missing desas was imputed using data from the Indonesia Bureau of Statistics, 2010.
3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their
Displaced population

1% of households were no longer living in their original house due to the disaster

% of households no longer living on land they own by distance from their current living location to their original house:

- 0% Nearby/on site
- 0% Within 2km
- 0% Between 2km–5km
- 0% More than 5km or Don’t know

Non-displaced population

0% of non-displaced households were hosting at least one displaced household in a house that they own

There is an average of 0 IDP individuals in each displaced household hosted by a non-displaced household

average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

- 99% Remain in the current location
- 1% Move to a new location
- 0% Don’t know

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

- 0% NA
- 0% NA
- 0% NA

Protection of Women’s Needs

21% of households contained at least one pregnant or lactating woman

Disabilities, Elderly, Minorities

2% of households contained at least one member with a self-reported physical or mental disability

Child Protection

3% of households contained at least one child that was separated from their usual caregiver

Psychosocial Support

34% of households reported having at least one member experiencing emotional distress from the disaster

Shelter

Shelter conditions

% of households by type of shelter they are currently living in at the time of data collection:

- 99% House
- 1% Apartment
- 0% Transitional shelter (individual)
- 0% Makeshift Shelter
- 0% Tent
- 0% Don’t know
- 0% Other

45% of households reported that their original shelter was either destroyed or damaged by the disaster

% of households by state of tenure for house at the time of data collection:

- 63% Household owns the land
- 0% Written agreement (still valid)
- 0% Written agreement (expired)
- 36% Verbal/No agreement
- 1% Don’t know

Preferred Shelter Assistance

55% of households reported that they would prefer to rebuild or repair their original home in the next 6 months

6. Dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
7. Single-choice question; only the top three responses are shown.
8. Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
9. In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection: 10

1. Assistance to build/repair shelter 50%
2. Shelter building materials 41%
3. Future disaster information 24%

Top 3 most needed Non-Food Items (NFIs): 10

1. Cooking utensils/kitchen set; 70%
2. Bedding items (bedsheets, pillows); 66%
3. Mattresses/Sleeping mats 38%

Hygiene practices

% of households by location used for hand washing:

- 25% Pouring device/sink faucet
- 50% Basin/bucket
- 25% No device
- 0% Don’t know

87% of households have water available for hand washing
76% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:

- 54% Household latrine/toilet
- 35% Communal latrine/toilet
- 10% Open defecation
- 1% Don’t know

There is an average of 8 households reported to be sharing each communal latrine 11

Household and communal latrine conditions

81% of households with communal latrines reported their toilet had adequate lighting
3% of households with communal toilets reported that there are separate toilets for men and women
65% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Economy

Main occupation of the household reported by households before the disaster and in the last month: 12

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>71%</td>
</tr>
<tr>
<td>Small business owner</td>
<td>7%</td>
</tr>
<tr>
<td>Construction</td>
<td>6%</td>
</tr>
<tr>
<td>Agricultural</td>
<td>70%</td>
</tr>
<tr>
<td>Small business owner</td>
<td>7%</td>
</tr>
<tr>
<td>Construction</td>
<td>5%</td>
</tr>
</tbody>
</table>

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
Among households where children were not attending school, there was an average of 1 child(ren) reported to not be attending school. Top 3 reported reasons why school-aged children were not attending school by households with children not attending school:19

1. Other 50%
2. School damaged/destroyed 50%
3. Child needed for household chores 0%

Condition of school facilities
% of households reported the condition of the nearby school to be the following:

- Good condition 40%
- Lightly damaged 39%
- Moderately damaged 7%
- Severe damage 13%
- Don’t know 0%
- Other

There is an average reported loss of 0% of household income due to the disaster13

Food Security

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

- Food Consumption Score14
  - Acceptable 73%
  - Borderline 26%
  - Poor 1%

- average rCSI score15
  - 0.5

% of households per main reported source of food in week prior to data collection:18

- Purchased with own cash 99%
- Own production (hunting, fishing, farming) 1%
- Purchased with cash assistance 0%

Health

Immunization

- 11% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

Illness and injury

- 39% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.
14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).
15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).
16. Single-choice question; only the top three responses are shown.
17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:

1. Fever 76%
2. Coughing 61%
3. Other health issue 20%

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection:

- No issues 85%
- Cost of medicine/treatment too high 5%
- No information where health facilities are 5%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:

1. Treat health problems 55%
2. Get regular medications 35%
3. None 31%

% of households by the most preferred source from which they would like to receive new information:

- Face-to-face communication (e.g. from friends) 98%
- Television 2%
- Social media 0%

Humanitarian assistance of households reported that they had received humanitarian aid in the 30 days prior to data collection:

10%

Top 3 most common types of aid that households reported having received:

1. Food 100%
2. Other NFIs 9%
3. Water 9%

% of households by most common reported source of aid:

- PMI (Indonesian Red Cross) 36%
- Other 27%
- Government distribution 27%

91% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection.
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

To fill this gap, a Multi-Sector Needs Assessment (MSNA) was conducted by Humanitarian Forum Indonesia (HFI) and Universitas Muhammadiyah Palu (UNISMUH) with oversight from the Ministry of Social Affairs (Kemensos) and technical support from REACH, in 38 of 62 sub-districts in the four affected regencies of Central Sulawesi Province.

A sample of 109 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

- Male: 60+ years - 5%
- Female: 60+ years - 5%
- Male: 18–59 years - 29%
- Female: 18–59 years - 26%
- Male: 13–17 years - 7%
- Female: 13–17 years - 6%
- Male: 6–12 years - 7%
- Female: 6–12 years - 7%
- Male: 1–5 years - 3%
- Female: 1–5 years - 3%
- Male: <1 year - 1%
- Female: <1 year - 1%

There was an average of 5 individuals reported per household.

Head of Household

- 10% of heads of households were female
- 23% of heads of households were elderly
- 49 average age of the head of household in years

Dependency ratio

- 0.7 average youth dependency ratio
- 0.3 average elderly dependency ratio
- 1 average age-dependency ratio

% of households by current living location:

- 61% Own home
- 8% Shelter next to original home
- 0% Renting (non-displaced)
- 2% Renting (displaced)
- 6% Staying in another home that is not their own
- 22% Informal settlement
- 1% Other

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3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their
Displacement and Protection

Displaced population:
- 39% of households were no longer living in their original house due to the disaster
- % of households no longer living on land they own by distance from their current living location to their original house:
  - 64% Nearby/on site
  - 30% Within 2km
  - 6% Between 2km–5km
  - 0% More than 5km or Don’t know

Non-displaced population:
- 4% of non-displaced households were hosting at least one displaced household in a house that they own
- There is an average of 3 IDP individuals in each displaced household hosted by a non-displaced household
- 0.3 average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs

Movement intentions in the next 6 months:
- % of households by where they most want to move to within the next six months:
  - Remain in the current location: 89%
  - Return back to original home: 5%
  - Don’t know: 5%

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:
1. House destroyed/severely damaged (100%)
2. Heavy damage to house (29%)
3. Fear that house is still unsafe (14%)

Disabilities, Elderly, Minorities
- 2% of households contained at least one member with a self-reported physical or mental disability

Child Protection
- 0% of households contained at least one child that was separated from their usual caregiver

Psychosocial Support
- 76% of households reported having at least one member experiencing emotional distress from the disaster

Shelter

Displacement and Protection

Displaced population:
- 39% of households were no longer living in their original house due to the disaster
- % of households no longer living on land they own by distance from their current living location to their original house:
  - 64% Nearby/on site
  - 30% Within 2km
  - 6% Between 2km–5km
  - 0% More than 5km or Don’t know

Non-displaced population:
- 4% of non-displaced households were hosting at least one displaced household in a house that they own
- There is an average of 3 IDP individuals in each displaced household hosted by a non-displaced household
- 0.3 average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs

Movement intentions in the next 6 months:
- % of households by where they most want to move to within the next six months:
  - Remain in the current location: 89%
  - Return back to original home: 5%
  - Don’t know: 5%

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:
1. House destroyed/severely damaged (100%)
2. Heavy damage to house (29%)
3. Fear that house is still unsafe (14%)

Protection of Women’s Needs
- 12% of households contained at least one pregnant or lactating woman

original home were living on their original land and considered to be non-displaced. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and had been displaced by the disaster. For households living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.

Disabilities, Elderly, Minorities
- 2% of households contained at least one member with a self-reported physical or mental disability

Child Protection
- 0% of households contained at least one child that was separated from their usual caregiver

Psychosocial Support
- 76% of households reported having at least one member experiencing emotional distress from the disaster

Shelter

Shelter conditions:
- % of households by type of shelter they are currently living in at the time of data collection:
  - 62% House
  - 2% Apartment
  - 12% Transitional shelter (individual)
  - 18% Makeshift Shelter
  - 6% Tent
  - 0% Don’t know
  - 0% Other

80% of households reported that their original shelter was either destroyed or damaged by the disaster

% of households by state of tenure for house at the time of data collection:
- 6% Household owns the land
- 1% Written agreement (still valid)
- 0% Written agreement (expired)
- 89% Verbal/No agreement
- 4% Don’t know

Preferred Shelter Assistance
- 84% of households reported that they would prefer to rebuild or repair their original home in the next 6 months

6. Dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
7. Single-choice question; only the top three responses are shown.
8. Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
9. In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:10

1. Shelter building materials 70%
2. Assistance to build/repair shelter 48%
3. Space in Transitional Shelter 15%

Top 3 most needed Non-Food Items (NFIs):10

1. Cooking utensils/kitchen set; 75%
2. Bedding items (bedsheets, pillows); 47%
3. Mattresses/Sleeping mats 32%

Hygiene practices

% of households by location used for hand washing:

- 77% Pouring device/sink faucet
- 5% Basin/bucket
- 18% No device
- 0% Don’t know

94% of households have water available for hand washing
56% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:

- 62% Household latrine/toilet
- 24% Communal latrine/toilet
- 11% Open defecation
- 3% Don’t know

There is an average of 23 households reported to be sharing each communal latrine11

Household and communal latrine conditions

- 66% of households with communal latrines reported their toilet had adequate lighting
- 3% of households with communal toilets reported that there are separate toilets for men and women
- 75% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Water, Sanitation and Hygiene

Access to Water

% of households acquired most of their drinking water from the following sources:

- 29% Piped water
- 3% Public tap
- 53% Protected well/spring
- 2% Bottled water
- 13% Unprotected source
- 0% Don’t know

98% of households reported drinking water that had been treated and was safe to drink
94% of households reported having enough water to meet their total needs for drinking, cooking, bathing, and washing

% of households by reported amount of time it takes to walk to main water source, fetch water, and return (including queuing at the water source):

- 69% Water source located on site
- 25% Less than 10 minutes
- 4% 10–20 minutes
- 2% More than 20 minutes
- 0% Don’t know

Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:12

Before Disaster | January 2019
---|---
74% Agricultural | 1 Agricultural 72%
6% Unemployed | 2 Unemployed 10%
5% Vocational profession | 3 Vocational profession 6%

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>6% are unemployed</td>
<td>9%</td>
</tr>
</tbody>
</table>

16% of households had at least one working-age household member that is not working

Main reported barriers to finding work:
- The recent disaster destroyed previous business/job opportunities 78%
- Underqualified for available jobs 17%
- Available jobs are too far away 6%

There is an average reported loss of 10% of household income due to the disaster

Food Security

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

<table>
<thead>
<tr>
<th>Food Consumption Score</th>
<th>average rCSI score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptable 90%</td>
<td>3.3</td>
</tr>
<tr>
<td>Borderline 10%</td>
<td></td>
</tr>
<tr>
<td>Poor 0%</td>
<td></td>
</tr>
</tbody>
</table>

% of households per main reported source of food in week prior to data collection:
- Purchased with own cash 72%
- Own production (hunting, fishing, farming) 16%
- Food assistance (charity, private company) 6%

Health

Immunization

11% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

Illness and injury

52% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection

Education

Student attendance
4% of households with children reported having school-aged children who were not attending school following the disaster

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.
14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).
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16. Single-choice question; only the top three responses are shown.
17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection: 18

1. Coughing 67%
2. Fever 63%
3. Diarrheal diseases 35%

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection: 19

- No issues 90%
- Cost of medicine/treatment too high 4%
- Health center damaged / destroyed 2%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection: 20

1. Treat health problems 38%
2. Get regular medications 38%
3. None 36%

% of households by most preferred source from which they would like to receive new information: 19

- Face-to-face communication (e.g. from friends) 75%
- Television 18%
- Social media 4%

Humanitarian assistance of households reported that they had received humanitarian aid in the 30 days prior to data collection: 56%

Top 3 most common types of aid that households reported having received: 18

1. Food 79%
2. Other NFIs 31%
3. Tarpaulin 21%

% of households by most common reported source of aid: 18

- NGO distribution 54%
- Government distribution 20%
- Private Company 15%

87% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection.
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. 1 An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

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A sample of 113 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. 2 Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

### Demographics

#### Household composition by gender and age

- 5% 60+ years
- 29% 18–59 years
- 9% 13–17 years
- 9% 6–12 years
- 4% 1–5 years
- 0% <1 year

#### Male
- 4% 1–5 years
- 0% <1 year

#### Female
- 29% 18–59 years
- 9% 6–12 years
- 4% 1–5 years
- 0% <1 year

There was an average of 5 individuals reported per household.

#### Head of Household

- 8% of heads of households were female
- 22% of heads of households were elderly
- 48 average age of the head of household in years

#### Dependency ratio

- 0.7 average youth dependency ratio
- 0.3 average elderly dependency ratio
- 1 average age-dependency ratio

#### % of households by current living location

- 87% Own home
- 2% Shelter next to original home
- 1% Renting (non-displaced)
- 0% Renting (displaced)
- 9% Staying in another home that is not their own
- 1% Informal settlement
- 0% Other

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3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their original home are considered as "Own home."
Displaced population

12% of households were no longer living in their original house due to the disaster.

% of households no longer living on land they own by distance from their current living location to their original house:

- 91% Nearby/on site
- 9% Within 2km
- 0% Between 2km–5km
- 0% More than 5km or Don’t know

Non-displaced population

2% of non-displaced households were hosting at least one displaced household in a house that they own.

There is an average of 5 IDP individuals in each displaced household hosted by a non-displaced household.

1.2 average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs.

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

- 92% Remain in the current location
- 3% Don’t know
- 3% Return back to original home

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. Heavy damage to house 50%
2. House destroyed/severely damaged 33%
3. Mild damage to house 17%

Disabilities, Elderly, Minorities

5% of households contained at least one member with a self-reported physical or mental disability.

Child Protection

4% of households contained at least one child that was separated from their usual caregiver.

Psychosocial Support

90% of households reported having at least one member experiencing emotional distress from the disaster.

Shelter

Shelter conditions

% of households by type of shelter they are currently living in at the time of data collection:

- 93% House
- 1% Apartment
- 0% Transitional shelter (individual)
- 4% Makeshift Shelter
- 2% Tent
- 0% Don’t know
- 0% Other

66% of households reported that their original shelter was either destroyed or damaged by the disaster.

% of households by state of tenure for house at the time of data collection:

- 5% Household owns the land
- 0% Written agreement (still valid)
- 0% Written agreement (expired)
- 91% Verbal/No agreement
- 4% Don’t know

Preferred Shelter Assistance

74% of households reported that they would prefer to rebuild or repair their original home in the next 6 months.

Protection of Women’s Needs

5% of households contained at least one pregnant or lactating woman.

original home were living on their original land and considered to be non-displaced. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and had been displaced by the disaster. For households living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:10

1. Assistance to build/repair shelter 52%
2. Shelter building materials 48%
3. None 15%

Top 3 most needed Non-Food Items (NFIs):10

1. Cooking utensils/kitchen set; 71%
2. Bedding items (bedsheets, pillows); 56%
3. Mattresses/Sleeping mats 37%

Hygiene practices

% of households by location used for hand washing:

- 75% Pouring device/sink faucet
- 6% Basin/bucket
- 19% No device
- 0% Don’t know

100% of households have water available for hand washing
42% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:

- 72% Household latrine/toilet
- 4% Communal latrine/toilet
- 20% Open defecation
- 4% Don’t know

There is an average of 5 households reported to be sharing each communal latrine11

Household and communal latrine conditions

- 83% of households with communal latrines reported their toilet had adequate lighting
- 2% of households with communal toilets reported that there are separate toilets for men and women
- 76% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month;12

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% Agricultural</td>
<td>1 Agricultural 85%</td>
</tr>
<tr>
<td>4% Teacher, lawyer, engineer</td>
<td>2 Teacher, lawyer, engineer 4%</td>
</tr>
<tr>
<td>3% Small business owner</td>
<td>3 Small business owner 3%</td>
</tr>
</tbody>
</table>

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

14% of households had at least one working-age household member that is not working.

Main reported barriers to finding work:①

The recent disaster destroyed previous business/job opportunities 69%
Available jobs are too far away 19%
Underqualified for available jobs 12%

There is an average reported loss of 10% of household income due to the disaster①3

Food Security

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

<table>
<thead>
<tr>
<th>Food Consumption Score</th>
<th>average rCSI score</th>
</tr>
</thead>
<tbody>
<tr>
<td>91%</td>
<td>1.2</td>
</tr>
</tbody>
</table>

91% Acceptable
9% Borderline
0% Poor

% of households per main reported source of food in week prior to data collection:⑧

Own production (hunting, fishing, farming) 48%
Purchased with own cash 45%
Food assistance (charity, private company) 5%

Health

Immunization

1% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

Illness and injury

62% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection.

Education

Student attendance

4% of households with children reported having school-aged children who were not attending school following the disaster.

Among households where children were not attending school, there was an average of 1 child(ren) reported to not be attending school.

Top 3 reported reasons why school-aged children were not attending school by households with children not attending school:①9

1. Child not attending school before disaster 67%
2. Other 33%
3. Child needed to work for income 0%

Condition of school facilities

% of households reported the condition of the nearby school to be the following:

- Good condition 4%
- Lightly damaged 31%
- Moderately damaged 34%
- Severe damage 24%
- Don’t know 7%
- Other 0%

Food Security

Immunization

1% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

Illness and injury

62% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection.

Education

Student attendance

4% of households with children reported having school-aged children who were not attending school following the disaster.

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.
14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).
15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).
16. Single-choice question; only the top three responses are shown.
17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:  
1. Fever 83%  
2. Coughing 70%  
3. Diarrheal diseases 23%  

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection:  
No issues 91%  
Health center too far away 6%  
Other 1%  

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:  
1. Get regular medications 47%  
2. Treat health problems 42%  
3. None 31%  

1.2.3 Priority Needs  
Top 3 most important priority needs as reported by households:  
1. Food 88%  
2. Kitchen ware 49%  
3. Shelter support 28%  

% of households by most preferred source from which they would like to receive new information:  
Face-to-face communication (e.g. from friends) 79%  
Television 19%  
Social media 3%  

Humanitarian assistance of households reported that they had received humanitarian aid in the 30 days prior to data collection:  
58%  
Top 3 most common types of aid that households reported having received:  
1. Food 95%  
2. Tarpaulin 29%  
3. Tents 25%  

% of households by most common reported source of aid:  
NGO distribution 80%  
Government distribution 6%  
Religious Organization 5%  

98% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection.  

18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.  
19. Single-choice question; only the top three responses are shown.  
20. Respondents could select up to three responses, therefore results may exceed 100%; only the top three choices are shown.
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

To fill this gap, a Multi-Sector Needs Assessment (MSNA) was conducted by Humanitarian Forum Indonesia (HFI) and Universitas Muhammadiyah Palu (UNISMUH) with oversight from the Ministry of Social Affairs (Kemensos) and technical support from REACH, in 38 of 62 sub-districts in the four affected regencies of Central Sulawesi Province.

A sample of 126 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

### Demographics

#### Household composition by gender and age

- **Male**
  - 60+ years: 3%
  - 18–59 years: 29%
  - 13–17 years: 7%
  - 6–12 years: 9%
  - 1–5 years: 5%
  - <1 year: 1%

- **Female**
  - 18–59 years: 26%
  - 13–17 years: 6%
  - 6–12 years: 6%
  - 5% 1–5 years
  - 0% <1 year

There was an average of 4 individuals reported per household.

#### Head of Household

- 7% of heads of households were female
- 9% of heads of households were elderly
- 44 years average age of the head of household in years

#### Dependency ratio

- 0.8 average youth dependency ratio
- 0.1 average elderly dependency ratio
- 0.9 average age-dependency ratio

#### % of households by current living location

- 92% Own home
- 3% Shelter next to original home
- 0% Renting (non-displaced)
- 0% Renting (displaced)
- 4% Staying in another home that is not their own
- 1% Informal settlement
- 0% Other

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### Respondent metadata

- **126** Total households interviewed
- **42** Average age of respondent in years
- **37%** of respondents were female

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2. The boundaries and names used on this map do not imply official endorsement or acceptance by REACH, UNICEF, HFI, or UNISMUH. Population data was extracted at desa-level from SIAK (Population Information Administration System) database, Ministry of Home Affairs (MoHA, 2017). Population of missing desas was imputed using data from the Indonesia Bureau of Statistics, 2010.
3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their original home.
Displaced population

8% of households were no longer living in their original house due to the disaster

% of households no longer living on land they own by distance from their current living location to their original house:

83% Nearby/on site
17% Within 2km
0% Between 2km–5km
0% More than 5km or Don’t know

Non-displaced population

2% of non-displaced households were hosting at least one displaced household in a house that they own

There is an average of 3 IDP individuals in each displaced household hosted by a non-displaced household

0.6 average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

97% Remain in the current location
2% Don’t know
1% Move to a new location

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. NA
2. NA
3. NA

Protection of Women’s Needs

13% of households contained at least one pregnant or lactating woman

Disabilities, Elderly, Minorities

2% of households contained at least one member with a self-reported physical or mental disability

Child Protection

0% of households contained at least one child that was separated from their usual caregiver

Psychosocial Support

84% of households reported having at least one member experiencing emotional distress from the disaster

Shelter

Shelter conditions

% of households by type of shelter they are currently living in at the time of data collection:

95% House
0% Apartment
1% Transitional shelter (individual)
1% Makeshift Shelter
3% Tent
0% Don’t know
0% Other

48% of households reported that their original shelter was either destroyed or damaged by the disaster

% of households by state of tenure for house at the time of data collection:

14% Household owns the land
1% Written agreement (still valid)
0% Written agreement (expired)
85% Verbal/no agreement
0% Don’t know

Preferred Shelter Assistance

66% of households reported that they would prefer to rebuild or repair their original home in the next 6 months

6. Dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
7. Single-choice question; only the top three responses are shown.
8. Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
9. In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.

original home were living on their original land and considered to be non-displaced. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and had been displaced by the disaster. For households living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:

1. Provide electricity to shelter: 70%
2. Shelter building materials: 46%
3. Assistance to build/repair shelter: 36%

Top 3 most needed Non-Food Items (NFIs):

1. Cooking utensils/kitchen set: 71%
2. Bedding items (bedsheets, pillows): 47%
3. Sources of light: 33%

Water, Sanitation and Hygiene

Access to Water

% of households acquired most of their drinking water from the following sources:

- 40% Piped water
- 6% Public tap
- 42% Protected well/spring
- 1% Water tank/trucking
- 10% Bottled water
- 0% Unprotected source

98% of households reported drinking water that had been treated and was safe to drink.

95% of households reported having enough water to meet their total needs for drinking, cooking, bathing, and washing.

Time taken to walk to main water source, fetch water, and return (including queuing at the water source):

- 80% Water source located on site
- 16% Less than 10 minutes
- 1% 10–20 minutes
- 3% More than 20 minutes
- 0% Don’t know

Hygiene practices

% of households by location used for hand washing:

- 59% Pouring device/sink faucet
- 18% Basin/bucket
- 23% No device
- 0% Don’t know

98% of households have water available for hand washing.

47% of households have soap available for hand washing.

Sanitation conditions

% of households by most common defecation practice:

- 69% Household latrine/toilet
- 3% Communal latrine/toilet
- 26% Open defecation
- 2% Don’t know

There is an average of 6 households reported to be sharing each communal latrine.

55% of households with communal latrines reported their toilet had adequate lighting.

3% of households with communal toilets reported that there are separate toilets for men and women.

67% of households with communal toilets reported their toilet is not inside the household and has locks on the doors.

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:

**Before Disaster**

1. Agricultural: 85%
2. Small business owner: 6%
3. Fishing: 5%

**January 2019**

1. Agricultural: 85%
2. Small business owner: 6%
3. Fishing: 4%

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.

11. Average taken from households reporting the use of communal latrines.

12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% are unemployed</td>
<td>1%</td>
</tr>
</tbody>
</table>

9% of households had at least one working-age household member that is not working

Main reported barriers to finding work:

- The recent disaster destroyed previous business/job opportunities: 82%
- Disaster destroyed cultivation land for planting: 9%
- Only dangerous or low-paid jobs are available: 9%

There is an average reported loss of 10% of household income due to the disaster.

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### Food Security

**Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)**

- **Food Consumption Score**
  - 94% Acceptable
  - 6% Borderline
  - 0% Poor
  - Average rCSI score: 1.3

- **% of households per main reported source of food in week prior to data collection:**
  - Own production (hunting, fishing, farming): 63%
  - Purchased with own cash: 37%
  - Gift from family or friends: 0%

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### Health

**Immunization**

11% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

**Illness and injury**

60% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection.

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### Education

**Student attendance**

2% of households with children reported having school-aged children who were not attending school following the disaster.

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13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.

14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).

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16. Single-choice question; only the top three responses are shown.

17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:18

1. Fever 79%
2. Coughing 60%
3. Diarrheal diseases 36%

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection:19

No issues 89%
Health center too far away 7%
Patient cannot physically access treatment 4%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:20

1. Get regular medications 59%
2. Treat health problems 36%
3. None 22%

1.2.3 Priority Needs

Top 3 most important priority needs as reported by households:20

1. Electricity 90%
2. Food 64%
3. Kitchen ware 35%

% of households by most preferred source from which they would like to receive new information:19

Face-to-face communication (e.g. from friends) 72%
Television 14%
Radio 6%

Humanitarian assistance

18% of households reported that they had received humanitarian aid in the 30 days prior to data collection

Top 3 most common types of aid that households reported having received:18

1. Food 77%
2. Other NFIs 18%
3. Tents 14%

% of households by most common reported source of aid:18

NGO distribution 68%
Government distribution 23%
Friends and family 4%

100% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection

Communication with Communities

Information Needs

% of households by the type of information that the household reported needing the most:19

Electricity services 59%
Humanitarian assistance 39%
Status of housing 2%

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A sample of 118 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

<table>
<thead>
<tr>
<th>Gender</th>
<th>0–5 years</th>
<th>6–12 years</th>
<th>13–17 years</th>
<th>18–59 years</th>
<th>60+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2%</td>
<td>5%</td>
<td>6%</td>
<td>29%</td>
<td>3%</td>
</tr>
<tr>
<td>Female</td>
<td>1%</td>
<td>9%</td>
<td>6%</td>
<td>29%</td>
<td>2%</td>
</tr>
</tbody>
</table>

There was an average of 5 individuals reported per household

Head of Household

- 8% of heads of households were female
- 14% of heads of households were elderly
- 47 average age of the head of household in years

Dependency ratio

- 0.7 average youth dependency ratio
- 0.2 average elderly dependency ratio
- 0.9 average age-dependency ratio

% of households by current living location:

- 88% Own home
- 2% Shelter next to original home
- 2% Renting (non-displaced)
- 2% Renting (displaced)
- 4% Staying in another home that is not their own
- 2% Informal settlement
- 0% Other

Respondent metadata

- 118 Total households interviewed
- 45 Average age of respondent in years
- 45% of respondents were female
Displaced population

10% of households were no longer living in their original house due to the disaster

% of households no longer living on land they own by distance from their current living location to their original house:

- 40% Nearby/on site
- 30% Within 2km
- 10% Between 2km–5km
- 20% More than 5km or Don't know

Non-displaced population

5% of non-displaced households were hosting at least one displaced household in a house that they own

There is an average of 4 IDP individuals in each displaced household hosted by a non-displaced household

average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

- 92% Remain in the current location
- 3% Move into the Government Transitional Shelter
- 2% Move to a new location

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. House destroyed/severely damaged
2. Heavy damage to house
3. Mild damage to house

Disabilities, Elderly, Minorities

2% of households contained at least one member with a self-reported physical or mental disability

Child Protection

4% of households contained at least one child that was separated from their usual caregiver

Psychosocial Support

42% of households reported having at least one member experiencing emotional distress from the disaster

Shelter

Shelter conditions

% of households by type of shelter they are currently living in at the time of data collection:

- 90% House
- 4% Apartment
- 1% Transitional shelter (individual)
- 4% Makeshift Shelter
- 0% Tent
- 1% Don't know
- 0% Other

78% of households reported that their original shelter was either destroyed or damaged by the disaster

% of households by state of tenure for house at the time of data collection:

- 42% Household owns the land
- 2% Written agreement (still valid)
- 0% Written agreement (expired)
- 56% Verbal/No agreement
- 0% Don't know

Preferred Shelter Assistance

79% of households reported that they would prefer to rebuild or repair their original home in the next 6 months

6. Dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
7. Single-choice question; only the top three responses are shown.
8. Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
9. In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.

Protection of Women’s Needs

19% of households contained at least one pregnant or lactating woman

original home were living on their original land and considered to be non-displaced. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and had been displaced by the disaster. For households living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:

1. Assistance to build/repair shelter 66%
2. Shelter building materials 60%
3. Future disaster information 33%

Top 3 most needed Non-Food Items (NFIs):

1. Cooking utensils/kitchen set; 65%
2. Bedding items (bedsheets, pillows); 57%
3. Mattresses/Sleeping mats 45%

Hygiene practices

% of households by location used for hand washing:
- 63% Pouring device/sink faucet
- 23% Basin/bucket
- 14% No device
- 0% Don’t know

95% of households have water available for hand washing
84% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:
- 87% Household latrine/toilet
- 5% Communal latrine/toilet
- 5% Open defecation
- 3% Don’t know

There is an average of 4 households reported to be sharing each communal latrine

Household and communal latrine conditions

87% of households with communal latrines reported their toilet had adequate lighting
6% of households with communal toilets reported that there are separate toilets for men and women
75% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Water, Sanitation and Hygiene

Access to Water

% of households acquired most of their drinking water from the following sources:
- 19% Piped water
- 18% Public tap
- 36% Protected well/spring
- 9% Water tank/trucking
- 12% Bottled water
- 6% Unprotected source
- 0% Don’t know

100% of households reported drinking water that had been treated and was safe to drink
93% of households reported having enough water to meet their total needs for drinking, cooking, bathing, and washing

% of households by reported amount of time it takes to walk to main water source, fetch water, and return (including queuing at the water source):
- 87% Water source located on site
- 8% Less than 10 minutes
- 3% 10–20 minutes
- 2% More than 20 minutes
- 0% Don’t know

Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:

Before Disaster January 2019

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>28%</td>
<td>1 Agricultural 28%</td>
</tr>
<tr>
<td>Service industry</td>
<td>15%</td>
<td>2 Service industry 14%</td>
</tr>
<tr>
<td>Government job</td>
<td>9%</td>
<td>3 Government job 9%</td>
</tr>
</tbody>
</table>

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
Among households where children were not attending school, there was an average of 0 child(ren) reported to not be attending school.

Top 3 reported reasons why school-aged children were not attending school by households with children not attending school:

1. NA 0%
2. NA 0%
3. NA 0%

Condition of school facilities

% of households reported the condition of the nearby school to be the following:

- 23% Good condition
- 17% Lightly damaged
- 29% Moderately damaged
- 10% Severe damage
- 18% Don’t know
- 3% Other

There is an average reported loss of 0% of household income due to the disaster.

Food Security

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

Food Consumption Score 14 average rCSI score 15

- 95% Acceptable
- 5% Borderline
- 0% Poor

% of households per main reported source of food in week prior to data collection:

- Purchased with own cash 97%
- Gift from family or friends 2%
- Food assistance (charity, private company) 1%

Health

Immunization

8% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

Illness and injury

42% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection.

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.

14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).

15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).

16. Single-choice question; only the top three responses are shown.

17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:18

1. Coughing 70%
2. Fever 60%
3. Other health issue 26%

Main barriers to accessing healthcare reported by households who needed to access medical treatment the 30 days prior to data collection:19

No issues 76%
Cost of medicine/treatment too high 10%
No medicine/treatment available 4%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:20

1. Treat health problems 48%
2. Get regular medications 46%
3. None 29%

1.2.3 Priority Needs

Top 3 most important priority needs as reported by households:20

1. Food 80%
2. Kitchen ware 52%
3. Shelter support 26%

% of households by the type of information that the household reported needing the most:19

Livelihoods 45%
Humanitarian assistance 15%
Healthcare 14%

% of households by the most preferred source from which they would like to receive new information:19

Face-to-face communication (e.g. from friends) 92%
Television 7%
Social media 1%

Humanitarian assistance of households reported that they had received humanitarian aid in the 30 days prior to data collection:37%

Top 3 most common types of aid that households reported having received:18

1. Food 86%
2. Tents 34%
3. Other NFIs 23%

% of households by most common reported source of aid:18

Government distribution 54%
PMI (Indonesian Red Cross) 20%
Private Company 9%

93% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection

18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.
19. Single-choice question; only the top three responses are shown.
20. Respondents could select up to three responses, therefore results may exceed 100%; only the top three choices are shown.
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

To fill this gap, a Multi-Sector Needs Assessment (MSNA) was conducted by Humanitarian Forum Indonesia (HFI) and Universitas Muhammadiyah Palu (UNISMUH) with oversight from the Ministry of Social Affairs (Kemensos) and technical support from REACH, in 38 of 62 sub-districts in the four affected regencies of Central Sulawesi Province.

A sample of 115 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

- 1% 60+ years
- 29% 18–59 years
- 8% 13–17 years
- 10% 6–12 years
- 3% 1–5 years
- 2% <1 year

There was an average of 4 individuals reported per household

Head of Household

- 3% of heads of households were female
- 1% of heads of households were elderly
- 41 average age of the head of household in years

Dependency ratio

- 0.8 average youth dependency ratio
- 0.1 average elderly dependency ratio
- 0.8 average age-dependency ratio

% of households by current living location:

- 98% Own home
- 0% Shelter next to original home
- 0% Renting (non-displaced)
- 0% Renting (displaced)
- 2% Staying in another home that is not their own
- 0% Informal settlement
- 0% Other

2. The boundaries and names used on this map do not imply official endorsement or acceptance by REACH, UNICEF, HFI, or UNISMUH. Population data was extracted at desa-level from SIAK (Population Information Administration System) database, Ministry of Home Affairs (MoHA, 2017). Population of missing desas was imputed using data from the Indonesia Bureau of Statistics, 2010.
3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their original home.
Displaced population\(^5\)

2% of households were no longer living in their original house due to the disaster

% of households no longer living on land they own by distance from their current living location to their original house:

- 100% Nearby/on site
- 0% Within 2km
- 0% Between 2km–5km
- 0% More than 5km or Don’t know

Non-displaced population\(^5\)

0% of non-displaced households were hosting at least one displaced household in a house that they own

There is an average of 0 IDP individuals in each displaced household hosted by a non-displaced household

average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs\(^6\)

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:\(^7\)

- Remain in the current location 97%
- Don’t know 2%
- Move to a new location 1%

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:\(^8\)

1. NA 0%
2. NA 0%
3. NA 0%

Disabilities, Elderly, Minorities

0% of households contained at least one member with a self-reported physical or mental disability

Child Protection

1% of households contained at least one child that was separated from their usual caregiver

Psychosocial Support

33% of households reported having at least one member experiencing emotional distress from the disaster

Shelter

Shelter conditions

% of households by type of shelter they are currently living in at the time of data collection:

- 100% House
- 0% Apartment
- 0% Transitional shelter (individual)
- 0% Makeshift Shelter
- 0% Tent
- 0% Don’t know
- 0% Other

34% of households reported that their original shelter was either destroyed or damaged by the disaster

% of households by state of tenure for house at the time of data collection:

- 62% Household owns the land
- 0% Written agreement (still valid)
- 1% Written agreement (expired)
- 37% Verbal/no agreement\(^6\)
- 0% Don’t know

Preferred Shelter Assistance

53% of households reported that they would prefer to rebuild or repair their original home in the next 6 months

Protection of Women’s Needs

19% of households contained at least one pregnant or lactating woman

original home were living on their original land and considered to be non-displaced. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and had been displaced by the disaster. For households living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.

6. Dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
7. Single-choice question; only the top three responses are shown.
8. Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
9. In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:10

1. Assistance to build/repair shelter 50%
2. Shelter building materials 47%
3. None 27%

Top 3 most needed Non-Food Items (NFIs):10

1. Mattresses/Sleeping mats 67%
2. Cooking utensils/kitchen set 63%
3. Bedding items (bedsheets, pillows) 60%

Hygiene practices

% of households by location used for hand washing:

- 17% Pouring device/sink faucet
- 64% Basin/bucket
- 19% No device
- 0% Don’t know

85% of households have water available for hand washing
57% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:

- 36% Household latrine/toilet
- 63% Communal latrine/toilet
- 1% Open defecation
- 0% Don’t know

There is an average of 13 households reported to be sharing each communal latrine11

Household and communal latrine conditions

- 62% of households with communal latrines reported their toilet had adequate lighting
- 12% of households with communal toilets reported that there are separate toilets for men and women
- 74% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:12

Before Disaster | January 2019
---|---
1. Agricultural | 1. Agricultural
2. Small business owner | 2. Small business owner
3. Service industry | 3. Service industry

97% | 97%
2% | 2%
1% | 1%

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

2% of households had at least one working-age household member that is not working

Main reported barriers to finding work:

1. Only dangerous or low-paid jobs are available - 50%
2. Underqualified for available jobs - 50%
3. Lack of family/personal connections - 0%

There is an average reported loss of 0% of household income due to the disaster

### Food Security

**Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)**

- Food Consumption Score
  - 90% Acceptable
  - 10% Borderline
  - 0% Poor

- average rCSI score 1.3

% of households per main reported source of food in week prior to data collection:

- Purchased with own cash - 96%
- Received in-kind for labor or other items - 3%
- Own production (hunting, fishing, farming) - 1%

### Health

**Immunization**

4% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

**Illness and injury**

32% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.

14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).

15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).

16. Single-choice question; only the top three responses are shown.

17. Respondents could select multiple responses; only the top three choices are shown.

Among households where children were not attending school, there was an average of 0 child(ren) reported to not be attending school

Top 3 reported reasons why school-aged children were not attending school by households with children not attending school:

1. NA - 0%
2. NA - 0%
3. NA - 0%

Condition of school facilities

% of households reported the condition of the nearby school to be the following:

- Good condition: 24%
- Lightly damaged: 67%
- Moderately damaged: 4%
- Severe damage: 0%
- Don’t know: 5%
- Other: 0%

### Education

**Student attendance**

0% of households with children reported having school-aged children who were not attending school following the disaster
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection: 18

1. Fever 57%
2. Coughing 54%
3. Diarrheal diseases 14%

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection: 19

- No issues 86%
- Cost of medicine/treatment too high 5%
- No medicine/treatment available 5%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection: 20

1. Treat health problems 39%
2. None 39%
3. Get regular medications 35%

### 1.2.3 Priority Needs

Top 3 most important priority needs as reported by households: 20

1. Food 77%
2. Kitchen ware 64%
3. Other NFIs 53%

### Communication with Communities

#### Information Needs

% of households by the type of information that the household reported needing the most: 19

- Humanitarian assistance 47%
- Livelihoods 30%
- Education 14%
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

To fill this gap, a Multi-Sector Needs Assessment (MSNA) was conducted by Humanitarian Forum Indonesia (HFI) and Universitas Muhammadiyah Palu (UNISMUH) with oversight from the Ministry of Social Affairs (Kemensos) and technical support from REACH, in 38 of 62 sub-districts in the four affected regencies of Central Sulawesi Province.

A sample of 106 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>60+ years</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>18–59 years</td>
<td>33%</td>
<td>32%</td>
</tr>
<tr>
<td>13–17 years</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>6–12 years</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>1–5 years</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>&lt;1 year</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

There was an average of 4 individuals reported per household

Head of Household

- 5% of heads of households were female
- 7% of heads of households were elderly
- 45 average age of the head of household in years

Dependency ratio

- 0.5 average youth dependency ratio
- 0.1 average elderly dependency ratio
- 0.6 average age-dependency ratio

% of households by current living location:

- 96% Own home
- 0% Shelter next to original home
- 0% Renting (non-displaced)
- 0% Renting (displaced)
- 4% Staying in another home that is not their own
- 0% Informal settlement
- 0% Other

Respondent metadata

- Total households interviewed: 106
- Average age of respondent in years: 42
- Percentage of respondents were female: 43%
Displaced population

4% of households were no longer living in their original house due to the disaster

% of households no longer living on land they own by distance from their current living location to their original house:

- 75% Nearby/on site
- 25% Within 2km
- 0% Between 2km–5km
- 0% More than 5km or Don’t know

Non-displaced population

3% of non-displaced households were hosting at least one displaced household in a house that they own

There is an average of 3 IDP individuals in each displaced household hosted by a non-displaced household

0.9 average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

- 100% Remain in the current location
- 0% Move to a new location
- 0% Don’t know

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. NA 0%
2. NA 0%
3. NA 0%

Disabilities, Elderly, Minorities

0% of households contained at least one member with a self-reported physical or mental disability

Child Protection

4% of households contained at least one child that was separated from their usual caregiver

Psychosocial Support

41% of households reported having at least one member experiencing emotional distress from the disaster

Shelter

% of households by type of shelter they are currently living in at the time of data collection:

- 98% House
- 0% Apartment
- 0% Transitional shelter (individual)
- 2% Makeshift Shelter
- 0% Tent
- 0% Don’t know
- 0% Other

40% of households reported that their original shelter was either destroyed or damaged by the disaster

% of households by state of tenure for house at the time of data collection:

- 45% Household owns the land
- 0% Written agreement (still valid)
- 1% Written agreement (expired)
- 54% Verbal/no agreement
- 0% Don’t know

Preferred Shelter Assistance

65% of households reported that they would prefer to rebuild or repair their original home in the next 6 months

Protection of Women’s Needs

7% of households contained at least one pregnant or lactating woman

original home were living on their original land and considered to be non-displaced. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and had been displaced by the disaster. For households living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:

1. Assistance to build/repair shelter 51%
2. Shelter building materials 31%
3. None 21%

Top 3 most needed Non-Food Items (NFIs):

1. Cooking utensils/kitchen set; 81%
2. Bedding items (bedsheets, pillows); 77%
3. Mattresses/Sleeping mats 32%

Hygiene practices

% of households by location used for hand washing:

- 39% Pouring device/sink faucet
- 58% Basin/bucket
- 3% No device
- 0% Don’t know

85% of households have water available for hand washing
44% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:

- 78% Household latrine/toilet
- 11% Communal latrine/toilet
- 11% Open defecation
- 0% Don’t know

There is an average of 7 households reported to be sharing each communal latrine

Household and communal latrine conditions

- 77% of households with communal latrines reported their toilet had adequate lighting
- 0% of households with communal toilets reported that there are separate toilets for men and women
- 55% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:

Before Disaster January 2019

- 93% Agricultural 1
- 4% Small business owner 2
- 1% Service industry 3

- 92% Agricultural
- 5% Small business owner
- 1% Service industry

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

2% of households had at least one working-age household member that is not working.

Main reported barriers to finding work:

- Disaster destroyed cultivation land for planting: 50%
- Disability: 50%
- The recent disaster destroyed boats/fishing materials: 0%

There is an average reported loss of 10% of household income due to the disaster.

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### Food Security

**Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)**

- Food Consumption Score:
  - 82% Acceptable
  - 18% Borderline
  - 0% Poor

- Average rCSI score: 1.1

% of households per main reported source of food in week prior to data collection:

- Purchased with own cash: 97%
- Purchased on credit (debt): 2%
- Gift from family or friends: 1%

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### Health

**Immunization**

0% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

**Illness and injury**

20% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection.

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### Education

**Student attendance**

3% of households with children reported having school-aged children who were not attending school following the disaster.

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13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.

14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).

15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).

16. Single-choice question; only the top three responses are shown.

17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:

1. Fever 52%
2. Coughing 48%
3. Other health issue 24%

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection:

1. No issues 90%
2. Cost of medicine/treatment too high 10%
3. Problems with civil documents 0%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:

1. Get regular medications 65%
2. Treat health problems 27%
3. None 26%

1.2.3 Priority Needs

Top 3 most important priority needs as reported by households:

1. Food 94%
2. Kitchen ware 57%
3. Other NFIs 24%

% of households by most preferred source from which they would like to receive new information:

1. Face-to-face communication (e.g. from friends) 89%
2. Telephone/mobile phone (Voice Call) 5%
3. Television 5%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:

1. Get regular medications 65%
2. Treat health problems 27%
3. None 26%

18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.
19. Single-choice question; only the top three responses are shown.
20. Respondents could select up to three responses, therefore results may exceed 100%; only the top three choices are shown.

Priority Needs

Top 3 most common types of aid that households reported having received:

1. Food 92%
2. Education 8%
3. Health 0%

% of households by most common reported source of aid:

1. Government distribution 92%
2. PMI (Indonesian Red Cross) 8%
3. Private Company 0%

92% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

To fill this gap, a Multi-Sector Needs Assessment (MSNA) was conducted by Humanitarian Forum Indonesia (HFI) and Universitas Muhammadiyah Palu (UNISMUH) with oversight from the Ministry of Social Affairs (Kemensos) and technical support from REACH, in 38 of 62 sub-districts in the four affected regencies of Central Sulawesi Province.

A sample of 120 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

- Male: 5% 1–5 years, 1% <1 year
- Female: 3% 60+ years, 1% 1–5 years

Average age of the head of household in years: 46

Dependency ratio^4

- Average youth dependency ratio: 0.6
- Average elderly dependency ratio: 0.1
- Average age-dependency ratio: 0.7

% of households by current living location:^3

- 98% Own home
- 2% Renting (non-displaced)
- 0% Renting (displaced)
- 0% Informal settlement
- 0% Other

Respondent metadata^3

- 120 Total households interviewed
- 43 Average age of respondent in years
- 42% of respondents were female

There was an average of 4 individuals reported per household

Head of Household

- 3% of heads of households were female
- 7% of heads of households were elderly

46 average age of the head of household in years
Displaced population

- 2% of households were no longer living in their original house due to the disaster.

% of households no longer living on land they own by distance from their current living location to their original house:

- 33% Nearby/on site
- 0% Within 2km
- 0% Between 2km–5km
- 67% More than 5km or Don’t know

Non-displaced population

- 1% of non-displaced households were hosting at least one displaced household in a house that they own.

There is an average of 0 IDP individuals in each displaced household hosted by a non-displaced household.

Average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs:

- 0

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

- Remain in the current location: 100%
- Don’t know: 0%
- Move to a new location: 0%

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. NA: 0%
2. NA: 0%
3. NA: 0%

Protection of Women’s Needs

- 2% of households contained at least one pregnant or lactating woman.

Disabilities, Elderly, Minorities

- 1% of households contained at least one member with a self-reported physical or mental disability.

Child Protection

- 1% of households contained at least one child that was separated from their usual caregiver.

Psychosocial Support

- 30% of households reported having at least one member experiencing emotional distress from the disaster.

Shelter

Shelter conditions

% of households by type of shelter they are currently living in at the time of data collection:

- 100% House
- 0% Apartment
- 0% Transitional shelter (individual)
- 0% Makeshift Shelter
- 0% Tent
- 0% Don’t know
- 0% Other

31% of households reported that their original shelter was either destroyed or damaged by the disaster.

% of households by state of tenure for house at the time of data collection:

- 44% Household owns the land
- 0% Written agreement (still valid)
- 0% Written agreement (expired)
- 56% Verbal/No agreement
- 0% Don’t know

Preferred Shelter Assistance

56% of households reported that they would prefer to rebuild or repair their original home in the next 6 months.

6. Dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
7. Single-choice question; only the top three responses are shown.
8. Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
9. In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.
Multi-Sector Needs Assessment
Central Sulawesi Province
Sigi Regency, Palolo Sub-District

INDONESIA
February 2019

Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:10

1. Assistance to build/repair shelter 51%
2. Shelter building materials 35%
3. None 23%

Top 3 most needed Non-Food Items (NFIs): 10

1. Cooking utensils/kitchen set; 88%
2. Bedding items (bedsheets, pillows); 75%
3. Mattresses/Sleeping mats 32%

Water, Sanitation and Hygiene

Access to Water
% of households acquired most of their drinking water from the following sources:

- 76% Piped water
- 8% Public tap
- 6% Protected well/spring
- 0% Water tank/trucking
- 1% Bottled water
- 9% Unprotected source
- 0% Don’t know

93% of households reported drinking water that had been treated and was safe to drink.
87% of households reported having enough water to meet their total needs for drinking, cooking, bathing, and washing.

Hygiene practices
% of households by location used for hand washing:

- 42% Pouring device/sink faucet
- 54% Basin/bucket
- 4% No device
- 0% Don’t know

88% of households have water available for hand washing.
43% of households have soap available for hand washing.

Sanitation conditions
% of households by most common defecation practice:

- 81% Household latrine/toilet
- 8% Communal latrine/toilet
- 9% Open defecation
- 2% Don’t know

There is an average of 5 households reported to be sharing each communal latrine.11

Household and communal latrine conditions
80% of households with communal latrines reported their toilet had adequate lighting.
0% of households with communal toilets reported that there are separate toilets for men and women.
41% of households with communal toilets reported their toilet is not inside the household and has locks on the doors.

Economy

Occupation and employment
Main occupation of the household reported by households before the disaster and in the last month:12

Before Disaster | January 2019
---|---
1. Agricultural | 1. Agricultural | 92%
2. Small business owner | 2. Small business owner | 2%
3. Service industry | 3. Service industry | 2%

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
Among households where children were not attending school, there was an average of 1 child(ren) reported to not be attending school.

Top 3 reported reasons why school-aged children were not attending school by households with children not attending school:

1. Fear of school collapsing (57%)
2. Child not attending school before disaster (29%)
3. Teachers have been displaced, died, are in hospital or are missing (14%)

Condition of school facilities:

% of households reported the condition of the nearby school to be the following:

- Good condition: 16%
- Lightly damaged: 57%
- Moderately damaged: 25%
- Severe damage: 0%
- Don't know: 0%
- Other: 2%

Food Security

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

Food Consumption Score

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptable</td>
<td>85%</td>
</tr>
<tr>
<td>Borderline</td>
<td>15%</td>
</tr>
<tr>
<td>Poor</td>
<td>0%</td>
</tr>
</tbody>
</table>

Average rCSI score: 1.5

% of households per main reported source of food in week prior to data collection:

- Purchased with own cash: 100%
- Don't know: 0%
- Purchased with cash assistance: 0%

Education

Student attendance:

8% of households with children reported having school-aged children who were not attending school following the disaster.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:¹⁸

1. Fever 56%
2. Other health issue 24%
3. Coughing 20%

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection:¹⁹

- No issues 72%
- Cost of medicine/treatment too high 24%
- No information where health facilities are 4%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:²⁰

1. Get regular medications 55%
2. None 39%
3. Treat health problems 19%

1.2.3 Priority Needs

Top 3 most important priority needs as reported by households:²⁰

1. Food 83%
2. Kitchen ware 67%
3. Shelter support 29%

% of households by most preferred source from which they would like to receive new information:¹⁹

- Face-to-face communication (e.g. from friends) 98%
- Telephone/mobile phone (Voice Call) 2%
- Don’t know 0%

Humanitarian assistance

2% of households reported that they had received humanitarian aid in the 30 days prior to data collection

Top 3 most common types of aid that households reported having received:¹⁸

1. Food 100%
2. host housing 0%
3. Shelter design 0%

% of households by most common reported source of aid:¹⁸

- Government distribution 67%
- Religious Organization 33%
- Private Company 0%

33% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection

Information Needs

% of households by the type of information that the household reported needing the most:¹⁹

- Livelihoods 37%
- Humanitarian assistance 36%
- Water services 14%

18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.
19. Single-choice question; only the top three responses are shown.
20. Respondents could select up to three responses, therefore results may exceed 100%; only the top three choices are shown.
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements.1 An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

To fill this gap, a Multi-Sector Needs Assessment (MSNA) was conducted by Humanitarian Forum Indonesia (HFI) and Universitas Muhammadiyah Palu (UNISMUH) with oversight from the Ministry of Social Affairs (Kemensos) and technical support from REACH, in 38 of 62 sub-districts in the four affected regencies of Central Sulawesi Province.

A sample of 127 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019.2 Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

<table>
<thead>
<tr>
<th>Gender</th>
<th>Category</th>
<th>Weighted Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>60+ years</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>18–59 years</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>13–17 years</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>6–12 years</td>
<td>6%</td>
</tr>
<tr>
<td>Female</td>
<td>1–5 years</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>&lt;1 year</td>
<td>1%</td>
</tr>
</tbody>
</table>

There was an average of 4 individuals reported per household

Head of Household

- 6% of heads of households were female
- 12% of heads of households were elderly
- 44 average age of the head of household in years

Dependency ratio

- Average youth dependency ratio: 0.7
- Average elderly dependency ratio: 0.2
- Average age-dependency ratio: 1

% of households by current living location:

- 55% Own home
- 9% Shelter next to original home
- 2% Renting (non-displaced)
- 0% Renting (displaced)
- 11% Staying in another home that is not their own
- 23% Informal settlement
- 0% Other

2. The boundaries and names used on this map do not imply official endorsement or acceptance by REACH, UNICEF, HFI, or UNISMUH. Population data was extracted at desa-level from SIAK (Population Information Administration System) database, Ministry of Home Affairs (MoHA, 2017). Population of missing desas was imputed using data from the Indonesia Bureau of Statistics, 2010.
3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their own.
Displacement and Protection

Displaced population

43% of households were no longer living in their original house due to the disaster.

% of households no longer living on land they own by distance from their current living location to their original house:

- 23% Nearby/on site
- 44% Within 2km
- 26% Between 2km–5km
- 7% More than 5km or Don’t know

Non-displaced population

7% of non-displaced households were hosting at least one displaced household in a house that they own.

There is an average of 3 IDP individuals in each displaced household hosted by a non-displaced household.

0.7 average dependency ratio of displaced household size to hosting household size for non-displaced households hosting IDPs.

Movement intentions in the next 6 months

% of households by where they most want to move to within the next six months:

- 73% Remain in the current location
- 13% Move to a new location
- 7% Don’t know

Top 3 most reported reasons as to why households chose to move or to stay in their preferred living location for the next 6 months:

1. House destroyed/severely damaged 60%
2. Heavy damage to house 36%
3. Area may be declared a no build (red) zone 32%

Disabilities, Elderly, Minorities

4% of households contained at least one member with a self-reported physical or mental disability.

Child Protection

5% of households contained at least one child that was separated from their usual caregiver.

Psychosocial Support

75% of households reported having at least one member experiencing emotional distress from the disaster.

Shelter

SHELTER CONDITIONS

% of households by type of shelter they are currently living in at the time of data collection:

- 66% House
- 2% Apartment
- 11% Transitional shelter (individual)
- 2% Makeshift Shelter
- 19% Tent
- 0% Don’t know
- 0% Other

87% of households reported that their original shelter was either destroyed or damaged by the disaster.

% of households by state of tenure for house at the time of data collection:

- 24% Household owns the land
- 24% Written agreement (still valid)
- 12% Written agreement (expired)
- 35% Verbal/No agreement
- 5% Don’t know

Preferred Shelter Assistance

61% of households reported that they would prefer to rebuild or repair their original home in the next 6 months.

Protection of Women’s Needs

20% of households contained at least one pregnant or lactating woman.

Displaced population includes those living in tents next to their original home and those staying in tents next to their original home. Those living with friends or family, in an informal settlement, or renting after they were displaced from their homes were no longer living on their original land and considered to be non-displaced. Those living in their original home, categorization of displacement was the same, except that those staying in tents next to their original home were considered to be displaced.

Disability data includes people who self-reported having at least one member with a physical or mental disability, including both adults and children.

Child protection data includes children who were separated from their usual caregiver.

Psychosocial support data includes children who suffered emotional distress from the disaster.

Disability data includes people who self-reported having at least one member with a physical or mental disability, including both adults and children.

Movement intentions data includes households' preferences for their future living location.

Dependency ratio data includes calculating the relative burden that hosting households have to support IDP households.

Tent data includes those living in tents next to their original home.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection: 10

1. Shelter building materials 65%
2. Assistance to build/repair shelter 61%
3. Construction labor 26%

Top 3 most needed Non-Food Items (NFIs): 10

1. Cooking utensils/kitchen set; 54%
2. Mattresses/Sleeping mats 50%
3. Cooking stove 39%

Hygiene practices
% of households by location used for hand washing:

- 27% Pouring device/sink faucet
- 60% Basin/bucket
- 12% No device
- 1% Don’t know

97% of households have water available for hand washing
76% of households have soap available for hand washing

Sanitation conditions
% of households by most common defecation practice:

- 56% Household latrine/toilet
- 34% Communal latrine/toilet
- 6% Open defecation
- 4% Don’t know

There is an average of 16 households reported to be sharing each communal latrine 11

Household and communal latrine conditions

- 87% of households with communal latrines reported their toilet had adequate lighting
- 4% of households with communal toilets reported that there are separate toilets for men and women
- 87% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Water, Sanitation and Hygiene

Access to Water
% of households acquired most of their drinking water from the following sources:

- 15% Piped water
- 39% Public tap
- 6% Protected well/spring
- 6% Water tank/trucking
- 29% Bottled water
- 3% Unprotected source
- 2% Don’t know

94% of households reported drinking water that had been treated and was safe to drink
84% of households reported having enough water to meet their total needs for drinking, cooking, bathing, and washing

% of households by reported amount of time it takes to walk to main water source, fetch water, and return (including queuing at the water source):

- 79% Water source located on site
- 15% Less than 10 minutes
- 3% 10–20 minutes
- 1% More than 20 minutes
- 2% Don’t know

Economy

Occupation and employment
Main occupation of the household reported by households before the disaster and in the last month: 12

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>37% Agricultural</td>
<td>1 Agricultural 26%</td>
</tr>
<tr>
<td>12% Construction</td>
<td>2 Unemployed 17%</td>
</tr>
<tr>
<td>10% Small business owner</td>
<td>3 Small business owner 10%</td>
</tr>
</tbody>
</table>

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
Among households where children were not attending school, there was an average of 1 child(ren) reported to not be attending school.

Top 3 reported reasons why school-aged children were not attending school by households with children not attending school:

1. Other
2. Child needed for household chores
3. Fear of school collapsing

Condition of school facilities

% of households reported the condition of the nearby school to be the following:

- 6% Good condition
- 30% Lightly damaged
- 21% Moderately damaged
- 37% Severe damage
- 6% Don’t know
- 0% Other

Food Security

Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)

- Food Consumption Score: 87% Acceptable, 13% Borderline, 0% Poor
- Average rCSI score: 3.5

% of households per main reported source of food in week prior to data collection:

- Purchased with own cash: 80%
- Food assistance (government): 9%
- Food assistance (charity, private company): 6%

Health

Immunization

46% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

Illness and injury

59% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection.

Education

Student attendance

2% of households with children reported having school-aged children who were not attending school following the disaster.

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.

14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).

15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).

16. Single-choice question; only the top three responses are shown.

17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection: 18

1. Fever 69%  
2. Coughing 59%  
3. Diarrheal diseases 24%

Main barriers to accessing healthcare reported by households who needed to access medical treatment the 30 days prior to data collection: 19

- No issues 95%  
- Cost of medicine/treatment too high 3%  
- No medicine/treatment available 1%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection: 20

1. Get regular medications 48%  
2. Treat health problems 46%  
3. None 35%

12.3 Priority Needs

Top 3 most important priority needs as reported by households: 20

1. Food 79%  
2. Shelter support 46%  
3. Kitchen ware 38%

% of households by most preferred source from which they would like to receive new information: 19

- Face-to-face communication (e.g. from friends) 74%  
- Television 16%  
- Telephone/mobile phone (Voice Call) 2%

Humanitarian assistance of households reported that they had received humanitarian aid in the 30 days prior to data collection: 39%

Top 3 most common types of aid that households reported having received: 18

1. Food 92%  
2. Water 30%  
3. Health 16%

% of households by most common reported source of aid: 18

- NGO distribution 62%  
- Government distribution 30%  
- Religious Organization 4%

74% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection

18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.  
19. Single-choice question; only the top three responses are shown.  
20. Respondents could select up to three responses, therefore results may exceed 100%; only the top three choices are shown.
Background and methodology

Following a 7.7 magnitude earthquake on 28 September, 2018, large parts of Palu, Donggala, Sigi, and Parigi Moutong regencies in Central Sulawesi province were destroyed by earthquake, tsunami, and liquefaction events. As of 10 December 2018, approximately 2,101 people have been killed, 1,373 are missing, and an estimated 133,631 individuals were displaced in informal settlements. An estimated 15,000 houses have been destroyed and another 17,000 heavily damaged. However, four months after the initial disaster, there is still very little understanding of the needs and vulnerabilities of the affected population in Central Sulawesi Province.

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A sample of 109 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. Results were weighted by population and generalizable to the crisis level with 95% confidence level and 10% margin of error.

Demographics

Household composition by gender and age

- 3% 60+ years
- 27% 18–59 years
- 7% 13–17 years
- 9% 6–12 years
- 5% 1–5 years
- 0% <1 year

A sample of 109 out of a total population of 253,926 households were surveyed across the four affected regencies between 22 January and 6 February 2019. There was an average of 5 individuals reported per household.

Head of Household

- 14% of heads of households were female
- 15% of heads of households were elderly
- 46 average age of the head of household in years

Dependency ratio

- 0.8 average youth dependency ratio
- 0.2 average elderly dependency ratio
- 1 average age-dependency ratio

% of households by current living location:

- 60% Own home
- 11% Shelter next to original home
- 0% Renting (non-displaced)
- 0% Renting (displaced)
- 8% Staying in another home that is not their own
- 21% Informal settlement
- 0% Other

2. The boundaries and names used on this map do not imply official endorsement or acceptance by REACH, UNICEF, HFI, or UNISMUH. Population data was extracted at desa-level from SIAK (Population Information Administration System) database, Ministry of Home Affairs (MoHA, 2017). Population of missing desas was imputed using data from the Indonesia Bureau of Statistics, 2010.
3. Respondent metadata provides information on the respondents interviewed for the questionnaire. While the respondent was usually the head of household, if the head of household was not present at the time of interview, a member of the household knowledgeable about household affairs responded instead. This section only shows information on respondents, not the heads of household. Results in this section are not weighted by population, and should be considered as indicative.
4. Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
5. Households were categorised based on whether they were still living on their original land, or if they were displaced by the disaster. Those living in their original home, renting (in the same location both before and after the disaster) or living in a tent/makeshift shelter next to their

Respondent metadata

- 109 Total households interviewed
- 43 Average age of respondent in years
- 64% of respondents were female
Displacement and Protection

Displaced population:
- 40% of households were no longer living in their original house due to the disaster.

Non-displaced population:
- 3% of non-displaced households were hosting at least one displaced household in a house that they own.

Movement intentions in the next 6 months:
- 80% of households want to remain in their current location.
- 9% want to move into the Government Transitional Shelter.
- 6% want to return back to their original home.

Disabilities, Elderly, Minorities

- 3% of households contained at least one member with a self-reported physical or mental disability.

Child Protection

- 3% of households contained at least one child that was separated from their usual caregiver.

Psychosocial Support

- 67% of households reported having at least one member experiencing emotional distress from the disaster.

Shelter

Shelter conditions:
- 65% House
- 0% Apartment
- 16% Transitional shelter (individual)
- 14% Makeshift Shelter
- 5% Tent
- 0% Don't know
- 0% Other

- 85% of households reported that their original shelter was either destroyed or damaged by the disaster.

Preferred Shelter Assistance

- 76% of households reported that they would prefer to rebuild or repair their original home in the next 6 months.

Protection of Women’s Needs

- 19% of households contained at least one pregnant or lactating woman.

Additional notes:
- The dependency ratio is calculated by dividing the number of IDP individuals being hosted by the total size of the host household. The number shows the relative burden that hosting households have to support IDP households.
- Respondents could select multiple responses; therefore results may exceed 100%; only the top three choices are shown.
- Single-choice question; only the top three responses are shown.
- In many households in Central Sulawesi, there is a cultural practice in which one household owns many plots of land, and other households are permitted to live on it without any formal agreement.
Top 3 preferred types of assistance that households wanted to receive in order to rebuild/repair their homes in the 6 months after data collection:10

1. Assistance to build/repair shelter 72%
2. Shelter building materials 67%
3. Construction labor 15%

Top 3 most needed Non-Food Items (NFIs):10

1. Cooking utensils/kitchen set; 79%
2. Bedding items (bedsheets, pillows); 55%
3. Mattresses/Sleeping mats 52%

Hygiene practices

% of households by location used for hand washing:

- 54% Pouring device/sink faucet
- 42% Basin/bucket
- 4% No device
- 0% Don't know

91% of households have water available for hand washing

57% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:

- 35% Household latrine/toilet
- 41% Communal latrine/toilet
- 24% Open defecation
- 0% Don't know

There is an average of 14 households reported to be sharing each communal latrine11

Household and communal latrine conditions

- 71% of households with communal latrines reported their toilet had adequate lighting
- 5% of households with communal toilets reported that there are separate toilets for men and women
- 72% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month;12

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>56% Agricultural</td>
<td>39% Agricultural</td>
</tr>
<tr>
<td>13% Vocational profession</td>
<td>30% Unemployed</td>
</tr>
<tr>
<td>7% Unemployed</td>
<td>12% Vocational profession</td>
</tr>
</tbody>
</table>

10. Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.
11. Average taken from households reporting the use of communal latrines.
12. Single-choice question; only the top three responses are shown.
% of households reporting that the household main income was unemployment, before and after the disaster:

<table>
<thead>
<tr>
<th>Before Disaster</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>7% are unemployed</td>
<td>30%</td>
</tr>
</tbody>
</table>

23% of households had at least one working-age household member that is not working

Main reported barriers to finding work:
- Disaster destroyed cultivation land for planting 40%
- Disaster destroyed business/job opportunities 40%
- Disability 12%

There is an average reported loss of 10% of household income due to the disaster

### Food Security

**Reported Food Consumption Score (FCS) and reduced Coping Strategy Index (rCSI)**

- Food Consumption Score: 88% Acceptable
- Average rCSI score: 5.9

% of households per main reported source of food in week prior to data collection:
- Purchased with own cash: 80%
- Food assistance (government): 13%
- Food assistance (charity, private company): 6%

### Health

**Immunization**
- 5% of households reported having children in the household that were not immunized for measles, mumps, and rubella (MMR).

**Illness and injury**
- 59% of households reported that a member of the household had suffered from a health issue (illness or injury) in the 30 days prior to data collection.

### Education

**Student attendance**
- 6% of households with children reported having school-aged children who were not attending school following the disaster.

13. Due to the sensitivity over asking about monthly income, respondents were asked what range their monthly income fell within. The upper bound of the range was used, and current income was divided by previous income before being averaged.
14. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household consumed different groups of food, which are then multiplied by a coefficient based on the food group, added up, and ascribed a ranking (acceptable, borderline, or poor) based on the number (WFP, Consolidated Approach for Reporting Indicators of Food Security (CARI), 2014).
15. rCSI is a measure of food security that looks at a set list of five coping strategies that households might be using to make food last longer in the absence of sufficient foods. It uses 5 commonly practiced coping strategies across the world. rCSI was calculated by asking respondents how many days per week their household adopted different coping strategies to make food last longer. The number of days was then multiplied by a coefficient based on the coping strategy and added up. There are no officially established thresholds, but generally, scores between 0 and 3 are considered to be good, 4 to 9 is worrisome, and scores greater than or equal to 10 are concerning (WFP VAM Unit, Afghanistan, Guidance note: calculation of household food security outcome indicators, December 2012).
16. Single-choice question; only the top three responses are shown.
17. Respondents could select multiple responses; only the top three choices are shown.
Top 3 types of health concerns reported by households with a member who had suffered from health issues in the 30 days prior to data collection:18

1. Coughing 55%
2. Fever 50%
3. Hypertension 17%

Main barriers to accessing healthcare reported by households who had needed to access medical treatment the 30 days prior to data collection:19

- No issues 66%
- Cost of medicine/treatment too high 22%
- Don’t know 3%

Main reasons (if any) that households have had to access health services in the 30 days prior to data collection:20

1. Treat health problems 49%
2. None 39%
3. Get regular medications 32%

1.2.3 Priority Needs

Top 3 most important priority needs as reported by households:20

1. Food 84%
2. Shelter support 51%
3. Kitchen ware 34%

Communication with Communities

Information Needs

% of households by the type of information that the household reported needing the most:19

- Status of housing 45%
- Humanitarian assistance 38%
- Livelihoods 16%

% of households by most preferred source from which they would like to receive new information:19

- Face-to-face communication (e.g. from friends) 75%
- Television 21%
- Loud speakers 2%

Humanitarian assistance of households reported that they had received humanitarian aid in the 30 days prior to data collection

- Of households 52%

Top 3 most common types of aid that households reported having received:18

1. Food 86%
2. Tents 21%
3. Other NFIs 19%

% of households by most common reported source of aid:18

- Government distribution 56%
- NGO distribution 14%
- Religious Organization 12%

68% of households reported that they were happy with the aid that they had received in the 30 days prior to data collection

18. Respondents could select multiple responses, therefore results may exceed 100%; only the top three choices are shown.
19. Single-choice question; only the top three responses are shown.
20. Respondents could select up to three responses, therefore results may exceed 100%; only the top three choices are shown.