Central Sulawesi Earthquake, Tsunami, and Liquefaction: **Population Needs**

Multi-Sector Needs Assessment: Population/Regency/City Profiles

February 2019







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KlasNas PP Multi-Sector Needs Assessment KEMENTERIAN SOSIAL Central Sulawesi Province

Population: All Affected Areas/Populations

INDONESIA

February 2019

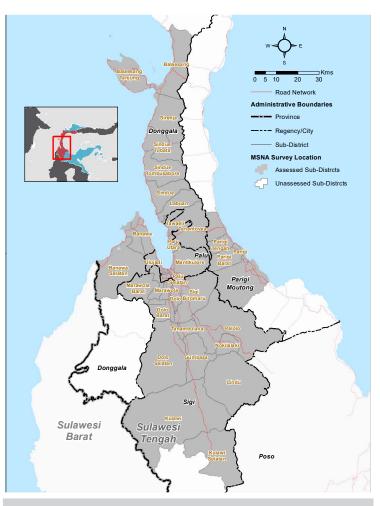
SULAWESI TENGAH

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 4264 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 99% confidence level and 2% margin of error.



... Respondent metadata³

- **4264** Total households interviewed
 - **44** Average age of respondent in years
- 49% of respondents were female

♠♠ Demographics

Household composition by gender and age



There was an average of 5 individuals reported per household

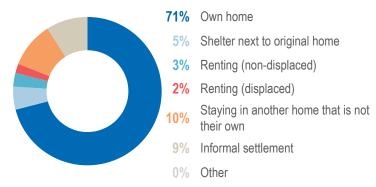
Head of Household

11%	of heads of households were female
14%	of heads of households were elderly
46	average age of the head of household in years
nondono	v ratio ⁴

Dependency ratio⁴

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

% of households by current living location:5



1. Central Sulawesi Earthquake & Tsunami, Humanitarian Country Team Situation Report #10, 10 December 2018.

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 desalevel 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.

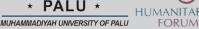
 Age-dependency ratio was calculated by dividing the number of under-age and elderly (non-productive) individuals (0–17 years for youth and 60+ years for elderly) by the number of adult (productive) individuals in the population (18–59 years). Anything below 1 shows that the population is mostly adults of working-age who can provide for those who are not.
 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



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Population: All Affected Areas/Populations

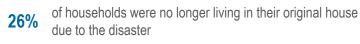
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Displacement and Protection ×→ ₩

Displaced population⁵



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



- 50% Nearby/on site
- Within 2km 24%
- Between 2km-5km 10%
- More than 5km or Don't 16% know

Non-displaced population⁵



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

average dependency ratio of displaced household size to hosting household size for non-displaced households 0.6 hosting IDPs⁶

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	87%	
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:8



Protection of Women's Needs

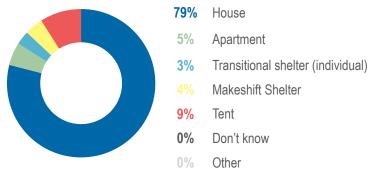
of households contained at least one pregnant or lactating woman

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.

Ġ. Ń	Disabilities, Elderly, Minorities	
3%	of households contained at least one member with a self-reported physical or mental disability	
Ť Ť	Child Protection	
3%	of households contained at least one child that was separated from their usual caregiver	
-	Psychosocial Support	
51%	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:



of households reported that their original shelter was either 67% destroyed or damaged by the disaster

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



35% Household owns the land 11% Written agreement (still valid) Written agreement (expired) 51% Verbal/no agreement9 1% Don't know



UNIVERSITAS MUHAMMADIYAH

* PALU * MUHAMMADIYAH UNIVERSITY OF PALU of households reported that they were at risk of being forced to leave where they were staying at the time of data collection

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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.

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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 a specific household owns many plots of land, and other households are permitted to live on it without any formal agreement.



16%





Population: All Affected Areas/Populations

Top 3 reported reasons households were at risk of being forced to leave their shelters at the time of data collection:10



of households reported having lost the ownership 6% documents for their original shelter before the disaster

Preferred Shelter Assistance



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

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:11

0	Assistance to build/repair shelter	55%	
2	Shelter building materials	45%	
3	None	18%	

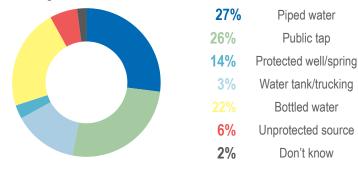
Top 3 most needed Non-Food Items (NFIs):11

0	Cooking utensils/kitchen set;	59%	
2	Bedding items (bedsheets, pillows);	49%	
B	Mattresses/Sleeping mats	36%	

Water, Sanitation and Hygiene

Access to Water

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



95%

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

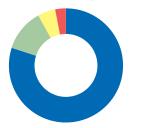
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87%

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):



80%	Water source located on site
12%	Less than 10 minutes
	10–20 minutes
3%	More than 20 minutes
0%	Don't know

Hygiene practices

% of households by location used for hand washing:



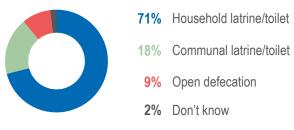
59% Pouring device/sink faucet 32% Basin/bucket No device **9**% Don't know ٥%

92% of households have water available for hand washing

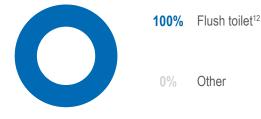
64% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:



% of households using a household or communal latrine/toilet, by type of latrine/toilet:



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

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

12. "Flush toilets" includes both toilets where a lever automatically makes the toilet flush and the practice of dumping water town the toilet to cause it to flush manually.

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3



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Population: All Affected Areas/Populations

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There is an average of 13 households reported to be sharing each communal latrine¹³

Communal latrine conditions



of households with communal toilets reported that there 5% are separate toilets for men and women

of households with communal toilets reported their toilet is 76% not inside the household and has locks on the doors

Waste disposal

% of households by reported main method of garbage disposal



- **13%** Bin in household / street
 - Bury garbage 1%
- Burn garbage 49%

Open area designated for waste

- Open area not designated for waste
- 1% Other

% of households reporting how often garbage is collected from their area of residence:



37% Daily

Weekly 26%

- More than 1x per week
- 33% Service not available
- Don't know 2%
- 0% Other

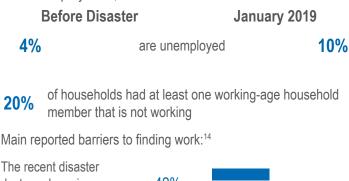
Economy Sy,

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:14

Before Disaster		January 2019		
32%	Agricultural	0	Agricultural	30%
18%	Small business owner	2	Small business owner	17%
8%	Government job	3	Unemployed	10%

% of households reporting that the household main income was unemployment, before and after the disaster:

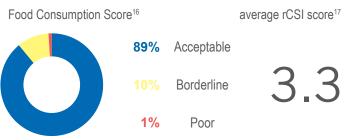


destroyed previous business/job opportunities	42%	
Disaster destroyed cultivation land for planting	12%	
Underqualified for available jobs	11%	

There is an average reported loss of **10%** of household income due to the disaster¹⁵

Chill **Food Security**

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



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

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

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15. 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.

16. 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).

17. 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).





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REPUBLIK INDONESIA Population: All Affected Areas/Populations % of households per main reported source of food in week prior to data collection:18 91% Purchased with own cash 1 2% Food assistance (government) Food assistance (charity, private 2% company) В Education Student attendance of households with children reported having school-4% 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 School damaged/destroyed 32% A 2 Fear of school collapsing 23% Child not attending school 11% 3 before disaster **Condition of school facilities** % of households reported the condition of the nearby school to be the following: 20% Good condition 25% Lightly damaged Moderately damaged 14% Severe damage 10% Don't know Î Other Health Immunization of households reported having children in the household 18% that were not immunized for measles, mumps, and rhubella (MMR).

Illness and injury

40%

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

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:19



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	9%	•
Don't know	3%	1

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

0	None	41%		
2	Get regular medications	39%		
B	Treat health problems	35%		
1.2.3 Priority Needs				

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

1	Food	78%	
2	Kitchen ware	37%	
3	Shelter support	30%	

Communication with Communities

Information Needs

% of households by the type of information that the household reported needing the most:18



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

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

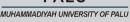
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Population: All Affected Areas/Populations

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% of households by most preferred source from which they would like to receive new information: $^{\rm 21}$

Face-to-face communication (e.g. from friends)	69%	
Television	21%	
Social media	6%	

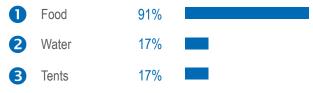
Humanitarian assistance

30%

69%

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:²²



% of households by most common reported source of aid:²³

Government distribution	48%	
NGO distribution	21%	
Friends and family	8%	

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

Main reported reasons households were not satisfied by the aid received in the last 30 days:²³

Quantity not enough	86%	
Aid received is not useful	4%	
Other	4%	

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

Respondents could select multiple responses; only the top three choices are shown.
 Single-choice question; only the top three responses are shown.



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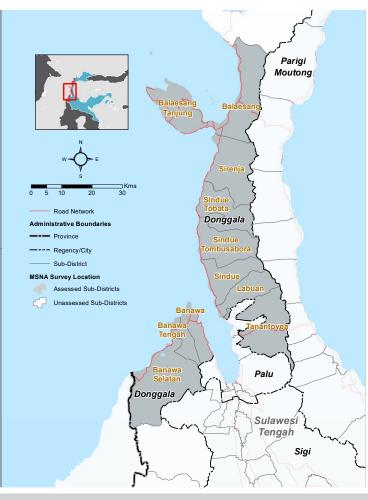
Donggala Regency

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 1213 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 5% margin of error.



Respondent metadata³ лh

- 1213 Total households interviewed
- 44 Average age of respondent in years
- 58% of respondents were female

Demographics

Household composition by gender and age



There was an average of 5 individuals reported per household

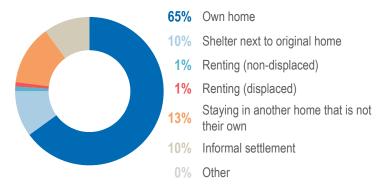
Head of Household

14%	of heads of households were female
17%	of heads of households were elderly
47	average age of the head of household in years
nendency ratio ⁴	

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:5



1. Central Sulawesi Earthquake & Tsunami, Humanitarian Country Team Situation Report #10, 10 December 2018

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 desalevel 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.

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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





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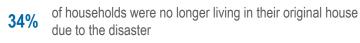




Donggala Regency

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Displaced population⁵

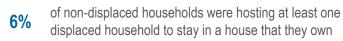


% of households no longer living on land they own by distance from their current living location to their original house:



- 51% Nearby/on site
- Within 2km 30%
- Between 2km-5km 8%
- More than 5km or Don't 11% know

Non-displaced population⁵



There is an average of **3** 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 0.6 hosting IDPs⁶

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	87%	
Move into the Government Transitional Shelter	5%	•
Return back to original home	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:8



Protection of Women's Needs

of households contained at least one pregnant or lactating woman

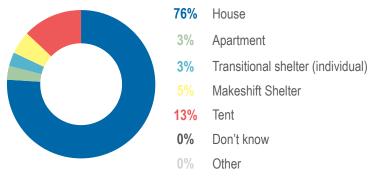
for every child

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.

Ġ. Ń	Disabilities, Elderly, Minorities
3%	of households contained at least one member with a self-reported physical or mental disability
ŤŤ	Child Protection
2%	of households contained at least one child that was separated from their usual caregiver
-	Psychosocial Support
62%	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:



of households reported that their original shelter was either 77% destroyed or damaged by the disaster

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



52% Household owns the land 5% Written agreement (still valid) Written agreement (expired) 41% Verbal/no agreement9 0% Don't know



UNIVERSITAS MUHAMMADIYAH

* PALU * MUHAMMADIYAH UNIVERSITY OF PALU of households reported that they were at risk of being forced to leave where they were staying at the time of data collection

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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.

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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 a specific household owns many plots of land, and other households are permitted to live on it without any formal agreement.



INDONESIA

February 2019

19%



Donggala Regency

Top 3 reported reasons households were at risk of being forced to leave their shelters at the time of data collection:10

0	Request from authorities	64%	
2	Request from owner of land	42%	
3	No money to pay rent	3%	1

of households reported having lost the ownership 5% documents for their original shelter before the disaster

Preferred Shelter Assistance



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

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:11

0	Assistance to build/repair shelter	66%	
2	Shelter building materials	54%	
3	Construction labor	13%	

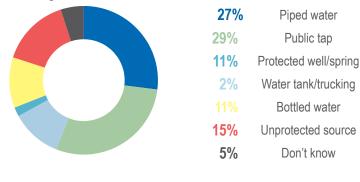
Top 3 most needed Non-Food Items (NFIs):11

0	Cooking utensils/kitchen set;	66%	
2	Bedding items (bedsheets, pillows);	62%	
B	Mattresses/Sleeping mats	48%	

Water, Sanitation and Hygiene

Access to Water

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



94%

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

INDONESIA

February 2019

80%

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):



70%	Water source located on site
16%	Less than 10 minutes
	10–20 minutes
6%	More than 20 minutes
0%	Don't know

Hygiene practices

% of households by location



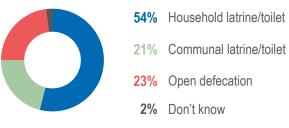
n useo	d for hand washing:
51%	Pouring device/sink faucet
39%	Basin/bucket
10%	No device
0%	Don't know

90% of households have water available for hand washing

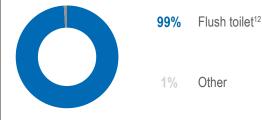
58% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:



% of households using a household or communal latrine/toilet, by type of latrine/toilet:



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

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

12. "Flush toilets" includes both toilets where a lever automatically makes the toilet flush and the practice of dumping water town the toilet to cause it to flush manually.











Donggala Regency

There is an average of 13 households reported to be sharing each communal latrine¹³

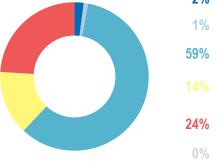
Communal latrine conditions



- of households with communal toilets reported that there 3% are separate toilets for men and women
- of households with communal toilets reported their toilet is 77% not inside the household and has locks on the doors

Waste disposal

% of households by reported main method of garbage disposal



- 2% Bin in household / street
 - Bury garbage
 - Burn garbage

Open area designated for waste

- Open area not designated for waste
- 0% Other

% of households reporting how often garbage is collected from their area of residence:



36% Daily

Weekly 25%

- More than 1x per week
- Service not available 36%
- Don't know 1%
- 0% Other

Economy Sy,

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:14

Before Disaster		January 2019		
43%	Agricultural	0	Agricultural	41%
12%	Fishing	2	Unemployed	12%
11%	Small business owner	ß	Small business owner	10%

% of households reporting that the household main income was unemployment, before and after the disaster:

I	Before Disaster	January 2019
4%	are unemployed	12%
	of households had at least one wo	rking-age household

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

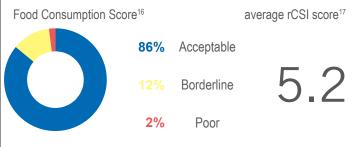
Main reported barriers to finding work:14

The recent disaster destroyed previous business/job opportunities	46%	
Increased competition for jobs	11%	
Only dangerous or low-paid jobs are available	10%	

There is an average reported loss of **10%** of household income due to the disaster¹⁵

Food Security

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



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

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

15. 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.

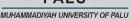
16. FCS is a measure of food security that looks at how often foods are consumed over a 1 week period, in order to give an indication if the household is eating a sufficient amount of food. FCS was calculated using the WFP CARI methodology, by asking respondents how many days per week their household 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).

17. 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).





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INDONESIA

February 2019

Donggala Regency

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

90% Purchased with own cash Food assistance (charity, private 2% company) Own production (hunting, 2% fishing, farming)

Education

Student attendance



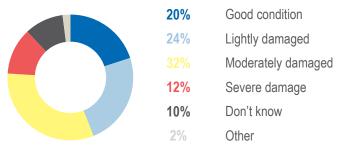
of households with children reported having schoolaged children who were not attending school following the disaster

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



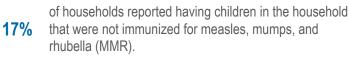
Condition of school facilities

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



Health

Immunization



Illness and injury

50%

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

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:19



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	74%	
Cost of medicine/treatment too high	14%	
Health center too far away	4%	1. Contraction (1997)

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

0	None	40%	
2	Treat health problems	38%	
3	Get regular medications	35%	
1. 2 .	Priority Needs	S	
Тор 3	most important priority nee	eds as re	eported by households:20
•	Food 87	0/	

U	F000	01 70	
2	Kitchen ware	40%	
3	Shelter support	38%	

Communication with Communities

Information Needs

Î

% of households by the type of information that the household reported needing the most:18



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

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

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

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% of households by most preferred source from which they would like to receive new information: 21

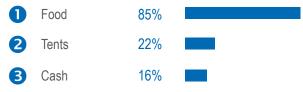
Face-to-face communication
(e.g. from friends)72%Television21%Social media3%

Humanitarian assistance

34%

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:²²



% of households by most common reported source of aid:²³

Government distribution	40%	
NGO distribution	30%	
Religious Organization	10%	

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

Main reported reasons households were not satisfied by the aid received in the last 30 days:²³

Quantity not enough	94%	
Delays in aid delivery	4%	
Aid received is not useful	1%	I.

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

Respondents could select multiple responses; only the top three choices are shown.
 Single-choice question; only the top three responses are shown.





unicef (2)

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February 2019



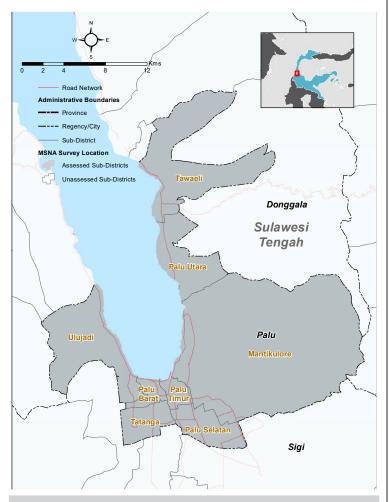
Palu City

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 892 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 5% margin of error.



.dt Respondent metadata³

- 892 Total households interviewed
- 44 Average age of respondent in years
- 48% of respondents were female



Household composition by gender and age



There was an average of 5 individuals reported per household

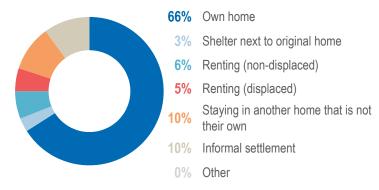
Head of Household

14%	of heads of households were female	
13%	of heads of households were elderly	
46	average age of the head of household in years	
nondonev ratio ⁴		

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:5



1. Central Sulawesi Earthquake & Tsunami, Humanitarian Country Team Situation Report #10, 10 December 2018.

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 desalevel 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



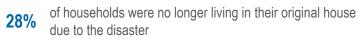




Palu City

Displacement and Protection ×→ ₩

Displaced population⁵



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



- 37% Nearby/on site Within 2km 24%
- Between 2km-5km 14%
- More than 5km or Don't 25% know

Non-displaced population⁵

of non-displaced households were hosting at least one 8% displaced household to stay in a house that they own

There is an average of **3** 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 0.6 hosting IDPs⁶

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	84%	
Don't know	4%	1 - C
Move into the Government Transitional Shelter	4%	н

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



16%

14

Protection of Women's Needs

of households contained at least one pregnant or lactating woman

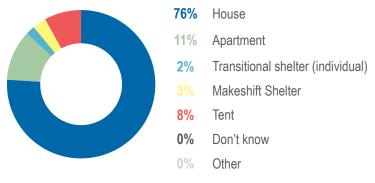
for every child

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.

Ġ. Ń	Disabilities, Elderly, Minorities
4%	of households contained at least one member with a self-reported physical or mental disability
Ť Ť	Child Protection
5%	of households contained at least one child that was separated from their usual caregiver
-	Psychosocial Support
49%	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:



of households reported that their original shelter was either 68% destroyed or damaged by the disaster

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



21% Household owns the land 9% Written agreement (still valid) Written agreement (expired) 68% Verbal/no agreement9 1% Don't know



UNIVERSITAS MUHAMMADIYAH

* PALU * MUHAMMADIYAH UNIVERSITY OF PALU of households reported that they were at risk of being forced to leave where they were staying at the time of data collection

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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.

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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 a specific household owns many plots of land, and other households are permitted to live on it without any formal agreement.



INDONESIA

February 2019



Palu City

Top 3 reported reasons households were at risk of being forced to leave their shelters at the time of data collection:10



of households reported having lost the ownership 9% documents for their original shelter before the disaster

Preferred Shelter Assistance



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

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:11

0	Assistance to build/repair shelter	54%	
2	Shelter building materials	37%	
3	None	18%	

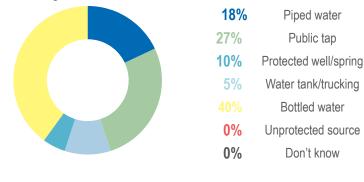
Top 3 most needed Non-Food Items (NFIs):11

0	Cooking utensils/kitchen set;	55%	
2	Bedding items (bedsheets, pillows);	44%	
3	Mattresses/Sleeping mats	27%	

Water, Sanitation and Hygiene

Access to Water

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



94%

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

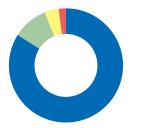
INDONESIA

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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):



84%	Water source located on site
10%	Less than 10 minutes
	10–20 minutes
1%	More than 20 minutes
1%	Don't know

Hygiene practices

% of households by location used for hand washing:



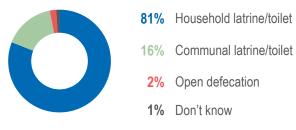
66% Pouring device/sink faucet Basin/bucket 27% No device Don't know ٥%

92% of households have water available for hand washing

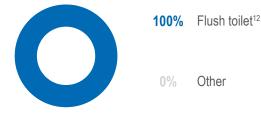
69% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:



% of households using a household or communal latrine/toilet, by type of latrine/toilet:



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

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

12. "Flush toilets" includes both toilets where a lever automatically makes the toilet flush and the practice of dumping water town the toilet to cause it to flush manually.



15



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Palu City

There is an average of **16** households reported to be sharing each communal latrine¹³

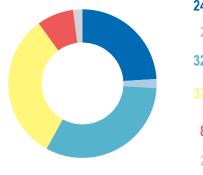
Communal latrine conditions



- 7% of households with communal toilets reported that there are separate toilets for men and women
- 78% of households with communal toilets reported their toilet is not inside the household and has locks on the doors

Waste disposal

% of households by reported main method of garbage disposal



- 24% Bin in household / street
- 2% Bury garbage
- **32%** Burn garbage

Open area designated for waste

- 8% Open area not designated for waste
 - % Other

% of households reporting how often garbage is collected from their area of residence:



39% Daily

35% Weekly

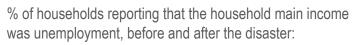
- 2% More than 1x per week
- **21%** Service not available
- 2% Don't know
- 1% Other

🔨 Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:¹⁴

Before Disaster			January 2019		
30%	Small business owner	0	Small business owner	29%	
13%	Service industry	2	Government job	12%	
13%	Government job	3	Unemployed	11%	





Main reported barriers to finding work:14

The recent disaster destroyed previous business/job opportunities	57%	
Increased competition for jobs	11%	
Available jobs are too far away	8%	

There is an average reported loss of **10%** of household income due to the disaster¹⁵

Food Security

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

 Food Consumption Score¹⁶
 average rCSI score¹⁷

 94%
 Acceptable

 6%
 Borderline

 0%
 Poor

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

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

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15. 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.

16. 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).

17. 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).

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16



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INDONESIA

February 2019



KlasNas PP Multi-Sector Needs Assessment KEMENTERIAN SOSIAL Central Sulawesi Province

Palu City

% of households per main reported source of food in week prior to data collection: $^{\mbox{\tiny 18}}$

91%

3%

Food assistance (government)

Gift from family or friends)

Purchased with own cash

2%

Education

Student attendance



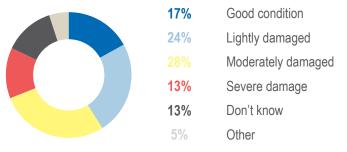
of households with children reported having schoolaged children who were not attending school following the disaster

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



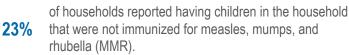
Condition of school facilities

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



🕈 Health

Immunization



Illness and injury

17

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

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:¹⁹



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	76%	
Don't know	6%	•
Cost of medicine/treatment too high	5%	

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

0	None	45%	
2	Get regular medications	36%	
3	Treat health problems	29%	
1. 2 .	Priority Needs	S	
Top 3	most important priority nee	ds as re	eported by households:20
0	Food 76	%	

~	-	_	
3	Water	27%	
2	Kitchen ware	36%	
U	FUUU	10%	

Communication with Communities

Information Needs

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% of households by the type of information that the household reported needing the most: 18



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

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

 $\dot{20.}$ Respondents could select up to three responses; therefore results may exceed 100%; only the top three choices are shown.

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Palu City

February 2019



% of households by most preferred source from which they would like to receive new information:21

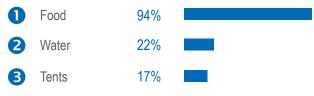
Face-to-face communication (e.g. from friends)	64%	
Television	20%	
Social media	9%	

Humanitarian assistance

28%

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:22



% of households by most common reported source of aid:23

Government distribution	59%	
Friends and family	12%	
NGO distribution	12%	

of households reported that they were happy with 72% the aid that they had received in the 30 days prior to data collection

Main reported reasons households were not satisfied by the aid received in the last 30 days:23

Quantity not enough	80%	
Aid received is not useful	5%	•
Other	5%	•

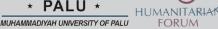
21. Single-choice question; only the top three responses are shown.

22. Respondents could select multiple responses; only the top three choices are shown. 23. Single-choice question; only the top three responses are shown.













February 2019

SULAWESI ENGAN

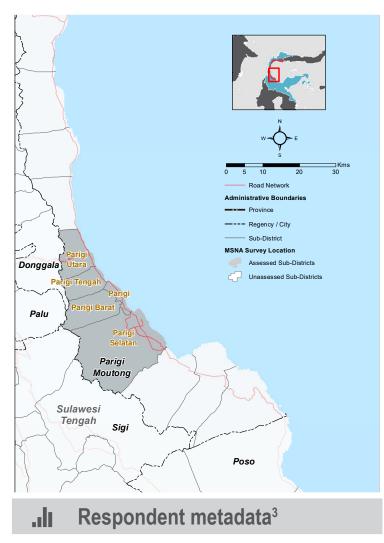
Parigi Moutong Regency

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 572 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 5% margin of error.



- **572** Total households interviewed
- **43** Average age of respondent in years
- 35% of respondents were female



Household composition by gender and age



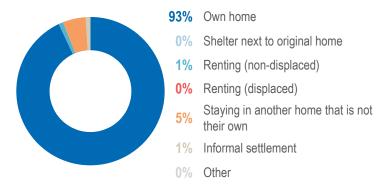
There was an average of 4 individuals reported per household

Head of Household

5%	of heads of households were female	
8%	of heads of households were elderly	
44	average age of the head of household in years	
Dependency ratio⁴		

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

% of households by current living location:5



1. Central Sulawesi Earthquake & Tsunami, Humanitarian Country Team Situation Report #10, 10 December 2018.

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 desalevel 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.

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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





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Parigi Moutong Regency

INDONESIA

February 2019

Displacement and Protection ×→ ₩

Displaced population⁵



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
 - Within 2km 0%
 - Between 2km-5km 0%
 - More than 5km or Don't 0% know

Non-displaced population⁵

of non-displaced households were hosting at least one 2% displaced household to stay 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 1.4 to hosting household size for non-displaced households hosting IDPs⁶

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	100%
Move to a new location	0%
Denit know	0%
Don't know	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:8

0	NA	0%
2	NA	0%
3	NA	0%

Protection of Women's Needs of households contained at least one pregnant or 9%

lactating woman

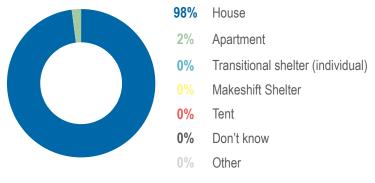
for every child

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.

Ġ. Ń	Disabilities, Elderly, Minorities	
0%	of households contained at least one member with a self-reported physical or mental disability	
ŤŤ	Child Protection	
1%	of households contained at least one child that was separated from their usual caregiver	
-	Psychosocial Support	
28%	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:



of households reported that their original shelter was either 24% destroyed or damaged by the disaster

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



33% Household owns the land 52% Written agreement (still valid) Written agreement (expired) 15% Verbal/no agreement9 0% Don't know



UNIVERSITAS MUHAMMADIYAH

* PALU * MUHAMMADIYAH UNIVERSITY OF PALU of households reported that they were at risk of being forced to leave where they were staying at the time of data collection

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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.

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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 a specific household owns many plots of land, and other households are permitted to live on it without any formal agreement.







Parigi Moutong Regency

Top 3 reported reasons households were at risk of being forced to leave their shelters at the time of data collection:10

0	NA	0%
2	NA	0%
3	NA	0%

of households reported having lost the ownership 1% documents for their original shelter before the disaster

Preferred Shelter Assistance



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:11



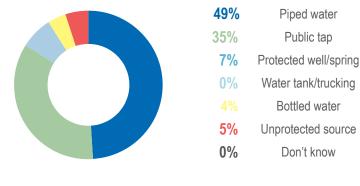
Water, Sanitation and Hygiene

32%

Access to Water

Mattresses/Sleeping mats

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





95%

of households reported drinking water that had been treated and was safe to drink of households reported having enough water to

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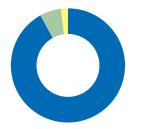
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96%

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):



92%	Water source located on site
6%	Less than 10 minutes
	10–20 minutes
0%	More than 20 minutes
0%	Don't know

Hygiene practices

% of households by location



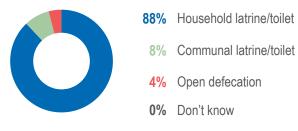
i used for hand washing:		
73%	Pouring device/sink faucet	
24%	Basin/bucket	
3%	No device	
0%	Don't know	

97% of households have water available for hand washing

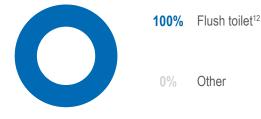
52% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:



% of households using a household or communal latrine/toilet, by type of latrine/toilet:



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

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

12. "Flush toilets" includes both toilets where a lever automatically makes the toilet flush and the practice of dumping water town the toilet to cause it to flush manually.











Parigi Moutong Regency

There is an average of **7** households reported to be sharing each communal latrine¹³

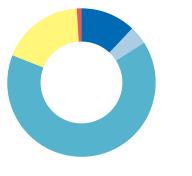
Communal latrine conditions



- of households with communal toilets reported that there 3% are separate toilets for men and women
- of households with communal toilets reported their toilet is 78% not inside the household and has locks on the doors

Waste disposal

% of households by reported main method of garbage disposal



- **12%** Bin in household / street
- Bury garbage 4%
- 65% Burn garbage

Open area designated for waste

- Open area not designated 1% for waste
- 0% Other

% of households reporting how often garbage is collected from their area of residence:



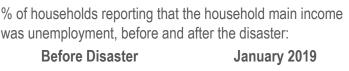
- 24% Daily
- Weekly 31%
 - More than 1x per week
- 44% Service not available
- Don't know 0%
- 0% Other

Sy Economy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:14

Before Disaster		January 2019		
50%	Agricultural	0	Agricultural	50%
18%	Small business owner	2	Small business owner	18%
9%	Government job	3	Government job	9%



1%	are unemployed	1%

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

Main reported barriers to finding work:14

Disaster destroyed cultivation land for planting	42%	
Underqualified for available jobs	31%	
Available jobs are too far away	13%	

There is an average reported loss of **0%** of household income due to the disaster¹⁵

Food Security

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

Food Consumption Score¹⁶

average rCSI score¹⁷



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

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

15. 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.

16. 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).

17. 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).







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KlasNas PP Multi-Sector Needs Assessment KEMENTERIAN SOSIAL Central Sulawesi Province

Parigi Moutong Regency

% of households per main reported source of food in week prior to data collection: $^{\mbox{\tiny 18}}$

 Purchased with own cash
 99%

 Purchased with cash assistance
 1%

 Don't know
 0%

Education

Student attendance



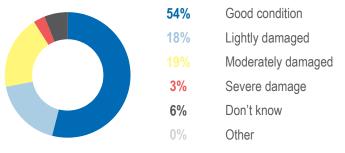
of households with children reported having schoolaged children who were not attending school following the disaster

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



Condition of school facilities

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



🕈 Health

Immunization

of households reported having children in the householdthat were not immunized for measles, mumps, and rhubella (MMR).

Illness and injury

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

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:¹⁹



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	80%	
Cost of medicine/treatment too high	12%	-
No medicine/treatment available	3%	i

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

0	Treat health problems	56%		
2	Get regular medications	48%		
3	None	28%		
1.2.3 Priority Needs				

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

1	Food	52%	
2	Medical care	32%	
3	Water	31%	

Communication with Communities

Information Needs

Î

% of households by the type of information that the household reported needing the most: $^{\rm 18}$



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

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

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

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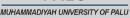
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% of households by most preferred source from which they would like to receive new information: 21

Face-to-face communication
(e.g. from friends)58%Television40%Social media2%

Humanitarian assistance

2%

57%

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:²²

1	Food	93%	
2	Education	18%	
B	Health	12%	

% of households by most common reported source of aid:²³

Government distribution	42%	
PMI (Indonesian Red Cross)	27%	
NGO distribution	13%	

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

Main reported reasons households were not satisfied by the aid received in the last 30 days:²³

Quantity not enough	100%
Poor quality	0%
Delays in aid delivery	0%

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

Respondents could select multiple responses; only the top three choices are shown.
 Single-choice question; only the top three responses are shown.



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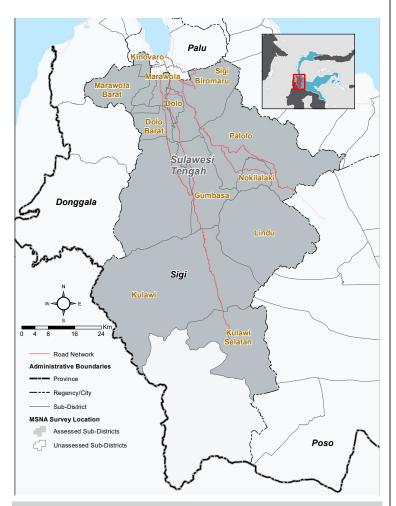
Sigi Regency

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 1587 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 5% margin of error.



лh Respondent metadata³

- 1587 Total households interviewed
- 43 Average age of respondent in years
- 45% of respondents were female



Household composition by gender and age



There was an average of 4 individuals reported per household

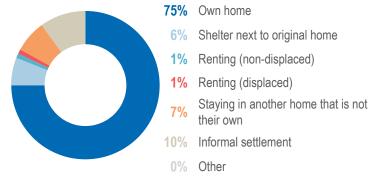
Head of Household

7%	of heads of households were female	
13%	of heads of households were elderly	
46	average age of the head of household in years	
nondenov rotio4		

Dependency ratio⁴

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

% of households by current living location:5



1. Central Sulawesi Earthquake & Tsunami, Humanitarian Country Team Situation Report #10, 10 December 2018

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 desalevel 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



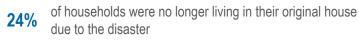




Sigi Regency

Displacement and Protection ×→ ₩

Displaced population⁵



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



- 51% Nearby/on site
- Within 2km 26%
- Between 2km-5km 9%
- More than 5km or Don't 14% know

Non-displaced population⁵

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

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

average dependency ratio of displaced household size 0.7 to hosting household size for non-displaced households hosting IDPs⁶

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	88%	
Move into the Government Transitional Shelter	6%	•
Don't know	3%	1 - C

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



Protection of Women's Needs

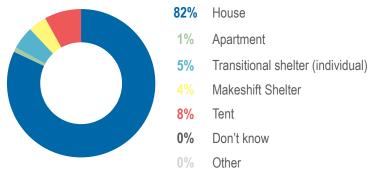
of households contained at least one pregnant or lactating woman

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.

Ġ. Ń	Disabilities, Elderly, Minorities
3%	of households contained at least one member with a self-reported physical or mental disability
Ť Ť	Child Protection
3%	of households contained at least one child that was separated from their usual caregiver
-	Psychosocial Support
53%	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:



of households reported that their original shelter was either 71% 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 6% Written agreement (still valid) Written agreement (expired) 48% Verbal/no agreement9 1% Don't know



UNIVERSITAS MUHAMMADIYAH

* PALU * MUHAMMADIYAH UNIVERSITY OF PALU of households reported that they were at risk of being forced to leave where they were staying at the time of data collection

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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.

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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 a specific household owns many plots of land, and other households are permitted to live on it without any formal agreement.



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26

15%



Sigi Regency

Top 3 reported reasons households were at risk of being forced to leave their shelters at the time of data collection:10

0	Other	46%	
2	Request from owner of land	34%	
3	Request from authorities	31%	

of households reported having lost the ownership 6% documents for their original shelter before the disaster

Preferred Shelter Assistance



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

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:11

0	Assistance to build/repair shelter	60%	
2	Shelter building materials	54%	
3	None	14%	

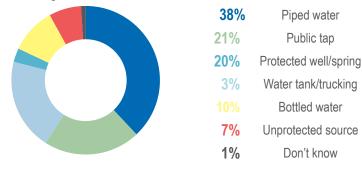
Top 3 most needed Non-Food Items (NFIs):11

0	Cooking utensils/kitchen set;	67%	
2	Bedding items (bedsheets, pillows);	53%	
3	Mattresses/Sleeping mats	42%	

Water, Sanitation and Hygiene

Access to Water

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



96%

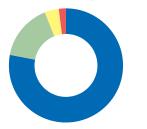
of households reported drinking water that had been treated and was safe to drink

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89%

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):



78%	Water source located on site
16%	Less than 10 minutes
	10–20 minutes
2%	More than 20 minutes
0%	Don't know

Hygiene practices

% of households by location



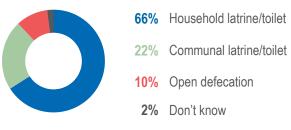
n useo	d for hand washing:
50%	Pouring device/sink faucet
37%	Basin/bucket
13%	No device
0%	Don't know

94% of households have water available for hand washing

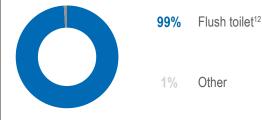
66% of households have soap available for hand washing

Sanitation conditions

% of households by most common defecation practice:



% of households using a household or communal latrine/toilet, by type of latrine/toilet:



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

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

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12. "Flush toilets" includes both toilets where a lever automatically makes the toilet flush and the practice of dumping water town the toilet to cause it to flush manually.





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Sigi Regency

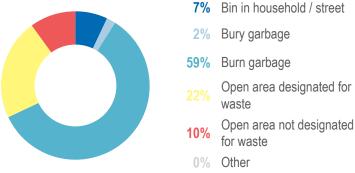
There is an average of **11** households reported to be sharing each communal latrine¹³

Communal latrine conditions

- of households with communal latrines reported their toilet 81% had adequate lighting
- of households with communal toilets reported that there 4% are separate toilets for men and women
- of households with communal toilets reported their toilet is 71% not inside the household and has locks on the doors

Waste disposal

% of households by reported main method of garbage disposal



% of households reporting how often garbage is collected from their area of residence:



- 40% Daily
- Weekly 12%
 - More than 1x per week
- Service not available 45%
- Don't know 2%
- 0% Other

Economy Sy

Occupation and employment

Main occupation of the household reported by households before the disaster and in the last month:14

Before Disaster		January 2019		
58%	Agricultural	0	Agricultural	52%
7%	Construction	2	Unemployed	10%
6%	Small business owner	3	Construction	7%

% of households reporting that the household main income was unemployment, before and after the disaster:

	Before Disaster	January 2019
3%	are unemployed	10%
17%	of households had at least one wo member that is not working	rking-age household

Main reported barriers to finding work:¹⁴

The recent disaster destroyed previous business/job opportunities	26%	
Disaster destroyed cultivation land for planting	23%	
Underqualified for available jobs	20%	

There is an average reported loss of **10%** of household income due to the disaster¹⁵

Chill **Food Security**

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



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

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

15. 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.

16. 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).

17. 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).





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Sigi Regency

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

88%

Purchased with own cash Own production (hunting,

fishing, farming)

5% 2%

Education

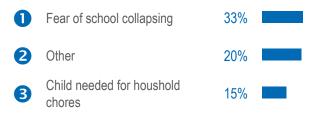
Food assistance (government)

Student attendance



of households with children reported having schoolaged 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



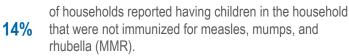
Condition of school facilities

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

13%	Good condition
31%	Lightly damaged
	Moderately damaged
20%	Severe damage
7%	Don't know
0%	Other

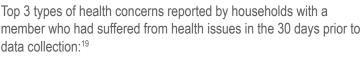
Health

Immunization



Illness and injury

of households reported that a member of the household 41% had suffered from a health issue (illness or injury) in the 30 days prior to data collection





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	85%	
Cost of medicine/treatment too high	7%	•
No information where health facilities are	2%	i

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

0	Get regular medications	42%	
2	None	40%	
B	Treat health problems	34%	
1.2.3 Priority Needs			
	-		

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

1	Food	83%	
2	Kitchen ware	44%	
3	Shelter support	35%	

Communication with Communities

Information Needs

Î

% of households by the type of information that the household reported needing the most:18



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

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

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







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February 2019



% of households by most preferred source from which they would like to receive new information: 21

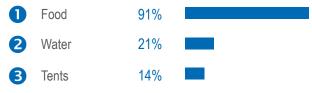
Face-to-face communication (e.g. from friends)	76%	
Television	16%	
Social media	4%	1 C

Humanitarian assistance

38%

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:²²



% of households by most common reported source of aid:²³

Government distribution	40%	
NGO distribution	30%	
Private Company	10%	

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

Main reported reasons households were not satisfied by the aid received in the last 30 days:²³

Quantity not enough	87%	
Aid received is not useful	5%	•
Other	5%	•

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

Respondents could select multiple responses; only the top three choices are shown.
 Single-choice question; only the top three responses are shown.





