Philippines Shelter Cluster
ShelterCluster.org
Coordinating Humanitarian Shelter

WASH Cluster
Water Sanitation Hygiene

SHELTER AND WASH RESPONSE MONITORING

TYPHOON HAIYAN, PHILIPPINES, 2013

Final Report

22 April 2014

CONTENTS

REACH Informing more effective humanitarian action

REACH is an interagency program of IMPACT Initiatives, ACTED and UNOSAT. Since 2011 REACH has formalized a partnership with the Global Shelter Cluster (GSC) to support the strengthening of its coordination and planning capacity. Dedicated REACH teams (including assessment, database and mapping experts) are available to be rapidly deployed to the field in the emergencies in order to facilitate interagency assessments and mapping activities on behalf of the shelter cluster. Resulting information products are used to enable better planning and coordination by the cluster, and are widely disseminated. For more information, see: www.reach-initiative.org. You can write to us directly at geneva@reach-initiative.org and follow us @REACH-info.

Global WASH Cluster Rapid Assessment Team (RAT)

The global WASH Cluster Rapid Assessment Team (RAT) is a consortium of active WASH agencies (CARE, IFRC and OXFAM) which deploys in the early stages of major emergencies or crises, to provide a rapid assessment of WASH needs to all stakeholders - See more at: http://www.washcluster.info

ACRONYMS AND ABBREVIATIONS

3Ws	Who, What, Where (matrix summarising which actors is undertaking what type of interventions in each geographical area affected by the emergency and targeted for the relief response)
4Ps	Pantawid Pamilyang Pilipino Program
CGI	Corrugated Galvanised Iron
DRR	Disaster Risk Reduction
DSWD	Department for Social Welfare and Development
GSC	Global Shelter Cluster
HDPE	High Density Polyethylene
HLP	Housing Land and Property Rights
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organisation for Migration
LGU	Local Government Unit
MDPE	Medium Density Polyethylene
ODK	Open Data Kit
PARR	Presidential Assistant for Recovery and Rehabilitation
PRC	Philippines Red Cross
PVC	Polyvinyl Chloride
RAT	WASH Rapid Assessment Team
WASH	Water, Sanitation and Hygiene
YRRP	Yolanda Rehabilitation and Recovery Plan

GEOGRAPHIC CLASSIFICATIONS

Region:	Highest form of governance below the national level
Province:	Second highest form of governance comprised of multiple municipalities
Municipality:	A collection of barangays that comprise a broader 'city'
Barangay:	An area formed of 10,000 voters; the lowest administrative boundary
Sitio / Purok:	Neighbourhood or area that is informal and not classified for administrative purposes

FIGURES, TABLES AND MAPS

SUMMARY

At 10:00 on 6 November 2013, Typhoon Haiyan (named Yolanda locally) entered the Philippines Area of Responsibility (PAR). The Typhoon intensified as it entered the Eastern Visayas region, first making landfall over Guiuan, Eastern Samar province, on 8 November, at 04:40. By 08:00 on 8 November the typhoon had made landfall six times across the Central Philippines and continued to weaken over the West Philippine Sea. Typhoon Yolanda left the PAR on 9 November at 15:30.

This assessment was conducted as a follow-up monitoring exercise to the initial shelter and WASH needs assessment conducted in December 2013. The purpose was to determine the extent of shelter and WASH assistance, namely what has been provided to beneficiaries and to assess whether there are people that have not received assistance. With a focus on measuring recovery trends, the assessment aims to understand whether households are building back better and to understand beneficiary satisfaction with assistance received and awareness of recovery practices. The assessment is also intended to inform identification and targeting of key vulnerable groups.

The assessment was conducted by REACH as part of its partnership with the Global Shelter Cluster. In the Philippines, the shelter cluster is led by the Department of Social Welfare and Development (DSWD) and supported by the International Federation of the Red Cross and Red Crescent Societies (IFRC) and the International Organisation for Migration (IOM) as cluster leads. The WASH Cluster Rapid Assessment Team (RAT) provided the assessment with technical and logistical support both remotely and directly in the field in collaboration with the Shelter Cluster.

For shelter, the findings from the monitoring assessment show that the initial emergency response provided households in the most affected areas with seemingly adequate amounts of emergency shelter. Four months after the typhoon, however, the shift to recovery support is lagging behind, most notably in the areas hardest hit – Eastern Samar, Samar and Leyte and many urban centres. Furthermore, while assisted households do acknowledge receiving information about building back safer principles, the extent to which these principles are being used remains a large gap. There appears to be a missed opportunity to ensure safe reconstruction in many of the affected areas, but an opportunity that can be regained moving forward with further focus on training communities on building back safer methods.

For WASH, initial emergency support for water purification seems to have a reached a large majority of the affected population. Despite this success, however, the health status in some of the hardest hit areas – namely Eastern Samar – have declined in the four months since the typhoon. While family hygiene kits have reached a large proportion of the households, key messages are still unknown by large sections of the population. The recovery and reconstruction phases represent a good opportunity to fill historical gaps in water and sanitation by planning future WASH programmes with a building back safer vision.

These results can directly inform a midterm review of the Strategic Response Plan (SRP) by providing actors with clear gaps in recovery assistance and priority geographic areas on which to focus. Having met the SRP objectives for emergency shelter provision, the sector has the opportunity to shift focus to achieve the recovery objectives in the same plan. With an affected population that cites better housing as a priority for the future, there is a clear opportunity for shelter sector actors to focus on areas in which self-recovery has stagnated and the current use of building back safer methods are lowest and proving ineffective.

INTRODUCTION

At 10:00 on 6 November 2013, Typhoon Haiyan (named Yolanda locally) entered the Philippines Area of Responsibility (PAR). The Typhoon intensified as it entered the Eastern Visayas region, first making landfall over Guiuan, Eastern Samar province, on 8 November, at 04:40. By 08:00 on 8 November the typhoon had made landfall six times across the Central Philippines and continued to weaken over the West Philippine Sea. Typhoon Yolanda left the PAR on 9 November at 15:30.

A total of 9,073,804 individuals, across 9,303 barangays, in 536 municipalities across the Central Philippines were identified by the Government of the Philippines as having been affected by Typhoon Yolanda. Of the affected population, a total of 1,910,547 individuals were displaced by Yolanda; with 422,290 people displaced to formal evacuation centres, and 1,488,257 to other locations. As of 5 March 2014, the Department for Social Welfare and Development (DSWD) reports 918,261 families still displaced, based on Disaster Response Operations Monitoring and Information Centre (DROMIC) figures. DSWD also reports a total of 1,012,790 damaged houses in the affected area; 518,878 totally destroyed and 493,912 partially destroyed as of 5 March.

The overall objective of this assessment was to monitor the shelter and WASH sector responses to Typhoon Haiyan. Specifically, the assessment aimed at determining the extent of shelter and WASH assistance, informing targeting/prioritisation based on the identification of key vulnerabilities, assessing whether people are building back safer and to gather feedback from the affected population with regard to satisfaction with assistance received, awareness of entitlements, classification and prioritization of own needs. This information is critical for the humanitarian community and more specifically, the shelter and WASH sectors, to understand gaps in current assistance and progress in reference to the SRP.

The assessment was conducted by REACH as part of its partnership with the Global Shelter Cluster. In the Philippines, the shelter cluster is led by the Department of Social Welfare and Development (DSWD) and supported by the International Federation of the Red Cross and Red Crescent Societies (IFRC) and the International Organisation for Migration (IOM) as cluster leads. The WASH Cluster Rapid Assessment Team (RAT) provided the assessment with technical and logistical support both remotely and directly in the field in collaboration with the Shelter Cluster.

The assessment report is organised into clear sections intended to guide the reader through the most important information. They key section include: (1) methodology; (2) demographic overview of the assessed population; (3) shelter sector findings; (4) WASH sector findings; (5) conclusions; and (6) recommendations.

METHODOLOGY

This section describes the methodology that was developed and implemented for the shelter and WASH sector response monitoring assessment. The assessment methodology below outlines (a) the multi-stage sampling strategy designed specifically and used for the assessment, including final sample size by municipality; (b) the data collection process, including an overview of data collection methods and tools; and (c) the representativeness and limitations of the data collected.

MULTI-STAGE SAMPLING STRATEGY

This assessment focused on the priority areas located within 50km from the storm path. Provinces with municipalities within this proximity range were chosen and municipalities within each targeted province were then selected based on specific classifications outline below. A proportional number of households were then randomly assessed within each municipality. In order to give a complete picture of the current response context in the affected regions in the aftermath of Typhoon Haiyan, REACH utilised a multi-stage cluster sampling methodology, which is briefly outlined below.

This sampling methodology was chosen in order to avoid sampling bias and to provide the Shelter and WASH Clusters, and other humanitarian actors responding to the crisis, with a complete and representative picture of the situation in the priority response areas. A number of secondary sources, including government reports, cluster Who, What, Where matrices (3Ws) and the results of the initial Shelter and WASH Cluster assessment were used to better understand the current situation in the affected areas in relation to the period immediately after the typhoon and the reported response trends. These data along with the requirements of each cluster and the priorities of the government through the Yolanda Rehabilitation and Recovery Plan (YRRP) informed the sample for assessment.

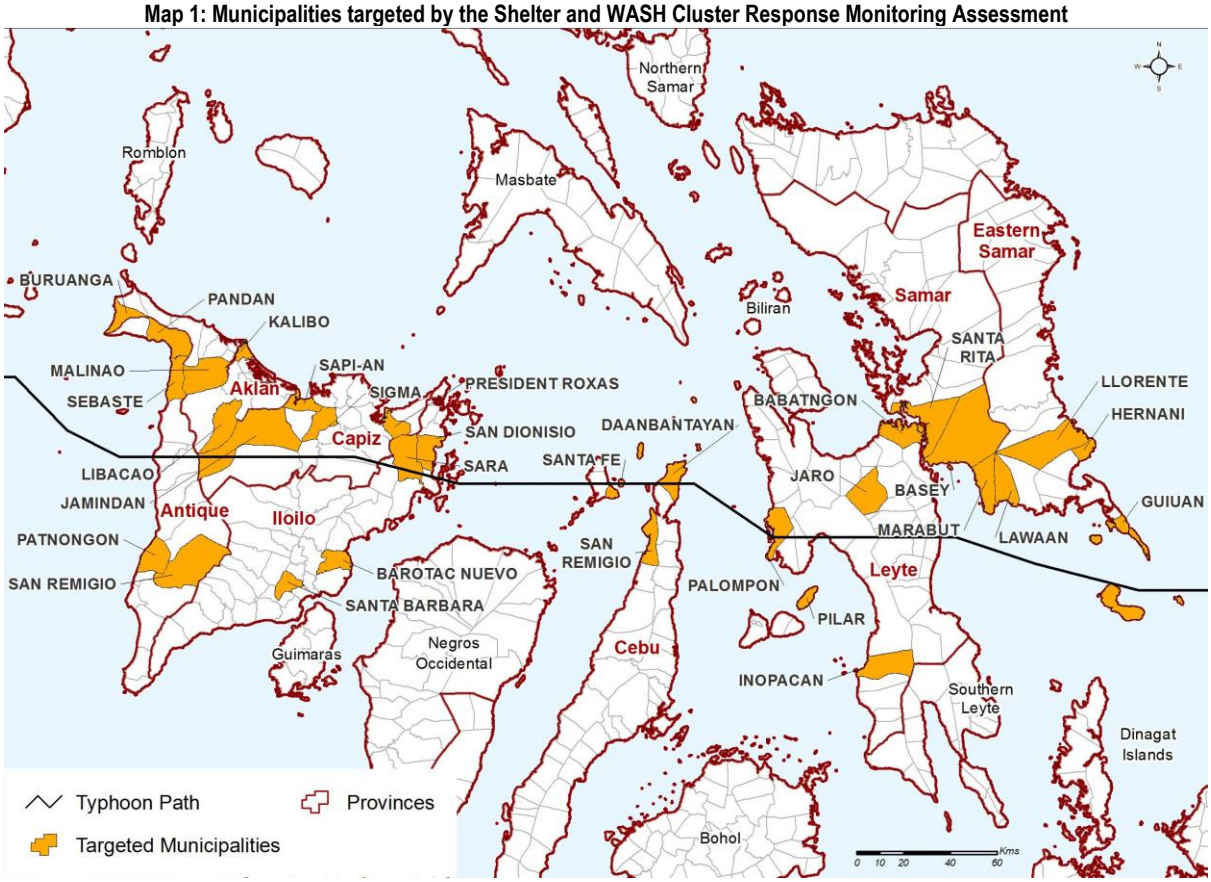
SELECTION OF PROVINCES FOR ASSESSMENT

Provinces were selected based on their proximity to the storm path according to the priority range set forth by the government. Only those provinces with municipalities within 50km of the storm path were eligible for selection for the assessment. All results are representative to the provincial level.

SELECTION OF MUNICIPALITIES WITHIN PROVINCES

Four municipalities per province were selected ensuring equal representation across the sample based on the following classifications: coastal, inland, and north/south of the storm track.

Map 1: Municipalities targeted by the Shelter and WASH Cluster Response Monitoring Assessment



SELECTION OF BARANGAYS WITHIN MUNICIPALITIES

Five barangays per municipality were randomly selected, weighted based on population size and selected for assessment. Barangays were categorised into high, medium, and low population cohorts. Barangays in the high category were three times more likely to be selected during the random sample than those categorised as low population to ensure proportional population representation within the sample. Urban and rural classifications were assigned to each barangay allowing for analysis within these categories with the sample somewhat biased toward rural barangays, due to more barangays being rural.

SELECTION OF HOUSEHOLDS WITHIN BARANGAYS

In each of the targeted barangays, enumerators randomly selected households for assessment. Households were assessed in each barangay until the target sample size for the municipality had been reached. Households were selected by enumerators through a randomised field walk, assessing one household out of every three in the geographical location they were assigned. The target number for this assessment was 3300 households, based on a maximum sample of 400 households in each province.

Based on an assumption that approximately 20 per cent of households may not be present at the time of assessment due to displacement or daily activities away from the house, field teams were instructed to oversample from each barangay, if necessary, to ensure that a representative sample size of present households was reached at the provincial level. This proved to be unnecessary, as only 148 shelters assessed across the sample contained no household members.

Table 1 below provides a list of the eight provinces selected for assessment and the representative sample size. All municipalities, except Pilar[1], that were initially targeted for assessment were assessed.

Table 1: Sampled locations (target municipality, target small size, assessed households)

Province	Municipality	Target sample size	Assessed Households
Eastern Samar	Lawaan	100	120
	Hernani	100	112
	Llorente	100	112
	Guiuan	100	112
Samar	Basey	134	145
	Santa Rita	134	144
	Marabut	132	136
Leyte	Jaro	100	101
	Palompon	100	105
	Babtngon	100	116
	Inopacan	100	115
Cebu	Santa Fe	100	100
	Daanbantaya	100	100
	San Remigio	100	110
Iloilo	Sara	100	132
	Santa Barbara	100	140
	San Dionisio	100	120
	Barotac Nuevo	100	107
Capiz	Sigma	100	107
	Jamindan	100	128
	Sapi-An	100	123
	President Roxas	100	105
Aklan	Libacao	100	122
	Malinao	100	121
	Buruanga	100	97
	Kalibo (Capital)	100	100
Antique	San Remigio	100	126
	Sebaste	100	124
	Pandan	100	126
	Patnongon	100	117
	Total	**3300**	**3525**

DATA REPRESENTATIVENESS, EXTRAPOLATION AND LIMITATIONS

The combination of stratified, cluster, and random sampling methods ensures equal representation of relevant categories of administrative units and households while avoiding sampling bias at each level. Thus, the dataset provides the Shelter Cluster, WASH Cluster and other humanitarian actors responding to the crisis with a complete and representative picture of response trends. The methodology used in this assessment is representative at the provincial level within the 50 kilometre storm path with a 95 per cent confidence interval and 5 per cent margin of error.

[1] Pilar was not able to be assessed due to weather and accessibility issues at the time of the assessment.

The methodology was designed for the extrapolation of findings at the provincial level along with specific categories (e.g. urban/rural, north/south of storm track, coastal/inland) across the priority area of 50 kilometres from the storm path. Therefore, findings for the households in a given category can be considered indicative of the situation in households that are also members of that category within 50 kilometres of the storm path.

Due to weather and accessibility issues during the time of the assessment, the island municipality of Pilar was not assessed. This presents a limitation in the ability to provide a fully representative sample for the areas of Cebu province within 50 kilometres of the storm path. While this limitation is minor, the results for Cebu province should be viewed accordingly.

GEOGRAPHIC INFORMATION SYSTEMS AND MAPPING

Maps were critical in training the enumerators and conducting the field assessments. Each team was given a set of maps for the targeted municipality for each day's data collection with target areas and sample sizes highlighted as guidance.

MIXED-METHOD DATA COLLECTION

The shelter and WASH response monitoring assessment included three components of data collection and analysis: (a) review of secondary data made available by national and regional government bodies and humanitarian agencies; (b) household level assessments; (c) Geographic Information Systems (GIS) and mapping of selected collected and analysed data.

SECONDARY DATA REVIEW

The assessment team reviewed data on the impact of the typhoon made available by DSWD, NDRRMC and a range of other national and international sources. Additionally, the initial Shelter and WASH rapid assessment and cluster 3Ws were used. These secondary sources were used to inform analysis of the response and the design of the data collection tools presented below. The secondary data was also used during the data analysis phase to triangulate and contextualize data collected by enumerators in the field.

HOUSEHOLD ASSESSMENTS

The primary method of data collection was a representative random sample of individual households. The assessment tool, designed by REACH in close collaboration with the Global Shelter Cluster and WASH RAT teams, was built to contain a combination of enumerator observations (particularly regarding shelter damage in order to ensure standardisation of categorisations) and responses from the households themselves. In cases where the household was not present at the time of the assessment, the household's shelter itself was assessed based only on enumerator observations regarding the extent of the damage sustained.

The household assessment tool was designed primarily to collect detailed shelter data to compare to initial findings, assistance trends and vulnerable populations. Core indicators covering early recovery, protection/housing land and property, and water sanitation and hygiene were integrated following consultation with the Shelter and WASH Clusters.

Household assessments were conducted using an assessment tool built on the Android smartphone based Open Data Kit (ODK) platform which significantly improves data quality as a result of: (a) reducing human error as a result of loss of forms, data collection mistakes, and data entry mistakes thus improving the accuracy of collected data; (b) increasing the speed at which mapping products and analytical reports can be produced through reducing data cleaning time and removing the time for data entry; and (c) ensuring the protection of data as a result of completed forms being removed from the data collection tool upon upload to the centralised database.

Data collected by enumerators were subsequently validated by the team leader before being uploaded to the central database, after which a final data quality check was conducted by the GIS/Database Manager.

DEMOGRAPHIC OVERVIEW AND SOCIAL VULNERABILITY

SEX AND AGE DISAGGREGATED HOUSEHOLD DATA

Field assessment teams assessed a total number of 3525 houses (3377 of which had household members present) across the eight targeted municipalities. The average household size was 5.2 individuals, a marked decrease from the average assessed during the first assessment of 6.4 individuals. This is likely due to individual families moving out of host family situations into separate houses. When looking at average household size per province, there is some variability. Eastern Samar is at the upper end reporting an average household size of 5.6 people and Iloilo at the lower end with 4.8 individuals. This difference could be due to damage and self-recovery levels in the respective provinces, suggesting that more damaged houses with slower self-recovery would lead to more individuals per household.

The gender breakdown remained that same as the first assessment at 51 per cent male and 49 per cent female. The 19-30 age group was the largest population cohort, making up 28 per cent of the total assessed population; similar to the proportion from the first assessment. Interestingly, the combined cohorts for individuals under 19 years old bring the proportion of children to 45 per cent of the assessed population, close to the pre-typhoon percentage of 41 per cent for children under 18 years of age. This represents a six per cent difference from the first assessment (39 per cent), possibly suggesting a return of children to the most affected area following the initial phases of recovery.

SOCIAL VULNERABILITY AMONG THE ASSESSED HOUSEHOLDS

Following the initial Shelter and WASH rapid assessment, the Shelter Cluster in the Philippines has identified categories of households particularly vulnerable during emergencies and which should be prioritised in the shelter sector response as they may face particular difficulties accessing relief and recovery assistance, notably when rebuilding their homes. These categories include:

1. **Pre-existing vulnerabilities**: poor households with persons with reduced mobility, pregnant and lactating women, women/single/children/older persons/heads of large households, households with person/child with disability family members, indigenous persons, etc. This also includes people with new or exacerbated hardship due to the impact of the typhoon.
2. **Level of destruction**: poor households living in an unsafe structure or an uninhabitable house due to impact of the typhoon.
3. **Land and property tenure**: households that have lost legal title or those who never had it.
4. **Recovery capacity**: poor households with low self-recovery capacity (including loss of livelihoods), and those that compared to the community situation haven't been able to rebuild a safe shelter.

5. **Relocation**: households at risk of relocation due to 'no-dwelling' zoning.
6. **Access to shelter materials**: households in rural areas with low access to materials.
7. **Displacement**: poor households that are displaced and settled informally.
8. **Host families** who are supporting other families, but have limited means.

The Shelter Cluster recommends the application of these categories of vulnerable households in all its strategies for responding to disasters in the Philippines with the aim to ensure equal, safe and dignified access to assistance, and to provide specialist support, as required.

The following categories of vulnerable households have been used in order to understand vulnerabilities that may have limited household access to assistance thus far and that will require additional efforts and prioritisation.

Social vulnerability and individuals with special needs include households with members in the following categories: (a) single headed households, and in particular women-headed households; (b) child headed households; (c) disabled or chronic illness; (d) older persons (above age 60); (e) pregnant or lactating women; (f) indigenous populations; (g) vulnerable children (orphaned or unaccompanied); (h) very large families (8+); and (i) 4Ps beneficiaries.

Table 2: Social Vulnerabilities, Initial Assessment and Monitoring

Vulnerability[i]	Initial Assessment	Response Monitoring Assessment
Single-headed households	**48%**	**43%**
Child-headed households	1%	0%
Disabled or chronic illness	36%	27%
Older persons (above 60)	28%	23%
Pregnant or lactating women	16%	17%
Indigenous population	-	0.53%
Orphaned or unaccompanied chidren	7%	7%
Very large families (8+)	12%	7%
4P beneficiaries	29%	24%

[i] as reported by households

Across the eight assessed provinces, Eastern Samar, Samar and Leyte contain the largest proportion of individuals with social vulnerabilities and special needs. **Households in these three provinces combined are 1.7 times more likely to have an individual with special needs than the other five provinces assessed[2].** This is especially the case for the categories of older persons, large families and 4P beneficiaries, possibly a result of the higher impact from the typhoon, continued displacement and consolidation of households as well as pre-existing economic vulnerability.

[2] This result excludes single-headed households, child-headed households and indigenous populations. These categories remain unchanged from the previous assessment or did not yield results of interest.

GEOGRAPHIC OVERVIEW AND DISPLACEMENT CONTEXT

GEOGRAPHIC LOCATION OF ASSESSED HOUSEHOLDS

Households were classified according to specific criteria: urban/rural, north/south of the storm track and coastal/inland among provinces with municipalities within 50 kilometres of the storm path. Overall, 80 per cent of households within the sample were categorized as rural, while 20 per cent were urban. Seventy-four per cent of households were north of the storm track and 26 per cent were south of it. Sixty-nine per cent were categorised as coastal, while 31 per cent were located in non-coastal areas. Therefore, the majority of households in the 50 kilometre range affected area are located in rural areas along coastal areas north of the path in which the storm crossed the Philippines.

Overall, the assessment found that **91 per cent of households are still living inside a dwelling on the land they lived on previously and are not currently displaced**. Approximately four percent are living in either a formal or informal evacuation centre or camp. These figures are nearly identical to the initial needs assessment figures[3] and suggest that there has been very little change in the number of displaced households. One area of concern are the higher rates of households sleeping in informal evacuation centres in Aklan, Antique and Iloilo – between three and four per cent of households in these provinces (one per cent or less in all other provinces)

As for hosting, **while the overall proportion of seven per cent of households hosting other families in their house or on their property is the same as the initial needs assessment, these proportions are much higher in Samar, Eastern Samar and Cebu with 20, 30 and 14 per cent, respectively, of households reporting still hosting other families**. These higher proportions are likely due to the higher levels of destruction in Samar and Eastern Samar provinces. The rate of hosting is two times higher in urban areas than rural areas.

PHYSICAL VULNERABILITY OF ASSESSED HOUSEHOLDS

Physical vulnerability and displacement analysis includes households falling within the following categories: (a) living in a no-build zone; (b) renting or without secure tenure; (c) hosting other individuals; and (d) households living outside, in a camp or informal settlement.

Table 3: Physical Vulnerabilities, Initial Assessment and Monitoring

Vulnerability[i]	Initial Needs Assessment	Response Monitoring Assessment
Living in a no-dwelling zone	-	11%
Renting or without secure tenure	4% (rent only)	30%
Hosting other individuals	9%	7%
Living outside, in a camp or an informal settlement	7%	4%

[i] as reported by households

[3]https://www.sheltercluster.org/Asia/Philippines/Typhoon%20Haiyan%202013/Documents/Haiyan%20Typhoon%20Shelter-WASH_assessment_Final%20Report_validated_formatted.pdf

NO-BUILD ZONES

The Philippines Government Presidential Assistant for Recovery & Rehabilitation (PARR) issued guidance on 15 March 2014, for Local Government Units (LGUs) stating that the originally proposed 40 metre coastal buffer as "no-build zones" would need to be changed in order to allow for livelihoods and commerce in coastal areas. The new guidance tasks LGUs with the role of establishing "safe zones", "unsafe zones" and "no-dwelling zones" through the use of hazard risk mapping. Areas that are needed for livelihoods activities, but are considered "unsafe zones", would be categorized as "no-dwelling zones", meaning that no residential structures can be built there.

Looking at the results across provinces, Eastern Samar, Samar and Leyte show variability from the other provinces in many of the physical vulnerability and displacement categories. Specifically for households living in no-build zones, **households in Eastern Samar and Leyte are more than two times more likely to be located in a no-build zone with 20.4 per cent and 20.6 per cent, respectively, of households within the 50 kilometre storm path living in no-build zones**. Aklan and Capiz, however, show relatively low proportions with 2.4 per cent of households within the 50 kilometre storm path living in no-build zones.

TENURE SECURITY

Similar to the initial needs assessment, **over 30 percent of households have no formal security of tenure**. Fifty-three per cent of households own their house and plot with seven per cent owning their house, but renting their plot[4]. **The results do not differ greatly across provinces, except for the case of Capiz and Leyte where owning the house, but renting the plot is three times more commonly practiced than the other provinces**[5]. Leyte also stands out in that households own their house and occupy the plot on which it sits rent-free without the consent of the owner of the land nearly four times more often than the other provinces.

Land tenure trends in rural and urban settings are similar to the first assessment: 51 per cent in rural areas own their house and plot; 61 per cent in urban contexts. Thirty-one per cent of households in rural settings have the consent from the landlord to occupy their plot for free; this figure decreases to 17 per cent in urban settings.

Figure 1: Tenure Security, Rural and Urban

	Rural	Urban
Ancestral domain land	4%	6%
Own house and lot	51%	61%
Own house rent free with consent	31%	17%
Own house rent free without cons..	2%	3%
Own house rent lot	7%	7%
Rent free with consent	4%	4%
Rent free without consent	1%	1%
Rent house room including lot	1%	1%

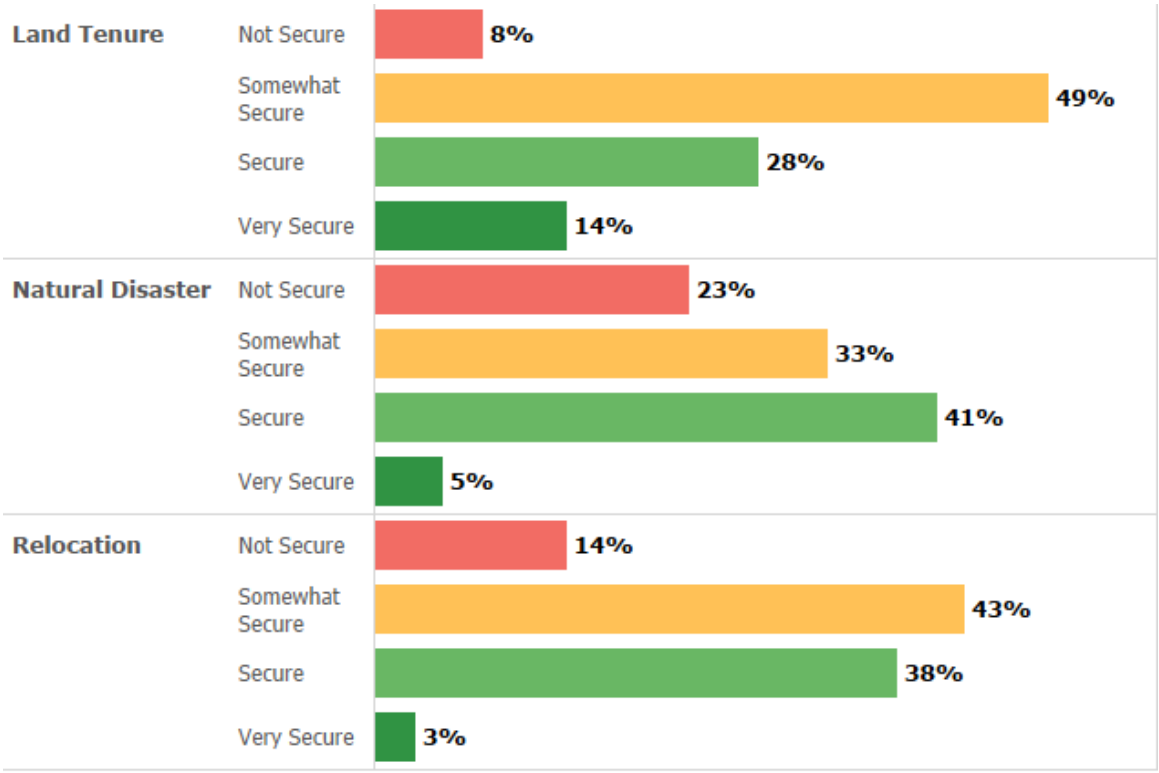
[4] Proof of documentation was not required and therefore this ownership statistic could contain data for both statutory and non-statutory ownership

[5] It is worth noting that consent by the landlord does not necessarily mean protection from eviction, and thus does not always provide security of tenure

Shelter assistance programs should consider Housing, Land and Property (HLP) issues by designing assistance packages that allow for a wider range of ownership statuses. Where possible, assisting families to have more secure land tenure should be included in recovery efforts by humanitarian agencies (*see Shelter Cluster Guidance Note on HLP*[6]).

As for household perceptions about: (a) land tenure; (b) relocation and (c) natural disasters, the majority feel somewhat secure or secure. The trend bulges to the not secure end, however, for natural disasters, suggesting continued feelings of anxiety about future disasters. Households living in no-build zones were nearly two times more likely to claim that they do not feel secure about relocation.

Figure 2: Perceptions



At the provincial level, households in Cebu, Eastern Samar, Leyte and Samar all claim very high rates of feeling very secure about their land tenure situation – three to four times that of the other provinces. This may be due to heightened awareness or education in these areas due to the higher levels of disaster impact and assistance flowing to these provinces. Trends for the other perception topics are the same as the overall figures above.

[6]https://www.sheltercluster.org/Asia/Philippines/Typhoon%20Haiyan%202013/Documents/Relocation%20-%20HLP%20Guidance%20Note%20for%20Shelter%20Partners.pdf

SHELTER SECTOR FINDINGS

This section of the report presents the main findings from the shelter response monitoring assessment and is comprised of:

- a series of shelter specific findings, including level of shelter damage, housing recovery status, building back better trends, and shelter and cash assistance trends;
- a section focused on a review of issues focused on the beneficiary, including information received from humanitarian actors, priorities of beneficiaries, perceptions and satisfaction.

Where appropriate and of importance, the analysis makes comparisons between results from this assessment and those from the initial needs assessment. All analysis compares households located in the 50km storm path distance class. The analysis also provides different disaggregations at the provincial, urban/rural, north/south of storm path and coastal/inland levels, where useful.

GLOBAL SHELTER CLUSTER INDICATORS

SHELTER SECTOR INDICATORS[7]

Code	Indicator Type	Description	Initial Value %	Monitoring Value %	Source
S1-1-2	Baseline/ Outcome	% of HHs indicating shelter as a priority need	**23%**	**-**	REACH
S1-2-9	Outcome	% of beneficiary HHs satisfied with the shelter assistance they received	**-**	**85%**	REACH
S1-1-3	Needs	% of damaged houses / dwellings	**96%**	**88%**	REACH
S1-2-1	Output	% of HHs having received shelter assistance	**15%**	**39%**	REACH
S1-2-5	Output	% of HHs having provided themselves with appropriate shelter solutions	**23%**	**28%**	REACH
SSRP-1	Outcome	% of HHs using at least one disaster mitigation building method[8]	**-**	**27%**	REACH
SSRP-2	Outcome	% of HHs with secure dwelling that provides adequate coverage[9] from the rain[10]	**-**	**57%**	REACH

The two outcome-level indicators that will be included as part of a revision to the Strategic Response Plan (SRP) for the Shelter Cluster are coded above as SSRP-1 and SSRP-2. These indicators are intended to provide feedback on the success of the sector response in providing safe and adequate shelter support for self-recovery of the affected population.

[7] All of these figures have been changed to reflect the values for households 0-50km from the storm path to enable valid comparisons
[8] Only households that received assistance
[9] "Completely" or "somewhat" covered
[10] Only households that received assistance

For SSRP-1, the percentage of assisted households exhibiting at least one disaster mitigation construction method is higher than the average of 27 per cent in the provinces of Cebu, Samar and Eastern Samar at 78 per cent, 52 per cent and 60 per cent, respectively. This suggests some progress in humanitarian organisations providing households with disaster mitigating construction solutions due to the higher level of assistance in these provinces. This progress, however, is limited and far below expected levels, as will be discussed below.

In the case of SSRP-2, percentages of assisted households with a secure shelter and with adequate covering from the rain are lower than the average in the same provinces of Cebu, Samar, Eastern Samar and Leyte at 49 per cent, 48 per cent, 55 per cent and 52 per cent, respectively. This points to the larger caseload in these provinces due to higher damage levels, yet also presents a clear opportunity for shelter sector rehabilitation efforts.

DAMAGE TO HOUSING

HOUSING DAMAGE CATEGORIES

This assessment uses the Shelter Cluster's definition and categorization of shelter damage, which are compatible with and can be compared to the categories used by government agencies in the Philippines. This report provides the measurement for each damage category and compares it to the initial needs assessment values while also using the damage categories as an analytical disaggregation.

Table 4: Housing damage category according to the Shelter Cluster and the Government

Damage category (Shelter Cluster)	Damage category (Government)
No Damage	No Damage
Minor Damage	Partially Damaged
Major Damage	
Collapsed or totally damaged	Totally Damaged

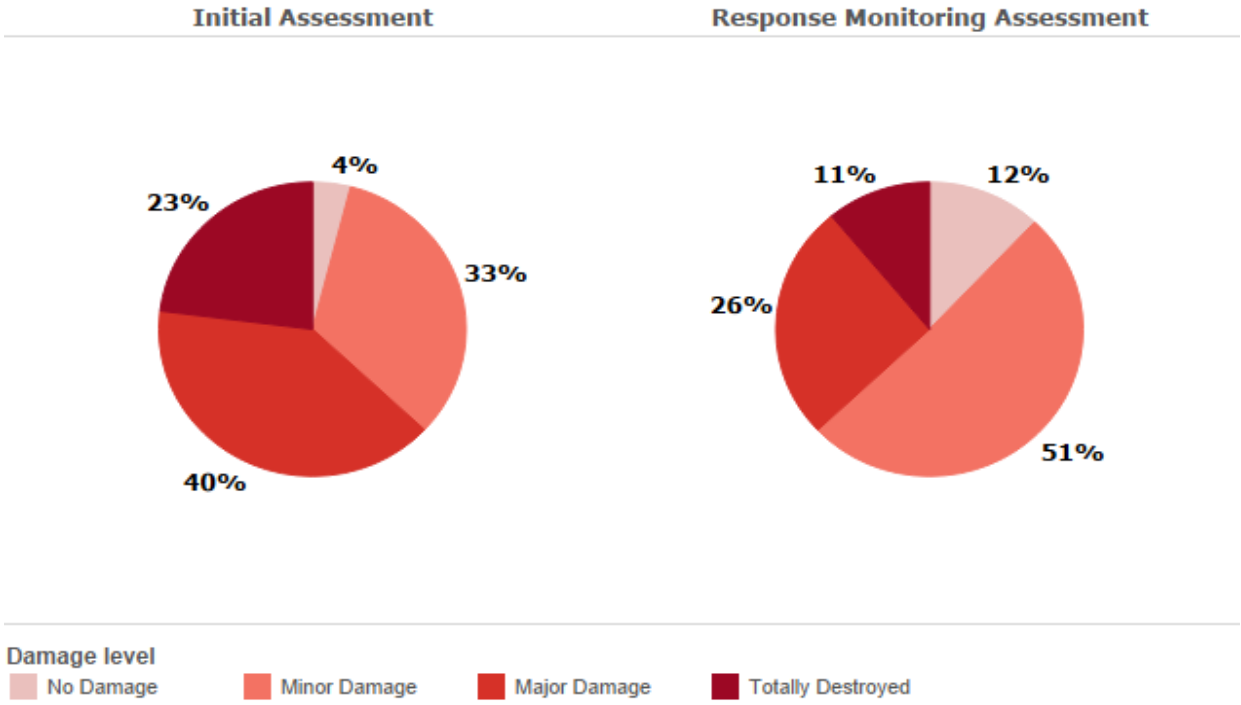
LEVEL OF HOUSING DAMAGE

When compared with data from the initial needs assessment, **recovery appears to have increased among households located within the 50 kilometre storm path distance class**[11]**.** The initial assessment reported only four per cent of houses with no damage, compared to 12 per cent four months after the typhoon.

This change is seen in the other damage categories: 23 per cent of houses were classified as totally destroyed in the initial assessment; now 11 per cent, 40 per cent were categorized as having major damage; now 26 per cent. The category in which there was an increase from the first assessment was in the minor damage category (33 per cent to 51 per cent), suggesting that there are large numbers of houses that are being rebuilt, yet have not been completed.

[11] Damage levels are being compared between the two assessments as a proxy for recovery. Lower levels of totally destroyed homes would suggest self-recovery. Damage levels in this assessment are used to approximate current levels of repair.

Figure 3: Housing Damage, Initial Assessment and Monitoring



HOUSING DAMAGE AND PROVINCIAL ANALYSIS

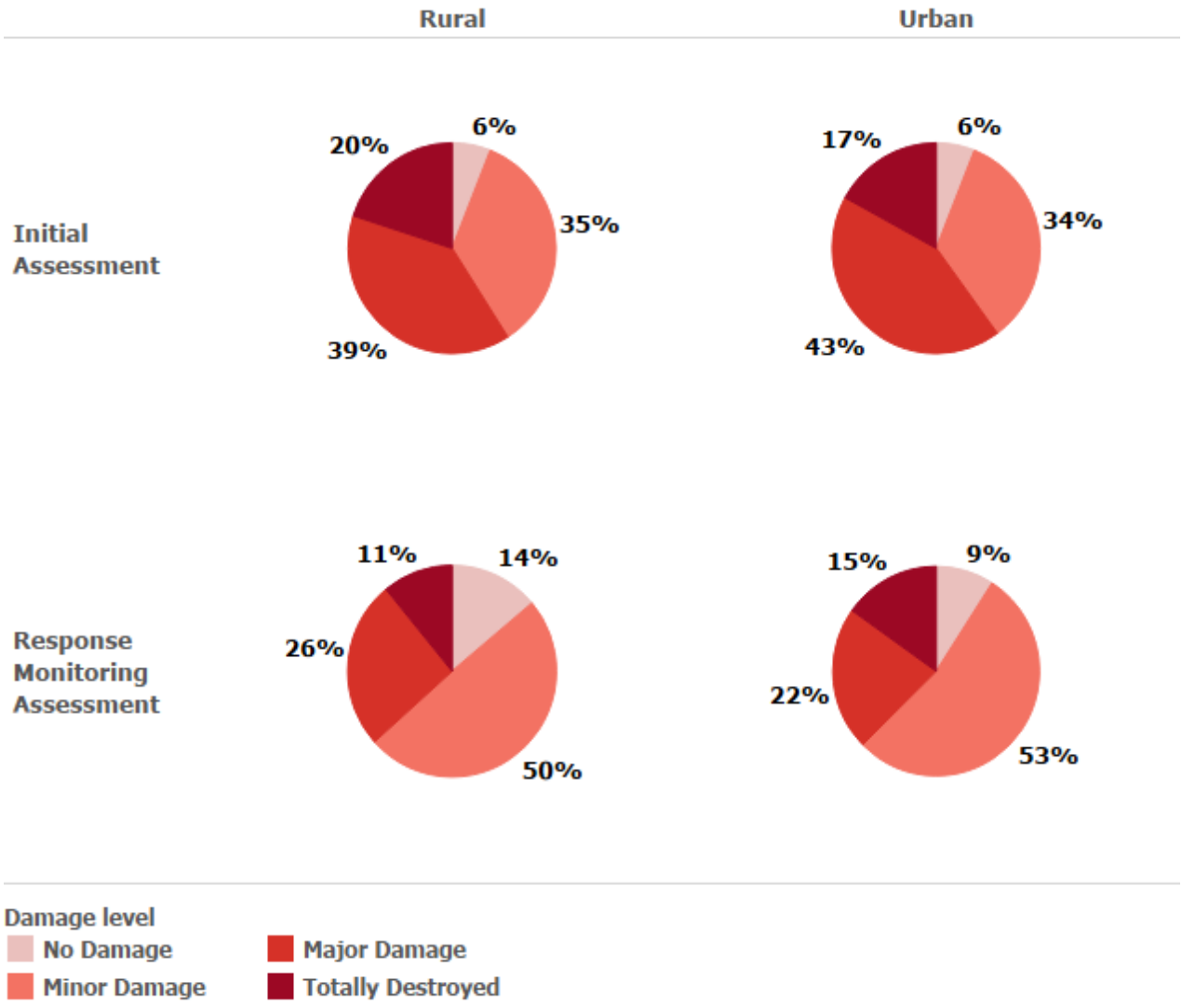
When disaggregating the results by province, the damage trends vary from the mean in a few cases. For Iloilo and Cebu provinces, 23 per cent and 35 percent of households, respectively, were categorized as having no damage; much higher than the 12 percent overall. On the other hand, households in Eastern Samar and Samar were classified as totally destroyed at a higher rate of 30 per cent and 22 per cent, respectively. These results align with initial assessment damage trends showing greater impact of the storm across Region VIII, thus higher levels of continued damage during this response monitoring assessment.

HOUSING DAMAGE AND GEOGRAPHIC LOCATION

Similar to data in the initial needs assessment, households experienced higher levels of damage along coastal areas as opposed to inland areas. **Houses in coastal areas are nearly three times more likely to be totally destroyed when compared to inland areas.** Damage levels for rural and urban households, however, run counter to the initial needs assessment results. **Whereas levels of damage and total destruction were higher in rural areas in the weeks following immediately after the typhoon, this is now the opposite.**

Nearly 15 per cent of households located in urban locations are still classified as totally destroyed; 11 per cent for rural households. In the initial assessment, 17 per cent of urban households were categorised as totally destroyed and 20 per cent of rural households. Eight per cent of urban households now have no damage, compared to 6 per cent from the first assessment. Thirteen per cent of rural households now have no damage, up from 6 percent in the first assessment. This suggests a more rapid recovery for households in rural areas; this aligns with the self-recovery data discussed in section 5.3.1 below.

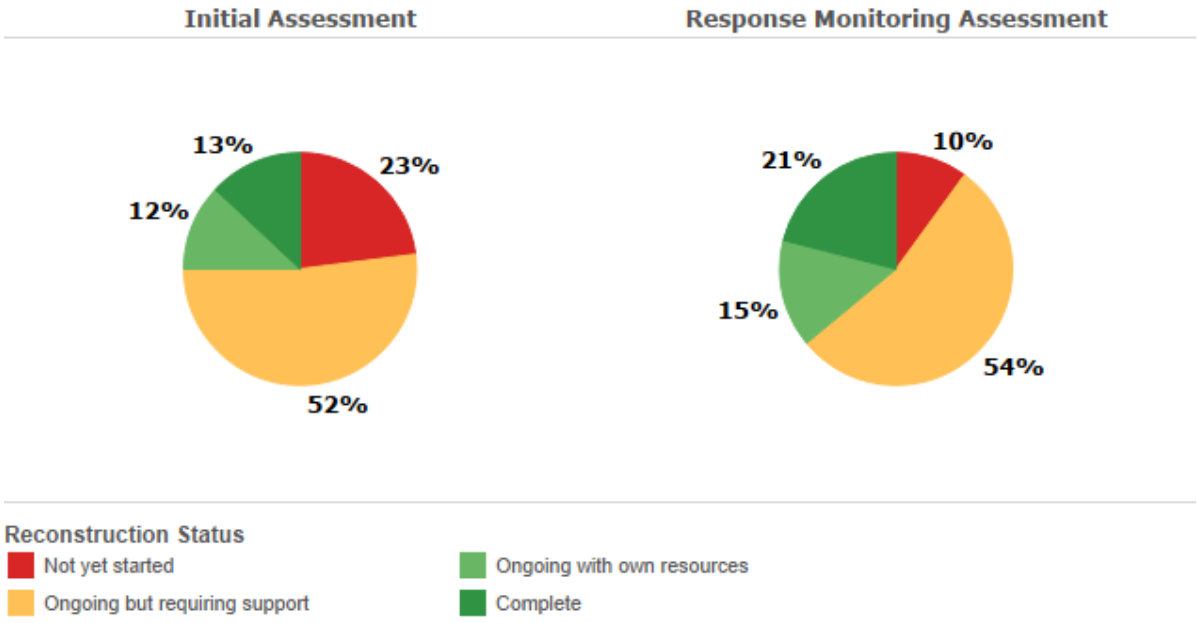
Figure 4: Housing Damage, Rural and Urban



Some of the greatest levels of variability among damage figures lies in the analysis of households located either north or south of the storm track. Twenty-five per cent of households located south of the storm track – about double the average rate – report having no damage to their house as a result of the typhoon. This is in contrast to seven per cent reporting no damage in the north. Major damage also runs quite a bit lower for houses located south of the storm track, at 16 per cent.

HOUSING RECOVERY

Figure 5: Housing Recovery, Initial Assessment and Monitoring



HOUSING RECOVERY STATUS

Overall, 15 per cent of households have reported already completing repair or rebuilding of their house to the level where they feel they do not need further shelter assistance, particularly in the case of partially damaged households. However, a further 10 per cent have reported not yet starting the process, especially for households that report total destruction. By far, **the greatest proportion of households – 54 per cent – report that the reconstruction or repair of their home is ongoing and that they feel they require additional support to complete it. These figures have progressed from the initial needs assessment, with 13 per cent of households having reported completing repair or recovery of their house at that time and 23 per cent reported not having started yet.** The percentage remains largely the same for households that have started the process, but need additional support with 52 per cent having reported this during the first assessment.

In order to understand the level and quality of these self-recovery rates, it is important to classify the types of housing into easily understood categories and the elements of the houses that are being included. Across all provinces, **the majority of houses being constructed are durable[12] (55 per cent)**. There are only 5 per cent of households remaining in emergency shelter. **Forty per cent of households are classified as makeshift shelters**[13].

For most households at this point in recovery, a mixture of materials is being used for roofing on their homes. **The majority of households are using some form of CGI sheeting (60 per cent salvaged, 48 per cent new).** Nipa and coco lumber are the next most common at 29 per cent of households and 28 per cent, respectively.

[12] [12] Durable houses are defined as dwellings with a foundation, a clear exterior structure constructed of wood and a roof that is permanent in nature. These houses may be unfinished, but are clearly transitioning toward a permanent structure.
Makeshift shelters do not have a full foundation and the materials used for its walls or roof are usually salvaged from debris. These shelters are not clearly moving in the direction of a permanent structure, but are temporary in nature. Emergency shelter includes solely tarpaulin and/or tents.

When disaggregating by province, this trend is generally the same, except for the provinces of Eastern Samar and Samar in which 39 per cent and 30 per cent of households, respectively, still use tarpaulin for at least part of their roofing material. Plastic sheeting is also used at a higher than average rate in Eastern Samar at 12 per cent; two to four times more commonly than the other provinces. This is likely due to the higher damage levels in these provinces.

Across all shelter types, the following elements were measured: (a) existence of covered protection; (b) type of footing; (c) existence of interior partitions; (d) ability to secure the dwelling; and (e) access to electricity.

a) Overall, the majority of households have protection that covers the dwelling "somewhat" (51 per cent) or "completely" (41 per cent). Eight per cent of households do not have a covering that sufficiently protects inhabitants from the elements.
b) Most houses have timber as the footing or foundation. Forty per cent of households have non-treated timber, while 23 per cent of households have treated timber footings. Thirty-two per cent of households have concrete foundations, while four per cent have none. This figure aligns with the figure above for emergency shelter.
c) The majority of dwellings (74 per cent) have some kind of interior partitions for separating living quarters between household members.
d) An even greater proportion of households are able to secure their dwelling effectively (84 per cent). The degree to which this security is effective or its type was not measured.
e) Electricity is now reaching over three times more homes four months after the typhoon than it did one month after. The initial needs assessment recorded 28 per cent of households having access to electricity after the typhoon, compared to 77 per cent now. While this is a decline from the reported pre-typhoon level of 90 per cent, it is clear that access to electricity has increased dramatically.

HOUSING RECOVERY STATUS AND PROVINCIAL ANALYSIS

Generally, the results for recovery remain constant for the provincial level. Aklan, Antique, Capiz and Iloilo provinces exhibit over 1.5 times higher rates of housing recovery completion, especially for those households classified as partially damaged. Samar, Leyte and Eastern Samar report the lowest levels of ongoing recovery without additional support needed – about half that of the other provinces, with corresponding higher levels of ongoing recovery with additional support needed. One outlier in the trends is in Cebu where over 60 per cent of households that are classified as totally destroyed report not having started any reconstruction efforts.

When analysing the different housing elements by province, trends linked to the previous discussions become apparent:

a) The provinces of Samar and Eastern Samar have the lowest percentages of dwelling coverings that completely protect the household members from the elements, at 22 per cent and 26 per cent, respectively. For comparison, the highest proportion of households with complete protection is in the provinces of Antique, Cebu and Iloilo at 58 per cent, 57 per cent and 50 per cent, respectively. The highest proportion of households with no protection from the elements is found in Samar and Eastern Samar provinces with 18 per cent and 17 per cent, respectively. Cebu provides a diversion from the norm in that while it has some of the highest levels of completely covered protection, it also has moderate levels of "somewhat" covered protection (21 per cent) and none at all (22 per cent). It is unclear as to why Cebu does not follow the norm.

b) The provinces of Samar, Leyte Eastern Samar and Cebu have by far the largest proportion of households with treated timber footings. Rates of 28 per cent to 44 per cent are double to triple those of the other provinces. This is potentially the result of higher levels of assistance in these areas. Antique, Iloilo and Leyte have the greatest levels of concrete use (46 per cent, 39 per cent and 37 percent, respectively) with Samar being an outlier on the lower end with 18 per cent of households having concrete footings.

c) Households in Samar and Eastern Samar provinces have the lowest occurrence of interior partitions (59 per cent and 55 per cent, respectively) – much lower than the average across the entire assessed areas and likely due to the higher damage levels, existing vulnerabilities and lower self-recovery rates as outlined in the sections above.

d) Households in Samar, Eastern Samar and Cebu provinces all report lower than average occurrences of the ability to secure their house, at 70 per cent, 66 per cent and 74 per cent, respectively. All other provinces report at or above the overall average of 84 per cent.

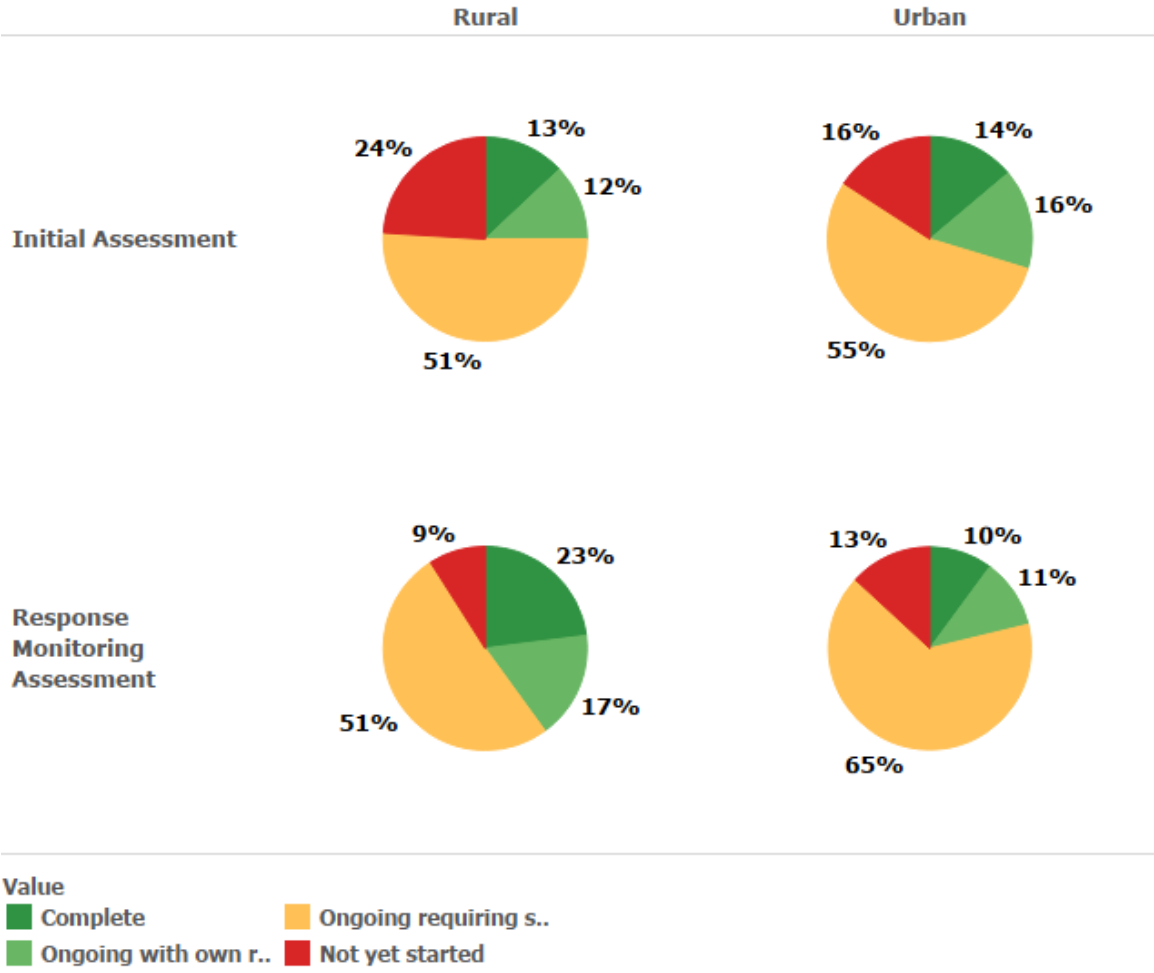
e) Access to electricity varies from the overall figures seen above in that one of the hardest hit provinces – Samar – actually has the greatest access to electricity currently (88 per cent) and has nearly reached its pre-typhoon level of 91 per cent access. Other provinces such as Leyte, Eastern Samar and Capiz have lower than average electricity access rates, at 62 per cent, 57 per cent and 66 percent. Antique province remains virtually untouched with only 1 per cent of households having lost access to electricity as a result of the typhoon.

HOUSING RECOVERY STATUS AND GEOGRAPHIC LOCATION

The data outlined above showing higher levels of remaining damage and destruction among urban households when compared to rural households holds true when analysing self-recovery as well. **On average, 23 per cent of rural households have completed self-recovery while only 10 per cent of urban households have done so.** Results from the initial needs assessment showed an equal 13 per cent for both rural and urban households.

Furthermore, 13 per cent of urban households report not having yet begun the self-recovery process (16 per cent from the needs assessment), whereas nine per cent of rural households have yet been unable to do so (24 per cent had been unable to begin during the initial needs assessment). Urban households report requiring additional support to continue recovery at a much greater rate with rural households nearly two times more likely to be able to complete recovery without additional support. These figures suggest a clear increase in self-recovery in rural areas and stagnation in urban areas.

Figure 6: Self Recovery Status, Rural and Urban



The urban/rural, coastal/inland and north/south of storm track differences are not as clearly seen in an analysis of the housing elements. There are small variances from the mean that suggest a fit to the trends shown above, but nothing of note for the purposes of this report.

BUILDING BACK SAFER

One of the key elements of the SRP is the, "Building Back Safer" approach that includes trainings and provision of materials for hazard mitigation. The approach encourages households affected by the typhoon to use better quality materials and specific building methods to mitigate the impact of future hazards.

This assessment measured both structural methods used in new housing as well as awareness among affected households of these methods. Specific building methods that were measured include the use of: (a) hurricane strapping; (b) full cross-bracing; (c) bolted columns; (d) gusset plates; (e) cleats; and (f) no use of these methods. The analysis will focus on the use of these methods in durable housing, as their use in emergency shelters is not possible and their use in makeshift shelters is often limited to their existence in and/or on salvaged materials.

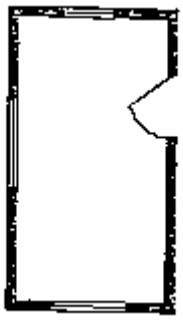
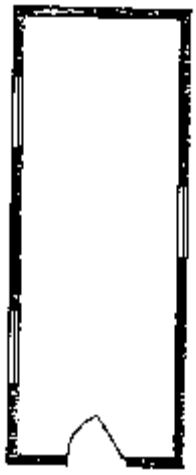
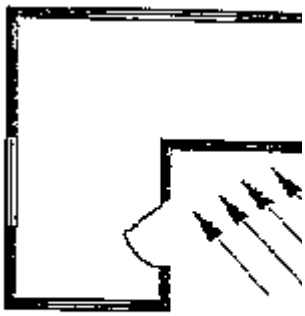
Anecdotal evidence suggests that particularly full cross-bracing and to a lesser extent, cleats, were methods occasionally used before the typhoon. The accuracy of the rates at which these were used cannot be established, however, thus the analysis will focus on current use of methods. These methods were counted as present whether one or multiple instances were used.

Overall, **cross-bracing and cleats were found to be the most common hazard mitigation methods used after the typhoon** at 35 per cent and 31 per cent, respectively. Gusset plates are also used among 22 per cent of households with bolted columns and hurricane strapping only used by 14 percent and 9 percent of households, respectively.

In addition to the specific methods and materials used, it is important to assess the awareness of the household to specific "good" and "bad" construction types and their impact on Disaster Risk Reduction (DRR). Enumerators observed the shape of the house and classified it as "good" or "bad" according to the guidance in Figure 6. Overall, enumerators rated 67 percent of households as being a "good" design while 33 per cent were considered "bad".

Furthermore, enumerators also observed the shape of the roof and classified it as "gable", "hipped" or "pitched". The majority of houses had gable roofs (67 per cent). Hipped and pitched roofs (17 per cent and 10 per cent, respectively), were much less common.

Figure 7: Examples of "Good" and "Bad" Housing Designs

"Good" Design			**Square and rectangle design. Rectangular shape: length is about 1.5 x width**
"Bad" Design			**Long rectangle or L-shaped. Rectangular shape: length is > 1.5 x width.**

BUILDING BACK SAFER AND PROVINCIAL ANALYSIS

Overall, most provinces follow the trend identified above with the most common building back safer building method being full cross-bracing. In Aklan and Capiz, full cross-bracing is used much more seldom (15 per cent and 21 per cent, respectively), yet a relatively larger proportion of households use hurricane strapping in these two provinces (16 per cent and 17 per cent, respectively). These two provinces also exhibit higher than average use of cleats (42 per cent and 44 per cent, respectively).

Eastern Samar exhibits some of the lowest relative use of these building methods and also the highest proportion of households not using any of these features at all across the entire population. However, among those households that have received assistance in Eastern Samar and Samar, the proportion of households that use at least one of these methods is nearly double the average. This suggests that there has been some progress in providing the needed support for durable housing to include disaster mitigation construction practices, but that there is still a large gap in the overall caseload. Given the very high proportion of shelter assistance that has been provided to Eastern Samar, as described below in section 5.4, it is important for shelter actors to be aware of this current relative deficit in the use of Building Back Safer methods across the entire population and incorporate them into assistance in these provinces.

Figure 8: Building Back Safer Methods, by Province

	Bolted columns	Cleats	Full cross bracing	Gusset plates	Hurricane Strapping	None
Aklan	26%	42%	15%	20%	16%	3%
Antique	15%	27%	35%	8%	7%	9%
Capiz	15%	44%	21%	16%	17%	0%
Cebu	1%	14%	56%	37%	2%	6%
Eastern Samar	11%	33%	30%	30%	7%	13%
Iloilo	26%	35%	31%	34%	12%	0%
Leyte	9%	15%	49%	15%	8%	0%
Samar (Western Samar)	5%	35%	50%	23%	6%	1%

In keeping with the data mentioned throughout the report, Samar, Eastern Samar and Cebu provinces exhibited a much greater proportion of “bad” design houses – 46 per cent, 45 per cent and 42 per cent – 9-13 per cent greater than the average. Similarly, Samar and Eastern Samar had a much smaller proportion of houses with hipped roofs (a more resistant roof type) than average – 7 per cent and 8 per cent, respectively. In this case Cebu had one of the highest proportions of hipped roofs – 24 per cent – well above the overall average.

BUILDING BACK SAFER AND GEOGRAPHIC LOCATION

Interestingly, rural households exhibit use of Building Back Safer methods to a slightly greater degree than urban households, possibly suggesting a greater focus of technical assistance to rural households after the typhoon or higher pre-existing building skills in rural communities. Whatever the case, urban households use corner cross-bracing much less than the overall average (28 per cent) while also using cleats far less (19 per cent). Rural households, however, use gusset plates at a less than average rate (20 per cent).

ASSISTANCE RECEIVED

15% **Received shelter assistance within one month of typhoon**

39% **Received shelter assistance within four months of typhoon**

SHELTER ASSISTANCE RECEIVED

Within four months of the typhoon, **the proportion of households located within 50 kilometres of the storm path that had received shelter assistance has increased from 15 per cent to 39 per cent**. The vast majority of households reported receiving tarpaulins (81 per cent), followed by CGI sheets (42 per cent) and construction materials (39 per cent). Nearly 60 per cent of this assistance was reported to have come from international organisations. All other sources were reported by less than 10 per cent of households. The sector was successful in providing the targeted number of households identified in the SRP with emergency shelter assistance in the weeks following the typhoon.

In Table 5 below, the percentage of households having received shelter assistance is presented for both emergency shelter and Support to Self-Recovery of Shelter (SSRS) assistance[14] by province. These figures are further broken into the results from this assessment and the reported percentages of shelter assistance provision in the Shelter Cluster 4W.

Given the imperfect measurement and inherent differences in how the assistance is measured between this assessment and the cluster 4W, the analysis below looks at the trends in the percentages within each category as opposed to the raw numbers. In this way, serious diversions from the general trend in reported and assessed shelter assistance can be identified. As seen below, in general, the trends in shelter assistance are consistent for both emergency shelter and SSRS. The most notable diversions are in the SSRS trend comparison in that households reported greater relative SSRS assistance in Aklan and Antique provinces along with lower relative SSRS assistance in Samar.

Table 5: Shelter Assistance Trend Analysis, 4W versus Assessment

Province	Emer. Shelter Assessment (%)	Emer. Shelter Cluster 4W (%)	SSRS Assessment (%)	SSRS Cluster 4W (%)
Aklan	22	22	26	1
Antique	18	22	33	3
Capiz	27	35	13	3
Cebu	33	62	26	14
Eastern Samar	49	143	42	26
Iloilo	31	32	15	4
Leyte	27	63	34	11
Samar	39	107	22	18

[14] Emergency shelter includes tarps, tens and plastic sheeting. SSRS includes CGI sheets, construction materials and labor.

CASH ASSISTANCE RECEIVED

The majority of households (76 per cent) in this assessment reported having not received any cash assistance. Of those that did receive cash assistance, however, 22 per cent received conditional cash grants while 78 per cent received unconditional cash grants.

Table 6: Cash Assistance by Province

Province	Conditional Cash Grant (%)	Unconditional Cash Grant (%)
Aklan	6	27
Antique	3	18
Capiz	6	24
Cebu	12	11
Eastern Samar	7	31
Iloilo	6	17
Leyte	1	4
Samar	2	11

When disaggregating cash assistance by households that are categorised as still damaged and those that have no remaining damage, the results show that very few households without any remaining damage have received cash assistance. Over 95 per cent of households that have received any kind of cash assistance still have remaining damage, while only five per cent have been able to rebuild their house. This suggests that the majority of households have not used the cash they received for the purposes of rebuilding their house or that the cash received was insufficient.

Nearly three-quarters of households – 72 per cent – reported using the cash they received on food. Nearly the same amount of households reported using their cash assistance on materials – 69 per cent. Forty-five per cent of households used their cash for labour. These results clearly show that cash that may have been intended to purchase shelter materials and construction labour services, was actually largely split for food purchases, diminishing the amount that was used for self-recovery.

INFORMATION RECEIVED

This assessment measured the extent to which specific messages and information had been disseminated into the community on topics such as building back better, grievance procedures and what assistance is available. Overall, the greatest proportion of households report not having received any information (40 per cent). Thirty-one percent of households report having received information about what assistance is available, while only 21 per cent of households report information dissemination on building back safer and longer-term planning of support, respectively. Grievance procedures and feedback mechanisms were the least cited at 3 per cent and 12 per cent, respectively.

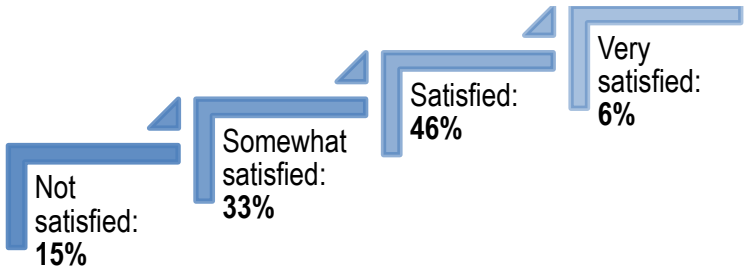
Figure 9: Information Received, by Province

	Assistance Available	Building Back Safer	Feedback Processes	Grievance	Planning of Support	Other	No Info
Aklan	43%	11%	12%	5%	21%	1%	39%
Antique	54%	19%	17%	6%	22%	1%	35%
Capiz	37%	12%	10%	2%	21%	1%	35%
Cebu	0%	20%	0%	0%	11%	17%	60%
Eastern Samar	26%	41%	22%	2%	27%	13%	37%
Iloilo	30%	17%	9%	4%	19%	2%	41%
Leyte	32%	22%	5%	4%	21%	5%	34%
Samar (Western Samar)	15%	30%	13%	4%	21%	19%	50%

Households in Eastern Samar report the highest rate of information dissemination on building back safer at 41 per cent, followed by 30 percent in Samar. These two provinces are by far the largest recipients of this kind of information. As a disappointing indicator of the effectiveness of these trainings to enable communities to take action, despite the high levels of knowledge of this information, these two provinces still exhibit the lowest rates of incorporation of these practices, as seen in section 5.3.2. Aklan, Antique and Capiz provinces report the highest rates of information on assistance available.

Households that received shelter assistance were two times more likely to have knowledge of building back safer methods (15 per cent compared to 30 per cent). Unsurprisingly, these proportions were higher than average in Samar and Eastern Samar with 47 per cent and 45 per cent, respectively, of households that received assistance, reporting knowledge of these methods. These percentages, however, are disappointingly low. When looking at actual use of building back safer methods among households that reported receiving this information, only 18 per cent actually used the methods in the construction of their home.

SATISFACTION WITH ASSISTANCE



Overall, the majority of households that have received assistance are Somewhat Satisfied and Satisfied with the assistance. Only 15 per cent of assistance recipients are not satisfied. Interestingly, households seem slightly more satisfied with the assistance they have received in the provinces of Eastern Samar, Iloilo, Leyte and Samar. This is potentially due to the fact that damage rates were higher in these areas and, thus, assistance was faster and met more immediate needs than in other locations.

Table 7: Satisfaction with Assistance, by Province

Province	Not Satisfied	Somewhat Satisfied	Satisfied	Very Satisfied
Aklan	4%	49%	37%	10%
Antique	11%	56%	33%	0%
Capiz	14%	46%	38%	3%
Cebu	22%	43%	27%	8%
Eastern Samar	14%	22%	56%	8%
Iloilo	4%	35%	54%	7%
Leyte	21%	28%	47%	4%
Samar (Western Samar)	17%	25%	54%	3%

PRIORITIES AND PREFERENCES

The top priority for households located within the 50km storm path distance class is to have a better house. Eighty-five per cent of households cite this as their main priority. This is followed by 56 percent of households that wish to have a restored livelihood and 27 per cent of households that wish to build back permanently. Nineteen per cent prioritize relocation. This trend follows at the provincial level as well, with the smallest proportion of households prioritising clearance of debt. Returning children to school is more of a priority for households located in Aklan, Eastern Samar, Leyte and Samar, likely due to the higher damage impact and potential lack of access to schools currently.

Cash (89 per cent), construction materials (72 per cent) and CGI sheets (55 per cent) top the list of preferences for future assistance. Tarps, tents and plastic sheeting are considered less preferential at 5 percent, 4 per cent and 3 percent, respectively. It is clear that emergency shelter – usually the focus of humanitarian responses in the weeks after a disaster – is no longer preferred by the population. This must be part of the discussion for future contingency planning and preparation in order to be accountable to the beneficiaries.

WASH SECTOR FINDINGS[15]

WATER

DRINKING WATER SOURCES

Within 50 kilometres of the storm path, the primary drinking water sources households are utilizing are tube wells with a hand pump (35 per cent) and piped water – Level II and Level III water supply systems[16] (26 per cent). A large portion of the population rely on open wells for drinking water (seven per cent) and on protected and unprotected springs (14 per cent). Sixteen per cent of the households purchase water from private vendors connected to Level III water supply systems, six per cent increase when compared to the figure before the typhoon. Households purchasing water immediately after the typhoon cannot be quantified due to the emergency water supply provided by humanitarian actors as well as national authorities. Among the households interviewed, the use of piped water increased by about four per cent from December 2013 to March 2014.

Table 8: Drinking Water Sources

	Open well	Piped water	Purchased	Spring	Tube well hand pump
Before Haiyan	6.84	24.09	10.2	4.77	26.64
December 2013	7.89	22.14		4.9	27.09
March 2014	7.4	26.06	16.2	14.27	35.24

Relevant variation in figures from before the typhoon and March 2014 is seen in households using open wells and tube wells with a hand pump, both in rural and urban areas. The number of households using shallow aquifers seems to have increased by 10 per cent in rural areas (3 per cent open wells, 7 per cent hand pumps). Urban areas experienced an increase of 16 per cent (5 per cent open wells, 11 per cent hand pumps). Similar trends are seen in un-piped springs utilized as a source of drinking water with an increase of 10 per cent in rural areas and 6 per cent in urban areas.

Table 9: Water Sources, Urban and Rural

	Open Well		Tube Well and Hand Pump		Spring	
	Rural	Urban	Rural	Urban	Rural	Urban
Before Haiyan	4	1	30	18	6	2
December 2013	5	1	30	18	6	2
March 2014	8	6	37	30	16	8

As emergency water treatment in rural and peri-urban areas, an unknown number of open wells have been equipped with a bucket filtration kit (mainly a Sawyer bucket purifier kit – Figure 10). Unfortunately, spare filters have not been included in the kit and consequently, the mid and long term quality of the water remains a concern. A similar situation exists for new tube wells with hand pumps constructed in some barangays to replace the broken ones: the new tube wells are fetching water from shallow aquifers (maximum of 3 metre depth), thus the quality of the water is questionable for public health.

[15] All province level findings can be found in Annex D

[16] Level I: Stand-alone water points, e.g., handpumps, shallow wells, rainwater collectors; Level II: Piped water with a communal water point, e.g., borewell, spring system; Level III: Piped water supply with a private water point, e.g., house connection

Figure 10: Emergency Bucket Filtration

At present, coastal and inland areas show large differences in service coverage: piped water seems to be utilized by 31 per cent of the population in coastal areas and only by 14 per cent in inland or non-coastal areas. To have a better analysis of this discrepancy, additional investigation is needed taking into consideration figures related to the density of the population and extension of the water mains (number of service connections/kilometre). At present, it is possible only to highlight that most of the water supplies in non-coastal areas are Level II and most of the damaged caused by the typhoon was to tower metal tanks, pump systems and power supplies. Moreover, an unassessed number of spring boxes have been damaged by trees and localized landslides.

Masonry structures, galvanized iron pipes and most of the underground high density polyethylene (HDPE) and medium density polyethylene (MDPE) pipes are still working. Polyvinyl chloride (PVC) pipes have been heavily damaged by flying objects and localized landslides (Figure 11). In a “build back better” vision, these technical aspects should be considered by the WASH partners interested in the rehabilitation of Level II water supply systems and a standardized technical approach should be adopted: water reservoirs and water towers should be made by reinforced concrete or solid blocks, galvanized iron pipes should be utilized where ever an exposed connection is present and the areas around the spring box should be better protected and cleared of trees. Areas of slope instability should be identified and stabilized by steel wire zinc coated gabions and mattresses. Centrifugal pumps should be elevated against potential flooding and protected by flying objects. In case of a new emergency, the damage and the suspension of the water supply would be limited, avoid the use of lower quality water sources by the population. In case of no gravity systems, an inexpensive 2-5 kilowatt generator could run the water supply until wiring is repaired.

Figure 11: Undamaged masonry water tower (left). Damaged tower metal tanks (centre, right)

WATER TREATMENT AT HOUSEHOLD LEVEL

Before Yolanda, 72 per cent of the interviewed households reported that they did not treat the water before drinking it. Data from the assessments in December 2013 and March 2014 show an increased number of the population treating water at the household level in urban areas (19 per cent increase), while household water treatment in rural areas amounted to only about a one per cent increase.

Table 10: Water Treatment at Household Level, Rural and Urban

	Period	Water Treatment at Household Level	
		No (%)	Yes (%)
Rural	December 2013	70	30
	March 2014	71	29
Urban	December 2013	81	19
	March 2014	63	37

To avoid or contain possible water borne diseases, the water treatment at household level has been one of the main priorities of the WASH partners involved in the emergency response, together with water trucking and rehabilitation of water mains. Water treatment products (Aquatabs and Hyposol) have been distributed as part of the water kits and have been distributed on occasion to replenish. Data from the monitoring assessment shows that only 24 per cent of the affected population within 50 kilometres of the cyclone path received water treatment products in rural areas. This percentage increases to 42 per cent in urban areas.

Table 11: Households that Received Chlorine to Treat Water

	No (%)	Yes (%)
Overall	76	24
Rural	80	20
Urban	58	42

SUPPORT IN REHABILITATION OF WATER FACILITIES

This question was aiming to assess the involvement of WASH partners in transitioning from emergency assistance to recovery, namely from emergency water supply for communities (mainly water trucking) to water supply for households. Among the 3,377 HHs interviewed, only 11 per cent reported to have received support in rehabilitation or reconstruction of their water facilities.

Table 12: Households Receiving Support in Rehabilitation/Reconstruction of Water Facilities

	No (%)	Yes (%)
Overall	89	11
Rural	90	10
Urban	84	16
Coastal	85	15
Non-coastal	96	4

SANITATION

The households that received support in assessing their sanitation needs as well as support in rehabilitation or reconstruction of their sanitation facilities are respectively three per cent and two per cent. These figures are similar for coastal and non-coastal areas as well as for urban and rural areas. Moreover, 80 per cent reported that in case of problems with their sanitation facility (mainly overflooding, desludging, collapses of the septic tank walls), they do not know to whom to refer for proper management of the issue in respect of hygiene and public health. These figures are relevant also for shelter cluster partners and strict coordination between the two clusters is advisable: the shelter intention survey conducted in mid-January (26 partners involved) highlighted that 48 per cent of the shelter actors decided to include WASH hardware and software components in their interventions. Moreover, 60 per cent also planned to include DRR inputs.

DISEASE PERCEPTIONS

This question has been included in the survey in order to have a general understanding of how the households involved in the present assessment perceive the changes in their health status from December 2013 to March 2014. The question refers to possible diseases which could be related to lower hygiene standards or water borne related.

Seventeen per cent of the interviewed households reported an increased rate of diarrhoea, skin or eye diseases and stomach problems in general among family members. In the initial assessment, a similar question was included and the percentage of population reporting similar health problems amounted to 0.23 per cent.

KEY HYGIENE MESSAGES

Households were asked if they were aware of the following key hygiene messages:

1. Hand washing with soap before eating and after defecation;
2. Community health and hygiene is everybody's responsibility;
3. Elimination of open defecation;
4. Use of only clean, safe water for drinking;
5. Proper solid waste and liquid waste disposal in designated areas.

The following table outlines the percentage of households that were aware of these key hygiene messages.

Table 13: Household Awareness of Key Hygiene Messages

Hand washing with soap before eating and after defecation (%)	Community health and hygiene is everybody's responsibility (%)	Elimination of open defecation (%)	Use of only clean, safe water for drinking (%)	Proper solid waste and liquid disposal in designated areas (%)	None (%)
91	52	29	69	43	0.36

DISTRIBUTION OF FAMILY HYGIENE KITS

Households were asked if they received at least one family hygiene kit since November 2013, regardless of its contents and regardless of whether certain items have been replenished by the humanitarian agencies. Thirty-five per cent reported to have received at least one kit.

CONCLUSIONS AND RECOMMENDATIONS

SHELTER SECTOR CONCLUSIONS

For the shelter sector, specifically, the story four months after the typhoon is one of progress for some households as well as stagnation for others. Overall, the sector delivered in the early days of the response with seemingly adequate levels of emergency shelter, meeting the objectives of the SRP. Since then, however, recovery in some of the hardest hit regions has slowed and the use of building practices that would mitigate the impact of future disasters – in a country so often affected by them – have not reached households at a critical time during the rebuilding process.

The increase in self-recovery is a promising trend. The vast majority of households have moved out of emergency shelter. The process of recovery to durable housing, however, is slow and seems to all but have plateaued in urban areas and those provinces hardest hit by the typhoon – Eastern Samar, Samar and, to a lesser extent, Leyte; makeshift shelters being the norm.

Additionally, despite high levels of assistance in these hardest-hit provinces, Building Back Safer methods and practices are being used at a lower rate than any other location in the assessed area among that entire population. Households that report having received information on these methods exhibit very low incidence of actually integrating them in the reconstruction of their homes. One sign of progress, however, shows that households that have received shelter assistance do tend to use these methods at a higher rate. While this is promising, there is still a relative deficit in the use of these methods among both assisted and non-assisted households.

Cash assistance has also been used sparingly by shelter actors and the large part of it has been used for purchase of food and other non-shelter items. This may have been due to an initial hierarchy of basic needs and/or a matter of the cash assistance not being sufficient, but the fact remains that cash assistance may not have had a great impact on shelter-specific recovery.

These results can directly inform a midterm review of the Strategic Response Plan (SRP) by providing actors with clear gaps in recovery assistance and priority geographic areas on which to focus. Having met the Strategic Response Plan (SRP) objectives for emergency shelter provision, the sector has the opportunity to shift focus to achieve the recovery objectives in the same plan. With an affected population that cites better housing as a priority for the future, there is a clear opportunity for shelter sector actors to focus on areas in which self-recovery has stagnated and the current use of Building Back Safer methods are lowest and proving ineffective – urban areas and the provinces of Eastern Samar, Samar and Leyte.

This assessment serves as part of a larger monitoring and evaluation process beginning with initial needs assessments in the days immediately after an emergency, followed by interim monitoring and a final evaluation of the sector response. REACH has provided similar support to the Global Shelter Cluster following responses to Typhoon Bopha and the earthquake in Bohol province, both in the Philippines

SHELTER SECTOR RECOMMENDATIONS

As the transition to recovery accelerates, it will be important for shelter partners to work with provincial and municipal authorities to elaborate a range of rental, reconstruction, or relocation options, and ensure that communities are involved in formulating these options, and households have them explained under a policy of 'informed consent'.

Given the relatively low level of security of tenure across the affected population demonstrated by this assessment, shelter partners should ensure some form of tenure security is provided for in their shelter programmes. Secure land tenure and education on formal documentation should be based on local legal advice that takes into account the varying contextual tenure systems and forms in the Philippines.

Eastern Samar exhibits some of the lowest relative use of 'build back safer' building methods yet has the highest proportion of households having received appropriate technical advice on how to do so. Given that this analysis is focused on durable housing and that a very high proportion of shelter assistance has been provided to Eastern Samar, it is critical that shelter partners redouble efforts to incorporate the augmented advice currently being developed by the shelter cluster when providing assistance in this province, and throughout the affected area.

This assessment highlights large-scale outstanding needs, especially in coastal, rural areas north of the typhoon's track. Shelter partners seeking to expand their recovery operations should focus on those under-served areas, including difficult-to-reach inland areas, where the shelter cluster's gap analysis demonstrates continuing need. 90 per cent of households report having started reconstruction, yet over half (54 per cent) cite the need for further support.

Cash assistance has also been used sparingly by shelter actors and the large part of it has been used for purchase of food and other non-shelter items. While this may have been due to an initial hierarchy of basic needs, the increased use of cash in concert with technical support should be pursued.

With an affected population that cites better housing as a priority for the future, there is a clear opportunity for shelter sector actors to focus on areas in which self-recovery has stagnated, additional support is required and the current use of Building Back Better methods are lowest – urban areas and the provinces of Eastern Samar, Samar and Leyte.

WASH SECTOR CONCLUSIONS

Among the most affected provinces, North Cebu seems to be the province that received less WASH assistance after Yolanda: only 0.68 per cent of the population received assistance for rehabilitation or reconstruction of their water facilities and 0.34 per cent for assessing sanitation needs and/or rehabilitation or reconstruction of their sanitation facilities (76 per cent of the population benefited from shelter assistance). There are similar sanitation figures for Capiz and Iloilo.

More water and sanitation assistance seems to have been received by the households interviewed in Eastern Samar (82 per cent of the population have been assisted with shelter inputs): 71 per cent reported to have received chlorine to treat water before drinking it and 66 per cent received messages on how to treat water at the household level. In the same province, assistance for rehabilitation or reconstruction of water facilities was received by 28 per cent of the affected population, while sanitation assistance was received by 14 per cent. Four months after the typhoon, despite higher levels of WASH assistance received, Eastern Samar is the province where households reported to have noticed a decreased health status: 30 per cent declared an increased incidence in diarrhoea, skin or eye diseases and stomach problems. Far lower figures are reported for Antique (4 per cent) and Iloilo (9 per cent).

The distribution of family hygiene kits has covered 80 per cent of households within 50 kilometres of the typhoon path in Easter Samar. High coverage is reported also in North Cebu (73 per cent) and Western Samar (65 per cent).

Findings about awareness on key hygiene messages show households with similar awareness levels in each province. Among the eight provinces involved in the survey, 90 per cent of the households are aware of hand washing with soap before eating and after defecation. Awareness levels on messages about community health, using clean drinking water and proper waste disposal practices amount respectively to 53 per cent, 70 per cent and 44 per cent. Elimination of open defecation is a key message which is known only by 31 per cent of the population (higher figure in Cebu with 71 per cent and lower figure in Capiz with 15 per cent).

WASH SECTOR RECOMMENDATIONS

The statistical sampling methodology ensures a high confidence level because each subgroup of the population of size n has an equal probability of being chosen as the sample within 50 kilometres from the typhoon path. The non-uniform destructive effects of the cyclone within its path and the consequent non-uniform humanitarian response along the same path represent a critical factor to be considered when interpreting the assessment findings; however, the above reported figures, together with secondary data and field visit findings, can be utilized to define a more detailed assessment approach at municipality and barangay levels. This assessment was intended to assess the coverage of the humanitarian response at the provincial level, to identify gaps and to define recovery strategies.

It is advisable to promote a large scale baseline survey at the barangay level to identify which was the WASH coverage before the cyclone and which is the coverage of the humanitarian response. Quantitative and geographical gaps will be defined and targeted for support. A WASH intention survey should be promoted among the WASH partners to define sectoral and geographical gaps in the WASH response from emergency to recovery. The baseline survey, together with the intention survey, should be able to identify recovery strategies and interested partners to implement them. Better technical and management capacity, and involvement of local and national counterparts, will be required for those partners interested in mid-long term WASH programmes.

The development of technical and managerial guidelines for new or rehabilitated WASH infrastructures should be taken into consideration with “building back safer” and DRR visions in order to reduce or contain the magnitude of damages in case of a new natural disaster.

In order to improve the sustainability of the WASH facilities that will be provided, a strong decentralized WASH management approach is recommended. This will be possible by empowering or creating WASH committees at the barangay level in order to:

1. Ensure participatory approaches in WASH decision making processes;
2. Create hygiene and sanitation awareness;
3. Participate in WASH activities in other barangays in order to share experiences and solve constrains;
4. Define monitoring and evaluation mechanisms and operations and maintenance strategies;
5. Identify financial needs and possible actions aimed at fund raising;
6. Involve local and national counterparts for required support or any linkage with external stakeholders;
7. Define payment approach in order to increase sense of value, commitment and ownership among users;
8. Develop social/community mobilization initiatives

ANNEXES

ANNEX A – DAMAGE LEVEL CLASSIFICATION GUIDE FOR ENUMERATORS

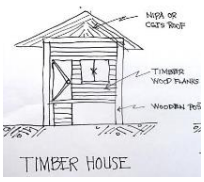
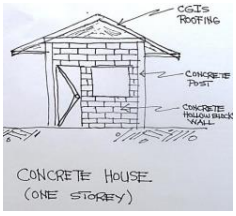
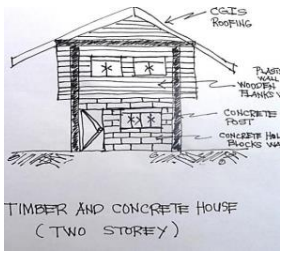
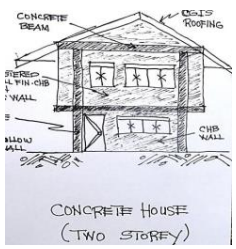
ANNEX B – BUILDING METHOD TECHNICAL GUIDANCE FOR ENUMERATORS

ANNEX C – HOUSEHOLD INTERVIEW QUESTIONNAIRE

ANNEX D – WASH ASSESSMENT PROVINCE-LEVEL FINDINGS

Annex A - Damage Level Classification Guide for Enumerators

Damage Categories
No Damage
Minor Damage
Major Damage
Totally Destroyed

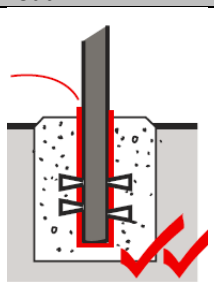
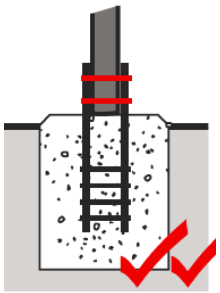
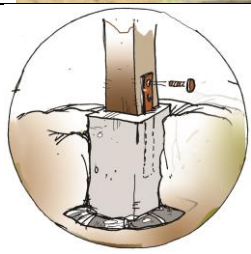
Name	Dwelling Type	Photo example	Damage Type	Category
Hut			1. Collapsed totally	totally
			2. Building Tilting sideways (right or left)	major
			3. Wooden Posts/beams bent/cracked/ dislocated	major
			4. Walls missing/damaged	major
			5. Roof missing/damaged	major
			6. Doors and windows damaged	minor
			7. Floors – collapsed/broken	minor
			8. Stairs / collapsed/missing	minor
			9. Foundation off line from wooden posts	major
Timber Frame			1. Collapsed totally	totally
			2. Building Tilting sideways (right or left)	major
			3. Wooden Posts/beams damaged - dislocated	major
			4. Walls missing/damaged	major
			5. Roof missing/damaged	major
			6. Doors and windows damaged	minor
			7. Stairs / collapsed/missing	minor
			8. Foundation off line from wooden posts	major
Timber and Concrete (one storey)			1. Collapsed totally	totally
			2. Tilting sideways (right or left)	major
			3. Concrete columns/beams damaged/bent/cracks/tilt	major
			4. Timber Walls/dislocated/broken/missing	major
			5. Concrete Hollow Block work /collapsed/tilt/cracks	major
			6. Roof damaged/missing	major
			7. Doors and windows damaged	minor
			8.Plaster/damaged/cracks/removed	minor
Concrete House (one Storey)			1. Collapsed totally	totally
			2. Tilting sideways (right or left)	major
			3.Concrete columns /beams/ damaged/bent/cracks/tilt	major
			4. Concrete Hollow Block work/collapsed/tilt/cracks	major
			5. Ceiling damaged/missing	minor
			6. Roof damaged/missing	minor
			7. Doors and windows damaged	minor
			8. Floor Slab / broken/cracks/split	minor
			9. Plaster/damaged/cracks/split	minor
Timber and Concrete House (two Storey)			1. Collapsed totally	totally
			2. Tilting sideways (right or left)	major
			3.Concrete/Timber columns /beams/ damaged/bent/cracks/tilt	major
			4. Concrete Hollow Block work/collapsed/tilt/cracks	major
			5. Ceiling damaged/missing	minor
			6. Roof damaged/missing	minor
			7. Doors and windows damaged	minor
			8. Floor Slab / broken/cracks/split	minor
			9. Plaster/damaged/cracks/split	minor
			10. First Floor Failed /Collapsed	major
Concrete House Two Storey			1. Collapsed totally	totally
			2. Building Tilting sideways (right or left)	major
			3.Concrete/Timber columns /beams/ damaged/bent/cracks/tilt	major
			4. Concrete Hollow Block work/collapsed/tilt/cracks	major
			5. Ceiling collapsed (inside)	minor
			6. Roof damaged/missing	major
			7. Doors and windows damaged	minor
			8. Floor Slab / broken/cracks/split	minor
			9. Plaster/damaged/cracks/split	minor
			10. First Floor Failed /Collapsed	major

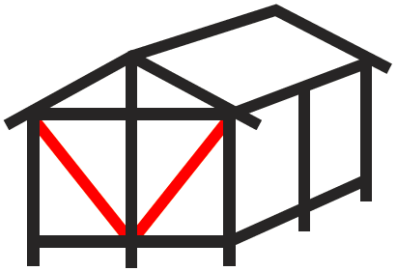
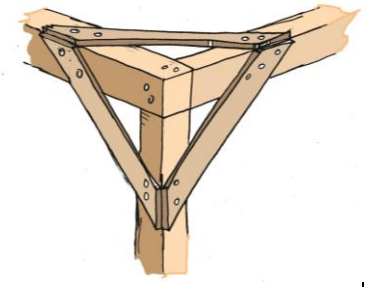
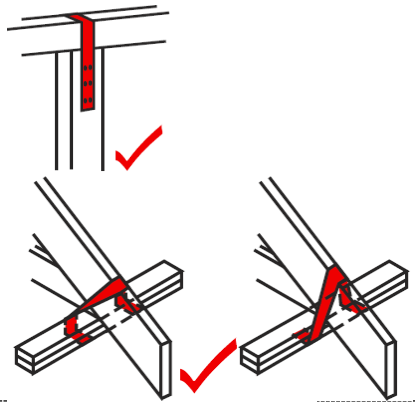
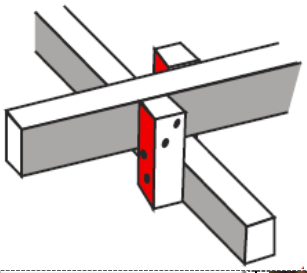
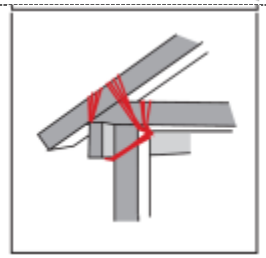
Annex B – Building Method Technical Guidance for Enumerators

Tarpaulin versus plastic sheets

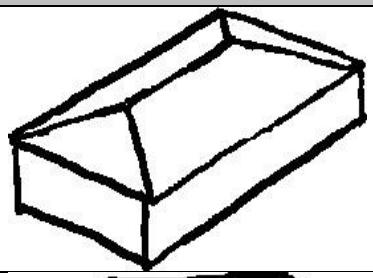
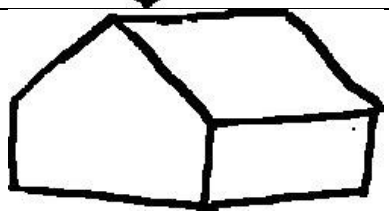
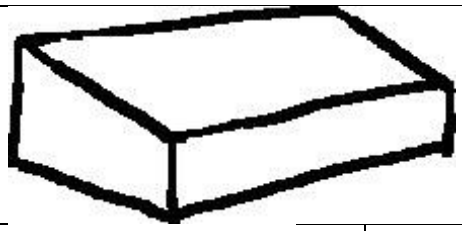
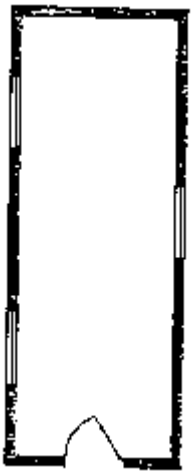
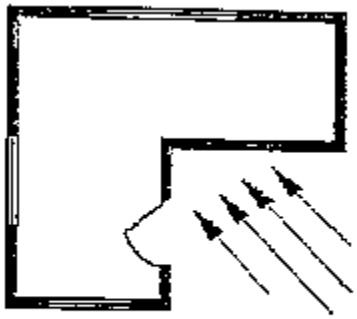
Topic	Visual	Remark
Tarpaulin		- Quite thick and heavy - Sometimes (not always) with reinforcement bands (=darker strips on the surface) - household's typically perceive it as 'good quality' - never transparent
Plastic sheet		- thin and very flexible - often perceived as 'not too good quality' - sometime transparent

Principle and details of Building Back Safer techniques

Topic	Visual	Remark
Concrete footings	  	Concrete footings are sometimes difficult to recognize → ask the household.
Bolted posts/columns	  	
Gusset plates	 	Instead of plywood it can also be (reused) metal sheets.

Full cross-bracing			Ask the household if bracing is temporary or permanent. (temporary bracing is often used during construction)
Corner cross-bracing			These small bracings are best to have in three planes (on the sides of the post) but 1 is better than none.
Techniques to connect roof elements to the wall (one of below options is good):			
a) Hurricane straps		 NOTE: this picture is to indicate the use of metal straps, but it should be used to connect roof trusses to the wall.	
b) Double cleats			Double cleats are best but very rare to see, if present than often only one.
c) Rope/wire		 	

Shape of the house

Topic	Visual	Remark
Hyped roof		Best, strongest design for typhoon resistance.
Gable roof		OK design for typhoon resistance (note: best roof angle =30º, i.e. not too steep or too flat..)
Pitched roof		Not good
Plan of the house "Good designs"	 	Square and rec tangle design of the house are OK. NOTE: rectangular shape: length is circa 1.5 x width
"Bad design"	 	Long rectangular (length > 1.5 width) or L-shapes are NOT typhoon resistant.

Shelter Cluster Philippines
ShelterCluster.org
Coordinating Humanitarian Shelter

WASH Cluster
Water Sanitation Hygiene

Typhoon Yolanda (Haiyan) 2014
Household Assessment

Date:	[MM/DD/YYYY]	**Database ID:**		**Reviewed**	
Completed by:		**Team ID:**		**Enumerator ID:**	

Hello, my name is _____ and I am collecting data for a consortium of local and international NGOs, organizations, UN and the Government.

I would like to ask you some quesitons about your household, the impact of Typhoon Yolanda on your living conditions and the assistance you have recieved. The purpose is to help the humanitarian community to understand how the response has been conducted and better plan and implement projects in the future.

The survey is confidential and any answers you provide will remain private. The questionnaire does not have "good" or "bad" answers. You do not have to answer if you do not want to. You may decline to answer any questions or stop the interview at any time. It will take around 20 minutes to complete. Do you agree to let me ask you these questions?

A.0 PRELIMINARY INFORMATION

A.0.1	1.1.1	Province		1.1.2	Municipality		
	1.1.3	Barangay					
A.0.2	Type of setting		Rural		Urban		
A.0.3	Is the household present?		Yes		No	If no, skip to observations	

A.1 DEMOGRAPHICS

A.1.1	Respondent age		Respondent gender		Male		Female									
A.1.2	Please specify the ages and number of your **direct** household members															
	Under 1 yr		1-5 yrs		6-12 yrs		13-18 yrs		19-39 yrs		40-60 yrs		Over 60 yrs			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
A.1.3	Is this a single-headed household?		Yes		No											
	If yes, what is the gender of the household head?		Male		Female											
A.1.4	Are there any pregnant / lactating women in the household?		Yes		No											
A.1.5	Are there any people with physical disabilities in the HH?		Yes		No											
A.1.6	Are there any people with chronic illnesses in the HH?		Yes		No											
A.1.7	Are any seperated/orphaned/unaccompanied children currently in the HH?		Yes		No											
A.1.8	Are there any members of an indigenous group in your HH?		Yes		No											

A.2 CURRENT CONTEXT

A.2.1	Where are you currently sleeping?		Inside own house		Outside own house						
		Informal evacuation centre		Formal evacuation centre		Official camp					
		Non-affected house with host family				Other					
A.2.2	Is this the land you were living on prior to Yolanda?		Yes		No						
A.2.3	If yes, were you displaced from this land immediately after the typhoon?		Yes		No						
A.2.4	Do you plan to remain on this land?		Yes		No						

A.2.5	Are you now hosting IDPs on this land?		Yes		No		
A.2.6	What is your land tenure status?		Own house and lot		Own house, rent lot		
		Rent house/room, including lot		Own house, rent-free lot with consent of owner			
		Own house, rent-free lot without consent of owner		Rent-free house and lot with consent of owner			
		Rent-free house and lot without consent of owner		Ancestral domain land			
A.2.7	Is this location officially considered a "No Build Zone"?		Yes		No		

A.3 SHELTER OVERVIEW & STATUS

A.3.1	Current damage to house		Totally Destroyed		Major damage		Partial damage		No damage
A.3.2	What type of shelter/house?		Makeshift		Emergency (tent, tarp)		Durable		
A.3.3	What do you plan to do with your current house?		Repair		Rebuild				
					Relocate				
A.3.4	Have you started the process?		Complete		Ongoing - will complete with own resources				
			Ongoing - but requiring support		Not yet started				
A.3.5	What is the roof currently fabricated with?		Tent		Tarpauline		Plastic sheet		
			Salvaged CGI		New CGI		Nipa		
			New timber		Coco lumber		Other		
A.3.6	What shape roof does the house currently have?		Hyped		Gable		Pitched		
A.3.7	Does the shelter/house provide covered protection from the rain?								
			Completely		Mostly		Not at all		
A.3.8	What kind of foundation/footing does the shelter/house have?								
			Treated timber		Non-treated timber		Concrete		None
A.3.9	Does the house have any of the following features?		Hurricane strapping		Corner cross-bracing				
			Full cross-bracing		Bolted columns				
			Gusset plates		Cleats				
A.3.10	Did the house have any of the following features before the Typhoon?		Hurricane strapping		Corner cross-bracing				
			Full cross-bracing		Bolted columns				
			Gusset plates		Cleats				
A.3.11	Does the shelter/house have interior room or partitions?		Yes		No				
A.3.11	What is the design of the house?		Good		Bad				
A.3.11	Are you able to secure your shelter/house (lock or door)?		Yes		No				

A.3.12	Are you able to assess whether your house is in a safe location or not?		Yes		No
A.3.13	Do you have access to electricity?		Yes		No
A.3.14	Did you have acces to electricity before Typhoon Yolanda?		Yes		No

A.4 WASH

A.4.1	Which is your primary source of drinking water?						Piped water		Tube well with hand pump		
		Open well		Spring		Purchase	Other				
A.4.2	At home, do you treat the water before drinking (e.g. boiling, disinfectant)		Yes		No						
A.4.3	After the typhoon, did you receive chlorine to treat water at your home?		Yes		No						
A.4.4	After the typhoon, did you receive any messages/info on treating water?		Yes		No						
A.4.5	After the typhoon, did you receive any support in rehabilitating your water facilties (e.g. pipes, water storage tanks, pumps, generator for electric pumps, power line for electric pump)								Yes		No
A.4.6	Did you receive any support in assessing damage to your toilet facilities?		Yes		No						
A.4.7	After the typhoon, did you receive any support in rehabiliting your toilet?		Yes		No						
	If yes, which part?		Walls, door, lighting, roof		Pipes, septic tank		New toilet				
A.4.8	If there are any issues with your water or toilets, do you know where to get help?								Yes		No
A.4.9	Among the members of your family, did you notice an increased incidence of diarrhea, skin/eye diseases or stomach problems in general?								Yes		No
A.4.10	Are you aware of any of the following key hygiene messages?		Handwashing with soap before eating and after defecating								
		Community health and hygiene is everybody's responsibility		Elimination of open defecation							
		Use of only clean, safe water for drinking		Proper solid waste and liquid waste disposal in designated places							
A.4.11	Did your household receive a hygiene kit?		Yes		No						

A.5 INCOME PROFILE

A.5.1	Does your current household income cover the family's basic needs?							
		Completely		Sufficiently		Partially		Not at all
	Before							
	Now							
A.5.2	If "Partially" or "Not at all," how are you covering your family's basic needs?							
		Sale of household assets		Seek employment opportunities in a new location		Seek new job in same location		
		Borrow from friends / family		Borrow from informal source		Borrow from formal source		
		Other (specify)		Humanitarian assistance				
A.5.3	Is your household a 4p beneficiary?		Yes		No			

B.1 ASSISTANCE RECEIVED & PRIORITIES

B.1.1	Has anyone in your household received any shelter assistance?		Yes		No					
	B.1.1	If yes, how many of each type of shelter assistance did you receive?								
		Tarps		#						
		Tents		#						
		CGI Sheets		#						
		Plastic Sheets		#						
		Construction Materials								
		Labor								
B.1.2	Did you receive any cash assistance?		Conditional		Unconditional		None			
	1.2.1	If "conditional" or "unconditional", what did you use your cash assistance for?								
			Materials		Labor		Food		Other	
B.1.3	Who provided your assistance?		Neighbors/Friends/Family							
			International Org		Local Org		Remittances		DSWD/NHA	Don't know
	B.1.3.1	Did you have an opportunity to recommend what type of assistance you would like to receive?					Yes		No	
B.1.4	How satisfied were you with the assistance you received?									
			Very satisfied		Satisfied		Somewhat satisfied		Not satisfied	
B.1.5	Have you received any information on the following issues?						None			
		Building back safer		What assistance is available			Complaint mechanism			
		Feedback processes		Longer term planning of support			Other			
B.1.6	What are your preferences for shelter assistance in the future?									
		Tarps	Tents	CGI Shets	Plastic Sheets	Construction Materials				
		Labor	Cash							
B.1.7	What are your priorities for the future?									
		Better house		Relocation		Other				
		Ability to build back permanently		Clearance of debt						
		Kids back to school		Restored livelihood						
B.1.8	How secure do you feel about the following issues?									
	Land Tenure		Very secure		Secure		Somewhat secure		Not secure	
	Relocation		Very secure		Secure		Somewhat secure		Not secure	
	Natural Disasters		Very secure		Secure		Somewhat secure		Not secure	
B.1.8	Do you know simple measures to prepare for the next disaster?		Yes		No		Don't know			

C.0	OBSERVATIONS (if household not present)							
C.1	What is the type of shelter/house?							
		Makeshift		Emergency		Durable		
C.2	What is the overall condition of the house?							
		Totally damaged		Major damage		Partial damage		No damage

Annex D – WASH Assessment Findings by Province

Primary sources of drinking water - March 2014 (%)						
Province	Open well	Other	Piped water	Purchase	Spring	Tube well hand pump
Aklan	3.78		15.37	7.8	35.93	37.12
Antique	2.1		15.93	11.32	33.33	37.32
Capiz	10.2		11.75	19.96	4.21	53.88
Cebu	10.14		36.49	49.32		4.05
Eastern Samar	5.22	3.4	31.29	17.23	4.08	38.78
Iloilo	8.81		8.18	20.34	5.24	57.44
Leyte	3.88	1.7	53.16	7.28	16.26	17.72
Samar (Western Samar)	16.75	1.5	45.5	5.25	10.5	20.5

HHs treating water before drinking - March 2014 (%)		
Province	No	Yes
Aklan	60.99	39.01
Antique	80.08	19.92
Capiz	65.41	34.59
Cebu	90.88	9.12
Eastern Samar	57.14	42.86
Iloilo	69.6	30.4
Leyte	71.6	28.4
Samar (Western Samar)	63.5	36.5

HH received chlorine for HH water treatment - March 2014 (%)		
Province	No	Yes
Aklan	97.4	2.6
Antique	98.53	1.47
Capiz	97.12	2.88
Cebu	72.97	27.03
Eastern Samar	28.57	71.43
Iloilo	86.79	13.21
Leyte	72.09	27.91
Samar (Western Samar)	44.75	55.25

HHs received messages on to treat the water before drinking - March 2014 (%)		
Province	No	Yes
Aklan	94.33	5.67
Antique	98.11	1.89
Capiz	96.67	3.33
Cebu	63.18	36.82
Eastern Samar	34.47	65.53
Iloilo	90.15	9.85
Leyte	70.87	29.13
Samar (Western Samar)	48.5	51.5

HHs received support in rehabilitation reconstruction of water facilities - March 2014 (%)		
Province	No	Yes
Aklan	97.87	2.13
Antique	99.37	0.63
Capiz	97.34	2.66
Cebu	99.32	0.68
Eastern Samar	71.66	28.34
Iloilo	93.5	6.5
Leyte	80.1	19.9
Samar (Western Samar)	69.25	30.75

HHs received support in assessing sanitation needs - March 2014 (%)		
Province	No	Yes
Aklan	98.58	1.42
Antique	99.58	0.42
Capiz	99.78	0.22
Cebu	99.66	0.34
Eastern Samar	85.94	14.06
Iloilo	99.16	0.84
Leyte	93.93	6.07
Samar (Western Samar)	95.5	4.5

HHs reviced support in rehabilitation/reconstruction of sanitation facilities - March 2014 (%)		
Province	No	Yes
Aklan	100	
Antique	100	
Capiz	100	
Cebu	99.66	0.34
Eastern Samar	92.52	7.48
Iloilo	99.58	0.42
Leyte	94.42	5.58
Samar (Western Samar)	96.25	3.75

HHs that know to who refer in case of problems to their sanitation facility (desludging, repairing septic tank) - March 2014 (%)		
Province	No	Yes
Aklan	93.85	6.15
Antique	87.84	12.16
Capiz	86.7	13.3
Cebu	57.09	42.91
Eastern Samar	73.47	26.53
Iloilo	89.31	10.69
Leyte	70.39	29.61
Samar (Western Samar)	76	24

Among family members, HHs noticed increased incidence of diarrhea, skin/eyes diseasesand stomach problem in general - March 2014 (%)		
Province	**No**	**Yes**
Aklan	91.02	8.98
Antique	95.6	4.4
Capiz	81.15	18.85
Cebu	79.05	20.95
Eastern Samar	70.07	29.93
Iloilo	91.4	8.6
Leyte	78.4	21.6
Samar (Western Samar)	73	27

HHs aware about key hygiene messages - March 2014 (%)						
Province	**Handwashing with soap**	**Community health**	**Elimination open defecation**	**Use clean drinking water**	**Waste disposal**	**None**
Aklan	94.33	49.88	34.75	61.47	40.9	1.42
Antique	97.69	45.91	20.75	66.88	50.52	0
Capiz	88.47	35.48	15.52	66.08	32.82	0
Cebu	80.41	59.8	71.28	91.89	77.7	0.34
Eastern Samar	91.38	69.16	32.65	73.7	40.36	0
Iloilo	91.19	36.27	19.08	64.99	44.03	0
Leyte	89.56	62.86	35.92	62.62	39.32	0
Samar (Western Samar)	89.75	61	20	70.25	29.75	1.25

HHs that received at least one family hygiene kit - March 2014 (%)		
Province	**No**	**Yes**
Aklan	90.78	9.22
Antique	92.87	7.13
Capiz	86.7	13.3
Cebu	26.69	73.31
Eastern Samar	19.73	80.27
Iloilo	78.2	21.8
Leyte	70.39	29.61
Samar (Western Samar)	35.25	64.75