Haiyan Super Typhoon Assessment Analysis

Frequently Asked Questions

Q. What methodology did you use to sample for the assessment?

The methodology used involves three stages of random sampling that will allow for a statistical analysis across the entire affected area at a confidence level of 95% and a confidence interval of 5. This means that we are able to say with 95% assurance and within a range of 5 points above or below the reported value that the reported result is accurate. For example, if the results show that 74% of households in coastal areas are totally damaged, we can be sure that 95% of the time, the value of totally damaged houses in coastal areas falls within the range 69-79%. In other words, if we were to sample from the same population 100 times, we'd expect the value to fall within the 69-79% range 95 times out of 100. This is a standard statistical confidence level.

Stages:

1. The first stage employed multi-stage cluster sampling by categorizing municipalities based on their geographic location in relation to the path of Typhoon Haiyan; within 50km and 50 – 100km. Municipalities within each of the geographical clusters were then classified into another 4 clusters based on level of storm surge, with the lowest strata being inland areas (no storm surge). 3 out of 4 storm surge classes, with 1 class being inland, was designed as a proxy for coastal municipalities, which represent roughly 75% of the total municipalities from which the sample was selected, allowing for an understanding of the impact of storm surge on damage. A total of 16 municipalities were randomly selected based on this two-stage cluster sampling: 10 municipalities from the 50km distance class (the priority area for the Government of the Philippines) and 6 municipalities from the 50 – 100km class. Each storm surge cluster is represented in each geographic cluster, as well as equally across the entire sample.
2. The second stage employed the use of proportional stratified random sampling at the barangay level within selected municipalities. A maximum of 20 barangays were selected for each municipality based on this sampling strategy. The barangays were classified based on population size and an equal number was randomly selected from each population class. For each selected barangay, the population proportion it represented out of the total selected barangay population of that municipality was calculated. This percentage was then used to calculate the proportion of the total household sample size for each barangay. This ensured that less populated barangays were represented, but not overrepresented in the total household sample. A sample of 20 barangays also ensured good geographic distribution across the municipality.
3. The third stage involved households being randomly selected by enumerators by conducting a randomized field walk; assessing one household out of every three present in the geographical location they were assigned within a barangay. This method avoided assessing only the most damaged households and also provided a geographic distribution across the entire inhabited area of the barangay.

As per the selection methodology described above, a random selection of 16 municipalities across the affected region of the Central Philippines was generated. The total representative sample size for the selected municipalities has been calculated as 5,852. In order to account for households that are not present at the time of assessment, a buffer of 20% was added to the sample size in order to retain a representative sample for all indicators; thus REACH aimed to conduct 7,023 household assessments across the target area.

Q. How can the data be used (and not used)?

The data can be used to provide the Shelter and WASH Clusters, as well as other humanitarian actors, with an in depth analysis of the entire region affected by Typhoon Yolanda. The analysis will speak with most confidence about individual municipalities sampled and the entire affected area while it will provide slightly less confidence for individual distance classes given that only a limited number of municipalities are sampled for each distance class. Humanitarian actors will have access to the data, but should be careful to understand that the data is only representative at the municipality level with the ability to extrapolate results for the entire affected area by distance class and storm surge occurrence, given the randomized geographic distribution. The data are also not representative of other categories that are examined, including vulnerable populations and housing types. Analysis is not possible for individual barangays, as the sample size is not representative at this level. For example, the analysis could provide a result stating that 18% of households located within the 50km distance class are displaced. We could not say, however, that 18% of households within a certain barangay are displaced even if it is located within one of the assessed areas. In other words:

We Can Generalize	We Can't Generalize
We can provide results for municipalities in the affected area	We cannot provide results for individual barangays in the affected area for any parameter
We can provide results for municipalities in individual distance classes in the affected area	We cannot provide results for any location outside the 100km distance class of the affected area
We can provide results for urban and rural areas in the affected area	
We can provide results based on storm surge levels (as well as inland areas)	

Q. If my organization uses the assessment tool in a few other municipalities, can they be included in the analysis?

It depends. If your organization uses the same methodology mentioned above to sample municipalities, barangays and households, the results of the two assessments would be able to be compared. However, if any other methodology is used, such as purposively sampling a few municipalities of interest to your organization, the data could only be used as contextual information in the analysis for the Shelter/WASH detailed assessment. Methodology is important here and requires strict observance to be able to provide accurate analysis for the affected area.

Q. How can my organization get access to the data for our own analysis?

The entire data set will be available on the Shelter (www.sheltercluster.org) and WASH (www.washcluster.info) Cluster websites as well as the REACH Initiative (www.reach-initiative.org) website. Individual organizations can use the data to run analyses across indicators of interest for specific programming, but need to be careful to consider the limitations (and strengths) of the data set mentioned above.

Q. How do I contact someone at REACH for methodological support to use the tool for my own assessment?

The tool is available in PDF and XML format and you can download it at https://www.sheltercluster.org/Asia/Philippines/Typhoon%20Haiyan%202013/Pages/REACH-Assessment.aspx. You can contact either Vincent Annoni, Global REACH Coordinator at: vincent.annoni@impact-initatives.org or Clay Westrope, Global REACH Assessment Specialist at: clay.westrope@impact-initatives.org.