



World Values Survey Wave 7 in Maldives: Sample Design.

The target population is all residents of the Maldives (this includes migrant workers).

Samples was drawn from the entire population of 18 years and older residing in private households, regardless of their nationality, citizenship, or language. No upper age was imposed.

The target sample was a minimum of 1000 completed interviews with residents of the Maldives, making up a national representative sample based on multi-stage territorial stratified selection with elements of random route sampling.

The Maldives is a geographically dispersed island nation of over 1000 islands. The islands are grouped into geographically separate 26 atolls, but for administrative purposes they are grouped as 20 Atolls. Each atoll has a designated capital island. The number of islands of the Atolls varies, with Kaafu Atoll having 107 islands while Gnaviyani Atoll is an island in itself. The average size of the islands is less than a square km and only 190 islands are inhabited, with 83% of these islands having a population of fewer than 1,500. The average population of the islands in the outer atolls (apart from greater Male' area) is less than a 1000, with the smallest population at 74 people and the largest population at 8,226. Each of the administrative atolls, on average, have 9 inhabited islands. Of the total population, over 38% of the people live in greater Male' area; 31% lives on Male' city, the capital of the Maldives. The general estimate by WSA states 60% of population in any country lives in rural areas and 40% in urban areas.

In the Maldivian context, there is no formal distinction between rural and urban areas. Therefore, for the purpose of this study:

- The urban regions were taken as Male' City, Addu City comprising of all islands in Addu (Seenu) Atoll, Fuvahmulah City, & Kulhudhuffushi City. These included all the islands/atolls that has been assigned city-status by the government of Maldives. Based on the 2014 census data, people living on these "urban" islands make up 51% of the population.
- The rural areas were taken as the outer atolls/islands of the Maldives. That is, all other atolls and islands that has not been declared as cities.

Based on these population data, for this survey, 51% of the sample were selected from islands in the outer atolls/islands (half of them from capital islands in that region) and the other 49% were taken from greater Male' area and other cities.

For sample stratification, the entire population was divided using the latest available population census data of 2014. Of the 20 administrative atolls, 2 atolls are cities.

In addition to the Greater Male' area, 10 atolls were taken as the atoll-sample using a systematic random sample of selecting alternative atolls from the alphabetical order of the Atolls list. (They are: Haa Alif Atoll, Shaviyani Atoll, Raa Atoll, Lhaviyani Atoll, Alif Alif Atoll, Vaavu Atoll, Faafu Atoll, Thaa Atoll, Gaafu Alif Atolls, and Gnaviyani Atoll).

This limitation was important for financial considerations given the geographic dispersion of the country and the high cost of travelling.



At least 20 islands from the 190 islands were selected as the island units. From each of the above 10 atolls, the capital island and an additional island were selected using systematic random sampling with all islands sorted according to the population size, and grouped into 18 island clusters. From each cluster the last on the list that coincides with one of the above selected atolls was chosen. (This additional island might be swapped for another island in the Atolls, based on travel logistics).

At least 200 Primary Sampling Units (PSUs), in this case islands or electoral divisions of islands, forms the second stage of sampling. The third stage of sampling was the selection of households within the selected PSUs using simple probability sampling.

A maximum of 10 participants were selected from each PSU. The total number of participants from each PSU and each island was representative of the population.

As outline earlier in number 5, the rural areas were taken as the outer atolls/islands of the Maldives, other than the atolls and islands that has been declared as cities. The population in these islands account for 51% of the population. The sample was representative.

In determining the PSUs the latest electoral divisions was utilized to divide the island population into groups. Since the PSU's electoral lists include addresses, a street was selected (simple random selection). Households were selected using systematic random sampling using a sampling interval of 3 (every third household was selected)

A maximum of 10 respondents per PSU. The total number of participants from each PSU and each island were representative of the population.

The electoral divisions and lists carry eligible voters. However, relying on this list will eliminate the chance of including temporary residents (expatriate workers). Therefore, using the PSU, a street was picked randomly, and every 3rd house selected.

Only one person from the household was selected. This was determined on the first approached adult over 18 years of age.

The interviews were conducted in the respondent's residence, or at a mutually acceptable location for both the respondent and the researcher if the prospective participants requests for it.

The survey was conducted as a face-to-face interview by trained enumerators supervised by the research team. Respondent's answers were captured using a Tablet/smart device where questionnaire was managed digitally using special survey software tools.

The MNU Research Centre already had the necessary equipment, and digital completion of questionnaires was already be carried out in earlier national surveys

During the 2 months allocated for data collection, enumerators worked through Saturday to Thursday, with usual house calls to occur during the day, preferably between 10 am to 4 pm. If the prospective participant was not available to respond, a later visit was arranged for a mutually acceptable time on the same day or the day after. Data collection was not carried out on Fridays.



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The interviews were conducted by trained enumerators who were familiar with WVS questionnaire. During the data collection phase, the Principal Investigator along with co-PI's were randomly checking while interviews were being conducted.

At least one of the three investigators (the Principal Investigator and 2 co-PIs) were visiting all of the islands where interviews were to be conducted. The full interviews were monitored for at least one interview in each PSUs. This means at least 200 out of the 1000 interviews were closely monitored by either one of the investigators.

The travelling between the islands was the major challenge in the universal coverage for national surveys, especially when conducted as an interview. Inter-island transport is expensive by air and strenuous by sea.

Ethics clearance needed to be sought from the Research Centre of the Maldives National University. In addition, approval to conduct the survey was obtained from National Bureau of Statistics as all household surveys require their approval by local regulation.