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## World Values Survey (WVS): Wave 7 December 3-9, 2019

### TECHNICAL DETAILS

#### 1. Location

The **World Values Survey (WVS): Wave 7** covered the entire Philippines and had four major study areas: National Capital Region (NCR), Balance Luzon (outside NCR), Visayas and Mindanao.

#### 2. Timetable: Fieldwork

National Capital Region	-	December 3-9, 2019
Balance Luzon	-	December 3-9, 2019
Visayas	-	December 3-9, 2019
Mindanao	-	December 3-9, 2019

#### 3. Respondents

Data were gathered through face-to-face pen and paper interviews (PAPI) of voting-age Filipino adults (18 years old and above) at the respondent's place of residence. It asked a host of questions about social values, attitudes and stereotypes; happiness and well-being; social capital, trust and organizational membership; economic values; corruption; migration; security; post materialist index; science and technology; religious values; ethical values and norms; political interest and political participation; as well as background information of the respondents.

#### 4. Sampling Method

**Sample Sizes and Error Margins.** An indicator of data quality is the standard error of the estimate, on which the margin for sampling error is based. As survey statistics are mostly proportions, the key measure of data precision is the standard error of a proportion taken from a sample. It is computed as follows:

$$\pm Z * \sqrt{\frac{p(1-p)}{n}}$$

Where  $Z$ , at 95% confidence level is 1.96;  $p$  is the sample proportion estimate and  $n$  is the sample size. The overall sample size of 1,200 voting-age adults gives a maximum error margin of  $\pm 2.83\%$  at the 95% confidence level, assuming a simple random sampling design. The sampling error is at its highest when the true proportion being estimated is close to 50%.

The following approximate 95%-confidence margins for sampling error should be made when aggregating data at various levels:



	<u>Sample Size</u>	<u>Error margin</u>
Philippines	1200	±3%
National Capital Region	300	±6%
Balance Luzon	300	±6%
Visayas	300	±6%
Mindanao	300	±6%

However, somewhat higher error margins should be expected since multi-stage cluster sampling is used; this design-effect is not readily measurable through established statistical software.

**Sampling scheme.** Multi-stage probability sampling was used in the selection of sample spots. The allocation of sample units in each stage is as follows:

	<u>Sample Prov.</u>	<u>Sample Spots</u>	<u>Probability Respondents</u>
National Capital Region	--	30	300
Balance Luzon	10	30	300
Visayas	5	30	300
Mindanao	6	30	300
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	21	120	1200

### ***For the National Capital Region***

#### **Stage 1. Selection of Sample Spots (Barangays/Villages)**

For NCR's first stage, 30 spots are selected from all the barangays in the 17 NCR cities and municipalities. Each spot was selected with probability proportional to size (PPS).

To select barangays using PPS, cumulative counts are computed among barangays. Random numbers, ranging from 1 to the maximum cumulative count, are drawn and the barangay whose range of cumulative counts covers the random number is the one selected. To illustrate, if Barangay A has a population of 100, its cumulative count is 1-100, then if the next barangay, Barangay B, has a population of 150, its cumulative count is 101-250, and if the next barangay, Barangay C, has a population of 50, its cumulative count is 251-300. A random number is then drawn from 1-300; if the random number drawn is 185, it falls within the range of cumulative counts of Barangay B, making it the barangay selected using PPS.

#### **Stage 2. Selection of Sample Households**

In each sample barangay, ten households were established by systematic sampling. Designated starting points were randomly assigned - it was either: 1) a municipal/barangay hall, 2) a school, 3) the barangay captain's house, 4) a church/chapel/mosque, 5) a health facility, or 6) a basketball court. A random start from 1-6 was also randomly generated for each spot. Thus, if a particular spot has a random start of 4, the first sample household should be the 4<sup>th</sup> household from the designated starting point. Subsequent sample households were chosen using a fixed interval of 5 households in between the sampled ones; i.e. every 6<sup>th</sup> household was sampled.



### Stage 3. Selection of Sample Adult

For the third stage, in each selected household, a respondent was randomly chosen among the household members who are 18 years of age and older, using a probability selection table. A respondent not contacted during the first attempt was visited for a second time. If the respondent remained unavailable, or in cases where there was no qualified probability respondent, the interval sampling of households continued until ten sample respondents were identified.

### *For the rest of the Philippines*

#### Stage 1. Allocation and Selection of Sample Provinces

Balance Luzon was further divided into 6 regions: Region I, CAR+Region II, Region III, Region IV-A, Region IV-B and Region V; Visayas into 3 regions: Region VI, Region VII and Region VIII; and Mindanao into 6 regions: Region IX, Region X, Caraga, Region XI, Region XII and ARMM.

Using probability proportional to population size (PPS) of the region, the allocation of 10 provinces in Balance Luzon, 5 in Visayas and 6 in Mindanao were as follows:

BALANCE LUZON		VISAYAS		MINDANAO	
Region I	1	Region VI	1	Region IX	1
CAR+Region II	1	Region VII	2	Region X	1
Region III	3	Region VIII	2	CARAGA	1
Region IV-A	3			Region XI	1
Region IV-B	1			Region XII	1
Region V	1			BARMM	1
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TOTAL	10		5		6

The non-quota provinces were selected without replacement using probability proportional to their remainders. The remainders are fractions derived when the proportion of the regions (based on their respective study area) are multiplied by 10 for Balance Luzon, 5 for Visayas and 6 for Mindanao. For instance, if 1.28 is obtained for Region I, then 1 province is assigned to this region and remaining fraction of 0.28 is included for the allocation of the non-quota province.

Given the target number of provinces for each region, sample provinces were then selected by PPS, without replacement. An additional provision is that each region must receive at least one province.



## Stage 2. Allocation and Selection of Sample Spots (Barangays/villages)

Within the study areas of Balance Luzon, Visayas, Mindanao, 30 spots were selected within each region with probability proportional to population size, without replacement.

BALANCE LUZON		VISAYAS		MINDANAO	
Region I	4	Region VI	11	Region IX	4
CAR+Region II	4	Region VII	12	Region X	6
Region III	7	Region VIII	7	CARAGA	4
Region IV-A	10			Region XI	6
Region IV-B	2			Region XII	5
Region V	3			BARMM	5
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TOTAL	30		30		30

Sample barangays were then classified as urban or rural based on the latest National Statistics Office classification (2015).

## Stage 3. Selection of Sample Households

For the third stage, within each sample spot, ten households were established by systematic sampling. In urban barangays as well as in rural barangays, designated starting points were randomly assigned - it is either: 1) a municipal/barangay hall, 2) a school, 3) the barangay captain's house, 4) a church/chapel/mosque, 5) a health facility, or 6) a basketball court. A random start from 1-6 was also randomly generated for each spot. Thus, if a particular spot has a random start of 4, the first sample household will be the 4<sup>th</sup> household from the designated starting point. The sampling interval for urban barangays was six, while for rural barangays, it was two.

## Stage 4. Selection of Sample Respondents

For the fourth and final stage, a respondent was randomly chosen from among the voting-age adults in each selected household using a probability respondent selection table. A respondent not contacted during the first attempt was visited for a second time. If the respondent remained unavailable, or in cases where there was no qualified probability respondent, the interval sampling of households continued until five sample respondents are identified.



## 5. Research Methodology

### *a. Preparation*

#### (1) Questionnaire

The WVS wave 7 questionnaire was provided to SWS in English. This was translated to Filipino which was the definitive version for other Philippine language translations. The Filipino version of the questionnaire was translated into Cebuano, Hiligaynon, Iluko, Bicol, Waray and Tausug by language experts. Then the language translation underwent cognitive pretests to make sure that the messages were conveyed accurately.

The questionnaire included a consent form which indicated the purpose of the survey, the survey implementer/s (WVSA/SWS other research sponsors), approximate interview length, assurance of confidentiality, whom to contact for answers to questions about the study, and statements indicating participation is voluntary, there are no right or wrong answers, the right to refuse answering questions, and that there will be no risk or benefit in participating in the survey. The uses to which the data will be put was also included in the request for consent introduction.

#### (2) Pre-Testing and Finalizing the Questionnaire

The questionnaire underwent cognitive pre-tests in order to:

- Determine the time length of the interview
- Improve the wording of the questions, if necessary
- Eliminate unnecessary questions or add new items, as the case may be
- Test question sequence and identify bases
- Correct and improve translation
- Change open-ended questions into multiple-choice questions
- Find out which items are conceptually vague
- Check accuracy and adequacy of the questionnaire instructions
- Determine whether the focus of the question is clear
- Identify interviewer's recording difficulties

#### (3) Training

- (a) Training was conducted in several strategic locations with interviewers assigned to cover specific areas being trained near their area assignments.
- (b) Training time – The minimum training time for group supervisors and interviewers was 2 days prior to field implementation. The third day was the start-off, where the field supervisor observed the field interviewers on their first interviews.
- (c) Training Activities – These mainly consisted of:

One or two days office training to learn the basics of the project methodology. Mock interviews among participants, i.e. field interviewers interviewing each other or



supervising anchors as respondents were done to get accustomed to the flow of interviewing and questionnaire format.

Interviews were practiced with a supervisor until the interviewer could be left on her own.

- (d) Evaluation of interviewer's work – All first interviews of each field interviewer were observed by her field supervisor, and then evaluated. Only after meeting a certain evaluation criteria was an interviewer left to interview on her own, although her field supervisor always stayed within the vicinity of the sample spot to conduct checks.

## **b. Field Work**

### **(1) Workers on Hand**

For this project, a total of 68 field staffs were deployed.

### **(2) Supervision**

Field supervisors reporting to the field manager monitored the study full-time. They observed field interviewers (at least 10% of each interviewer's assigned interviews were observed by supervisors), and did back checks and spotchecks. They also ensured that field logistics are received promptly and administered properly.

### **(3) Quality Control**

Throughout the data collection period, SWS employed the following strategies to safeguard the quality of data: *direct observation, spot checking, back checking, and field editing*.

Part of quality control was to make sure at least 30% of each interviewer's output were spot checked and back checked. At least 10% were spot checked, 10% back checked thru phone, and 10% were back checked in-person). Once an incomplete or inconsistent answer was spotted in the questionnaire, the field interviewer was asked to go back to the respondent's house to re-ask the question for verification.

- (a) Observing and spot checking. Observing refers to an act, announced, wherein the SA observes the entire/full implementation of an interview, whereas spot checking is an act, unannounced, wherein the SA observes a substantive portion of an interview. In conducting the observation/spot checking, the first few surveys implemented by the interviewers were given priority to immediately identify errors, if any, and address potential difficulties.
- (b) Back checking. The SAs also conducted random back checking, which pertains to an act, unannounced, wherein the SA checked the coverage and interviews of the interviewer by going back to the respondent to ask a set of questions regarding the survey interview.



- (c) Field editing. The completed questionnaires were physically checked to identify errors made by the interviewers. To do this, the field supervisors/survey city anchors conducted field editing of completed questionnaires, an act wherein the SA or survey city anchor physically checked the questionnaires for completeness and consistency. Field editing allows the SA or survey city anchor to make sure that all questions in the questionnaire are completely filled-out, check adherence to skipping instructions, and verify consistency by comparing answers to related questions.

The first few sheets completed by the interviewers were given priority, making sure that all points were correctly covered and answers were recorded properly and completely. Field editing of interviews was done for all interviewers. Should there be errors found in the interviews, the field supervisor put notations or comments on the questionnaires and promptly informed the concerned interviewer about the errors, if any, so that they would not commit similar mistakes again. If the errors could be corrected based on already collected data, the said questionnaire were either re-asked or re-done by a different interviewer.

As per standard practice of SWS, the questionnaires had a “field control” checklist to make sure that the required proportion of interviews were subjected to quality control procedures. The field control checklist for each interview specifies whether it has been observed, spot checked, back checked, and field edited. Any field staff found to be filling out false information would be terminated.

In all the different measures of quality control mentioned above, the following were monitored, but not limited to:

Accuracy of the random walk procedure, including the selection of the barangay (village), household, and the use of the Kish grid; the use of the call sheet (diary of calls), duration of the interview and interviewer behavior and the completion of the questionnaire during fieldwork, and consistency and validation of answers during data processing.

### **c. Post fieldwork: Data Processing**

In assembling the data encoding and cleaning teams, SWS relied in large part on its current roster of data encoders with extensive experience, from prior surveys of SWS, in encoding survey data, cross-checking for consistency, and cleaning the data (not transformations).

Core members of the data processing team (including select encoders) attended the Supervising Anchors Training (SAT) for them to have a better understanding of the questionnaires. They also attended a separate data processing training that explained to them the data editing, coding, encoding, and cleaning procedures.

When the completed sheets were received at the SWS office in Quezon City for data processing, Office Editors conducted consistency checks on all completed sheets prior to coding.

A computer data entry program (in CSPro or similar software) was prepared to facilitate the encoding process and checking of encoded data. Range-rules as well as skip and fill



applications were incorporated in the data entry program to ensure that encoded responses are within defined limits.

Encoded data were validated (100%) by a group separate from the encoders.

A codebook was prepared for all questions in the survey. The codebook contains the variable names and their labels, the response categories and their labels, and codes for missing values. After encoding is completed, the dataset is converted into SPSS format for tabulation of results. All data tables generated are checked and validated.

To ensure protection of the survey database, multiple back-up copies are created by SWS and stored in secure locations inside and outside (offsite) the SWS office. These are also archived in its Survey Data Library.

#### **d. Weighting Procedure to project to the Population**

SWS submitted unweighted data to WVSA. For its own use, however, SWS applied weights on the data to yield representative figures at the national level; thus census-based population weights were applied to the survey data.

The weight projection is computed by dividing the projected population in the area by the sample size of the same area. Appropriate projected factors are applied so that original population proportions are reflected in the data tables using this formula.

$$\text{Projection factors (Weight)} = \frac{\text{Population}}{\text{No. of Interviews}}$$

For questions answered by the sample voting-age adults, the following projection factors are used:

	2019 PSA Projected Population Age 18 and above	Total Sample Size (1,200)	Projection factor for probability Respondent (000)
NCR	9,102,379	300	30.3412619466
Balance Luzon	29,553,764	300	98.5125472613
Visayas	12,616,749	300	42.0558286297
Mindanao	14,879,039	300	49.5967955081
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TOTAL	66,151,930	1,200	

The SPSS version of the datafile is already weighted according to the above projection factors. As the data are weighted, the total number of cases that appear is 66,152. The figure is in thousands, i.e., 66,151,930 persons representing PSA's projected number of adults (18 years old and above) for year 2019 based on the 2015 population Census.

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