



## *Tugon ng Masa (TNM)*

### TECHNICAL DETAILS

#### I. LOCATION

The survey was conducted in nationwide from **February 12 – 17, 2022**.

National Capital Region (NCR)	February 12 – 16
Balance Luzon	February 12 – 17
Visayas	February 12 – 16
Mindanao	February 12 – 17

#### II. RESPONDENT AND SAMPLE SIZE

**One thousand two hundred (1200)** male and female probability respondents aged 18 years and above from Class AB, C, D or E homes were interviewed for the study.

The sample was distributed as follows:

	URBAN	RURAL
National Capital Region (NCR)	300	
Balance Luzon	105	195
North Luzon	40	105
South Luzon	65	90
Visayas	150	150
Mindanao	110	190

#### III. SAMPLING DESIGN

Sample sizes and Error Margins

Below is the distribution of the sample by area and the corresponding error margin at the 95% confidence level.

AREA	SAMPLE SIZE	ERROR MARGIN
<b>TOTAL PHILIPPINES</b>	<b>1,200</b>	<b>±3%</b>
<b>National Capital Region</b>	<b>300</b>	<b>±6%</b>
<b>North/Central Luzon</b>	<b>145</b>	<b>±8%</b>
Cordillera Administrative Region	10	±31%
Region I	35	±17%
Region II	25	±20%
Region III	75	±11%
<b>Southern Luzon</b>	<b>155</b>	<b>±8%</b>
Region IV-A	95	±10%
Region IV-B	20	±22%
Region V	40	±15%
<b>Visayas</b>	<b>300</b>	<b>±6%</b>
Region VI	115	±9%
Region VII	115	±9%
Region VIII	70	±12%
<b>Mindanao</b>	<b>300</b>	<b>±6%</b>
Region IX	45	±15%
Region X	60	±13%
Region XI	60	±13%
Region XII	55	±13%
CARAGA	35	±17%
BARMM	45	±15%

#### IV. SAMPLING SCHEME

The number of sample barangays was distributed among the 17 regions proportional to population size. In each sample barangay, five (5) probability respondents were selected.

AREA	SAMPLE BARANGAYS	PROBABILITY RESPONDENTS
<b>TOTAL PHILIPPINES</b>	<b>240</b>	<b>1,200</b>
<b>National Capital Region</b>	<b>60</b>	<b>300</b>
<b>North/Central Luzon</b>	<b>29</b>	<b>145</b>
Cordillera Administrative Region	2	10
Region I	7	35
Region II	5	25
Region III	15	75
<b>Southern Luzon</b>	<b>31</b>	<b>155</b>
Region IV-A	19	95
Region IV-B	4	20
Region V	8	40
<b>Visayas</b>	<b>60</b>	<b>300</b>
Region VI	23	115
Region VII	23	115
Region VIII	14	70
<b>Mindanao</b>	<b>60</b>	<b>300</b>
Region IX	9	45
Region X	12	60
Region XI	12	60
Region XII	11	55
CARAGA	7	35
ARMM	9	45

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

- Stage 1: Selection of Sample Barangays – Sixty (60) barangays were distributed among the 17 cities and municipalities in such a way that each city/ municipality was assigned a number of barangay that is roughly proportional to its population size. An additional provision was that each municipality must have one sample barangay. Barangays were randomly selected without replacement from within each city/municipality.
- Stage 2: Selection of Sample Households – In each sample barangay, interval sampling was used to draw 5 sample households. A starting street corner was drawn at random. The first sample household was randomly selected from the households nearest to the starting street corner. Subsequently, every 6th household was sampled.
- Stage 3: Selection of the Sample Adult – In each selected household, a respondent was randomly chosen from among household members who were 18 years of age and older, using a probability selection table. To ensure that half of the respondents were male and half were female, only male family members were pre-listed in the probability selection table of odd-numbered questionnaires while only female members were pre-listed for even-numbered questionnaires. In cases where there was no qualified respondent of a given gender, the interval sampling of households was continued until five sample respondents were identified.

##### *For the rest of the Philippines:*

- Stage 1: Allocation of sample barangays to Regions – The number of barangays allocated to each region was proportional to population size.
- Stage 2: Allocation and Selection of Sample Cities/Municipalities to Regions – Within each region, 15 cities/municipalities were allocated to the regions in proportion to household population size. Sample cities/municipalities were selected without replacement and with probability proportional to household population size.
- Stage 3: Selection of Sample Barangays – Once the cities/municipalities have been selected, the allocated number of barangays were distributed among the sample cities/municipalities in such a way that each city/municipality was assigned a number of barangay roughly proportional to its household population size. However, it was ensured that each city/municipality will be assigned at least one sample barangay. Sample barangays within each sample city/municipality were randomly selected without replacement.
- Stage 4: Selection of Sample Households – Within each sample barangay, five households were selected through interval sampling. In sample urban barangays, a random corner was identified, a random start generated, and the sampling interval used was five. In rural barangays, the designated starting point could be a school, the barangay captain's house, a church/ chapel, or a barangay/municipal hall and the interval was one.
- Stage 5: Selection of the Sample Adult – In each selected household, a respondent was randomly chosen from among household members who were 18 years of age and older, using a probability selection table. To ensure that half of the respondents were male and half were female, only male family members were pre-listed in the probability selection table of odd-numbered questionnaires while only female members were pre-listed for even-numbered questionnaires. In cases where there was no qualified respondent of a given gender, the interval sampling of households was continued until five sample respondents were identified.

**Setting-up**

- The list of information included in the survey questionnaire that was used for the study was developed by the research team at OCTA. The final questionnaire was then prepared in Filipino with its corresponding English translation. The questionnaire was also translated into the following languages (Bikol, Cebuano, Ilokano, Ilonggo) for use in different areas covered in the survey.
- Field interviewers that were commissioned for the study underwent extensive training prior to deployment. The objectives of the study, the questionnaire, interview techniques and interval sampling for the fieldwork coverage were discussed in detail during the training. The training was conducted in central locations across the country namely Quezon City, Cebu City, Iloilo City, Zamboanga City and Davao City.

**Data Gathering and Supervision**

- Field Supervisors reporting to the Field Manager monitored the data gathering for the study full-time. They observed (12% of total interviews), followed-up and conducted surprise checks on the field interviewers. They also ensured that field logistics were received promptly and administered properly.
- Spot checking were done (26% of the total interviews that were not observed by the field supervisors) at various stages of the fieldwork.
- During spot-checking, the unsupervised interviews were re-interviewed/back-checked. If serious errors persisted after spot-checking, the original interviews were invalidated and respondents were re-interviewed. An error was considered serious if there was evidence of dishonest recording of responses or if there was a serious misinterpretation of the study that resulted to incorrect information.
- If the probability respondent was not available during the initial visit, an appointment for a second visit was set within the same day. In cases where the qualified respondent was still not available or when the door was still locked after 2 valid callbacks, substitute interview was conducted.
- Substitutes were ensured to possess the same economic class, age group, working status and gender from the same area as the original respondent.

**Data Encoding and Processing**

- A data encoding program customized and validated by a Data Processing Manager was used for data entry. The said program further checked the consistency and completeness of the data gathered before generating the required data tables for analysis.
- To ensure the quality of data 60% of the completed interviews were encoded twice and checked for accuracy and consistency.
- Preliminary data tables were generated to check the quality of the data encoding done. Specifically, the encoded data was checked for accuracy of variable labels, variable values, and completeness and consistency of data entries.

**Weights Computation**

- Final survey weights were determined such that base weights were computed as planned while adjustment for coverage error was also incorporated to reduce the bias and increase the precision of survey estimates. The base weight, which is the inverse of the selection probability, is computed as follows:

- For NCR:  $BW_{NCR} = \frac{1}{P_{ij}P_{ijk}P_{ijkl}}$

where:

$P_{ij}$  – selection probability of the  $j^{\text{th}}$  barangay in the  $i^{\text{th}}$  city/municipality

$P_{ijk}$  – selection probability of the  $k^{\text{th}}$  household in the  $j^{\text{th}}$  barangay of the  $i^{\text{th}}$  city/municipality

$P_{ijkl}$  – selection probability of the  $l^{\text{th}}$  eligible respondent in the  $k^{\text{th}}$  household of the  $j^{\text{th}}$  barangay in the  $i^{\text{th}}$  city/municipality

- For Balance Luzon, Visayas and Mindanao:  $BW_{NON-NCR} = \frac{1}{P_{hi} P_{hij} P_{hijk} P_{hijkl}}$

where:

$P_{hi}$  – selection probability of the  $i^{\text{th}}$  city/municipality in the  $h^{\text{th}}$  region

$P_{hij}$  – selection probability of the  $j^{\text{th}}$  barangay in the  $i^{\text{th}}$  city/municipality in the  $h^{\text{th}}$  region

$P_{hijk}$  – selection probability of the  $k^{\text{th}}$  household in the  $j^{\text{th}}$  barangay of the  $i^{\text{th}}$  city/municipality in the  $h^{\text{th}}$  region

$P_{hijkl}$  – selection probability of the  $l^{\text{th}}$  eligible respondent in the  $k^{\text{th}}$  household of the  $j^{\text{th}}$  barangay in the  $i^{\text{th}}$  city/municipality in the  $h^{\text{th}}$  region

- For each Major Areas the adjustment for coverage error ( $w_2$ ) is computed per gender:

For male:  $w_2 = \frac{\text{Projected total number of male aged 15 and above in certain Major Area}}{\text{Weighted total number of male aged 15 and above in certain Major Area}}$

For female:  $w_2 = \frac{\text{Projected total number of female aged 15 and above in certain Major Area}}{\text{Weighted total number of female aged 15 and above in certain Major Area}}$

- The final survey weight is then computed as:  $AdjBW = BW * w_2$