Mapping Attitudes, Perceptions and Support (MAPS) Dataset Technical Appendix DRAFT

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September 2021

This document describes the data collection procedures for the first wave of the Mapping Attitudes, Perceptions and Support (MAPS) survey. The MAPS survey was funded by the Norwegian Ministry of Foreign Affairs,the United Nations Multi-Partner Trust Fund for Sustaining Peace, and the Swedish Research Council through a grant to the UNDP Colombia mission.[1] The academic team, based at Peace Research Institute Oslo (PRIO), the Universidad de los Andes, and the University of Amsterdam, advised on the design of the survey instrument.

The survey received IRB approval from the Universidad de los Andes ethics committee.

UNDP Colombia has the legal responsibility for the survey data.

Instruments

The first wave of data collection proceeded in two segments. Data collection in the departments of Arauca and Tolima occurred in the second half of January 2019, while the rest of the 14 regions were surveyed in October-November 2019.

Three questionnaires were applied across these two segments: two versions were applied in the first segment, and a slightly revised version was applied for the third segment in the rest of the 14 regions. Within the Arauca/Tolima segment, 935 respondents received version 1 of the instrument, and 782 received version 2. Segment 2 in the remaining 14 PDETs received the third version of the instrument, and included 10,335 respondents.

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Table 1: Sample size and dates

Segment	Instrument version	Dates	Location	Sample size
1	1	January 2019	Arauca-Tolima (AT)	935
1	2	January 2019	Arauca-Tolima (AT)	782
2	3	Oct-Nov 2019	14 PDETs (FW)	10,335

1. MAPS_Jan2019_AT_instrument.pdf

2. MAPS_Jan2019_AT_instrument_2.pdf

3. MAPS_Oct2019_FW_instrument_3.pdf

The dataset "Combined_MAPSdataset_Public.csv" comprises data collected with all three questionnaires, for one complete wave of the survey. The variable "vers_form" indicates which questionnaire the respondent received.

In order to merge the data, our team transformed several variables across the three questionnaires. Variables that are unmatched are appended with the initials of its segment: _AT or _FW, reflecting the changes to the questionnaire between versions 2 and 3.

It is also important for analysts to keep in mind that the segments of wave 1 were surveyed 10-11 months apart.

The codebook is "codebook ColombiaMAPSwave1_Public.xls".

The public version of the MAPS dataset is available for download at the PRIO project page: https://www.prio.org/Projects/Project/?x=1779. To protect respondents' anonymity, their home municipality is removed from the public dataset.

Sample

The survey aims to be representative of each of the 16 regions targeted for the implementation of the peace agreement signed between the Colombian government and the Revolutionary Armed Forces of Colombia (FARC) in 2016. These regions are known as PDETs, the Spanish acronym for Development Plans with a Territorial Focus (*Planes de Desarrollo con Enfoque Territorial*). Since the survey was first applied, two additional PDETs—both within the municipality of Bogotá—have been established. These are not included in the MAPS sample.

Roughly 7,055,000 people in 2,180,000 households live across these 16 regions of the country, comprising 170 of Colombia's 1,200 total municipalities. Most of the 170 PDET municipalities are predominantly rural, and sample frames are unavailable for the communities.

Segment 1 was carried out by the survey firm Sistemas Especializadas de Información (SEI). Segment 2 was carried out by the survey firm Proyectamos. Importantly, each firm designed different samples, which we describe below.

Description of Wave 1, Segment 1

In Arauca and Tolima, all of the municipalities that comprise the two PDETs entered the sample. The primary sampling units were the *cabecera* and *centro poblados*. What is known in Colombia as the "rural dispersed population" was excluded from the sample. The rural sample instead comes from larger, more condensed settlements known as *centros poblados*, which are comprised of at least 20 structures laid out more or less in a grid fashion. *Centros poblados* and the larger *cabeceras*, or municipal capitals, are both comprised of *manzanas*, or blocks.

Following the cabeceras and centros poblados, *manzanas* were selected. Then, the enumerator began the process of selecting residences that would enter the sample. The first step was to walk around the block to identify the residential buildings and apartments. All were listed and then entered into a hand-held device that randomly selected the residences that would enter the sample.

The enumerator then visited these residences and asked to speak with an adult (an individual who is at least 18 years old). The respondent was not randomly selected within the household, but enumerators kept track of the gender balance of respondents and aimed to maintain rough parity between male and female respondents.

Weights for wave 1, segment 1

SEI calculated the sample weight based on the distribution of the population between rural and urban settlements from the 2005 census. The original sample weight for segment 1 is **fexp_AT**.

Description of Wave 1, Segment 2

In wave 1, segment 2 (as was the case for segment 1), the sample was designed to achieve representativity at the PDET level. Proyectamos calculated an effective sample size of between 720-731 respondents per PDET based on the number of households in the PDET. Table 2 shows the actual sample achieved per PDET across both segments of Wave 1.

Unlike in segment 1, the primary sampling unit (PSU) was the municipality, stratified by PDET. Municipalities were randomly selected within each PDET.[2] Table 3 shows the number of municipalities selected per PDET, as well as the total number of municipalities within each PDET.

In keeping with the design from segment 1, the secondary sampling unit for segment 2 was the *manzana*, and rural dispersed populations were excluded from the sample. Respondents entered the sample via the same process that SEI used for segment 1: the enumeration of all residential buildings or apartments in a given *manzana*, then a random selection from among those residences entered the sample. The survey firm Proyectamos aimed for 8-12 respondents per *manzana* in rural communities, and 6 respondents per *manzana* in *cabeceras*.

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[2]Two municipalities, Santa Marta and Valledupar, were initially selected and replaced, because the UNDP wanted to focus on communities with a more rural profile. The former are far more urban than other municipalities in the broader PDET universe.

Table 2: **Sample by PDET, Wave 1**

PDET	Cabecera	Rural	Total
Arauca	463	389	852
Alto Patía - Norte del Cauca	517	228	745
Bajo Cauca y Nordeste antioqueno	558	189	747
Catatumbo	497	221	718
Chocó	524	210	734
Cuenca del Caguán y Piedemonte Caqueteño	523	208	731
Macarena - Guaviare	436	302	738
Montes de María	555	206	761
Pacífico Medio	536	217	753
Pacífico y Frontera Nariñense	515	220	735
Putumayo	508	222	730
Sierra Nevada - Perijá	543	197	740
Sur de Bolívar	590	139	729
Sur de Córdoba	517	223	740
Sur de Tolima	309	556	865
Urabá Antioqueño	510	224	734
Total respondents	8,101	3,951	12,052

Table 3: **Municipalities sampled per PDET, Segment 2**

PDET	Total mun	Mun sampled
Alto Patía - Norte del Cauca	24	6
Bajo Cauca y Nordeste antioqueno	13	5
Catatumbo	8	4
Chocó	14	6
Cuenca del Caguán y Piedemonte Caqueteño	17	4
Macarena - Guaviare	12	4
Montes de María	15	7
Pacífico Medio	4	4
Pacífico y Frontera Nariñense	11	4
Putumayo	8	4
Sierra Nevada - Perijá	13	4
Sur de Bolívar	7	4
Sur de Córdoba	5	5
Urabá Antioqueño	8	4
Total municipalities	161	65

Figure 1: **Distribution of respondents in the MAPS sample**
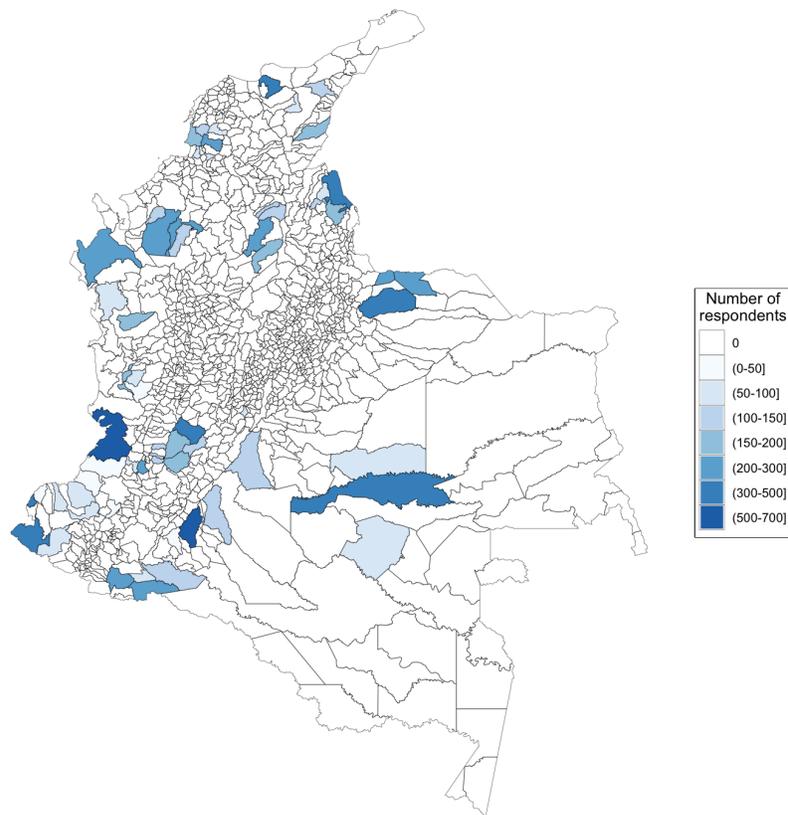
Weights for wave 1, segment 2

Proyectamos calculated the sample weight to reflect the municipal population size per PDET, based on the 2018 Census. The variable name **fexp_FW** is the original weight for segment 2 of wave 1.

The distribution of respondents in the MAPS sample across all segments of data collection per municipality can be seen in Figure 1.

Recommendations for analysis

We do not recommend analyzing segments 1 and 2 together without additional steps to harmonize the two weighting / sampling schemes described above.

We created a new, unified sample weight based on the 2018 census, and based on the rural/urban populations within each PDET municipality visited. This variable is FEX_CALIB_TOTAL.

To enable the analysis of the sample as a whole, we applied a post-stratification setting, treating segment 1 and segment 2 of the first wave as different strata, and created a post-stratification weight, FEX_CALIB_POST, adding the weights of respondents in each segment. The stratum is denoted as AT in the dataset.

We recommend taking both the weight and post-stratification weight into account when analyzing the different segments of wave 1 together.

Fieldwork

Given the significant operational challenges of covering a wide area of remote Colombian territory, for the expanded version of the data collection effort the survey team was divided into 10 separate teams covering different territorial areas. Each team consisted of a team supervisor plus four enumerators. The enumerators received a two-day training session in Bogotá prior to the launch, to learn about the survey instrument and to understand how block-level sampling works.

Prior to a team's arrival in a given municipality, the team supervisor contacted the municipal authorities to alert them of the team's presence, communicate the general objectives of the survey, and determine whether there were any immediate safety risks that could put the survey team or respondents in jeopardy. The supervisor was in charge of ensuring that the sampling procedure described above was followed. If a security issue was raised in these discussions with municipal authorities, these concerns were consulted with UNDP Colombia and its regional teams throughout the country. When security conditions in a given municipality did not permit the entry of the survey teams, a replacement municipality was randomly selected from the list of remaining municipalities within the same PDET. When a given *manzana* was too dangerous to enter, another *manzana* was randomly selected from the list of remaining options within the same municipality. After completing the day's surveys, the responses from the tablets/laptops were sent remotely to the survey firm's server. This data was encrypted and stored on the firm's server.

For both segment 1 and segment 2, the enumerators sought consent from the respondents before they began each interview. The enumerators described the institutions involved with the survey and relevant contact information, the purpose of the project, how the interview would be conducted, how long it might last, and how confidentiality and anonymity would be guaranteed. The enumerators also told the respondent that some questions might be uncomfortable and that s/he could refrain from answering any question or withdraw from the survey at any time, without facing any consequences. In addition, the enumerators explained that no direct benefits would be provided to respondents.