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Methodology for definition and spatial delimitation of rural areas

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Abstract

In the present study, a method for the definition and spatial delimitation of rural areas is proposed. This methodology combines data on human population with data on land cover to produce a two-way classification or typology of the degree of rurality in a given territory. Using a one square kilometer grid, it employs geographical information system (GIS) spatial analysis tools to overlay attributes of human settlements in terms of size and density with those of potential inferred land use, as determined by land cover. The Global Human Settlements Layer provides the population data based on a common international definition of urban areas. The land cover data are synthesized from three databases: GLC-SHARE, ESA-CCI and Globeland30. Application of the method in six test countries documents distinct differences in the distribution of rural territory into the classes of the typology. This method supports a rural definition that is internationally consistent, reflects policy-relevant diversity in the character of rural areas, and allows valid comparisons of economic, social and environmental indicators across countries.

Introduction

Within the framework of the Global Strategy to Improve Agricultural and Rural Statistics, the research topic “Improving rural statistics” aims to develop a framework and cost-effective methods to help countries produce rural statistics. One focus is aimed at identifying a set of indicators for assessing the well-being of rural households and measuring progress of policies that seek to reduce poverty and promote environmental sustainability. The other focus is on proposing a definition of which territories are considered to be rural to enable the collection, organization, and international comparison of these indicators.

With regard to the focus on the rural definition, the main goals of the consultant were:

- To develop a methodology for the characterization of rural areas by combining the baseline data on settlements and population produced by the Joint Research Centre Global Human Settlement Layer activities with the most up to date global land cover products.
- To delineate different types of rural areas on the basis of parameters such as population size, density and land use classes.

The methodology has been developed at global level and tested on a set of test countries.

This document aims to present the methodology implemented for the spatial delimitation and production of statistics of rural areas and the results obtained, as well as discuss them in view of the presentation of this approach to GSARS.

The conceptual framework on which the methodology is based is briefly presented. After a description of the data used as input, the processing steps for each of them are detailed. Then, the results are shown and discussed.

Conceptual Framework

In general terms, the methodology is based on the conceptual framework developed by the Global Strategy to Improve Agricultural and Rural Statistics (GSARS) (Offutt 2016), whose goal is to provide information to guide national and multilateral agency decisions related to designing, funding and evaluating rural development policy.

The purpose of having a definition of rural is to allow comparisons between rural and urban areas and among rural areas with different characteristics and to be able to make those comparisons not only within a given country, but also across countries. The definition of “what is rural” is functional to the collection and interpretation of the indicators required to measure progress made in implementing policies aimed at reducing poverty and the promotion of environmental sustainability.

Rural statistics are required to evaluate the indicators and develop effective policies. Rural statistics refer to economic, social and environmental conditions within a designated territory. This raises the need to set up objective criteria for the definition of rural areas and for their geographical delimitation.

According to (GSARS) (Offutt 2016), “there is no internationally-accepted definition of rurality. That determination is by its nature multidimensional and subjective, depending on the cultural, historical, and economic circumstances in each country. [...] Defining what territory is rural requires sorting parcels of geography into different categories based on criteria that reflect key dimensions of rurality”.

In broad and general terms, rurality is characterized by three elements: sparse settlement; remoteness from urban areas; and use of surrounding available land for income generation.

Sparse settlement: The most populous and densely settled parts of a country are its urban areas. Rural areas are relatively less densely populated.

The sparse settlement dimension of rurality can be represented by variables that measure population size and distribution. Population density is frequently used in characterizing the urban/rural continuum. It can be correlated with other variables that can also be used to represent sparse settlement. In many

developing countries, the presence of agriculture is associated with more sparsely settled territories.

Population density is a variable that can be used to represent the sparse settlement dimension of rurality. By itself, however, it may not adequately capture the concept. A relatively densely populated area could be found in a town surrounded by a less densely settled rural region. That town can be classified as urban if no reference is made to its otherwise rural context. For that reason, urban/rural definitions may include a variable measuring the size of a population in a densely settled cluster.

Remoteness: it describes the degree of isolation and the cost – in a broad sense – of access to markets and public services.

Where population densities are low, markets of all kinds are thin, and unit costs of delivering most social services and many types of infrastructure are high. As a consequence, remoteness and low population density together define a set of rural areas that face special challenges in development.

Describing the dimension of remoteness involves many variables; distance from the nearest town is one of them. The mode and speed of transportation, morphology, presence or absence of infrastructures are equally important variables to be considered. While the variables chosen are different across countries, or even within countries, the underlying supposition is that physical presence in an urban area is key, however it is achieved.

Use of surrounding available land for income generation: The variable that represents land use or land cover must be specific to geographic location. Moreover, the presence of agriculture is significant because of its importance and contribution to rural livelihoods and the ecosystem. As a result, high-quality data on farms and farm households are required.

The use of a land cover variable in a definition has to be tailored to the situation. A low-density settlement associated with rurality may be present outside of urban and cropped areas, and the nature of the associated land cover must be reflected in the definition. While every country has people and cities and (presumably) cropland, not all of them have glaciers or mangroves.

Accordingly, while the evaluation of remoteness from urban areas rely on the analysis of many different parameters, the first and the third elements can be spatially analysed and evaluated through the use of globally available data, using

GIS tools. The use of remoteness to characterize rural areas is not addressed in the present report.

As a matter of fact, the density of settlements is directly related to population density, while land use for incoming generation can be indirectly derived from land cover data.

The Settlement Model derived from the Joint Research Centre Global Human Settlement Layer (referenced above) already provides the required information about “how many” people live “where” based on satellite imagery, censuses, and other relevant geographic information. Meanwhile, land cover data need to be translated into categories referring to land use.

In the context of a rural definition, an important distinction between land cover and land use is that cover can be more readily observed than use. Earth observation data can provide the required information about the features of land cover, including vegetation, man-made structures and surfaces, bare soil or rock, and water bodies. Given their global coverage, earth observation data can generate observations of the Earth’s surface that can be consistently placed in land cover categories of a chosen classification system. This consistency provides the basis for valid comparisons across countries.

On the other hand, land use is not necessarily detectable with satellite imagery. For example, the cover may be grassland, but the use itself – for example, husbandry, sports and leisure – may not be distinguishable. The rural definition, therefore, depends on land cover categories populated by data from satellite observations.

Land cover can still reveal something about land use because it largely determines the range of possible land uses. A given type of land cover, for example, a forest, could support different types of land use - recreation, logging, and/or agrosilviculture - but not row cropping.

This relationship allows the rural definition based on land cover to suggest, in broad terms, potential uses of land. Associating cover and potential inferred use makes the rural definition more understandable and useful to policymakers seeking to tailor assistance to local activities and circumstances. Information on specific land use can be attained from other sources, for example, from aerial reconnaissance or land-based local sources, such as farm and household surveys and censuses.

Actual land use for a particular class of land cover can vary by country and within countries. Land use itself, therefore, does not provide a good basis for the rural definition because it would require a very large number of categories.

Accordingly, while land cover describes the nature of the earth surface, land use describes what people do on that land to reap benefits. As each land cover type is related to a range of possible land uses, it is possible to establish broad relationships between land cover and the possible associated land uses.

The definition of “rural” can then be based on land cover in terms of potential inferred use of land.

This approach has been implemented through the reclassification of land cover data into rural activity classes (see paragraphs 2.3 and 3.4 for details). Four major classes of potential inferred land use were identified:

Class code	Potential inferred use	Examples
1	Cultivation	Cultivation of annual crops (e.g. wheat, rice, maize); biannual crops (e.g. cassava, yams and sugarcane); longer-term tree and shrub crops (e.g. fruit orchards, vineyards, and coffee, tea and oil palm plantations)
2	Livestock production	Livestock grazing on managed pasture or wild range, grass or shrubland
3	Forestry and agroforestry	Mixed utilization of trees, cropping, and animal herding; silviculture; non-managed woodland
4	Non-agricultural	Land too poor in quality to produce crops or livestock: barren or infertile soil; mangroves, glaciated areas; inaccessible mountains or desert

Such categorization implies also a gradient in the intensity of land use. Land use can be characterized by the intensity of the activity that takes place on it. Intensity is a relative term, meaning the amount of labour and other inputs applied to produce output on a given unit of land. A hectare of land cultivated by machinery and using synthetic fertilizer would be considered to be more intensively farmed than a hectare tilled by a human hand and without fertilizers being use. Nomadic grazing would be an even less intensive – or more extensive – land use than cropping. A tree farm would be a more intensive use of forest than occasional harvest of sap from trees in natural stands. As intensity is related

to the amount of labour and other inputs applied to produce output on a given unit of land, the class “cultivation” in the previous table shows the most intensive use, while intensity decreases when referring to livestock production, forestry and agroforestry, and then even further when referring to land not used because of poor quality.

Considering the relationships between intensity of land use, income potential and environmental degradation, such an approach provides great opportunities to define different typologies of rural areas based on the spatial distribution of people, their activities and their interaction with the natural environment.

Given this framework, the proposed methodology relies on the cross-analysis of two main data sets:

- Settlement Model and its related population density data
- Land cover data

Overlaying the two data sets provides the basis for the categorization of rural areas in terms of population distribution and density and in terms of the potential inferred land use.

The guiding principles in the development of the methodology are the following:

1. The method should be universal and globally applicable;
2. The method should be feasible with input data accessible, and distributed in a full open and free policy;
3. The method should be scalable to more detail if more refined data become available;
4. The method should strive for maximum compatibility with an international definition of what is urban, specifically, the approach defined by the EC-OECD-WB in the "global harmonized definition of cities and settlements" (based on the Degree of Urbanization (DEGURBA)).

Data

The following datasets were used as input for the analysis:

- Administrative boundaries
- Settlement Model
- Land cover

In the following paragraphs a short description of each data set is provided.

2.1. Administrative boundaries

At the country level, economic and social data collected by national statistical offices are referred to administrative units (at various levels, depending on the country). As a consequence, a global layer of administrative boundaries, is required in order to refer the characteristics of rural areas to the same collection units.

To date, two products are available at the global level:

- Global Administrative Unit Layers (GAUL)¹.
- Global Administrative Areas (GADM)².

Those two products were analysed and compared in order to select the most appropriate one.

2.1.1. Global Administrative Unit Layers

Global Administrative Unit Layers (GAUL release 2015) is an initiative implemented by FAO within the AfricaFertilizer.org project. It aims at compiling and disseminating the most reliable spatial information on administrative units for all countries.

¹ Downloaded from www.fao.org/geonetwork/srv/en/main.home

² Downloaded from www.gadm.org.

The main characteristics of GAUL are the followings (see FAO-ESS. 2014) for an in-depth description of this dataset:

- GAUL aims at delivering global layers with a complete and up-to-date set of units for the first and second administrative levels.
- The coding system used to identify administrative units ensures the uniqueness of the codes, namely administrative unit codes are numeric and unique within the same level and across levels.
- GAUL keeps track of locations, features and names of administrative units changed or dismissed. Obsolete administrative units are kept in the database and refer to the relevant time interval.
- The GAUL product is not a single layer but a group of layers, named “GAUL Set”, in which each layer represents the instance of the administrative units of the world that is valid until a documented modification of those units has occurred.

GAUL is distributed to United Nations users as two products:

- A global layer (hereinafter referred as GAUL Global layer), with administrative levels 0 (country boundaries), 1 (e.g. regions or departments) or 2 (e.g. districts or states), depending on the availability, for a total of 276 countries.
- National layers with lower levels, available only for a subset of countries/territories (listed in table 1).

Table 1. List of countries where lower administrative levels are available in Global Administrative Unit Layers

Bangladesh	Lebanon
Belgium	Madagascar
Bolivia	Mali
Burkina Faso	Mauritania
Burundi	Morocco
Cambodia	Mozambique
Cameroon	Myanmar
Canada	Nepal
Central African Republic	Pakistan
Chile	Panama
China	Peru
Côte d'Ivoire	Philippines
Democratic Republic of the Congo	Senegal
Ecuador	Sierra Leone
Egypt	South Africa
Estonia	Spain
Ethiopia	Taiwan Province of China
Guinea	Uganda
Haiti	United Republic of Tanzania
Italy	United States
Jordan	Yemen
Kenya	Zimbabwe

2.1.2. Global Administrative Areas

Global Administrative Areas (GADM), version 2.8, was developed by the University of California, Berkeley Museum of Vertebrate Zoology, the International Rice Research Institute and the University of California, Davis.

Administrative areas in that database are countries and lower level subdivisions, such as provinces and departments. Attribute data include, for each level, English and variant names (when available) of each unit, and the ISO3 code of each country.

Global Administrative Areas is distributed as a single global layer and is available in different geographic information systems formats, such as geodatabase, geopackage and KML.

2.1.3. Comparison of administrative boundaries global products.

In order to select the most suitable administrative boundaries global product, a comparative analysis of two products was conducted, based on the following parameters:

- Degree of detail (administrative levels);
- Degree of mapping detail;
- Accuracy.

The degree of detail is summarized in table 2, in which for each product the total number of countries for each maximum available level is shown (for GAUL, countries listed in table 1 in which lower levels are available, are not considered in the table).

Table 2. Number of countries by lower available administrative level

Lower available administrative level	GAUL (global layer)	GADM
Level 0	73	21
Level 1	62	62
Level 2	141	102
Level 3	0	55
Level 4	0	16
Level 5	0	2

The analysis of the degree of mapping detail refers to the degree of details shown by polygon boundaries in the two products; it is related with the scale of map used as input.

A test was done on a subset of countries having the same lower available level (i.e. level 2) and the same number of administrative units. 15 countries were analysed.

For each country, the sum of the polygons perimeters was computed and used as an index of the mapping scale of data. The results are shown in table 3. In summary, GADM results were more detailed in eight countries, while GAUL global layer was more detailed in seven countries.

In addition to the mapping detail, it is worth noting that the number of records mismatch for most of the countries: 72 countries/territories have the same lower available administrative level (level 2). However, only 15 of them have the same

number of administrative units for this level even though the number of records was expected to be about the same for the two products. In some case, such as for Australia, Denmark, Japan and Sri Lanka, the difference is so wide that it is very unlikely that the two products really refer to the same administrative level.

Table 3. Degree of mapping details of global administrative boundaries products

Country or territory	GAUL global layer Sum of perimeters (m)	GADM Sum of perimeters (m)	Difference
Bhutan	13 770.4	13 896.2	-125.7
Costa Rica	11 092.5	11 460.0	-367.6
Djibouti	2 386.6	2 351.8	34.7
Fiji	6 228.5	7 501.8	-1 273.3
French Guiana	7 184.8	7 206.1	-21.2
Gambia	3 353.1	3 312.9	40.3
Kazakhstan	13 1618.1	12 8129.5	3 488.6
Mauritania	28 249.3	27 891.8	357.5
Namibia	39 738.5	40 315.8	-577.3
Nigeria	121 059.1	127 056.9	-5 997.8
Slovakia	10 975.3	10 908.8	66.5
Somalia	29 973.6	31 847.5	-1 873.9
Suriname	11 078.5	11 077.4	1.1
Yemen	46 540.6	47 873.4	-1 332.8
Zambia	38 032.2	36 253.4	1 778.8

An analysis of accuracy, lacking reference data sets to be used as ground truth, was performed on a few areas where administrative boundaries are set by natural features, such as rivers or coastline. The reference data set used was the ESRI imagery online service.

The test shows that accuracy can vary among the different zones: sometimes better in GAUL global layer and sometimes better in in GADM. The test cannot be considered exhaustive, but the results do not clearly designate the better product.

2.1.4. Selection of the most suitable administrative boundaries layer

With the only exception being degree of detail, the comparative analysis did not provide useful elements for selecting the most suitable product to be used for generating statistics.

Accordingly, the preference was given to the GAUL global layer, based on the following additional considerations:

- GAUL is widely used for all applications in FAO projects and studies, including the definition of boundaries for the national datasets that were used as input for the GCL-Share land cover product);
- GAUL is a United Nations product, making it more likely to be used by other United Nations agencies;
- GAUL is distributed with yearly updates that are versioned (useful for keeping track of changes), while GADM is distributed irregularly, not as versioned updates.

2.2. Settlement Model

The Global Human Settlement Layer (GHSL)³ was developed at the Joint Research Centre with the objective to provide thematic information and evidence-based analytical knowledge to support the implementation of the regional urban policy of the European Union and the four international post-2015 frameworks: the United Nations Third Conference on Housing and Sustainable Urban Development (Habitat III, 2016), the post-2015 Development Agenda for Sustainable Development, the United Nations Framework Convention on Climate Change, and the Sendai Framework for Disaster Risk Reduction 2015-2030.

The Global Human Settlement Framework is designed to produce global spatial information about the human presence on the planet over time, using heterogeneous data, including global archives of fine-scale satellite imagery, census data, and volunteered geographic information. At the Joint Research Centre, the GHSL framework provides data and tools that support knowledge centres focusing on disaster risk management, sustainable development, territorial modelling, and security and migration. Moreover, it is one of the key test cases contributing to the Joint Research Centre Earth Observation and Social

³ <http://ghsl.jrc.ec.europa.eu/>

Sensing Big Data Pilot project in the frame of the Joint Research Centre Text and Data Mining Competence Centre (Pesaresi et al. 2016).

The Settlement Model offers a globally consistent spatial representation of the REGIO-OECD-WB "degree of urbanization (DEGURBA)". Its strength resides in two major advantages:

- As it does not depend on national borders, cross-country comparability is ensured;
- Given the future availability of sentinel imagery, regular updates will become feasible and more reliable, ensuring the timeliness of the product.

The fields of application of the Global Human Settlement Layers range from the comparison of settlements in a consistent way and the monitoring of the implementation of international frameworks, to the empowering of communities and building trust in data and analyses. This tool supports global, national and local analyses of human settlements, in particular in the areas of policy and decision making. Accordingly, it is an extremely valuable source of information for spatial separation between rural and urban populations at the global level.

Furthermore, this model is going to be tested in the frame of the joint voluntary commitment on "global harmonized definition of cities and settlement" in support of the new Urban Agenda made at Habitat III. The application of it for this activity potentially could raise the opportunity to propose this new approach to urban and rural definitions to the United Nations Statistics Division.

A detailed description of the Global Human Settlement Layer products is provided in Pesaresi et al. (2016).

To achieve the goals of this activity, two products were used:

1. GHS POPULATION GRID (POP): spatial raster dataset (resolution: 1 km), which shows the distribution and density of population, expressed as the number of people per cell.
2. GHS SETTLEMENT MODEL GRID (SMOD): spatial raster dataset (resolution: 1 km), which gives an assessment of the REGIO-OECD "degree of urbanization" model, using as input to the population GRID cells in four epochs (2015, 2000, 1990 and 1975).

SMOD layer is one of the two main layers using for spatial delimitation and the definition of rural areas. It provides, in its original version, the following classes:

3. = “not inhabited areas”
4. = “rural cells” or base (BAS) (density below 300 inhabitants per sq. km and other grid cells outside urban clusters or centres (see below)
5. = “urban clusters” or low-density clusters (LDC) (contiguous grid cells with a density of at least 300 inhabitants per sq. km and minimum population of 5,000 in the cluster)
6. = “urban centres” or high-density clusters (HDC) (contiguous grid cells with a density of at least 1,500 inhabitants per sq. km and a minimum population of 50,000 in the cluster)

Such classes were then modified to generate more meaningful statistics for rural areas (see par. 3.3).

2.3. Land cover

Land cover is defined as the “observed (bio) physical cover on the Earth's surface”. Its knowledge is of primary importance in all studies and research at regional and global scales related to, for example, climate change, assessments of carbon stock accountability, agricultural monitoring, disaster management, land planning and defense of biodiversity (Di Gregorio 2016).

In recent years, a number of different global land cover products have been published at different spatial resolution and based on different methodologies. At the same time, important efforts have been undertaken to standardize classification systems, nomenclatures and legends. The most recently published land cover products are based on the Land Cover Classification System developed by FAO (Di Gregorio 2016), which provides great opportunities for comparisons of products. Those products are compatible with the land cover classification categories that are globally standardized in the System of Environmental and Economic Accounting.

In order to select the most suitable product for generating rural statistics, three different global products, among the various available, were selected and compared. The criteria used for their selection were the variability in their level of detail (spatial resolution) and the variability in the methodological approach used to develop them.

The three products analysed and compared were the following:

- FAO GLC – Share (Latham et al. 2014)
- ESA CCI Land Cover (ESA 2014)
- GlobeLand 30 (National Geomatic Center of China) (National Geomatics Center of China 2014)

The evaluation was based on the aspects described below. For each one a short discussion is included.

2.3.1. Analysis of the main technical characteristics of each product

The main characteristics of each product are summarized in table 4.

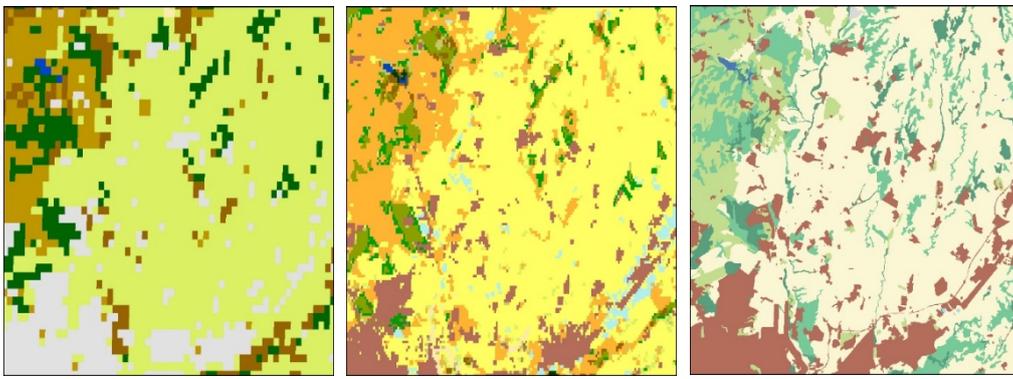
Table 4. Main characteristics of land cover products

	Resolution (m)	Declared overall accuracy	Accuracy assessment method	Period of data acquisition	N. of classes	Type of map	Perspectives of future updates
GLC Share	1 000	80.20%	About 1 000 samples	Variable, depending on countries (1990-2012)	11	Hybrid (collection of best available national and global data sets)	Irregular
ESA CCI Land Cover	300	71.45%	Based on GlobCover2009 dataset (2,329 samples)	2015	22	Remote sensing (AVHARR and MERIS), pixel-based	Good
GlobeLand 30	30	83.51%	About 150000 samples	2009 - 2011	10	Remote Sensing (Landsat TM, ETM and HJ-1), object-based	Good

The greater resolution of GlobeLand 30 and CCI offers clear advantages, especially in areas that are characterized as having high fragmentation of land cover classes, such as croplands, very small field sizes or being semi-arid, where crop fields show a spotted pattern into a “matrix” of natural vegetation.

Figure 1 shows a comparison of the three land cover products for the same area, illustrating the effect of the changing resolution.

Figure 1. Comparison of products on a small area in Central Spain.
a) GLC-Share; b) ESA-CCI; c) GlobeLand30.



However, it should be kept in mind that for the goals of this work to be achieved, the final resolution must be dictated by the coarsest layer (i.e. 1 km) and, in turn, CCI and GlobeLand 30 will have to be downscaled to that resolution.

The overall accuracies mentioned in the table are based on point datasets: according to those figures, GlobeLand 30 appears to be the most accurate product.

Considering the high dynamicity of land cover (changes caused by, for example, deforestation, expansion of settlements and desertification), the period of acquisition of input data used is very important. In that respect, the advantages of the ESA-CCI product are evident, as it is based on very recent satellite data sets. On the other hand, the drawbacks of GLC-Share are particularly pronounced in some areas, such as in the South African Development Community region, where data refer to the period 1990- 1995.

Another critical aspect related to the dynamicity of land cover is represented by the perspectives for future updates of each product. The methodology for the characterization of rural areas should be applied at the national level on a routine

basis. Accordingly, it should be preferably based on a product that can guarantee regular updates over time.

Despite the lack of reliable information about such perspectives, it is reasonable to state the followings:

- **GLC-Share** is a hybrid product, which aggregates regional and national land cover products into a single global map. It is very unlikely that an updated version covering all countries, based on the same methodology, will be released in the next few years.
- **GlobeLand 30**, based on remote sensing data from 2009 to 2011, was released in 2014. According to Chen et al. 2017, the 2015 version of GlobeLand30 is under development. Based on experiences with similar completion times, it is reasonable to assume that the release of this version will be in 2019 or 2020.
- **ESA** is promoting the Copernicus Program through the Copernicus Land Monitoring Service.⁴ This programme includes a global component for the production of biophysical parameters in near-real-time with global coverage. The production of a global land cover map is not foreseeable, but a 100m resolution land cover map is available of the African continent and under production for other areas.

2.3.2. Visual inspection of well-known areas

Using as reference data the high-resolution imagery provided by ESRI and by Google Earth, different areas have been checked, mainly in Algeria, Ethiopia, Guatemala, Italy and Iraq. The results of the checks are confusing. No trends were detected in the performances of the different land cover products, some worked better in some areas and worse in other areas.

In northern Algeria, under ESA-CCI, large horticultural areas were misclassified as being shrubland, while under GlobeLand 30, grassland was overestimated at the expense of agricultural areas.

In Iraq and Italy, ESA-CCI misclassified the large irrigated cropland areas of Mesopotamia and Pianura Padana as rainfed cropland, while GLC-Share heavily overestimated the herbaceous vegetation, aquatic or regularly flooded class in Iraq.

⁴ See: www.esa.int/Our_Activities/Observing_the_Earth/Copernicus/Land_services.

Other areas checked in Italy were accurately classified by the three products.

Visual inspection in Ethiopia was limited to a few areas: no major problems were detected in the classification of the areas in any by the products. .

Two areas were checked in Guatemala, where it seems that GLC-Share tended to overestimate grassland at the expense of agricultural areas. Also, only a few areas were checked in France, Malaysia, Pakistan, and South Africa.

In general, it seems that ESA-CCI tends to overestimate natural vegetation surfaces, especially in semi-arid climates but also in different climatic zones, such as the area of Bordeaux, France, at the expense of agricultural land and bare soil. GlobeLand 30 usually gives better results in the detection of cropland areas. However, an exception to this were the results from the test in Malaysia where large areas of forest were converted into oil palm plantations. It is very likely that such land cover change happened after 2010.

GLC-Share often holds the middle position among the three products, being neither the most accurate nor the least accurate. In South Africa and other Southern African Development Community (SADC) countries, the use of this product is not recommended because of the date of the datasets used.

2.3.3. Comparison of legend classes

As shown in table 4, the number of classes varies for each product. The legends of the three products are shown in tables 5, 6 and 7.

GLC Share and GlobeLand 30 have a minimal legend with very broad classes, while the legend of ESA-CCI is vaster, containing 22 main classes. Most of the classes missing in the first two products pertain to natural vegetation, in particular to the tree cover class.

Considering the goals of this study and the need to aggregate most of the land cover classes into only a few broad categories related to rural activity, the benefits deriving from the wider availability of land cover classes offered by ESA-CCI are evident only for the presence of a class for “lichens and mosses” (conceptually equivalent to the class “tundra” in the GlobeLand 30 legend), which allows for separate grasslands of polar regions from grasslands of temperate and subtropical regions.

A major issue stems from the lack of harmonization of (only apparently) equivalent classes among the different products, which could partially explain the difficulties encountered in the evaluation of the performance of land cover products. Thresholds of percentage cover vary for each product, making it very difficult to carry out a direct comparison:

- GLC-Share considers “bare soil” to be any area with a vegetation cover of less than 2 per cent and “sparse vegetation” to be areas with a cover in the range 2 to 10 per cent. Meanwhile, GlobeLand 30 classifies “bare soil” as any area with a cover of up to 10 per cent.
- The lower boundary for the tree cover classes of ESA-CCI is 15 per cent, while it is 10 per cent for GLC Share and 30 per cent for GlobeLand.

Table 5. GLC-Share legend

Code	Description
1	Artificial surfaces
2	Cropland
3	Grassland
4	Tree covered areas
5	Shrubs covered areas
6	Herbaceous vegetation aquatic or regularly flooded
7	Mangroves
8	Sparse vegetation
9	Bare soil
10	Snow and glaciers
11	Water bodies

Table 6. ESA-CCI Land Cover legend

Code	Description
10	Cropland, rainfed
20	Cropland, irrigated or post-flooding
30	Mosaic cropland (>50%) / natural vegetation (tree, shrub, herbaceous cover) (<50%)
40	Mosaic natural vegetation (tree, shrub, herbaceous cover) (>50%) / cropland (<50%)
50	Tree cover, broadleaved, evergreen, closed to open (>15%)
60	Tree cover, broadleaved, deciduous, closed to open (>15%)
70	Tree cover, needle leaved, evergreen, closed to open (>15%)
80	Tree cover, needle leaved, deciduous, closed to open (>15%)
90	Tree cover, mixed leaf type (broadleaved and needle leaved)
100	Mosaic tree and shrub (>50%) / herbaceous cover (<50%)
110	Mosaic herbaceous cover (>50%) / tree and shrub (<50%)
120	Shrubland
130	Grassland
140	Lichens and mosses
150	Sparse vegetation (tree, shrub, herbaceous cover) (<15%)
160	Tree cover, flooded, fresh or brackish water
170	Tree cover, flooded, saline water
180	Shrub or herbaceous cover, flooded, fresh/saline/brackish water
190	Urban areas
200	Bare areas
210	Water bodies
220	Permanent snow and ice

Table 7. GlobeLand 30 legend

Code	Description
10	Croplands
20	Forest
30	Grassland
40	Shrublands
50	Wetlands
60	Waterbodies
70	Tundra
80	Artificial surfaces
90	Bare land
100	Permanent snow and ice

2.3.4. Other studies

The analysis of other studies on this subject is based on the main findings in the paper entitled “Suitability of global land cover datasets for agricultural monitoring and early warning” (Pérez-Hoyas et al. 2017).

This paper contains a report of the results of a detailed comparison study of nine different global land cover products, including the three products discussed here. The study focused on the performance of products for agricultural monitoring and early warning, so the performance was evaluated only for the cropland classes of each product. The study was geographically limited to Africa, Central America, the Caribbean region and Central South-East Asia.

The study was conducted by taking into account the degree of consistency with FAO agricultural statistics, an independent accuracy assessment and an assessment of suitability based on parcel sizes.

Although the focus of the study was only on cropland areas, the main results of this study substantially confirm the findings mentioned in previous paragraphs:

- The performance of each product is highly variable in different countries or regions. The widest range is found in Africa and South America because of the spatial pattern of agricultural areas (scattered small fields and natural vegetation with a similar growing period in semi-arid areas).
- The agreement with FAO agricultural statistics is also highly variable. GLC-Share works better in Eastern Africa; GlobeLand 30 is best suited in the sub-Saharan belt; and ESA-CCI is best suited in South -East Asia.
- The independent accuracy assessment confirms the higher accuracy of GlobeLand30.

The conclusions of the study can be summarized as follows:

- GLC-Share and GlobeLand30 are highly recommended for cropland monitoring in Africa. ESA-CCI is recommended for Central America and South -East Asia.
- High spatial resolution of the dataset is important in monitoring agriculture, especially in fragmented and heterogeneous landscapes.
- Timeliness is very important for early warning studies. ESA-CCI is the most updated dataset.

2.3.5. Conclusions

None of the considered land cover products are exempt from problems and each of them offer advantages and disadvantages. The selection of the most suitable one is mainly dependent on the criteria considered to be the most critical for the purposes of this study.

- Accuracy: at the global level, the accuracy of each product is so variable that it cannot be a criterion for selection.
- Acquisition date of dataset: considering the speed rate of land cover change, the availability of an updated dataset is essential and therefore could be a valid criterion. ESA-CCI has the most updated dataset.
- Resolution: higher resolution datasets have the capability to better discriminate between cropped and non-cropped areas. Based on this, the advantages of GlobeLand 30 are evident.
- Perspectives of future updates: this is another important aspect. ESA-CCI and GlobeLand 30 appear to be the most likely to be updated in the next few years, but more information is required in order to evaluate it.
- Legend: the type of land cover classes can be an important criterion, as it severely affects the results of reclassification of land cover into rural activity classes.

A major issue is represented by the high variability of accuracy of each product in different areas. Major discrepancies among different land cover products are related to land cover classes that have a different meaning in terms of corresponding potential inferred land use. Being the potential inferred land use one of the two main elements of rurality, the variability of accuracy could result in a poor categorization of land cover classes into rural activity classes, regardless of the product selected for the implementation of the methodology.

Such considerations lead to the decision that using a combination of the analysed products could mitigate the intrinsic problems of each of them. The approach used in deriving a synthetic product is described in more detail in paragraph 3.4.

Methodology

The overall methodology is based on the spatial analysis of datasets described in the previous chapter, using GIS spatial analysis tools to overlay layers in order to combine attributes from the Settlement Model with attributes from land cover.

This overlay produces a first output represented by the rural activity classes, in which a combined “settlement type” and “potential inferred land use” class are assigned to each square km class.

Subsequently, rural activity classes are overlaid with administrative boundaries and the population density layer to derive relevant statistics.

The major advantages of such an approach are the following:

- It provides a simple method for spatial combination of different data sets, that can be easily implemented, with minor editing to the workflow, even with different input datasets (for example, with newly available administrative boundaries or updated land cover data). As a consequence, the methodology can be implemented or adapted also in countries where limited GIS expertise is available.
- It allows the production of statistics on rural areas that are consistent at global level, thus allowing comparisons not only between areas at the country level but also between different countries. The consistency is inherited by the consistency of both datasets used as input (Settlement Model and land cover), as well as by the data processing workflow at the global level.
- A GIS approach in the definition of rural areas offers the opportunity to provide a spatial representation of rural typologies that can be used to organize rural statistics and indicators. The territory (intended as a spatial concept) is one of the three basic aspects (together with themes and time) in the construction of rural development indicators.

The whole work can be conceptually subdivided into five phases:

- a. Data preparation, which entails the following:
 - Harmonizing each input layer with regard to projection, data type, spatial resolution and origin.
 - Cutting each input layer into a series of tiles, in order to make the subsequent processing phases more efficient.
- b. Data Reclassification, which entails the following:
 - Reclassifying each land cover product into rural activity classes.
 - Modifying the original classes of SMOD in order to remove the existing noise in class “rural cells” caused by very low values of population density⁵.
- c. Data overlay, which includes all the steps required to cross input layers and prepare the base layer for generating statistics.
- d. Generating statistics at national and subnational levels for each country.
- e. Data analysis: creation of summary tables and graphs.

The general flowchart of the methodology implemented is shown in figure 2. The GIS data and scripts used and produced for the implementation of the methodology are structured in a series of folders hierarchically named according to their role. The folder structure is shown in figure 3.

⁵ Class 1 (“inhabited rural areas”) of SMOD includes all single or contiguous pixels with more than 0 and less than 5,000 inhabitants, but a large number of pixels falling in this class show very little values. Such pixels were considered to be “noise” and were, therefore, removed from that class and assigned to the new class labelled as “Thinly populated rural areas”. See paragraph 2.6. for details.

Figure 2. General flowchart of the methodology

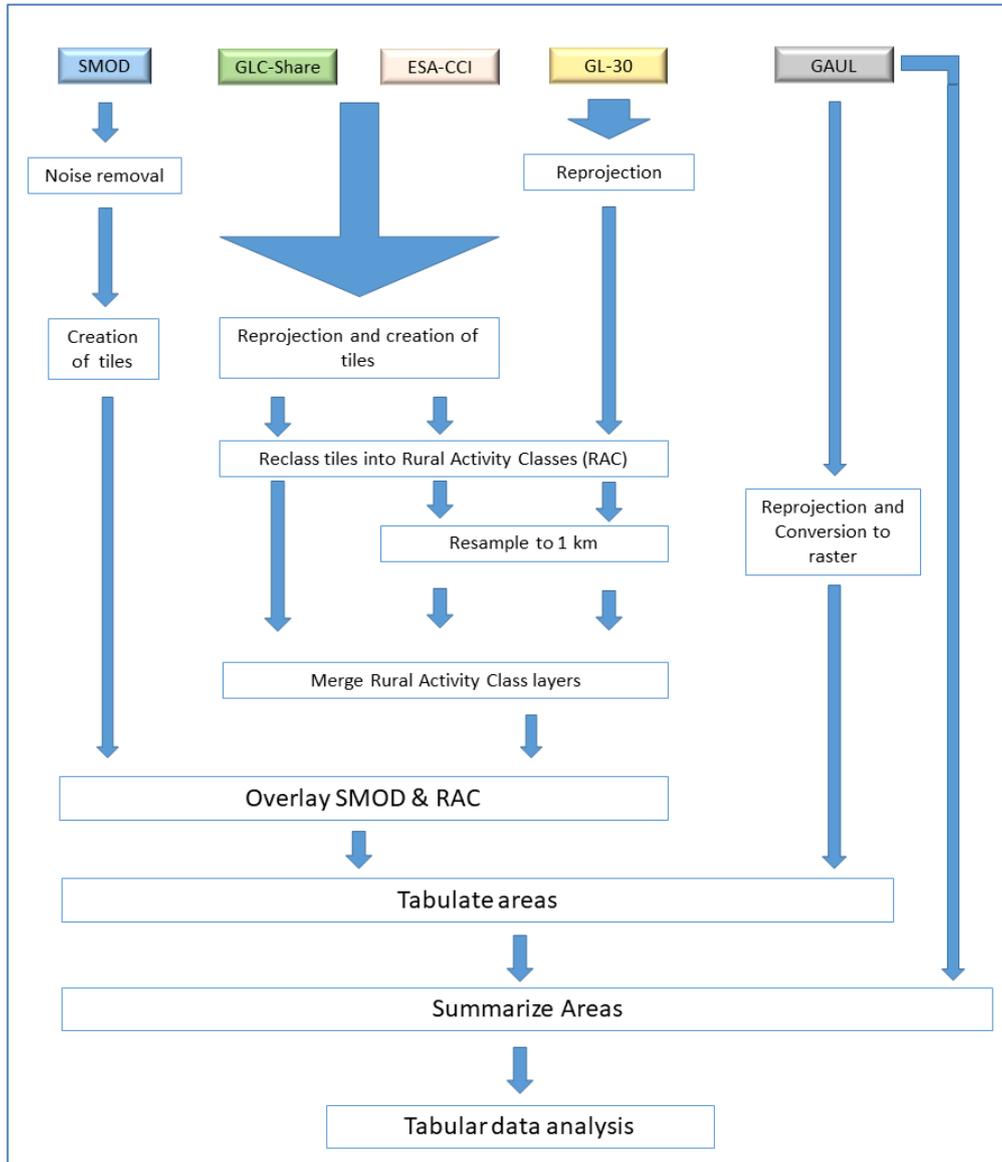
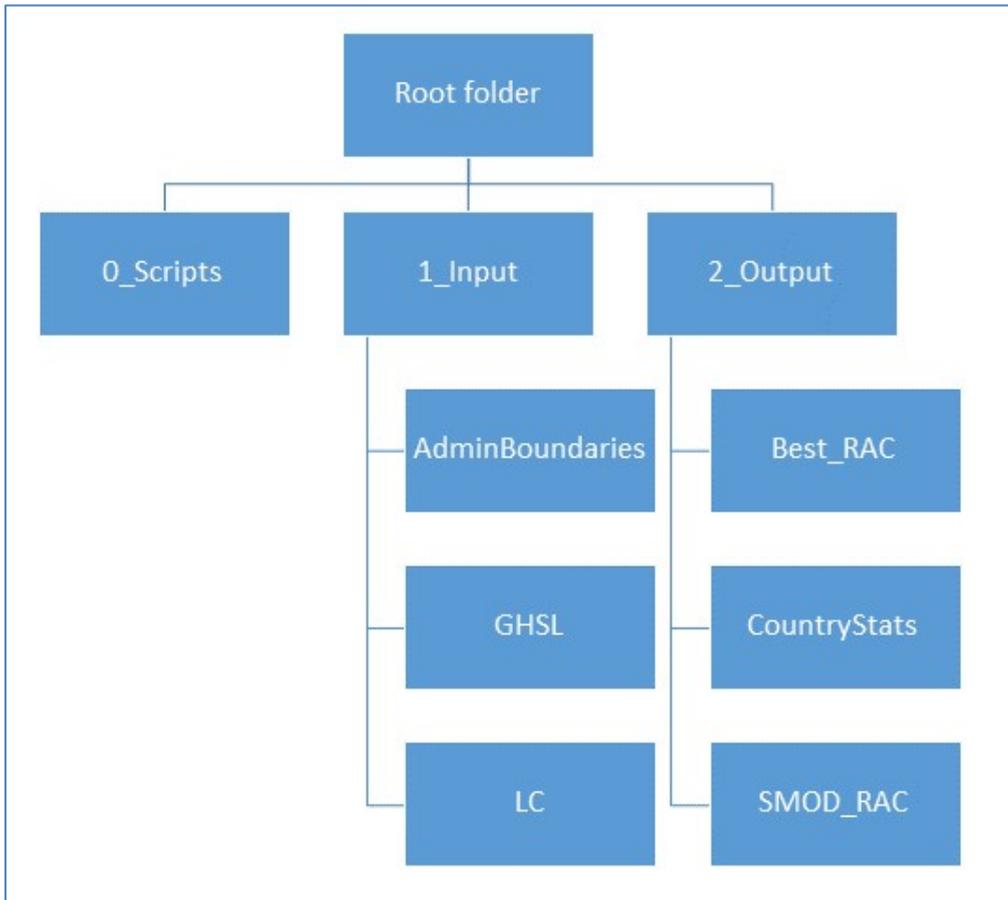


Figure 3. Folder structure for scripts and GIS data



Data were processed using the following general reference framework:

- Reference layer for grid alignment: GHS SETTLEMENT MODEL GRID (SMOD)
- Projection: Mollweide (EPSG: 54009, False Easting: 0, False Northing: 0, Central Meridian: 0, Datum: D_WGS_1984)⁶
- Data Model: Raster
- Spatial Resolution: 1 km

⁶The Mollweide projection is an equal-area, pseudo-cylindrical map projection, which makes it suitable for mapping purposes at the global level and for areas calculations.

Processing was done at the global level but, for presentation purposes, the resulting statistics are shown in this report only for a subset of six countries, whose selection criteria are described in paragraph 3.1.

All processing steps, described in the next paragraphs, were performed in ESRI ArcGIS 10.0 with Spatial Analyst extension.

With the exception of the tabular data analysis phase, the steps were translated into python scripts (stored in folder '0_Scripts'), using Python 2.6. In the description of processing steps, whenever the corresponding python script was available, its filename is indicated.

3.1. Selection of test countries

As methodology is under development, it had to be tested under different environmental and demographic conditions. A set of test countries, to be used as showcases to evaluate the results, needed to be selected.

Test countries were selected according to the following set of criteria:

1. A set of countries diversified with respect to their land cover dominant pattern: this would make it possible to test the methodology in countries with marked differences in dominant land use, such as countries mainly based on agriculture, or on forest exploitation.
2. Countries with a high percentage of rural population⁷ as well as countries with a low percentage: the rationale behind this is to test the methodology in countries with marked differences with respect to the degree of rurality.
3. Preferably include at least one country from each continent.
4. Include at least one developed country: the rationale behind this is that in line with the objective of GSARS to provide tools that support rural development policies, the methodology should be suitable for all rural territories, regardless of their degree of development.
5. A set of countries free of constraints related to Settlement Model data quality.

⁷ Rural population percentage was computed as the difference of urban population, source: United Nations, Department of Economic and Social Affairs, Population Division (2014).

After filtering countries with the above-mentioned criteria, the countries list was refined taking into account other elements, such as the possibility to successfully involve the selected countries in the testing phase.

The following table shows the countries selected for test. The results of the analysis (see paragraph 4) is presented only for those countries:

Country	Continent	Dominant land cover	Rural Population
Colombia	Latin America	Forest	24 %
Ethiopia	Africa	Agriculture	80 %
France	Europe	Agriculture	20 %
Malaysia	Asia	Forest	26 %
Pakistan	Asia	Bare soil	61 %
South Africa	Africa	Shrubland	35 %

3.2. Processing of administrative boundaries

Processing the GAUL administrative boundaries layer included the following steps:

1. Populating the attribute table with the ISO3 code included in the “GAUL2015_AdditionalAttributes” folder (file: G2015_InternationalCountryCodesAttributes.xls).
2. Generating a table with the countries list based on the ISO3 code. The country list is needed at a later stage of the procedure, when output classes are summarized by country’s administrative units. The use of ISO3 code was preferred to the country name, as it allows for standard output tables names to be built automatically. As in GAUL, the ISO3 code is not assigned to areas confronted with sovereignty issues and other disputed areas; a generic code “XXX” was assigned to such areas.
3. Projecting the layer in the Mollweide projection (EPSG: 54009).
4. Converting the reprojected layer into a raster layer with spatial resolution of 500m. As the raster layer is used at a later stage to calculate areas for each administrative unit, a finer resolution, with respect to the one of the other input raster layers, was preferred to reduce the approximation in surfaces calculations.

Step 1 was performed manually through a “add join” operation and steps 2 to 4 were performed by the **script Process_Gaul.py**. The outputs of the scripts include:

- A table with the countries list, stored into a File Geodatabase;
- A vector layer of GAUL 2015 in Mollweide projection, stored in the same File Geodatabase;
- A raster layer of GAUL 2015 in Mollweide projection, with spatial resolution of 500m, stored in the same File Geodatabase.

3.3. Processing of the Settlement Model

Processing of the Settlement Model (SMOD) layer included the following steps:

1. Noise removal from “rural cells” class: this step was required in order to remove from the “rural cells” pixels with very low population density values, which represent mostly the “noise” affecting the Settlement Model.

The operation was performed by reclassifying the GHS POPULATION GRID (POP) with a threshold of 20 p/km² and assigning pixels with population density lower than 20 to the class “0” of SMOD.

The resulting classes of SMOD were then labelled as follows:

- Class 0 = thinly populated rural areas
 - Class 1 = populated rural areas
 - Class 3 = town, suburbs and densely populated rural areas
 - Class 4 = urban centres
2. Creation of tiles: in this phase, the output from the previous step was split into 44 tiles. The same tiling operation was also performed on the GHS POPULATION GRID (POP) layer. This step was aimed only at improving the computation efficiency in the subsequent steps, when SMOD was overlaid with land cover.

The two steps are performed by the scripts **Process_SMOD.py** and **CreateTiles_SMOD.py**.

3.4. Processing of land cover products

Processing of land cover products was probably the most complex phase of the whole methodology, as it involved several steps, some of which were extremely extensive in terms of computation time.

As described in paragraph 2.3, the three products used were:

- FAO GLC-Share (Latham et al. 2014)
- ESA CCI Land Cover (ESA 2014)
- GlobeLand 30 (National Geomatic Center of China) (National Geomatics Center of China 2014)

In this phase the three products were converted into the corresponding rural activity class layer, then a synthesis of the three products was achieved to get in the output a single layer of rural activity classes (RAC), which were later overlaid with SMOD. The synthesis was based on the following set of rules:

1. Rural activity classes are generated for each land cover product, using the reclassification schemes shown in tables 8-10;
2. The three rural activity layers are combined through selection, for each pixel, of the most frequent class;
3. For pixels with full disagreement among the three products in terms of rural activity classes, the most “intensive” land use class is assigned to the output pixel.

The major advantage of this approach is that it can compensate local inaccuracies of one product by selecting the most “probable” rural activity class. Furthermore, aggregating the three products after their conversion into rural activity classes dramatically reduces the possibilities of full disagreement.

Selecting the most “intensive” land use class for pixels with full disagreement is aimed to adopt a conservative approach and to avoid the downgrading to “low intensity” classes of areas that could belong to higher intensity of land use.

As input land cover products have different characteristics, processing requirements vary for each of them:

- Projection in Mollweide is required for all products.
- Creation of tiles is required only for GLC-Share and ESA-CCI, while GlobeLand30 is already distributed as tiles.
- Reclassification into rural activity classes is required for all products.
- Resampling to 1 km of spatial resolution is required only for ESA-CCI and GlobeLand30.

Accordingly, the various steps in processing land cover data were divided, as follows:

(a) Reprojection and creation of tiles for GLC-Share and ESA-CCI

In this step, GLC-Share and ESA-CCI were projected in Mollweide and split into 44 and 60 tiles, respectively. For the GLC-Share, the image size of the original layer allowed for the same splitting scheme used for SMOD to be applied, this was not possible for ESA-CCI. As at later stages, CCI tiles were managed at the ESRI mosaic dataset level, having tiles with different sizes was not a problem.

The operation was performed by the script **CreateTiles_GLC_CCI.py**.

(b) Re-projection of GlobeLand30

GlobeLand30 is distributed in 853 tiles, all projected in the Universal Transverse Mercator (UTM). The UTM zone of each tile depends on its longitude of origin.

In this step, all tiles were-projected in Mollweide. As the coverage of tiles falling into zones 1N, 1S, 59N, 59S, 60N and 60N were crossing the International Date Line in standard Mollweide projection, those tiles were re-projected into a customized Mollweide Projection with a modified central meridian, using the following parameters:

False Easting: 0

False Northing: 0

Central Meridian: -180

Datum: D_WGS_1984

In the subsequent steps, GlobeLand30 tiles were managed using an ESRI Mosaic dataset that can manage tiles in different projections.

The operation was performed by the script **Project_GL30.py**. It is worth noting that this step was extremely time-consuming in terms of computation time (approximately 45 hours).

(c) Reclassification of Land Cover classes into rural activity classes

In the reclassification phase, the following approach was adopted for the reclassification of land cover classes:

1. Water bodies were semantically classified at a higher hierarchical level, creating a first subdivision between “land” and “water”.
2. At the subsequent level, the class “land” is classified into four rural activity classes:
 1. Cultivation;
 2. Livestock production;
 3. Forestry and agroforestry;
 4. Non-agricultural

Value 5 is used for water.

3. For each land cover product, the corresponding reclassification scheme shown in tables 8 to 10 was applied.

Reclassification tables were stored in the File Geodatabase LandCover.gdb (Reclass_GLC, Reclass_CCI and Reclass_GL30, respectively).

Reclassification was performed, for each product, by the corresponding script: **Reclass_GLC.py**, **Reclass_CCI.py** and **Reclass_GL30.py**. Each script took as input files the tiles generated for each product during steps (a) and (b) and writes in output the same tiles, reclassified into rural activity classes. Again, the reclassification of GlobeLand30 tiles was very time-consuming (approximately 40 hours).

Table 8. Reclassification scheme for GLC-Share

Code	Description	Rural Activity Class
1	Artificial surfaces	Class 4
2	Cropland	Class 1
3	Grassland	Class 2
4	Tree covered areas	Class 3
5	Shrubs covered areas	Class 2
6	Herbaceous vegetation aquatic or regularly flooded	Class 4
7	Mangroves	Class 4
8	Sparse vegetation	Class 2
9	Bare soil	Class 4
10	Snow and glaciers	Class 4
11	Water bodies	Class 5

Table 9. Reclassification scheme for ESA-CCI Land Cover

Code	Description	Rural Activity Class
10	Cropland, rainfed	Class 1
20	Cropland, irrigated or post-flooding	Class 1
30	Mosaic cropland (>50%) / natural vegetation (tree, shrub, herbaceous cover) (<50%)	Class 1
40	Mosaic natural vegetation (tree, shrub, herbaceous cover) (>50%) / cropland (<50%)	Class 2
50	Tree cover, broadleaved, evergreen, closed to open (>15%)	Class 3
60	Tree cover, broadleaved, deciduous, closed to open (>15%)	Class 3
70	Tree cover, needle-leaved, evergreen, closed to open (>15%)	Class 3
80	Tree cover, needle-leaved, deciduous, closed to open (>15%)	Class 3
90	Tree cover, mixed leaf type (broadleaved and needle-leaved)	Class 3
100	Mosaic tree and shrub (>50%) / herbaceous cover (<50%)	Class 2
110	Mosaic herbaceous cover (>50%) / tree and shrub (<50%)	Class 2
120	Shrubland	Class 2
130	Grassland	Class 2
140	Lichens and mosses	Class 4
150	Sparse vegetation (tree, shrub, herbaceous cover) (<15%)	Class 2
160	Tree cover, flooded, fresh or brackish water	Class 4
170	Tree cover, flooded, saline water	Class 4
180	Shrub or herbaceous cover, flooded, fresh/saline/brackish water	Class 4
190	Urban areas	Class 4
200	Bare areas	Class 4
210	Water bodies	Class 5
220	Permanent snow and ice	Class 4

Table 10. Reclassification scheme for GlobeLand 30

Code	Description	Rural Activity Class
10	Croplands	Class 1
20	Forest	Class 3
30	Grassland	Class 2
40	Shrubland	Class 2
50	Wetlands	Class 4
60	Waterbodies	Class 5
70	Tundra	Class 4
80	Artificial surfaces	Class 4
90	Bare land	Class 4
100	Permanent snow and ice	Class 4

(d) Resampling of ESA-CCI and GlobeLand30 RAC tiles to one km

In this phase, rural activity class tiles of ESA-CCI and GlobeLand30, generated with step (c), were resampled to the spatial resolution of 1 km. Resampling was performed using the “MAJORITY” algorithm, so that for each pixel, the most frequent class in the original tile was recorded in the new tile.

SMOD layer was used to set the snap environment parameter to ensure that all grids were properly aligned for subsequent overlay.

Also, in the same step the output 1 km tiles were used to build an ESRI Mosaic dataset for each product, to be used subsequently for the selection of the most frequent rural activity class.

The operation was performed by the scripts **Resample_CCI.py** and **Resample_GL30.py**.

(e) Merging rural activity class and selecting the most frequent class

In this phase, the three layers of rural activity classes were merged according to the rules already described. Implementing such rules into a GIS spatial analysis workflow required the execution of several spatial analysis functions.

Rural activity classes tiles derived from GLC-Share were used as the base for merging, while the rural activity tiles of the two other products were managed at Mosaic Dataset level. For each tile:

- Two merging cycles (using Cell Statistics) were performed: the first using the “MAJORITY” algorithm, the second using the “MINIMUM” algorithm.
- As three layers were analysed, the “MAJORITY” rule for a certain pixel was satisfied when all the three or at least two layers showed the same value. When the three values were different (i.e. when there was full disagreement), the algorithm assigned “NO DATA” to the pixel.
- Using Reclassify and Pick algorithms, “NO DATA” (full disagreement) pixels were selected from the first merge and replaced with the minimum rural activity classes value of the second merge (i.e. with the most intensive land use class available for that pixel).
- An additional step was required to fill gaps originated by “NO DATA” values in the GLC-Share RAC Tiles. Those gaps were filled using the most frequent values in the surrounding pixels in a 5x5 kernel, using Focal Statistics function.

The operation was performed by the script **Merge_RAC.py**. It took in input the GLC RAC tiles produced with **Reclass_GLC.py** (phase (c)) and the two sets of 1 km rural activity class tiles generated by phase (d) and produced in output a set of 44 tiles (with same size and extent of SMOD tiles) that was subsequently overlaid to SMOD.

3.5. Data overlay

The rural definition was made operational by combining the settlement and land cover maps. By doing this, a two-way classification of each grid cell was made, which enabled each one to be sorted into the appropriate category of the rural typology. In this phase, SMOD classes tiles, as output from phase 3.3, and rural activity class tiles, as output from 3.4(e), were overlaid, using the “Combine” function, and a new layer was produced in which a unique output value was assigned to each unique combination of input values.

A new two-digits combined code was assigned to each class, in which the first digit is the SMOD class and the second digit is the rural activity class.

Subsequently, the classification was arranged in order to aggregate less meaningful classes and reduce the total number of classes to the minimum needed for a characterization of rural areas. Using the “Reclassify” function, urban centres were merged, irrespective of the rural activity class. Also, all “non-agricultural” classes and “water bodies” classes were merged, irrespective of their corresponding SMOD class. The final classification scheme is shown in figure 4.

The output from overlay was then mosaicked into one single global raster layer, to be subsequently used to generate statistics.

The above described processing was carried out through script **Combine_SMOD_RAC.py**.

Figure 4. Final classification scheme of SMOD-RAC classes

Rural activity classes Settlement Model classes	Cultivation	Livestock production	Forestry and agroforestry	Non-agricultural	Water bodies
Thinly populated rural areas	Class 1	Class 2	Class 3	Class 40	Class 5
Populated rural areas	Class 11	Class 12	Class 13		
Towns, suburbs and densely populated rural areas	Class 21	Class 22	Class 23		
Urban centres	Class 31				

3.6. Generation of statistics

Statistics on SMOD-RAC classes and on the population grid were produced based on the GAUL administrative boundaries, level 2.

3.6.1. Statistics for SMOD-RAC classes

In this phase, the classification generated with the previous phase was used as input to generate statistics at the global level for each administrative unit. Statistics were stored into two different File Geodatabases, one for the first administrative level and one for second administrative level. Each File Geodatabase stored a general, global table with tabulated areas and a series of tables – one for each country – with summarized areas for the corresponding administrative level.

This was performed in two steps:

- a. In the first step, the tabulate area function was used to calculate, within each administrative unit of GAUL (about 38,000 units worldwide), the area of each SMOD-RAC class. The raster version (500m spatial resolution) of GAUL, generated with phase 3.2, was used as input zones layer, while the SMOD-RAC classification generated with phase 3.5. represented the dataset that defined the classes that would have their area tabulated within each zone.
 - The resulting table was stored in the two above-mentioned File Geodatabases, to be used subsequently in the summarizing phase.
 - The operation was performed by the script **TabAreas_GAUL_SMOD_RAC.py**.
- b. In the second step, the statistics analysis function was iterated to produce, using the ISO3 country code as key field, a summary table for each country with areas summarized by first and second administrative level.

The following data were used as input:

- The countries list table generated in phase 3.2
- The GAUL vector layer in Mollweide projection, also generated in phase 3.2
- The global tabulated areas table produced with step (a)

The “ObjectID” field of GAUL vector layer and the “VALUE” field of the global tabulated areas table are the key fields used for joining tables.

Three different scripts were available for that step, depending on the administrative level to be processed and on the type of output produced:

SummGAULAreas_AllCountries_level1.py:

summarized areas of each country at administrative level 1. One output table was produced for each country.

SummGAULAreas_AllCountries_level2.py:

summarized areas of each country at administrative level 2. One output table was produced for each country.

SummGAULAreas_World_level2.py:

summarized areas for all GAUL polygons, irrespective of the country, at administrative level 2. Only one global output table (about 38,000 records) was produced.

The two File Geodatabases containing tabulated and summarized areas were stored in folder CountryStats (see figure 2) and named StatsGAUL_Level1.gdb and StatsGAUL_Level2.gdb, respectively.

The tables were then manually exported in Excel for analysis.

3.6.2. Statistics for population

In this phase, the population distribution within SMOD-RAC classes was calculated and the results were summarized per country. The following steps were taken:

- a. Population grid was split into a series of layers, one for each SMOD-RAC class, using the “Con” function. Each output layer stored population values only for the considered SMOD-RAC class.

- b. Zonal statistics tables based on GAUL raster layer were generated for each output layer from the previous step. Each table stored, for each administrative unit, the total population for the relevant SMOD-RAC class.
- c. Zonal statistics tables were merged into a single global table, summarized by country and exported in Excel for analysis.

Steps (a) and (b) were carried out by the script **ExtractPop_SMOD_RAC.py**, while the third step was completed manually.

Results and outputs

4.1. Results

The results of the characterization of rural areas are illustrated by tables, graphs and maps.

Tables (see annexes 1-6) report the percentage area for each administrative unit. The administrative level 2 was used for all countries except France, where the first level was used.

With the objective to show the benefits of a more detailed disaggregation of data, the statistics for South Africa for level 3 (local municipalities) were also reported.

The class codes shown in tables refer to the classes of figure 4.

Graphs (see annex 7) were prepared to show how the population is distributed among rural classes at the national level. Pie charts and radar charts were included. This latter better shows significant differences between countries.

As the class “urban centres” is always the most populated, for each country, two different graphs were prepared:

- a. Distribution of population in SMOD-RAC classes, including all rural classes;
- b. Distribution of non-urban centres population in SMOD-RAC classes, excluding the population living in the “urban centres” class.

For comparison purposes, graphs for Colombia can be considered as a good example of an evenly distributed population among rural classes.

Maps are provided in A3 format in two separate atlases (see annexes 8 and 9):

1. Maps at the national level (except for Colombia, where, because of the small size of the administrative units, a larger scale was used), show the dominant class for each administrative unit. Two different types of maps are provided:
 - a. Maps showing only the first dominant class for all polygons. The labels inside each polygon show the per cent of the dominant class.
 - b. Maps showing the first dominant class and the per cent. In cases in which there is no dominance, the polygon still shows the color of the first class, but the per cent is not shown and a diagonal line fill is overlaid.

The criterion used to determine dominance was:

- $(\%c11 - \%c12) / \%c11 < STDEV(r)$ where:
 - $\%c11$ and $\%c12 = \%$ area of the first and of the second class in the ranking, respectively.
 - $STDEV(r) =$ standard deviation of the ‘population’ of ratios
2. Maps of selected areas (at 1:750.000 scale), show the spatial distribution of rural classes within each administrative unit.

The maps were produced without putting on logo or naming the project title, but it would be worth to add them.

4.2. Outputs

The outputs of this activity consist of data package, which includes the following:

- All python scripts used to process data as described in paragraph 3.
- Output layers and tables generated with steps 3.4. (e), 3.5. and 3.6.

The outputs of previous steps are omitted because of the very high size of the datasets files. However, the folder structure to store intermediate processing layers generated by the workflow is provided.

Also, the original input data (publicly available for download) are omitted; ReadMe files with the link for downloading them are provided in each subfolder.

- ArcMap projects for maps generation
- Excel files with statistics for rural typology classes and Population.

It should be noted that in order to run python script on different computers or environments, paths to local variables of each script must be edited accordingly.

Discussion

The characterization of rural areas through the Settlement Model and land cover performed presents some considerations that are useful for interpreting the results and identifying areas for improvement. The guiding principles of the development of the methodology were established at the outset: global applicability; feasibility with currently available data; scalability to take advantage of more refined data; and compatibility with a consistent definition of urban areas. The method ultimately proposed adhered to those principles.

The application produced a two-way classification of rural territory based on human settlement and land cover characteristics. The resultant typology presents a continuum of rurality consistent with the underlying conceptual basis for the definition. This allows for consistent international comparisons of statistical indicators.

1. Validation of the definition in identifying degrees of rurality and variation across countries

In examining the results, a key consideration is the extent to which the method's application reveals diversity in the character of rurality across countries. A country's rural profile is reflected in the distribution of its geographic units across the typology's classes. When profiles differ across countries, the disaggregation permitted by the definition is valuable, enabling comparison of "like" with "like" areas. Accordingly, as an example, incomes of households whose livelihoods depend on cropping are compared to each other and not to those of livestock herders.

The cross analysis and classification of the Settlement Model and land cover made it possible to characterize rural areas based on their degree of rurality. The tables of annexes 1-6 can be used into a spreadsheet and offer several possibilities for further analysis, such as sorting and selection based on thresholds for single classes or combinations of classes. A relevant file is included in the data package described in paragraph 4.2.

The tables are useful for quantitatively describing the composition of each administrative unit in terms of relationships between human settlements and potential inferred land use. Some features are evident for the six test countries.

Districts of Baluchistan province of Pakistan are well differentiated into two main typologies, desert, uninhabited areas on the west and extensively cropped and grazed areas on the east.

Most of the municipalities in South Africa are characterized by a fair population density in a pastoral environment. Conversely, France has large areas with a more even distribution of surface among several classes; it's worth noting that this could be related to the higher resilience and adapting capacity of developed countries.

In Colombia, the municipalities of Marinilla, Imues and Tenio are clearly dominated by populated rural areas and towns and suburbs with cultivation (classes 11 and 21), while Mosquera, Cepita and Cucaita are distinctly characterized by a large population in the "livestock production" classes (classes 22 and 23).

In Malaysia, the rural population of Labuan and Kuala Penyu is concentrated in forest areas, while the dominant rural typologies for Bachok, Tumpat and Yan are the "cultivation" classes.

The radar plots of annex 7, which indicate how the population is distributed among classes, more clearly delineate the variations among countries: Colombia, France and South Africa have very distinct distribution patterns, while the pattern is very similar for Pakistan and Malaysia.

The radar plots for Ethiopia indicate a surprisingly high concentration of population in urban centres and towns and suburbs classes, contradicting the high degree of rurality of large areas of this country. On the other hand, the performance problems associated with the GHSL model in that area, which showed a high presence of commitment errors, are known. This is probably a good example of how the new release of GHSL (see point 2 below) could improve the results and the usefulness of the classification into rural typologies.

Graphs of annex 7 have been prepared at the national level, but they could be meaningful also at lower administrative levels for comparison purposes between different administrative units within a country.

Maps showing the spatial distribution of rural typologies are equally important, as they indicate “where” is “what” and can inform decision making processes for rural development.

The various results mentioned in paragraph 4.1. indicate that the differences between and within countries are quite evident. This supports the basic concept that the “rural typology” approach can be used as a basis to organize rural statistics and indicators. Furthermore, a major advantage of such an approach is that it is globally consistent and provides a worldwide base for data comparison and analysis.

2. Refinement of the definition using a 250m Settlement Model (GHSL)

The 1 km Settlement Model classes used here are based on the “degree of urbanization” as defined by REGIO-OECD-WB. This classification does not distinguish suburbs from “towns or densely inhabited rural areas”. Such distinction would be helpful for a finer description of rural areas.

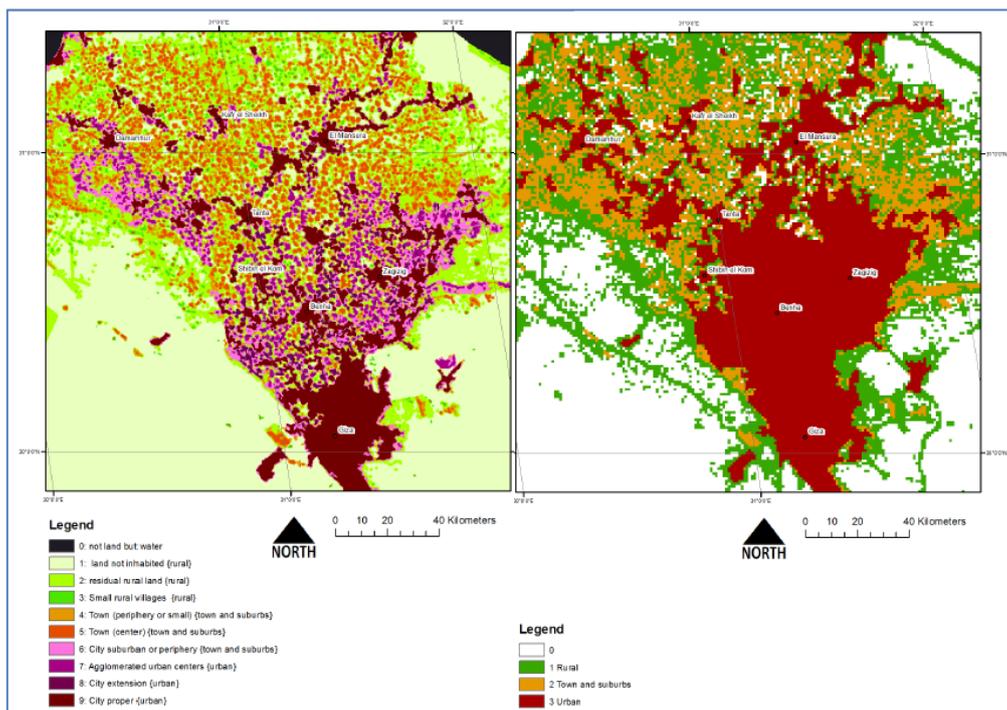
The new version of GHSL, named “SMOD250”, not yet published, is a major improvement in this direction, both in terms of spatial resolution (250m) and, even more important, in terms of classification scheme. The new legend scheme contains the following nine classes:

- 0: not land but water
- 1: not inhabited land: people per grid cell equal to 0;
- 2: residual inhabited areas (rural): people per grid cell greater than zero, but less than 300 persons/km²
- 3: small rural villages: LDS blobs with less than 5K inhabitants, disconnected from the HDC
- 4: towns: LDS blobs with > 5K inhabitants, disconnected from the HDC
- 5: town center: HDS blobs with < 50K inhabitants, disconnected from the HDC
- 6: city suburban: LDS blobs connected to HDC
- 7: agglomerated urban centers: HDS blobs not connected to the HDC but in the same LDS blob with a HDC

- 8: city extensions: high-density surface structures connected to the HDC with thin structures (less than 1 km thickness)
- 9: city proper: HDS blobs with > 50K inhabitants, more than 3 km² surface, and more than one km thickness: HDC (city proper)

The major advantage of this version is represented by its capacity to classify in separate classes urban areas surrounding major urban centers (suburbs) from other towns centers and villages. Figure 5 below (extracted from "Pesaresi Martino; Notes on the GHS SMOD 250m data production (unpublished)") shows comparison between the 250m (on the right) with 1 km model (on the left) for the area of Cairo (Egypt).

Figure 5. Cairo, comparison between SMOD 250 (left) and SMOD 1km (right)



The use of the SMOD 250 model in this approach would undoubtedly represent a major improvement and refinement of the methodology. It would result in the following:

- a more precise characterization of densely populated areas out of urban centres, describing the fine granulometry of the rural settlements and facilitating the analysis of connections between rural cities/towns and rural areas in their surroundings.

- a more detailed thematic content, through the separation of suburban areas from rural villages, which is particularly important in developing countries.

The scalability of the method will, accordingly, result in an improvement in the definition's usefulness in the analysis and design of rural development policies.

3. Refinement of the definition through the reclassification of land cover

As stated in paragraph. 1, it is not possible to set unique relationships between land cover and land use classes. While this translation is straightforward for some classes, it is much less evident for others, especially at the global level. Using as a reference the GLC-Share classification scheme, straightforward relationships between land cover and land use exist only for classes, such as artificial surfaces, cropland, bare soil and snow and glaciers.

All the remaining classes related to different types of natural vegetation are to a more or lesser extent subject to different types of land use in different areas of the world, and with different degrees of intensity.

Grassland, shrubland and sparse vegetation (in decreasing order), are used for pastures in large areas of the world but, most likely, not everywhere. In many semi-arid and arid countries, animal husbandry is often the only source of income for the rural population and, undoubtedly, the land cover classes are determinant for rural activity. On the other hand, tundra areas of subpolar regions in northern Asia and Greenland are unlikely to be grazed. Tree covered areas can be used at different degrees of intensity for gathering fruits, grazing, hunting, or as a source of fuelwood. Inland fresh water bodies are used for fishing and transportation, and locally can represent a major source of income for rural families. The same applies for coastal areas.

For all those reasons, preference was given to the concept of "potential inferred land use", which is described in paragraph 1, offered by each land cover class.

Despite this, it is evident that adopting reclassification schemes even slightly different from those shown in tables 8-10 would strongly affect the resulting statistics.

The desirable future availability of actual land use maps at the global level would make it possible to switch from potential to actual land use and thus to provide statistics more meaningful in terms of relationships between human settlements and rural activities.

Moving toward actual land use would open the doors to other kinds of improvements, such as the introduction of other variables helpful in separating areas where land cover classes do not provide enough information on rural activities.

Some attempts in this sense have been done by adding to the workflow the Gridded Livestock of the World (GLW), produced by FAO⁸, in order to split classes belonging to the “livestock production” rural activity class (classes 2, 12 and 22) into areas effectively grazed (thus actually belonging to the “livestock production” class) and areas where no signs of husbandry are detected (to be moved into the “non agricultural” class). Results are encouraging but, as a number of different animal species need to be combined by livestock unit coefficients, effective utilization of such data would require a sound selection of threshold of LU/ha. Furthermore, introducing GLW in this phase would be conceptually misleading, as it would “contaminate” the concept of potential inferred land use with elements of actual land use.

Another global layer that could improve the classification is represented by the 30m resolution Global Surface Water dataset⁹, produced by the Joint Research Centre, which allows for a much finer distinction of surface water bodies, periodically flooded zones, and the identification of paddy rice cropped areas, among others.

4. Robustness of the GIS modelling

The proposed methodology is a first attempt for a spatial delimitation and characterization of rural areas. As a consequence, it is very likely that it will need adjustments and refinements, based on feedback from institutions involved and from stakeholders.

During the development of the methodology, a lot of work has been put into structuring the various processing steps into a clear workflow (as shown in figure 2), which is organized in subsequent conceptual steps, where each step foresees its corresponding “processing toolbox” (i.e. the python scripts accompanying the datasets).

The availability of such processing toolboxes is a major advantage in this phase, as it ensures the replicability of the whole procedure under different scenarios, for example, with different reclassification schemes of land cover, with different

⁸ <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0096084>.

⁹ <https://global-surface-water.appspot.com/>

thresholds in population density for processing of GHSL, or with different aggregation schemes of final classes.

Also, whenever updated versions of land cover products or GHSL become available, it will be possible to quickly update the results.

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Annex 1

Colombia, rural classes (%) by municipality

In the following tables, the percentage area of each rural class is reported for each municipality of Colombia. The class codes shown in the tables refer to the following classes:

Rural activity classes	Cultivation	Livestock production	Forestry and agroforestry	Non-agricultural	Water bodies
Settlement Model classes					
Thinly populated rural areas	Class 1	Class 2	Class 3	Class 40	Class 5
Populated rural areas	Class 11	Class 12	Class 13		
Towns, suburbs and densely populated rural areas	Class 21	Class 22	Class 23		
Urban centres	Class 31				

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Amazonas	El Encanto	0.0%	0.0%	96.2%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%
Amazonas	La Chorrera	0.0%	0.0%	98.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%
Amazonas	La Pedrera	0.0%	0.0%	98.5%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Amazonas	Leticia	0.0%	0.0%	94.9%	0.8%	0.0%	0.1%	3.2%	0.1%	0.0%	0.3%	0.0%	0.5%
Amazonas	Miriti Parana	0.0%	0.0%	98.6%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Amazonas	Puerto Narino	0.0%	0.0%	91.1%	3.2%	0.0%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	2.2%
Amazonas	Puerto Santander	0.0%	0.2%	98.8%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Amazonas	Tarapaca	0.0%	0.0%	97.8%	1.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.1%
Antioquia	Abejorral	12.4%	5.4%	63.7%	0.0%	4.3%	1.6%	9.5%	2.1%	0.2%	0.7%	0.0%	0.0%
Antioquia	Abriaqui	4.6%	2.1%	80.6%	0.0%	0.4%	1.2%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Alejandro	2.8%	0.7%	66.2%	10.4%	6.0%	0.7%	13.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Amaga	2.9%	1.0%	46.3%	0.0%	2.9%	1.7%	29.4%	1.0%	0.0%	13.7%	0.0%	1.0%
Antioquia	Amalfi	0.6%	4.3%	91.2%	0.0%	0.1%	0.2%	2.6%	0.3%	0.1%	0.7%	0.0%	0.0%
Antioquia	Andes	1.3%	0.2%	79.7%	0.0%	1.5%	0.1%	14.7%	0.2%	0.0%	2.4%	0.0%	0.0%
Antioquia	Angelopolis	0.3%	1.1%	67.0%	0.0%	4.6%	0.0%	23.1%	0.0%	0.0%	4.0%	0.0%	0.0%
Antioquia	Angostura	2.4%	16.5%	73.7%	0.0%	2.3%	0.8%	4.0%	0.3%	0.0%	0.0%	0.0%	0.0%
Antioquia	Anori	0.2%	0.8%	96.3%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	0.2%	0.0%	0.0%
Antioquia	Antioquia	4.5%	11.5%	67.9%	0.0%	0.1%	7.2%	7.3%	0.4%	0.7%	0.0%	0.0%	0.2%
Antioquia	Anza	1.3%	1.3%	88.6%	0.0%	0.0%	0.0%	8.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Apartado	8.3%	0.5%	82.8%	0.0%	1.9%	0.2%	3.7%	0.3%	0.0%	0.3%	1.7%	0.2%
Antioquia	Arboletes	57.1%	20.2%	19.0%	0.3%	2.7%	0.0%	0.3%	0.2%	0.2%	0.0%	0.0%	0.0%
Antioquia	Argelia	1.3%	0.0%	92.4%	0.0%	0.0%	0.4%	4.7%	1.3%	0.0%	0.0%	0.0%	0.0%
Antioquia	Armenia	6.5%	2.3%	65.1%	0.0%	3.1%	3.1%	13.8%	2.3%	3.1%	0.8%	0.0%	0.0%
Antioquia	Barbosa	11.3%	0.9%	40.1%	0.0%	16.2%	2.7%	12.7%	6.5%	2.3%	6.9%	0.0%	0.4%
Antioquia	Bello	7.6%	2.7%	21.6%	0.0%	12.0%	0.0%	24.9%	1.3%	0.0%	4.7%	25.2%	0.0%
Antioquia	Belmira	12.4%	4.1%	56.7%	0.0%	7.9%	3.5%	15.3%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Antioquia	Betania	0.9%	0.0%	72.2%	0.0%	0.0%	0.0%	26.8%	0.0%	0.0%	0.1%	0.0%	0.0%
Antioquia	Betulia	3.8%	0.4%	71.0%	0.0%	0.8%	0.0%	24.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Bolivar	1.0%	0.0%	72.4%	0.0%	0.2%	0.0%	23.3%	0.0%	0.0%	3.1%	0.0%	0.0%
Antioquia	Briceno	0.0%	2.3%	85.2%	0.0%	0.6%	0.3%	11.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Buritica	1.3%	19.8%	67.7%	0.0%	0.0%	8.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Caceres	8.7%	19.8%	64.8%	0.6%	0.8%	2.4%	2.2%	0.0%	0.7%	0.0%	0.0%	0.0%
Antioquia	Caicedo	2.6%	1.3%	84.6%	0.0%	1.3%	0.4%	8.9%	0.0%	0.0%	0.8%	0.0%	0.0%
Antioquia	Caldas	0.0%	0.0%	55.9%	0.0%	0.0%	0.2%	27.7%	0.0%	0.0%	9.8%	6.4%	0.0%
Antioquia	Campamento	7.2%	14.1%	74.4%	0.0%	0.0%	0.5%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Canasgordas	0.0%	1.6%	87.6%	0.0%	0.0%	0.4%	7.6%	0.0%	0.0%	2.8%	0.0%	0.0%
Antioquia	Caracoli	1.2%	2.5%	90.2%	0.0%	0.0%	0.1%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Caramanta	5.7%	5.7%	72.3%	0.0%	2.5%	6.3%	7.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Carepa	27.1%	4.9%	53.5%	0.0%	3.7%	0.0%	5.0%	1.6%	0.4%	0.0%	0.0%	3.7%
Antioquia	Carmen De Viboral	0.8%	0.0%	72.6%	0.0%	5.8%	0.5%	14.3%	3.5%	1.1%	1.3%	0.0%	0.2%
Antioquia	Carolina	3.2%	9.2%	80.1%	3.7%	0.0%	1.2%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Caucasia	7.6%	33.8%	54.2%	0.6%	0.2%	1.3%	0.6%	0.2%	0.9%	0.1%	0.0%	0.5%
Antioquia	Chigorodo	50.8%	3.4%	38.1%	0.0%	3.5%	0.1%	2.0%	0.3%	0.0%	0.0%	0.6%	1.2%
Antioquia	Cisneros	0.0%	7.7%	70.3%	0.0%	0.0%	4.5%	7.1%	2.6%	5.2%	0.0%	0.0%	2.6%
Antioquia	Cocorna	0.0%	0.0%	83.6%	0.0%	0.4%	0.2%	13.9%	0.0%	0.0%	1.9%	0.0%	0.0%
Antioquia	Concepcion	25.7%	4.2%	50.2%	0.0%	7.2%	0.6%	12.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Concordia	2.2%	1.0%	76.0%	0.0%	0.0%	0.5%	18.3%	0.0%	0.0%	2.0%	0.0%	0.0%
Antioquia	Copacabana	4.5%	1.5%	12.4%	0.0%	13.2%	3.0%	20.3%	4.5%	0.0%	6.8%	33.8%	0.0%
Antioquia	Dabeiba	0.8%	1.0%	96.7%	0.0%	0.0%	0.2%	0.9%	0.1%	0.3%	0.0%	0.0%	0.0%
Antioquia	Don Matias	21.5%	8.4%	32.2%	1.5%	17.5%	4.3%	12.8%	0.8%	0.3%	0.7%	0.0%	0.0%
Antioquia	Ebejico	0.0%	0.2%	74.6%	0.0%	0.2%	0.7%	18.4%	0.9%	1.8%	3.3%	0.0%	0.0%
Antioquia	El Bagre	0.3%	2.8%	90.3%	0.4%	0.2%	1.3%	1.9%	0.0%	1.4%	0.5%	0.0%	1.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Antioquia	Entrerrios	36.9%	2.2%	28.8%	2.1%	11.6%	2.2%	16.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Envigado	0.0%	0.0%	23.3%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	10.1%	55.6%	0.0%
Antioquia	Fredonia	26.2%	0.0%	41.4%	0.0%	17.5%	0.0%	11.3%	3.2%	0.4%	0.0%	0.0%	0.0%
Antioquia	Frontino	2.0%	4.2%	87.9%	0.0%	0.2%	0.8%	4.3%	0.0%	0.2%	0.5%	0.0%	0.0%
Antioquia	Giraldo	0.0%	10.6%	57.5%	0.0%	0.0%	20.5%	11.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Girardota	8.7%	0.0%	17.5%	0.0%	26.8%	0.0%	15.4%	27.1%	0.9%	0.0%	0.0%	3.6%
Antioquia	Gomez Plata	3.1%	15.4%	70.6%	0.4%	0.0%	2.3%	7.6%	0.3%	0.3%	0.0%	0.0%	0.0%
Antioquia	Granada	7.2%	0.0%	63.9%	0.0%	6.3%	0.0%	22.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Guadalupe	3.6%	19.5%	71.8%	0.0%	0.0%	2.4%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Guarne	2.3%	0.0%	16.4%	0.0%	18.6%	0.0%	36.8%	8.8%	3.1%	13.9%	0.0%	0.0%
Antioquia	Guatape	0.0%	0.0%	26.0%	42.8%	1.2%	9.2%	20.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Heliconia	0.9%	0.0%	68.3%	0.0%	0.9%	0.0%	29.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Hispania	0.0%	0.0%	82.4%	0.0%	0.0%	0.0%	17.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Itagui	0.0%	0.0%	4.4%	0.0%	0.0%	0.0%	8.8%	0.0%	0.0%	4.4%	82.4%	0.0%
Antioquia	Ituango	0.4%	2.5%	92.8%	0.0%	0.0%	0.3%	3.8%	0.0%	0.0%	0.2%	0.0%	0.0%
Antioquia	Jardin	5.9%	0.8%	84.9%	0.0%	0.4%	0.0%	5.4%	0.4%	0.0%	2.1%	0.0%	0.0%
Antioquia	Jerico	30.5%	0.0%	49.0%	0.0%	7.3%	0.3%	10.2%	1.1%	0.0%	1.7%	0.0%	0.0%
Antioquia	La Ceja	6.4%	0.0%	42.3%	0.0%	14.0%	1.5%	18.8%	14.9%	0.7%	0.0%	0.0%	1.5%
Antioquia	La Estrella	0.0%	0.0%	55.3%	0.0%	0.0%	0.0%	28.3%	0.0%	2.6%	2.6%	11.2%	0.0%
Antioquia	La Union	9.9%	0.0%	49.6%	0.0%	11.1%	0.0%	24.8%	4.1%	0.0%	0.5%	0.0%	0.0%
Antioquia	Liborina	0.8%	13.7%	56.1%	0.0%	0.0%	20.2%	9.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Maceo	6.3%	1.9%	83.9%	0.0%	0.6%	0.8%	4.7%	0.2%	0.5%	0.9%	0.0%	0.0%
Antioquia	Marinilla	6.4%	0.0%	3.1%	0.0%	47.4%	0.0%	9.0%	21.8%	0.4%	2.6%	9.0%	0.2%
Antioquia	Medellin	0.0%	0.1%	27.8%	0.0%	1.2%	0.4%	23.1%	1.4%	0.0%	6.0%	39.9%	0.0%
Antioquia	Montebello	1.5%	0.0%	71.2%	0.0%	1.2%	0.0%	26.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Murindo	0.1%	0.2%	94.0%	2.1%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	2.5%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Antioquia	Mutata	20.6%	1.0%	75.3%	0.0%	2.1%	0.1%	0.7%	0.1%	0.0%	0.0%	0.0%	0.1%
Antioquia	Narino	4.4%	6.7%	77.8%	0.0%	1.6%	1.0%	8.2%	0.0%	0.0%	0.3%	0.0%	0.0%
Antioquia	Nechi	2.9%	13.7%	65.0%	2.6%	2.2%	10.4%	0.8%	0.0%	0.6%	0.0%	0.0%	1.8%
Antioquia	Necocli	26.5%	11.5%	53.2%	2.3%	2.2%	1.2%	1.5%	0.1%	0.2%	0.3%	0.0%	1.1%
Antioquia	Necocli (is.)	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Olaya	1.7%	19.7%	51.5%	0.0%	2.1%	13.4%	5.5%	0.0%	2.3%	1.3%	0.0%	2.5%
Antioquia	Penol	16.8%	0.7%	21.0%	10.5%	23.7%	2.3%	23.2%	1.2%	0.0%	0.7%	0.0%	0.0%
Antioquia	Peque	0.3%	7.7%	80.9%	0.0%	0.0%	5.8%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Pto Nare (la Magd.)	17.0%	11.8%	63.2%	0.0%	1.7%	1.1%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Pueblorrico	0.8%	1.7%	74.8%	0.0%	1.7%	0.8%	15.9%	0.0%	0.8%	3.4%	0.0%	0.0%
Antioquia	Puerto Berrio	15.3%	5.0%	76.6%	1.3%	0.5%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.1%
Antioquia	Puerto Triunfo	31.9%	20.7%	40.8%	0.6%	1.0%	1.2%	3.1%	0.0%	0.4%	0.3%	0.0%	0.1%
Antioquia	Remedios	6.0%	3.0%	90.1%	0.0%	0.2%	0.0%	0.4%	0.2%	0.0%	0.1%	0.0%	0.0%
Antioquia	Retiro	2.3%	0.4%	58.9%	0.7%	5.1%	1.1%	22.7%	3.5%	0.7%	2.9%	1.6%	0.0%
Antioquia	Rionegro	5.6%	0.0%	12.4%	0.0%	29.3%	1.4%	17.8%	20.7%	3.2%	3.3%	6.3%	0.0%
Antioquia	Sabanalarga	0.0%	23.0%	59.4%	0.0%	0.0%	9.3%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Sabaneta	0.0%	0.0%	6.0%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	13.1%	76.2%	0.0%
Antioquia	Salgar	0.2%	0.0%	83.7%	0.0%	0.0%	0.0%	14.5%	0.0%	0.0%	1.6%	0.0%	0.0%
Antioquia	San Andres	1.3%	0.0%	83.1%	0.0%	0.0%	0.0%	15.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	San Carlos	0.9%	0.3%	92.7%	0.1%	0.3%	0.0%	5.4%	0.1%	0.0%	0.3%	0.0%	0.0%
Antioquia	San Francisco	0.0%	0.0%	98.7%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	San Jeronimo	0.7%	0.0%	64.1%	0.0%	0.3%	0.0%	24.8%	0.0%	0.7%	9.4%	0.0%	0.0%
Antioquia	San Jose De La Montana	17.7%	3.6%	60.9%	0.0%	3.4%	1.7%	12.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	San Juan De Uraba	43.6%	25.3%	23.6%	0.2%	2.2%	1.0%	1.9%	0.0%	0.6%	1.5%	0.0%	0.0%
Antioquia	San Luis	0.0%	0.1%	91.3%	0.0%	0.4%	0.2%	7.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	San Pedro	41.4%	1.8%	19.7%	0.2%	24.3%	1.8%	7.9%	2.3%	0.0%	0.5%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Antioquia	San Pedro De Uraba	72.3%	4.9%	17.3%	0.0%	3.3%	0.4%	1.0%	0.7%	0.0%	0.1%	0.0%	0.0%
Antioquia	San Rafael	0.0%	0.3%	90.7%	0.8%	0.0%	0.0%	7.4%	0.0%	0.0%	0.8%	0.0%	0.0%
Antioquia	San Roque	0.0%	6.9%	78.3%	0.8%	0.2%	2.1%	11.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	San Vicente	14.4%	1.5%	19.2%	0.0%	35.8%	8.8%	18.9%	1.5%	0.0%	0.0%	0.0%	0.0%
Antioquia	Santa Barbara	14.4%	4.6%	46.7%	0.0%	7.8%	2.0%	14.6%	6.8%	1.6%	1.6%	0.0%	0.0%
Antioquia	Santa Rosa De Osos	22.5%	14.9%	38.1%	0.2%	9.3%	4.6%	8.7%	1.1%	0.1%	0.6%	0.0%	0.0%
Antioquia	Santo Domingo	0.7%	10.8%	67.5%	0.0%	1.1%	5.7%	14.1%	0.0%	0.0%	0.1%	0.0%	0.0%
Antioquia	Santuario	0.0%	0.0%	7.7%	0.0%	24.6%	0.8%	22.7%	28.8%	0.0%	13.8%	0.0%	1.5%
Antioquia	Segovia	1.0%	1.0%	95.4%	0.0%	0.3%	0.0%	1.8%	0.4%	0.0%	0.2%	0.0%	0.0%
Antioquia	Sonson	6.3%	3.5%	77.0%	0.0%	3.9%	1.3%	6.6%	0.5%	0.0%	0.8%	0.0%	0.1%
Antioquia	Sopetran	2.1%	3.4%	60.4%	0.5%	1.6%	4.3%	20.8%	1.6%	1.0%	3.7%	0.0%	0.5%
Antioquia	Tamesis	26.1%	0.2%	63.1%	0.0%	7.6%	0.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Taraza	2.6%	2.2%	91.3%	0.1%	0.3%	0.8%	2.3%	0.1%	0.3%	0.1%	0.0%	0.0%
Antioquia	Tarso	8.2%	0.0%	69.8%	0.0%	1.4%	0.7%	19.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Titiribi	4.1%	0.0%	77.4%	0.0%	1.4%	0.0%	15.3%	0.0%	0.7%	1.2%	0.0%	0.0%
Antioquia	Toledo	0.0%	8.6%	80.2%	0.0%	0.7%	0.7%	9.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Turbo	30.9%	5.5%	49.0%	1.6%	1.7%	0.5%	1.3%	0.1%	0.1%	0.3%	0.3%	8.8%
Antioquia	Turbo (is.)	0.0%	0.0%	22.2%	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%
Antioquia	Uramita	0.0%	6.3%	87.0%	0.0%	0.0%	2.0%	3.6%	0.0%	0.7%	0.4%	0.0%	0.0%
Antioquia	Urrao	2.9%	1.1%	88.1%	0.0%	2.6%	0.9%	3.7%	0.2%	0.2%	0.3%	0.0%	0.0%
Antioquia	Valdivia	0.9%	4.0%	90.6%	0.0%	0.2%	0.7%	3.5%	0.0%	0.0%	0.1%	0.0%	0.0%
Antioquia	Valparaiso	32.5%	0.4%	44.2%	0.0%	18.7%	0.0%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Antioquia	Vegachi	1.8%	4.4%	92.5%	0.0%	0.0%	0.0%	0.9%	0.4%	0.0%	0.0%	0.0%	0.0%
Antioquia	Venecia	0.7%	0.7%	67.5%	0.0%	1.4%	3.4%	25.5%	0.0%	0.0%	0.8%	0.0%	0.0%
Antioquia	Vigia Del Fuerte	0.0%	0.6%	96.9%	2.0%	0.0%	0.1%	0.4%	0.0%	0.0%	0.1%	0.0%	0.0%
Antioquia	Yali	2.4%	4.2%	92.4%	0.0%	0.0%	0.2%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Antioquia	Yarumal	4.9%	7.3%	77.7%	0.0%	0.5%	1.2%	5.6%	0.5%	1.1%	1.1%	0.0%	0.1%
Antioquia	Yolombo	2.9%	7.4%	84.1%	0.0%	0.5%	1.4%	2.4%	0.9%	0.2%	0.3%	0.0%	0.0%
Antioquia	Yondo	13.6%	5.4%	75.2%	4.0%	0.2%	0.1%	0.6%	0.1%	0.0%	0.1%	0.0%	0.8%
Antioquia	Zaragoza	0.9%	9.9%	80.1%	0.3%	0.1%	5.1%	2.8%	0.0%	0.6%	0.0%	0.0%	0.2%
Arauca	Arauca	8.5%	82.5%	8.1%	0.1%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.2%	0.3%
Arauca	Arauquita	50.8%	4.0%	42.7%	0.6%	1.1%	0.1%	0.3%	0.4%	0.0%	0.1%	0.0%	0.1%
Arauca	Cravo Norte	0.2%	92.4%	3.2%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%
Arauca	Fortul	29.0%	21.1%	38.4%	0.1%	2.7%	2.1%	5.1%	0.8%	0.4%	0.2%	0.0%	0.1%
Arauca	Puerto Rondon	17.7%	52.4%	28.1%	0.1%	0.3%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	1.1%
Arauca	Saravena	35.3%	0.9%	42.6%	0.2%	9.0%	1.3%	7.4%	2.1%	0.3%	0.6%	0.0%	0.4%
Arauca	Tame	15.5%	33.3%	46.7%	0.1%	0.7%	2.3%	1.1%	0.0%	0.1%	0.0%	0.0%	0.1%
Atlantico	Baranoa	21.4%	38.2%	2.4%	0.0%	9.8%	16.4%	0.0%	3.7%	7.4%	0.0%	0.0%	0.7%
Atlantico	Barranquilla (dist.port.)	4.0%	4.4%	0.8%	27.8%	4.0%	5.5%	0.3%	0.4%	0.4%	0.0%	9.9%	42.5%
Atlantico	Campo De La Cruz	9.4%	64.6%	1.0%	4.1%	2.5%	11.9%	0.0%	0.3%	3.0%	0.0%	0.0%	3.3%
Atlantico	Candelaria	23.4%	54.4%	0.0%	0.0%	2.5%	15.2%	0.0%	2.9%	1.5%	0.0%	0.0%	0.0%
Atlantico	Galapa	9.0%	36.8%	0.7%	0.0%	15.5%	11.6%	1.0%	2.9%	5.1%	0.0%	17.4%	0.0%
Atlantico	Juan De Acosta	19.7%	37.3%	8.5%	0.5%	6.8%	26.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Atlantico	Luruaco	25.5%	24.7%	24.9%	5.9%	9.5%	3.8%	1.0%	1.4%	1.4%	0.0%	0.0%	1.7%
Atlantico	Malambo	28.6%	15.1%	0.9%	3.5%	17.0%	5.1%	0.0%	4.9%	7.4%	0.0%	15.1%	2.3%
Atlantico	Manati	12.4%	60.4%	0.5%	3.1%	3.3%	14.5%	0.0%	1.7%	3.7%	0.0%	0.0%	0.5%
Atlantico	Palmar De Varela	59.7%	7.2%	0.0%	3.2%	21.3%	0.0%	0.0%	4.5%	4.1%	0.0%	0.0%	0.0%
Atlantico	Piojo	23.9%	40.3%	10.7%	6.9%	5.4%	9.6%	1.2%	0.0%	1.4%	0.0%	0.0%	0.6%
Atlantico	Polo Nuevo	69.3%	5.4%	0.0%	0.0%	17.2%	0.0%	0.0%	6.8%	0.0%	0.0%	0.0%	1.4%
Atlantico	Ponedera	34.4%	40.3%	0.0%	5.7%	6.2%	8.1%	0.0%	1.6%	0.6%	0.0%	0.0%	3.1%
Atlantico	Puerto Colombia	3.9%	5.2%	7.5%	6.2%	16.4%	7.5%	13.1%	10.8%	17.7%	0.0%	6.2%	5.2%
Atlantico	Repelon	19.8%	12.6%	22.2%	22.2%	7.7%	8.5%	2.3%	2.2%	0.5%	0.0%	0.0%	1.8%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Atlantico	Sabanagrande	20.8%	4.6%	0.0%	3.1%	22.3%	16.9%	0.0%	5.4%	20.0%	0.0%	0.0%	6.9%
Atlantico	Sabanalarga	26.2%	41.6%	1.1%	8.8%	7.1%	10.9%	0.2%	1.1%	1.1%	0.0%	1.8%	0.0%
Atlantico	Santa Lucia	15.8%	36.9%	6.1%	8.6%	6.1%	17.9%	0.0%	0.0%	5.7%	0.0%	0.0%	2.9%
Atlantico	Santo Tomas	57.9%	0.0%	0.0%	1.6%	21.5%	3.6%	0.0%	4.5%	2.8%	0.0%	0.0%	8.1%
Atlantico	Soledad	1.0%	5.9%	0.0%	9.3%	0.0%	1.5%	0.0%	0.0%	2.0%	0.0%	77.0%	3.4%
Atlantico	Suan	41.3%	32.6%	0.0%	0.0%	15.2%	8.7%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%
Atlantico	Tubara	8.9%	33.6%	22.1%	1.6%	6.2%	21.6%	2.9%	1.0%	0.9%	0.0%	0.0%	1.3%
Atlantico	Usiacuri	26.4%	51.7%	6.3%	0.0%	2.1%	10.3%	0.0%	1.1%	2.1%	0.0%	0.0%	0.0%
Bolivar	Achi	6.6%	9.8%	70.8%	5.6%	0.6%	0.5%	0.7%	0.1%	0.3%	0.0%	0.0%	5.1%
Bolivar	Altos Del Rosario	19.6%	8.2%	35.6%	12.9%	1.5%	0.5%	1.5%	0.0%	0.0%	0.0%	0.0%	20.2%
Bolivar	Arjona	15.1%	31.2%	4.0%	7.9%	2.1%	4.5%	0.5%	0.2%	2.2%	0.0%	0.0%	32.3%
Bolivar	Barranco De Loba	14.2%	6.2%	52.4%	17.9%	0.7%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	8.2%
Bolivar	Calamar	31.5%	40.9%	14.5%	7.3%	2.3%	2.4%	0.0%	0.0%	0.8%	0.0%	0.0%	0.3%
Bolivar	Cantagallo	0.4%	0.0%	98.2%	0.9%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.3%
Bolivar	Cartagena (dist. Esp.)	13.2%	20.7%	9.2%	7.7%	3.3%	9.3%	3.1%	2.1%	6.3%	1.2%	13.7%	10.1%
Bolivar	Cartagena (dist. Esp.)	0.0%	0.0%	25.0%	29.3%	0.0%	0.0%	31.5%	0.0%	0.0%	4.3%	0.0%	9.8%
Bolivar	Cicuco	0.0%	6.1%	0.4%	16.4%	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	0.0%	71.8%
Bolivar	Cordoba	14.9%	38.5%	22.6%	4.9%	3.2%	9.2%	0.2%	0.0%	0.0%	0.0%	0.0%	6.5%
Bolivar	El Carmen De Bolivar	1.8%	14.8%	76.2%	1.1%	0.2%	1.9%	2.7%	0.0%	0.4%	0.0%	1.0%	0.0%
Bolivar	El Guamo	8.4%	43.5%	39.8%	5.4%	1.3%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.3%
Bolivar	Hatillo De Loba	44.8%	7.0%	24.7%	12.3%	1.5%	0.0%	0.7%	1.3%	0.0%	0.0%	0.0%	7.7%
Bolivar	Magangué	19.1%	24.5%	9.2%	22.2%	2.7%	2.6%	0.1%	0.4%	0.2%	0.0%	0.8%	18.3%
Bolivar	Mahates	32.3%	34.7%	20.1%	5.7%	2.5%	2.0%	0.9%	0.5%	1.1%	0.0%	0.0%	0.2%
Bolivar	Margarita	31.3%	35.9%	10.5%	10.4%	0.8%	2.3%	0.5%	0.2%	0.5%	0.0%	0.0%	7.5%
Bolivar	Maria La Baja	39.1%	8.1%	25.3%	10.6%	6.4%	0.9%	1.7%	1.2%	0.6%	0.0%	0.0%	6.0%
Bolivar	Mompos	7.0%	8.6%	4.8%	37.3%	0.3%	0.9%	0.2%	0.0%	0.0%	0.0%	0.0%	40.8%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Bolivar	Montecristo	0.0%	0.1%	97.1%	1.9%	0.0%	0.0%	0.7%	0.0%	0.0%	0.1%	0.0%	0.1%
Bolivar	Morales	11.6%	4.2%	78.3%	2.1%	0.3%	0.2%	0.9%	0.1%	0.1%	0.1%	0.0%	2.2%
Bolivar	Pinillos	12.5%	5.7%	13.3%	38.7%	0.7%	0.3%	0.1%	0.4%	0.1%	0.0%	0.0%	28.1%
Bolivar	Rio Viejo	7.1%	2.1%	85.0%	1.2%	0.5%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	3.4%
Bolivar	San Estanislao	46.0%	37.8%	1.3%	5.8%	2.6%	3.1%	0.0%	0.0%	1.9%	0.0%	0.0%	1.4%
Bolivar	San Fernando	23.1%	27.5%	4.4%	18.2%	0.6%	1.1%	0.3%	0.2%	0.0%	0.0%	0.0%	24.6%
Bolivar	San Jacinto	0.7%	16.7%	79.2%	0.1%	0.0%	0.6%	1.6%	0.2%	0.7%	0.0%	0.0%	0.2%
Bolivar	San Juan Nepomuceno	3.1%	11.3%	80.8%	0.4%	0.5%	0.6%	1.5%	0.2%	0.8%	0.3%	0.0%	0.6%
Bolivar	San Martin De Loba	11.6%	3.8%	55.2%	8.2%	0.1%	0.3%	1.0%	1.0%	0.0%	0.0%	0.0%	18.8%
Bolivar	San Pablo	1.4%	0.5%	96.5%	1.2%	0.1%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.1%
Bolivar	Santa Catalina	22.4%	37.8%	12.6%	3.5%	5.9%	5.8%	2.4%	0.6%	5.2%	1.8%	0.0%	1.8%
Bolivar	Santa Rosa	24.9%	50.0%	9.3%	0.0%	0.8%	10.8%	0.4%	3.1%	0.8%	0.0%	0.0%	0.0%
Bolivar	Santa Rosa Del Sur	0.7%	1.8%	97.0%	0.0%	0.0%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Bolivar	Simiti	23.6%	10.2%	57.5%	3.7%	0.9%	0.4%	0.6%	0.2%	0.1%	0.0%	0.0%	2.7%
Bolivar	Soplaviento	18.0%	29.3%	0.0%	44.7%	2.9%	1.8%	0.0%	0.6%	1.8%	0.0%	0.0%	0.8%
Bolivar	Talaigua Nuevo	9.9%	13.2%	1.9%	21.8%	0.0%	0.8%	0.0%	1.2%	0.0%	0.0%	0.0%	51.2%
Bolivar	Tiquisio	2.8%	0.1%	94.9%	0.7%	0.0%	0.0%	0.9%	0.0%	0.0%	0.1%	0.3%	0.0%
Bolivar	Turbaco	13.8%	49.0%	9.7%	0.0%	4.1%	9.3%	1.4%	3.3%	7.4%	0.0%	0.0%	2.2%
Bolivar	Turbana	25.0%	43.6%	2.0%	0.4%	9.0%	10.9%	0.3%	0.8%	1.6%	0.0%	0.0%	6.4%
Bolivar	Villanueva	11.2%	44.5%	33.5%	0.0%	0.6%	7.1%	0.0%	1.3%	1.9%	0.0%	0.0%	0.0%
Bolivar	Zambrano	6.5%	12.9%	71.9%	1.7%	1.2%	2.4%	2.9%	0.3%	0.0%	0.0%	0.0%	0.2%
Boyaca	Almeida	18.1%	0.0%	68.9%	0.0%	5.2%	0.0%	7.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Aquitania	19.0%	36.7%	37.8%	3.5%	0.7%	0.8%	0.7%	0.7%	0.2%	0.0%	0.0%	0.0%
Boyaca	Arcabuco	51.3%	6.1%	37.4%	0.0%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Belen	33.1%	36.8%	21.1%	0.0%	5.1%	1.3%	0.6%	1.9%	0.0%	0.0%	0.0%	0.0%
Boyaca	Berbeo	46.0%	0.0%	48.8%	0.0%	2.0%	1.6%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Boyaca	Beteitiva	1.5%	91.0%	2.9%	0.0%	1.5%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Boavita	4.3%	70.8%	5.2%	0.0%	0.0%	19.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Boyaca	92.8%	0.0%	0.0%	0.0%	6.8%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%
Boyaca	Briceño	25.8%	2.3%	66.4%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Buenavista	9.6%	0.0%	90.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Busbanza	0.0%	66.7%	12.1%	0.0%	0.0%	21.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Caldas	62.7%	0.0%	30.4%	0.0%	5.8%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Campohermoso	21.8%	0.0%	77.4%	0.0%	0.2%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Cerinsa	33.8%	49.8%	16.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Chinavita	63.7%	1.3%	32.3%	0.0%	1.3%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Chiquinquirá	59.3%	1.5%	23.9%	0.0%	8.3%	0.0%	1.5%	1.5%	0.0%	0.2%	3.8%	0.0%
Boyaca	Chiquiza	2.5%	54.1%	29.3%	0.0%	0.0%	14.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Chiscas	3.7%	71.6%	22.1%	0.0%	0.0%	2.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Chita	5.4%	59.1%	29.8%	0.2%	0.4%	3.5%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Chitaraque	10.3%	0.0%	82.9%	0.0%	1.5%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Chivata	29.5%	53.7%	0.0%	0.0%	6.1%	10.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%
Boyaca	Chivor	19.0%	0.0%	81.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Cienega	71.8%	4.7%	21.6%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Combita	47.9%	7.9%	22.4%	0.0%	6.4%	8.5%	0.5%	0.5%	0.3%	0.0%	5.5%	0.0%
Boyaca	Coper	3.4%	3.4%	84.9%	0.0%	0.0%	0.0%	8.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Corrales	0.0%	44.4%	0.0%	0.0%	0.0%	20.6%	0.8%	0.0%	21.0%	0.0%	13.1%	0.0%
Boyaca	Covarachia	0.0%	39.6%	53.5%	0.0%	0.0%	4.3%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Cubara	0.9%	11.4%	83.5%	0.0%	0.8%	0.3%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Cucaita	11.4%	28.0%	2.3%	0.0%	7.6%	22.0%	0.0%	6.1%	19.7%	0.0%	0.0%	3.0%
Boyaca	Cuitiva	0.5%	55.4%	0.0%	37.6%	2.2%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Duitama	11.4%	13.8%	48.0%	0.0%	8.8%	3.6%	1.8%	5.1%	2.1%	0.0%	5.6%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Boyaca	El Cocuy	23.3%	53.4%	6.6%	0.0%	3.7%	13.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	El Espino	12.5%	48.1%	29.1%	0.0%	1.3%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Firavitoba	23.1%	58.4%	8.7%	0.0%	4.3%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Floresta	17.1%	42.6%	14.9%	0.0%	10.1%	10.6%	1.0%	0.8%	2.0%	0.0%	1.0%	0.0%
Boyaca	Gachantiva	26.3%	46.1%	15.2%	0.0%	3.3%	9.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Gameza	21.7%	38.4%	24.8%	0.0%	2.3%	12.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Garagoa	29.6%	5.7%	54.7%	0.0%	0.5%	2.0%	6.1%	0.0%	0.0%	0.5%	0.0%	1.0%
Boyaca	Guacamayas	17.3%	7.9%	70.0%	0.0%	0.0%	1.4%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Guateque	28.2%	11.5%	37.2%	0.0%	2.6%	2.6%	17.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Guayata	53.9%	0.0%	45.4%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Guican	4.0%	69.6%	15.4%	0.0%	0.4%	8.6%	0.3%	0.0%	0.0%	0.0%	0.0%	1.9%
Boyaca	Iza	3.9%	61.9%	2.2%	0.6%	8.8%	22.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Jenesano	93.5%	0.0%	0.0%	0.0%	2.2%	0.0%	0.0%	2.7%	1.6%	0.0%	0.0%	0.0%
Boyaca	Jerico	14.5%	76.7%	0.0%	0.0%	0.0%	8.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	La Capilla	64.9%	0.0%	33.5%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	La Uvita	11.3%	61.0%	15.1%	0.0%	0.5%	11.6%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	La Victoria	0.0%	0.0%	72.4%	0.0%	0.0%	0.0%	27.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Labranzagrande	13.4%	12.5%	72.6%	0.0%	0.8%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Macanal	13.7%	2.1%	77.3%	5.8%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Maripi	6.5%	0.2%	91.1%	0.0%	0.6%	0.0%	0.6%	0.0%	0.0%	1.1%	0.0%	0.0%
Boyaca	Miraflores	37.9%	0.2%	59.2%	0.0%	0.7%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Mongua	11.8%	45.1%	42.3%	0.0%	0.0%	0.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Mongui	21.7%	73.5%	0.4%	0.0%	0.0%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Moniquira	9.4%	0.2%	80.3%	0.0%	0.7%	0.0%	4.4%	0.9%	0.5%	2.6%	0.0%	0.9%
Boyaca	Motavita	53.8%	14.4%	24.2%	0.0%	6.1%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Muzo	0.0%	0.0%	91.6%	0.0%	0.0%	0.0%	8.2%	0.0%	0.0%	0.1%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Boyaca	Nobsa	6.3%	10.6%	0.0%	0.0%	14.9%	13.9%	1.9%	14.4%	13.5%	0.0%	24.5%	0.0%
Boyaca	Nuevo Colon	54.7%	29.8%	2.5%	0.0%	5.6%	7.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Oicata	2.3%	57.2%	0.0%	0.0%	0.0%	11.7%	0.0%	0.0%	16.7%	0.0%	12.2%	0.0%
Boyaca	Otanche	0.0%	0.0%	98.9%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Pachavita	35.3%	3.1%	56.9%	0.0%	0.0%	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Paez	17.6%	0.0%	82.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Paipa	26.3%	6.6%	55.9%	0.2%	6.1%	0.7%	1.1%	2.4%	0.0%	0.5%	0.0%	0.2%
Boyaca	Pajarito	16.3%	1.7%	79.0%	0.0%	0.7%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Panqueba	7.0%	51.6%	30.6%	0.0%	0.0%	5.7%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Pauna	8.0%	2.3%	87.8%	0.0%	0.7%	0.0%	0.8%	0.0%	0.0%	0.4%	0.0%	0.0%
Boyaca	Paya	3.7%	4.3%	91.1%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Paz De Rio	0.9%	73.3%	20.0%	0.0%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Pesca	25.8%	23.7%	41.6%	0.0%	3.8%	4.4%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Pisva	3.6%	6.2%	89.6%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Puerto Boyaca	28.2%	11.0%	48.5%	2.7%	2.3%	1.5%	4.1%	0.4%	0.6%	0.1%	0.0%	0.7%
Boyaca	Quipama	0.0%	0.0%	81.5%	0.0%	0.0%	0.0%	18.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Ramiriqui	58.6%	5.2%	32.1%	0.0%	0.0%	0.0%	1.4%	2.7%	0.0%	0.0%	0.0%	0.0%
Boyaca	Raquira	21.7%	29.9%	45.4%	1.7%	0.4%	0.5%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%
Boyaca	Rondon	34.4%	0.9%	56.4%	0.0%	2.1%	0.0%	6.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Saboya	56.0%	0.9%	21.0%	0.0%	15.8%	0.4%	1.8%	3.5%	0.0%	0.6%	0.0%	0.0%
Boyaca	Sachica	0.0%	88.2%	3.7%	0.0%	0.0%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Samaca	23.4%	25.5%	38.9%	0.0%	6.0%	2.9%	2.4%	0.6%	0.3%	0.0%	0.0%	0.0%
Boyaca	San Eduardo	29.0%	0.0%	71.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	San Jose De Pare	15.1%	0.0%	71.7%	0.0%	7.2%	1.0%	4.0%	1.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	San Luis De Gaceno	13.7%	8.6%	77.4%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	San Mateo	22.7%	25.9%	48.0%	0.0%	0.0%	1.9%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Boyaca	San Miguel De Sema	27.6%	2.6%	58.3%	1.2%	2.6%	0.0%	7.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	San Pablo De Borbur	0.3%	0.0%	97.7%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	1.6%	0.0%	0.0%
Boyaca	Santa Rosa De Viterbo	39.3%	24.6%	13.4%	0.0%	5.2%	5.2%	2.6%	6.6%	0.0%	0.0%	3.0%	0.0%
Boyaca	Santa Sofia	37.4%	15.0%	24.1%	0.0%	11.9%	10.2%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Santamaria	3.0%	24.6%	72.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Santana	21.0%	1.4%	58.6%	0.0%	12.1%	0.0%	5.5%	0.0%	1.4%	0.0%	0.0%	0.0%
Boyaca	Sativanorte	10.8%	75.5%	9.7%	0.0%	1.4%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Sativasur	4.5%	80.5%	13.6%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Siachoque	51.3%	9.5%	34.1%	0.0%	2.5%	0.0%	0.0%	2.0%	0.7%	0.0%	0.0%	0.0%
Boyaca	Soata	5.5%	43.5%	48.1%	0.0%	0.7%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Socha	10.1%	79.3%	5.1%	0.0%	0.0%	2.8%	0.6%	0.0%	2.2%	0.0%	0.0%	0.0%
Boyaca	Socota	5.6%	48.2%	44.2%	0.0%	0.3%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Sogamoso	24.9%	46.6%	0.8%	1.3%	10.8%	6.2%	0.0%	2.4%	1.8%	0.0%	5.3%	0.0%
Boyaca	Somondoco	3.2%	0.0%	58.7%	0.0%	6.9%	1.3%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Sora	0.0%	77.4%	3.2%	0.0%	0.0%	19.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Soraca	89.8%	0.5%	0.0%	0.0%	7.5%	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%
Boyaca	Sotaquira	37.2%	1.7%	51.8%	0.0%	7.2%	0.0%	1.8%	0.4%	0.0%	0.0%	0.0%	0.0%
Boyaca	Susacon	12.0%	65.4%	19.7%	0.0%	0.9%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Sutamarchan	27.2%	52.9%	3.7%	0.0%	6.8%	8.4%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Sutatenza	23.5%	6.1%	11.4%	0.0%	10.6%	0.0%	43.9%	3.0%	1.5%	0.0%	0.0%	0.0%
Boyaca	Tasco	13.0%	78.5%	4.1%	0.0%	0.5%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Tenza	85.5%	0.0%	10.5%	0.0%	0.0%	2.6%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%
Boyaca	Tibabosa	33.2%	46.6%	3.4%	0.0%	7.8%	7.8%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%
Boyaca	Tibana	81.5%	3.7%	10.4%	0.0%	2.6%	0.0%	0.0%	0.7%	1.1%	0.0%	0.0%	0.0%
Boyaca	Tinjaca	61.5%	8.6%	24.7%	0.0%	2.4%	1.4%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Tipacoque	1.4%	45.0%	53.2%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Boyaca	Toca	54.9%	29.1%	3.8%	1.9%	2.5%	3.8%	0.0%	1.9%	1.9%	0.0%	0.0%	0.0%
Boyaca	Togui	6.8%	0.0%	87.0%	0.0%	1.2%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Topaga	0.0%	63.8%	9.4%	0.0%	0.0%	26.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Tota	15.5%	37.5%	41.3%	3.0%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Tunja	38.4%	25.1%	5.6%	0.0%	10.3%	9.8%	0.4%	0.3%	2.8%	0.0%	7.2%	0.0%
Boyaca	Tunungua	0.0%	0.0%	96.5%	0.0%	0.0%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Turmeque	75.9%	17.1%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Tuta	66.2%	13.1%	1.2%	1.3%	10.1%	4.8%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%
Boyaca	Tutasa	36.0%	44.3%	15.1%	0.0%	3.3%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Boyaca	Umbita	48.5%	8.6%	36.6%	0.0%	1.0%	0.0%	3.9%	1.3%	0.0%	0.0%	0.0%	0.0%
Boyaca	Ventaquemada	74.7%	4.9%	8.0%	0.0%	9.7%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%
Boyaca	Villa De Leyva	11.5%	74.2%	2.0%	0.0%	0.9%	7.1%	0.0%	0.0%	4.4%	0.0%	0.0%	0.0%
Boyaca	Viracacha	77.6%	1.2%	5.4%	0.0%	8.7%	0.0%	0.4%	5.0%	1.7%	0.0%	0.0%	0.0%
Boyaca	Zetaquirá	22.8%	5.2%	68.6%	0.0%	0.8%	0.4%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Buenaventura	Isla	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Caldas	Aguadas	15.0%	14.7%	55.4%	0.0%	4.2%	3.3%	7.2%	0.0%	0.0%	0.2%	0.0%	0.0%
Caldas	Anserma	9.9%	2.5%	69.5%	0.0%	2.8%	0.5%	11.9%	0.0%	0.0%	2.8%	0.0%	0.0%
Caldas	Aranzazu	2.3%	12.4%	58.7%	0.0%	0.7%	5.1%	20.0%	0.0%	0.7%	0.0%	0.0%	0.0%
Caldas	Belalcazar	30.0%	1.3%	55.6%	0.0%	7.7%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Caldas	Chinchina	0.8%	0.8%	88.8%	0.0%	0.0%	0.0%	7.1%	0.0%	0.0%	2.6%	0.0%	0.0%
Caldas	Filadelfia	26.2%	5.5%	48.9%	0.0%	4.8%	2.0%	10.7%	1.5%	0.5%	0.0%	0.0%	0.0%
Caldas	La Dorada	38.4%	21.6%	33.8%	0.0%	3.4%	1.6%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%
Caldas	La Merced	5.6%	18.3%	65.0%	0.0%	2.8%	4.7%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Caldas	Manizales	11.8%	4.0%	58.4%	0.0%	3.3%	0.4%	8.0%	0.0%	1.0%	1.3%	11.4%	0.2%
Caldas	Manzanares	3.6%	0.0%	88.4%	0.0%	0.0%	0.0%	5.1%	1.2%	0.6%	1.2%	0.0%	0.0%
Caldas	Marmato	3.0%	4.9%	70.1%	0.0%	3.7%	0.0%	15.9%	0.0%	0.6%	1.8%	0.0%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Caldas	Marquetalia	0.0%	0.0%	87.4%	0.0%	0.0%	0.0%	9.0%	0.0%	0.0%	3.6%	0.0%	0.0%
Caldas	Marulanda	21.4%	8.4%	49.6%	0.0%	2.5%	3.1%	13.2%	0.3%	0.0%	1.5%	0.0%	0.0%
Caldas	Neira	18.8%	6.4%	57.4%	0.0%	4.4%	1.3%	10.6%	0.0%	0.5%	0.2%	0.0%	0.2%
Caldas	Pacora	7.2%	10.8%	55.0%	0.0%	4.2%	5.0%	14.8%	1.4%	0.5%	1.0%	0.0%	0.0%
Caldas	Palestina	9.4%	1.0%	80.2%	0.0%	3.8%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Caldas	Pensilvania	7.0%	4.9%	69.7%	0.0%	3.0%	1.0%	10.6%	0.5%	0.5%	3.0%	0.0%	0.0%
Caldas	Riosucio	4.3%	2.0%	84.7%	0.0%	0.2%	0.0%	8.3%	0.0%	0.0%	0.6%	0.0%	0.0%
Caldas	Risaralda	31.5%	0.5%	60.0%	0.0%	1.8%	0.0%	2.3%	1.8%	0.0%	2.1%	0.0%	0.0%
Caldas	Salamina	24.4%	13.1%	40.7%	0.0%	6.5%	3.5%	10.4%	0.0%	0.7%	0.8%	0.0%	0.0%
Caldas	Samana	2.3%	1.9%	86.7%	0.2%	0.7%	0.7%	6.6%	0.2%	0.1%	0.6%	0.0%	0.0%
Caldas	Supia	4.7%	8.2%	46.3%	0.0%	2.9%	4.4%	16.6%	6.2%	3.3%	6.4%	0.0%	0.9%
Caldas	Victoria	9.6%	14.0%	71.5%	0.0%	0.7%	0.9%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Caldas	Villamaria	1.8%	14.4%	79.6%	0.0%	0.5%	1.4%	0.9%	0.0%	0.1%	1.1%	0.0%	0.2%
Caldas	Viterbo	4.7%	0.0%	74.8%	0.0%	2.1%	0.0%	14.7%	0.0%	0.0%	3.7%	0.0%	0.0%
Caqueta	Albania	52.0%	18.2%	28.9%	0.0%	0.6%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Caqueta	Belen De Los Andaquies	13.5%	3.0%	78.2%	0.0%	3.3%	1.1%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Caqueta	Cartagena Del Chaira	9.0%	2.2%	87.3%	0.6%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.5%
Caqueta	Curillo	9.4%	3.1%	79.0%	3.2%	0.2%	0.0%	4.5%	0.0%	0.4%	0.2%	0.0%	0.0%
Caqueta	El Doncello	34.6%	5.1%	55.8%	0.0%	1.9%	0.3%	1.4%	0.7%	0.1%	0.0%	0.0%	0.1%
Caqueta	El Paujil	21.8%	12.0%	59.8%	0.1%	2.8%	0.7%	2.3%	0.3%	0.0%	0.0%	0.0%	0.0%
Caqueta	Florencia	12.9%	3.3%	76.3%	0.0%	1.7%	0.3%	3.6%	0.7%	0.0%	0.3%	0.8%	0.0%
Caqueta	La Montanita	38.9%	21.3%	35.4%	0.2%	1.6%	1.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.4%
Caqueta	Milan	41.4%	19.5%	31.2%	2.9%	0.4%	0.4%	0.7%	0.0%	0.0%	0.0%	0.0%	3.6%
Caqueta	Morelia	24.5%	10.8%	62.0%	0.0%	1.3%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Caqueta	Puerto Rico	27.2%	6.3%	62.3%	0.4%	1.6%	0.5%	1.2%	0.3%	0.1%	0.0%	0.0%	0.0%
Caqueta	San Jose De Fragua	2.1%	0.5%	96.3%	0.0%	0.2%	0.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Caqueta	San Vicente Del Caguan	9.4%	4.4%	85.4%	0.1%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.1%
Caqueta	Solano	0.4%	2.3%	95.8%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
Caqueta	Valparaiso	54.4%	7.8%	31.5%	1.8%	2.7%	0.7%	0.7%	0.0%	0.1%	0.0%	0.0%	0.3%
Casanare	Aguazul	9.0%	60.9%	25.4%	0.0%	0.2%	0.6%	0.8%	0.1%	0.9%	0.1%	0.0%	2.1%
Casanare	Chameza	7.7%	0.0%	91.6%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Casanare	Hato Corozal	1.0%	80.7%	16.2%	0.0%	0.0%	0.2%	0.6%	0.0%	0.1%	0.0%	0.0%	1.0%
Casanare	La Salina	0.0%	26.0%	72.1%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Casanare	Mani	0.1%	89.6%	3.7%	1.2%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	5.3%
Casanare	Monterrey	6.2%	66.1%	26.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.6%	0.0%	0.0%	0.8%
Casanare	Nunchia	3.5%	63.4%	27.5%	0.0%	1.0%	4.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Casanare	Orocue	0.1%	89.3%	4.1%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%
Casanare	Paz De Ariporo	0.9%	89.0%	7.1%	0.9%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	1.9%
Casanare	Pore	6.5%	60.3%	27.2%	0.0%	1.0%	3.5%	0.8%	0.0%	0.3%	0.0%	0.0%	0.5%
Casanare	Recetor	10.8%	0.0%	87.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	1.7%	0.0%	0.0%
Casanare	Sabanalarga	5.1%	65.6%	26.1%	0.0%	0.0%	1.0%	0.4%	0.0%	0.0%	0.0%	0.0%	1.8%
Casanare	Sacama	0.4%	3.2%	96.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Casanare	San Luis De Palenque	0.3%	87.9%	10.2%	0.3%	0.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
Casanare	Tamara	1.3%	3.3%	93.3%	0.0%	0.2%	0.9%	0.7%	0.0%	0.0%	0.0%	0.0%	0.3%
Casanare	Tauramena	1.5%	73.7%	20.1%	0.7%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	3.9%
Casanare	Trinidad	4.9%	80.3%	12.4%	1.2%	0.0%	0.2%	0.1%	0.0%	0.2%	0.1%	0.0%	0.7%
Casanare	Villanueva	0.5%	68.5%	24.6%	0.8%	0.0%	0.4%	0.1%	0.0%	0.7%	0.0%	0.0%	4.4%
Casanare	Yopal	1.8%	71.5%	20.3%	0.0%	0.2%	3.6%	0.8%	0.0%	1.1%	0.0%	0.6%	0.0%
Cauca	Almaguer	11.5%	55.1%	20.3%	0.0%	2.2%	9.2%	1.4%	0.0%	0.4%	0.0%	0.0%	0.0%
Cauca	Argelia	2.8%	7.8%	82.1%	0.0%	1.2%	0.7%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Cauca	Balboa	6.5%	37.5%	47.0%	0.0%	0.7%	2.8%	4.4%	0.7%	0.4%	0.0%	0.0%	0.0%
Cauca	Bolivar	14.4%	53.4%	14.9%	0.0%	3.4%	10.2%	1.7%	0.2%	1.7%	0.1%	0.0%	0.1%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Cauca	Buenos Aires	2.7%	12.6%	76.9%	2.9%	0.2%	0.4%	2.6%	0.2%	0.4%	1.2%	0.0%	0.0%
Cauca	Cajibío	3.7%	6.7%	87.2%	0.0%	0.4%	0.1%	1.4%	0.3%	0.3%	0.0%	0.0%	0.0%
Cauca	Caldono	19.5%	12.3%	63.5%	0.0%	1.6%	0.5%	1.9%	0.4%	0.0%	0.2%	0.0%	0.0%
Cauca	Caloto	45.4%	23.5%	25.1%	0.0%	3.3%	0.0%	0.1%	0.8%	0.9%	0.0%	0.9%	0.0%
Cauca	Corinto	23.4%	14.7%	54.1%	0.0%	2.7%	0.6%	0.9%	2.6%	0.0%	0.6%	0.0%	0.3%
Cauca	El Tambo	1.7%	8.8%	87.5%	0.0%	0.1%	0.4%	1.3%	0.0%	0.1%	0.0%	0.0%	0.0%
Cauca	Florencia	8.7%	70.4%	16.5%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cauca	Gorgona (is.)	0.0%	0.0%	72.0%	28.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cauca	Guapi	0.0%	1.2%	95.3%	0.8%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	1.6%
Cauca	Guapi (is.)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Cauca	Inza	12.0%	10.5%	76.0%	0.0%	0.3%	0.5%	0.3%	0.1%	0.0%	0.1%	0.0%	0.1%
Cauca	Jambalo	3.9%	14.0%	80.5%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.7%	0.0%	0.0%
Cauca	La Sierra	9.6%	57.5%	25.6%	0.0%	0.2%	4.4%	1.4%	0.0%	1.4%	0.0%	0.0%	0.0%
Cauca	La Vega	10.8%	43.9%	34.2%	0.0%	2.1%	3.9%	2.5%	0.9%	0.7%	1.0%	0.0%	0.0%
Cauca	Lopez De Micay	0.2%	0.2%	96.4%	1.7%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.2%
Cauca	Mercaderes	1.6%	81.7%	1.9%	0.1%	0.2%	11.4%	0.1%	1.0%	1.4%	0.4%	0.0%	0.1%
Cauca	Miranda	45.5%	8.4%	33.3%	0.0%	10.3%	0.0%	1.5%	0.7%	0.3%	0.0%	0.0%	0.0%
Cauca	Morales	4.0%	3.8%	86.1%	0.9%	0.3%	0.5%	3.8%	0.3%	0.5%	0.0%	0.0%	0.0%
Cauca	Padilla	91.2%	2.4%	0.0%	0.0%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cauca	Paez	2.6%	12.7%	82.0%	0.0%	0.1%	1.0%	0.1%	0.0%	0.6%	0.0%	0.0%	0.9%
Cauca	Patia (el Bordo)	8.5%	45.9%	33.3%	0.0%	3.5%	4.3%	2.5%	0.5%	1.1%	0.4%	0.0%	0.1%
Cauca	Piendamó	34.4%	7.6%	54.2%	0.0%	0.7%	0.2%	2.1%	0.7%	0.2%	0.0%	0.0%	0.0%
Cauca	Popayan	8.7%	8.7%	64.1%	0.0%	1.8%	1.3%	5.2%	0.8%	0.6%	1.2%	7.6%	0.0%
Cauca	Puerto Tejada	62.8%	0.0%	4.9%	0.0%	20.7%	0.0%	0.0%	3.7%	0.7%	0.0%	7.1%	0.0%
Cauca	Purace	28.9%	15.4%	52.3%	0.0%	2.2%	0.1%	0.5%	0.5%	0.0%	0.0%	0.0%	0.2%
Cauca	Rosas	4.1%	61.3%	30.9%	0.0%	0.3%	2.6%	0.0%	0.4%	0.3%	0.0%	0.0%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Cauca	San Sebastian	19.1%	28.7%	37.7%	0.0%	4.1%	6.4%	3.6%	0.0%	0.4%	0.0%	0.0%	0.0%
Cauca	Santa Rosa	0.2%	0.7%	97.2%	0.1%	0.0%	0.1%	1.6%	0.0%	0.0%	0.1%	0.0%	0.0%
Cauca	Santander De Quilichao	34.9%	7.7%	45.2%	0.0%	3.8%	1.3%	2.6%	1.4%	0.4%	0.6%	2.1%	0.0%
Cauca	Silvia	25.2%	12.9%	58.7%	0.0%	1.1%	0.8%	0.3%	0.3%	0.3%	0.5%	0.0%	0.0%
Cauca	Sotara	13.5%	22.5%	59.2%	0.0%	1.2%	0.4%	1.9%	1.2%	0.1%	0.2%	0.0%	0.0%
Cauca	Suarez	0.0%	1.8%	98.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cauca	Timbio	6.4%	29.7%	60.4%	0.0%	0.7%	0.5%	2.2%	0.0%	0.0%	0.2%	0.0%	0.0%
Cauca	Timbiqui	0.0%	0.0%	97.3%	0.5%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.6%
Cauca	Timbiqui (is.)	0.0%	0.0%	84.6%	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%
Cauca	Toribio	12.8%	18.5%	66.9%	0.0%	0.2%	0.0%	0.4%	0.4%	0.2%	0.4%	0.0%	0.0%
Cesar	Aguachica	40.5%	17.4%	28.9%	3.2%	1.3%	0.4%	0.1%	0.3%	0.2%	0.0%	1.4%	6.2%
Cesar	Agustin Codazzi	33.9%	18.0%	46.6%	0.0%	0.7%	0.3%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%
Cesar	Astrea	62.7%	18.9%	17.2%	0.0%	0.7%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.2%
Cesar	Becerril	18.3%	31.9%	48.2%	0.0%	0.1%	0.5%	0.5%	0.2%	0.1%	0.0%	0.0%	0.2%
Cesar	Bosconia	64.2%	12.2%	17.6%	0.0%	2.8%	1.5%	0.3%	0.3%	0.7%	0.0%	0.0%	0.3%
Cesar	Chimichagua	21.9%	12.3%	40.8%	16.8%	0.3%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	7.5%
Cesar	Chiriguana	19.2%	25.3%	46.2%	0.6%	0.3%	0.6%	0.1%	0.3%	0.2%	0.0%	0.0%	7.1%
Cesar	Curumani	20.9%	17.3%	58.7%	0.3%	1.1%	0.0%	0.2%	0.6%	0.0%	0.0%	0.0%	0.7%
Cesar	El Copey	27.5%	3.7%	65.6%	0.0%	1.1%	0.2%	0.6%	0.7%	0.1%	0.1%	0.0%	0.3%
Cesar	El Paso	28.5%	46.8%	22.0%	0.1%	0.1%	1.5%	0.1%	0.1%	0.8%	0.0%	0.0%	0.0%
Cesar	Gamarra	54.4%	14.0%	11.3%	6.9%	3.0%	1.5%	0.0%	0.0%	0.3%	0.0%	0.0%	8.6%
Cesar	Gonzalez	1.5%	43.7%	47.0%	0.0%	2.4%	4.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Cesar	La Gloria	43.8%	9.7%	33.7%	4.6%	1.7%	0.2%	0.2%	0.1%	0.1%	0.1%	0.0%	5.6%
Cesar	La Jagua De Iribico	9.3%	36.0%	51.2%	0.1%	0.3%	0.9%	0.0%	0.0%	0.8%	0.0%	0.0%	1.5%
Cesar	La Paz	36.4%	12.9%	48.2%	0.1%	1.0%	0.2%	0.3%	0.8%	0.0%	0.0%	0.0%	0.2%
Cesar	Manaure Balcon Del Cesar	0.5%	15.2%	81.9%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	2.3%	0.0%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Cesar	Pailitas	20.0%	13.5%	64.6%	0.0%	0.4%	0.1%	0.2%	0.4%	0.2%	0.0%	0.0%	0.4%
Cesar	Pelaya	31.7%	16.5%	49.6%	0.0%	1.1%	0.0%	0.0%	0.5%	0.2%	0.0%	0.0%	0.5%
Cesar	Rio De Oro	44.4%	11.2%	41.0%	0.0%	1.9%	0.3%	0.6%	0.0%	0.6%	0.0%	0.0%	0.0%
Cesar	San Alberto	55.9%	1.0%	39.9%	0.3%	1.2%	0.1%	0.9%	0.2%	0.0%	0.0%	0.0%	0.5%
Cesar	San Diego	74.6%	4.8%	15.7%	0.0%	3.4%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Cesar	San Martin	66.6%	5.4%	16.0%	1.3%	1.3%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	8.8%
Cesar	Tamalameque	26.0%	13.9%	25.8%	14.2%	1.3%	0.7%	0.4%	0.1%	0.1%	0.0%	0.0%	17.3%
Cesar	Valledupar	26.3%	21.6%	49.0%	0.0%	0.7%	1.2%	0.3%	0.1%	0.1%	0.1%	0.8%	0.0%
Choco	Acandi	5.2%	5.6%	85.1%	0.6%	1.6%	0.9%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Choco	Alto Baudó (pie De Pato)	0.0%	0.1%	99.4%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%
Choco	Bagadó	0.0%	0.0%	99.8%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Choco	Bahía Solano (ciudad Muti)	0.0%	0.1%	93.3%	1.6%	0.0%	0.1%	4.6%	0.0%	0.0%	0.0%	0.0%	0.3%
Choco	Bajo Baudó (is.)	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.9%
Choco	Bajo Baudó (pizarro)	0.0%	0.2%	93.9%	0.7%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	4.8%
Choco	Bojaya (bella Vista)	0.2%	0.4%	97.8%	1.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%
Choco	Canton De San Pablo	0.3%	0.0%	85.2%	0.0%	0.0%	0.5%	13.7%	0.0%	0.0%	0.2%	0.0%	0.0%
Choco	Condoto	0.0%	0.0%	25.2%	0.0%	0.4%	0.8%	73.5%	0.0%	0.0%	0.0%	0.0%	0.1%
Choco	El Carmen	0.1%	0.1%	97.4%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Choco	Istmina	0.3%	0.4%	95.4%	0.7%	0.0%	0.0%	2.3%	0.0%	0.0%	1.0%	0.0%	0.0%
Choco	Jurado	0.0%	0.0%	98.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
Choco	Jurado (is.)	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.5%
Choco	Litoral Del San Juan	0.0%	0.1%	98.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
Choco	Litoral Del San Juan (is.)	0.0%	0.0%	30.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%
Choco	Lloro	0.1%	0.0%	98.4%	0.1%	0.0%	0.0%	1.2%	0.0%	0.0%	0.1%	0.0%	0.0%
Choco	Novita	0.0%	0.0%	97.8%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.1%	0.0%	0.0%
Choco	Nuquí	0.0%	0.0%	94.0%	0.9%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	3.2%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Choco	Quibdo	0.1%	0.2%	98.0%	0.6%	0.0%	0.0%	0.7%	0.0%	0.0%	0.1%	0.1%	0.1%
Choco	Riosucio	4.6%	3.1%	88.8%	1.3%	0.2%	0.1%	0.5%	0.1%	0.0%	0.0%	0.0%	1.4%
Choco	San Jose Del Palmar	0.0%	0.0%	99.8%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Choco	Sipi	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Choco	Tado	0.3%	0.0%	81.7%	0.0%	0.0%	0.0%	17.8%	0.0%	0.0%	0.3%	0.0%	0.0%
Choco	Unguia	7.3%	9.6%	70.5%	2.6%	0.6%	0.9%	1.6%	0.3%	0.0%	0.1%	0.0%	6.6%
Cordoba	Ayapel	16.4%	20.4%	48.3%	6.3%	0.8%	1.2%	2.6%	0.1%	0.6%	0.6%	0.0%	2.7%
Cordoba	Buenavista	49.8%	26.1%	21.1%	0.0%	1.2%	0.5%	0.3%	0.5%	0.1%	0.1%	0.0%	0.3%
Cordoba	Canalete	69.9%	12.7%	12.5%	0.0%	2.9%	0.6%	0.5%	0.8%	0.0%	0.0%	0.0%	0.0%
Cordoba	Cerete	76.8%	2.8%	0.4%	0.4%	10.7%	0.0%	0.0%	5.3%	0.0%	0.0%	3.7%	0.0%
Cordoba	Chima	50.3%	33.7%	0.5%	2.1%	7.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%
Cordoba	Chinu	64.7%	29.3%	0.5%	0.0%	3.5%	0.8%	0.0%	1.0%	0.0%	0.0%	0.0%	0.2%
Cordoba	Cienaga De Oro	64.5%	14.4%	11.5%	0.0%	5.9%	1.3%	0.2%	1.9%	0.2%	0.0%	0.0%	0.2%
Cordoba	Lorica	41.1%	36.7%	1.0%	1.2%	5.1%	4.4%	0.1%	1.0%	0.3%	0.0%	1.0%	8.2%
Cordoba	Los Cordobas	63.5%	17.3%	10.6%	0.6%	5.3%	0.0%	0.3%	1.8%	0.6%	0.0%	0.0%	0.0%
Cordoba	Momil	64.4%	7.2%	0.8%	7.4%	4.4%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	14.6%
Cordoba	Monitos (is.)	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Cordoba	Montelibano	18.9%	20.1%	56.6%	0.0%	0.9%	1.4%	1.1%	0.1%	0.4%	0.1%	0.5%	0.0%
Cordoba	Monteria	76.3%	10.2%	6.2%	0.6%	3.8%	0.5%	0.1%	0.8%	0.0%	0.0%	1.4%	0.0%
Cordoba	Moÿitos	32.8%	34.6%	17.6%	1.7%	5.5%	4.8%	1.7%	0.0%	0.4%	0.9%	0.0%	0.1%
Cordoba	Planeta Rica	49.2%	22.0%	25.1%	0.0%	1.5%	0.5%	0.7%	0.3%	0.0%	0.3%	0.5%	0.0%
Cordoba	Pueblo Nuevo	54.0%	27.4%	14.7%	1.2%	1.7%	0.4%	0.0%	0.0%	0.2%	0.1%	0.0%	0.1%
Cordoba	Puerto Escondido	75.0%	13.8%	7.2%	0.6%	1.8%	0.7%	0.6%	0.0%	0.3%	0.0%	0.0%	0.0%
Cordoba	Puerto Libertador	4.6%	7.9%	83.2%	0.0%	0.4%	1.3%	1.7%	0.3%	0.4%	0.4%	0.0%	0.0%
Cordoba	Purisima	38.6%	25.4%	0.0%	3.8%	0.9%	3.5%	0.0%	2.4%	0.9%	0.0%	0.0%	24.5%
Cordoba	Sahagun	34.1%	58.1%	2.2%	0.0%	1.1%	1.5%	0.0%	0.8%	0.8%	0.0%	1.4%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Cordoba	San Andres De Sotavento	39.2%	42.3%	0.0%	0.0%	9.3%	4.6%	0.4%	1.8%	2.5%	0.0%	0.0%	0.0%
Cordoba	San Antero	24.5%	39.4%	4.3%	3.7%	3.6%	4.9%	0.0%	0.0%	0.6%	0.0%	0.0%	18.9%
Cordoba	San Bernardo El Viento	33.6%	22.0%	2.0%	3.6%	7.3%	3.6%	0.6%	1.1%	0.3%	0.0%	0.0%	26.2%
Cordoba	San Bernardo El Viento (i	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Cordoba	San Carlos	65.9%	14.4%	15.4%	0.0%	2.0%	0.8%	0.4%	0.8%	0.0%	0.2%	0.0%	0.0%
Cordoba	San Pelayo	66.9%	22.6%	0.0%	0.0%	7.8%	1.2%	0.0%	1.2%	0.2%	0.0%	0.0%	0.0%
Cordoba	Tierralta	13.2%	0.7%	81.8%	1.2%	1.8%	0.1%	0.5%	0.3%	0.0%	0.1%	0.2%	0.0%
Cordoba	Valencia	48.1%	6.3%	37.8%	0.0%	5.7%	0.4%	0.7%	0.9%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Agua De Dios	18.9%	53.7%	18.6%	0.0%	0.0%	4.9%	0.0%	1.3%	2.6%	0.0%	0.0%	0.0%
Cundinamarca	Alban	9.3%	2.2%	59.6%	0.0%	3.0%	3.3%	22.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Anapoima	0.8%	18.4%	69.9%	0.0%	0.8%	1.3%	3.8%	0.8%	1.7%	2.5%	0.0%	0.0%
Cundinamarca	Anolaima	9.4%	4.2%	73.0%	0.0%	1.3%	0.8%	10.5%	0.8%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Apulo (rafael Reyes)	6.5%	24.2%	63.9%	0.0%	0.9%	0.0%	1.6%	0.9%	0.9%	0.9%	0.0%	0.0%
Cundinamarca	Arbelaez	11.7%	18.9%	61.7%	0.0%	0.5%	2.3%	4.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Beltran	25.5%	7.1%	47.1%	2.2%	9.3%	4.2%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Bituima	5.7%	13.2%	70.3%	0.0%	4.7%	2.8%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Bojaca	2.6%	20.2%	41.7%	0.0%	5.9%	16.3%	6.8%	0.0%	6.2%	0.0%	0.3%	0.0%
Cundinamarca	Cabrera	9.7%	17.1%	65.2%	0.0%	0.4%	4.7%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Cachipay	0.0%	8.1%	80.5%	0.0%	0.0%	0.0%	9.7%	0.0%	0.0%	1.7%	0.0%	0.0%
Cundinamarca	Cajica	4.1%	1.5%	11.7%	0.0%	10.2%	0.0%	11.7%	20.9%	8.2%	4.1%	27.6%	0.0%
Cundinamarca	Caparrapi	6.2%	22.8%	65.2%	0.0%	0.7%	2.4%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Caqueza	45.2%	10.1%	11.1%	0.0%	16.0%	8.6%	1.5%	3.4%	4.2%	0.0%	0.0%	0.0%
Cundinamarca	Carmen De Carupa	36.6%	17.0%	41.7%	0.0%	2.5%	0.3%	0.5%	0.3%	1.0%	0.0%	0.0%	0.0%
Cundinamarca	Chaguani	6.6%	10.8%	74.2%	1.7%	2.9%	0.9%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Chia	4.3%	1.2%	15.9%	0.0%	4.9%	1.2%	8.6%	4.9%	2.4%	6.7%	49.8%	0.0%
Cundinamarca	Chipaque	41.1%	2.9%	27.3%	0.0%	17.3%	7.3%	0.8%	0.0%	0.0%	2.3%	0.8%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Cundinamarca	Choachi	42.1%	1.7%	37.5%	0.0%	11.7%	3.1%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Choconta	45.0%	10.3%	22.8%	1.2%	13.2%	2.0%	3.7%	0.9%	0.9%	0.0%	0.0%	0.0%
Cundinamarca	Cogua	35.6%	0.0%	26.4%	0.0%	19.4%	0.0%	1.0%	11.7%	0.8%	1.2%	3.9%	0.0%
Cundinamarca	Cota	5.1%	0.0%	16.4%	0.0%	16.4%	0.0%	7.0%	16.4%	3.3%	0.5%	35.0%	0.0%
Cundinamarca	Cucunuba	40.3%	46.0%	11.4%	0.0%	1.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	El Colegio	0.6%	11.0%	78.6%	0.0%	0.0%	3.3%	4.8%	0.0%	0.0%	0.8%	0.0%	0.8%
Cundinamarca	El Peñon	0.0%	0.0%	94.2%	0.0%	0.0%	0.0%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Facatativa	21.2%	6.4%	18.5%	0.0%	17.4%	9.6%	4.3%	6.1%	0.8%	0.0%	15.7%	0.0%
Cundinamarca	Fomeque	22.6%	10.1%	42.9%	0.0%	1.4%	12.3%	9.3%	0.0%	0.0%	1.5%	0.0%	0.0%
Cundinamarca	Fosca	27.8%	1.3%	56.0%	0.0%	9.5%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Funza	6.4%	0.0%	0.0%	0.0%	20.2%	0.0%	1.4%	10.6%	2.1%	0.0%	59.2%	0.0%
Cundinamarca	Fuquene	93.3%	1.3%	2.7%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Fusagasuga	21.0%	17.9%	25.8%	0.0%	2.5%	7.0%	13.2%	1.4%	3.2%	1.5%	6.5%	0.0%
Cundinamarca	Gachala	9.6%	2.9%	85.5%	0.8%	0.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Gachancipa	16.8%	0.0%	12.7%	0.0%	26.6%	2.3%	13.9%	17.3%	5.8%	4.6%	0.0%	0.0%
Cundinamarca	Gacheta	43.7%	0.8%	43.6%	0.0%	1.1%	0.0%	10.5%	0.3%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Gama	19.8%	0.0%	79.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Girardot	25.6%	8.2%	29.2%	0.0%	6.4%	5.9%	4.9%	1.4%	4.2%	1.9%	12.2%	0.0%
Cundinamarca	Guacheta	23.5%	10.8%	62.8%	2.4%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%
Cundinamarca	Guaduas	11.5%	15.1%	57.3%	0.8%	4.0%	2.9%	4.5%	0.9%	1.6%	1.3%	0.0%	0.1%
Cundinamarca	Guasca	26.5%	5.0%	39.8%	0.0%	7.6%	2.1%	18.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Guataqui	11.3%	26.6%	49.2%	0.0%	5.1%	4.5%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Guatavita	26.2%	11.9%	20.2%	6.6%	6.9%	20.2%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Guayabal De Siquima	0.0%	6.7%	89.3%	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Guayabetal	0.0%	3.7%	82.6%	0.0%	0.5%	1.3%	9.8%	0.0%	0.0%	2.1%	0.0%	0.0%
Cundinamarca	Gutierrez	4.7%	9.6%	76.7%	0.0%	0.5%	2.5%	5.3%	0.0%	0.0%	0.7%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Cundinamarca	Jerusalen	1.3%	19.7%	70.5%	0.0%	2.2%	2.7%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Junin	19.0%	3.1%	61.1%	0.6%	0.7%	1.3%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	La Calera	16.0%	1.6%	57.0%	0.3%	4.1%	0.6%	9.5%	1.4%	1.1%	3.2%	5.2%	0.0%
Cundinamarca	La Mesa	0.2%	22.4%	63.2%	0.0%	0.0%	4.1%	5.7%	0.0%	0.6%	3.8%	0.0%	0.0%
Cundinamarca	La Palma	0.9%	1.7%	94.5%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	1.4%	0.0%	0.0%
Cundinamarca	La Peña	0.0%	2.0%	95.8%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.7%	0.0%	0.0%
Cundinamarca	La Vega	5.3%	2.2%	82.4%	0.0%	1.5%	0.6%	5.1%	0.0%	0.6%	2.3%	0.0%	0.0%
Cundinamarca	Lenguazaque	65.7%	4.1%	27.5%	0.7%	0.7%	0.0%	0.0%	0.7%	0.7%	0.0%	0.0%	0.0%
Cundinamarca	Macheta	37.8%	1.9%	40.1%	0.0%	1.8%	1.0%	13.0%	0.0%	0.9%	3.5%	0.0%	0.0%
Cundinamarca	Madrid	12.2%	2.5%	4.4%	0.0%	33.5%	15.6%	1.5%	7.6%	12.0%	0.8%	9.7%	0.0%
Cundinamarca	Manta	60.1%	1.7%	35.2%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Medina	6.9%	35.8%	56.5%	0.0%	0.0%	0.3%	0.0%	0.0%	0.3%	0.1%	0.0%	0.1%
Cundinamarca	Mosquera	4.4%	5.7%	1.3%	0.0%	12.5%	22.1%	2.9%	9.6%	34.6%	0.0%	6.8%	0.0%
Cundinamarca	Nariño	22.2%	15.7%	51.1%	0.0%	7.8%	1.7%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Nemocon	24.8%	6.2%	19.4%	0.0%	34.5%	3.0%	5.0%	3.2%	0.0%	4.0%	0.0%	0.0%
Cundinamarca	Nilo	4.6%	30.4%	48.7%	0.0%	1.2%	4.8%	1.7%	3.4%	2.4%	2.8%	0.0%	0.0%
Cundinamarca	Nimaima	0.0%	1.4%	95.9%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Nocaima	0.0%	0.0%	93.5%	0.0%	0.0%	0.0%	6.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Pacho	26.5%	4.7%	57.4%	0.0%	3.3%	0.9%	4.9%	1.8%	0.3%	0.3%	0.0%	0.0%
Cundinamarca	Paime	0.0%	0.0%	25.3%	0.0%	0.0%	0.0%	74.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Pandi	2.7%	2.7%	89.3%	0.0%	0.5%	1.0%	2.7%	1.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Paratebueno	5.2%	64.3%	29.7%	0.0%	0.0%	0.4%	0.0%	0.0%	0.3%	0.0%	0.0%	0.1%
Cundinamarca	Pasca	36.0%	23.7%	28.8%	0.0%	8.7%	0.0%	1.4%	1.4%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Puerto Salgar	42.4%	15.5%	26.7%	3.3%	4.7%	2.6%	1.7%	0.5%	0.2%	0.0%	2.3%	0.2%
Cundinamarca	Puli	0.0%	14.0%	83.9%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Quebradanegra	0.0%	2.6%	92.2%	0.0%	0.0%	0.0%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Cundinamarca	Quetame	17.8%	1.7%	60.2%	0.0%	3.7%	0.9%	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Quipile	5.1%	0.6%	89.0%	0.0%	1.1%	0.4%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Ricaurte	32.6%	19.4%	16.6%	0.0%	10.2%	6.7%	4.7%	1.7%	2.3%	0.7%	5.2%	0.0%
Cundinamarca	San Antonio Del Tequendam	8.0%	11.3%	74.9%	0.0%	0.0%	0.0%	3.6%	0.0%	2.2%	0.0%	0.0%	0.0%
Cundinamarca	San Bernardo	21.3%	28.9%	44.0%	0.0%	0.5%	2.1%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	San Cayetano	11.9%	6.1%	73.2%	0.0%	3.4%	0.4%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	San Francisco	17.4%	14.6%	52.9%	0.0%	5.4%	1.6%	5.6%	0.0%	0.8%	1.8%	0.0%	0.0%
Cundinamarca	San Juan De Rio Seco	10.7%	8.5%	71.5%	1.4%	3.8%	0.3%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Santafe De Bogota D.c.	11.7%	18.0%	31.8%	0.0%	3.6%	1.5%	2.0%	0.6%	0.3%	0.2%	30.2%	0.0%
Cundinamarca	Sasaima	7.2%	4.2%	72.5%	0.0%	1.2%	1.7%	11.2%	0.0%	0.0%	2.0%	0.0%	0.0%
Cundinamarca	Sesquile	42.2%	2.1%	19.7%	11.6%	7.6%	2.1%	2.6%	7.2%	1.4%	3.6%	0.0%	0.0%
Cundinamarca	Sibate	21.5%	17.7%	30.2%	0.0%	14.6%	6.4%	3.1%	1.9%	3.8%	0.9%	0.0%	0.0%
Cundinamarca	Silvania	26.9%	7.3%	42.8%	0.0%	5.4%	0.0%	12.0%	2.1%	1.0%	2.4%	0.0%	0.1%
Cundinamarca	Simijaca	54.0%	11.3%	26.5%	0.0%	1.6%	2.8%	0.0%	3.8%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Soacha	18.4%	10.4%	15.7%	0.0%	5.5%	6.2%	8.0%	1.8%	7.7%	3.2%	23.1%	0.0%
Cundinamarca	Sopo	18.8%	0.8%	28.3%	0.0%	16.5%	3.3%	8.5%	1.4%	0.2%	5.4%	16.7%	0.0%
Cundinamarca	Subachoque	33.5%	7.8%	20.7%	0.0%	20.0%	1.6%	6.7%	7.6%	1.7%	0.3%	0.0%	0.0%
Cundinamarca	Suesca	28.7%	32.9%	7.8%	0.5%	11.9%	2.0%	4.3%	7.0%	4.9%	0.0%	0.0%	0.0%
Cundinamarca	Supata	9.7%	7.1%	79.8%	0.0%	0.0%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Susa	85.8%	4.1%	6.7%	0.0%	1.7%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%
Cundinamarca	Sutatausa	80.2%	5.5%	10.1%	0.0%	0.0%	1.7%	0.0%	0.0%	1.7%	0.8%	0.0%	0.0%
Cundinamarca	Tabio	14.0%	3.0%	35.5%	0.0%	10.6%	0.7%	8.0%	26.9%	0.0%	1.3%	0.0%	0.0%
Cundinamarca	Tausa	42.9%	13.9%	26.6%	3.7%	8.5%	3.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Tena	2.7%	6.7%	72.6%	0.0%	2.4%	2.4%	9.4%	0.0%	1.2%	2.4%	0.0%	0.0%
Cundinamarca	Tenjo	25.4%	1.2%	10.5%	0.0%	37.4%	2.2%	8.7%	10.0%	0.0%	1.0%	3.5%	0.0%
Cundinamarca	Tibacuy	2.2%	11.1%	78.1%	0.0%	0.0%	0.0%	8.6%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Cundinamarca	Tibirita	86.0%	0.0%	10.9%	0.0%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Tocaima	15.5%	46.4%	25.5%	0.0%	7.2%	2.7%	0.8%	0.8%	1.1%	0.0%	0.0%	0.0%
Cundinamarca	Tocancipa	9.7%	0.0%	5.2%	0.0%	14.6%	4.5%	9.0%	42.5%	9.0%	5.2%	0.4%	0.0%
Cundinamarca	Topaipi	0.0%	0.0%	98.1%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Ubala	39.6%	1.6%	53.6%	1.1%	1.7%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Ubaque	35.1%	4.8%	36.9%	0.0%	10.8%	5.0%	6.9%	0.0%	0.2%	0.0%	0.2%	0.0%
Cundinamarca	Ubate	59.2%	25.4%	6.9%	0.0%	1.8%	1.8%	0.0%	2.7%	1.8%	0.4%	0.0%	0.0%
Cundinamarca	Une	35.9%	13.7%	31.8%	0.0%	13.3%	1.7%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Utica	3.0%	5.8%	85.6%	0.0%	0.0%	1.1%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Venezia (ospina Perez)	26.2%	6.6%	63.7%	0.0%	2.0%	0.6%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Vergara	0.0%	0.0%	97.4%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Viani	2.6%	9.3%	85.6%	0.0%	0.0%	1.3%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Villagomez	0.0%	0.0%	96.0%	0.0%	0.0%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cundinamarca	Villapinzon	65.5%	10.0%	16.5%	0.0%	5.5%	0.5%	0.0%	1.5%	0.5%	0.0%	0.0%	0.0%
Cundinamarca	Villeta	0.0%	2.0%	86.2%	0.0%	0.0%	0.0%	8.4%	0.0%	1.3%	1.3%	0.0%	0.7%
Cundinamarca	Viota	1.2%	22.2%	72.8%	0.0%	0.0%	0.0%	1.9%	0.0%	0.5%	0.5%	0.0%	0.9%
Cundinamarca	Yacopi	2.0%	9.0%	85.6%	0.0%	0.2%	0.3%	2.6%	0.0%	0.0%	0.3%	0.0%	0.0%
Cundinamarca	Zipacon	19.8%	17.6%	47.6%	0.0%	6.2%	1.3%	4.0%	1.8%	1.8%	0.0%	0.0%	0.0%
Cundinamarca	Zipaquira	30.0%	1.6%	33.0%	0.0%	15.7%	0.5%	2.4%	6.8%	0.8%	3.4%	5.8%	0.0%
Guainia	Barranco Minas	0.0%	0.0%	99.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Guainia	Cacahual	0.0%	8.0%	89.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	2.2%
Guainia	Inirida	0.0%	1.4%	96.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%
Guainia	La Guadalupe	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Guainia	Pana Pana	0.0%	0.0%	99.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Guainia	Puerto Colombia	0.0%	0.0%	99.9%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Guainia	San Felipe	0.0%	0.0%	99.4%	0.4%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Guajira	Barrancas	16.0%	28.7%	49.2%	0.0%	0.6%	1.6%	0.4%	1.0%	1.1%	0.0%	0.0%	1.3%
Guajira	El Molino	0.0%	22.6%	77.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Guajira	Fonseca	25.0%	30.7%	39.9%	0.0%	2.0%	1.0%	0.4%	0.8%	0.0%	0.0%	0.0%	0.0%
Guajira	Hato Nuevo	2.8%	31.4%	63.5%	0.0%	0.3%	0.3%	0.1%	0.3%	0.5%	0.3%	0.0%	0.8%
Guajira	Maicao	15.8%	44.4%	37.3%	0.0%	0.2%	0.8%	0.0%	0.1%	0.3%	0.0%	0.6%	0.3%
Guajira	Manaure	0.8%	89.3%	4.8%	1.5%	0.1%	1.7%	0.0%	0.0%	0.6%	0.0%	0.5%	0.7%
Guajira	Riohacha	9.8%	24.1%	63.6%	0.5%	0.4%	0.6%	0.5%	0.2%	0.0%	0.1%	0.2%	0.1%
Guajira	San Juan Del Cesar	23.5%	51.3%	21.8%	0.0%	1.4%	0.7%	0.3%	0.4%	0.2%	0.0%	0.0%	0.4%
Guajira	Uribia	0.2%	93.1%	3.6%	0.6%	0.0%	1.7%	0.0%	0.0%	0.3%	0.0%	0.1%	0.4%
Guajira	Urumita	21.5%	9.0%	63.6%	0.0%	3.4%	1.3%	0.6%	0.3%	0.2%	0.0%	0.0%	0.1%
Guajira	Villanueva	27.1%	6.9%	57.6%	0.0%	3.3%	0.9%	1.4%	2.5%	0.0%	0.0%	0.0%	0.3%
Guaviare	Calamar	0.0%	1.0%	98.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Guaviare	El Retorno	0.6%	2.1%	97.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Guaviare	Miraflores	0.1%	0.1%	99.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Guaviare	San Jose Del Guaviare	1.4%	6.6%	91.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Huila	Acevedo	14.8%	2.3%	80.2%	0.0%	0.6%	0.0%	1.1%	0.8%	0.0%	0.2%	0.0%	0.0%
Huila	Agrado	12.0%	41.4%	42.3%	0.0%	0.0%	0.4%	0.4%	2.8%	0.0%	0.8%	0.0%	0.0%
Huila	Aipe	4.2%	62.9%	28.6%	0.0%	0.2%	3.7%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
Huila	Algeciras	7.5%	11.0%	73.9%	0.0%	1.2%	2.7%	3.3%	0.1%	0.2%	0.1%	0.0%	0.0%
Huila	Altamira	14.1%	50.7%	29.9%	0.0%	2.8%	1.2%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%
Huila	Baraya	5.7%	53.8%	32.4%	0.0%	0.5%	7.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Campo Alegre	13.1%	33.7%	13.0%	10.9%	16.4%	11.1%	0.3%	0.8%	0.5%	0.0%	0.0%	0.3%
Huila	Colombia	1.1%	22.5%	72.8%	0.0%	0.1%	2.3%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Elias	10.8%	0.8%	15.4%	0.0%	39.7%	1.0%	32.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Garzon	12.7%	17.5%	58.3%	0.0%	0.4%	2.2%	7.2%	0.0%	0.6%	0.2%	0.9%	0.0%
Huila	Gigante	7.5%	41.2%	41.2%	0.0%	0.7%	4.9%	2.4%	0.1%	1.7%	0.1%	0.0%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Huila	Guadalupe	6.2%	19.9%	68.9%	0.0%	0.0%	0.4%	2.7%	0.2%	0.0%	1.6%	0.0%	0.0%
Huila	Hobo	1.1%	56.8%	20.5%	8.3%	1.4%	9.8%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Iquira	2.9%	8.9%	87.0%	0.0%	0.0%	0.9%	0.0%	0.2%	0.0%	0.2%	0.0%	0.0%
Huila	Isnos	31.5%	0.4%	63.2%	0.0%	2.4%	0.0%	1.3%	1.2%	0.0%	0.0%	0.0%	0.0%
Huila	La Argentina	1.6%	2.1%	21.3%	0.0%	3.0%	1.3%	70.4%	0.0%	0.2%	0.0%	0.0%	0.0%
Huila	La Plata	4.9%	13.8%	72.6%	0.0%	0.0%	1.4%	6.8%	0.2%	0.2%	0.0%	0.0%	0.1%
Huila	Nataga	1.2%	2.9%	95.4%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Neiva	4.1%	35.2%	51.4%	0.0%	0.5%	4.1%	1.0%	0.2%	0.6%	0.0%	2.8%	0.0%
Huila	Oporapa	1.3%	0.0%	1.4%	0.0%	21.3%	1.4%	74.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Paicol	20.8%	47.3%	30.9%	0.0%	0.4%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Palermo	12.5%	50.9%	28.5%	0.0%	3.9%	3.1%	0.5%	0.3%	0.3%	0.0%	0.0%	0.0%
Huila	Palestina	1.8%	0.2%	97.3%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Pital	24.1%	35.4%	33.2%	0.0%	0.4%	0.0%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Pitalito	22.4%	0.5%	70.0%	0.0%	3.4%	0.1%	1.5%	0.4%	0.0%	0.1%	1.5%	0.0%
Huila	Rivera	21.2%	16.4%	51.3%	0.0%	6.4%	2.2%	1.5%	0.4%	0.2%	0.2%	0.0%	0.2%
Huila	Salado Blanco	8.0%	0.6%	15.7%	0.0%	4.5%	0.1%	71.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	San Agustin	4.7%	6.9%	85.5%	0.0%	0.1%	0.6%	1.6%	0.0%	0.4%	0.1%	0.0%	0.0%
Huila	Santa Maria	1.4%	1.3%	96.8%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.2%	0.0%	0.0%
Huila	Suaza	22.5%	20.3%	50.2%	0.0%	4.8%	1.3%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Huila	Tarqui	33.2%	18.0%	31.6%	0.0%	3.1%	0.2%	13.6%	0.0%	0.0%	0.3%	0.0%	0.0%
Huila	Tello	9.6%	42.8%	42.7%	0.0%	1.6%	1.4%	1.1%	0.2%	0.8%	0.0%	0.0%	0.0%
Huila	Teruel	5.1%	15.0%	79.4%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
Huila	Tesalia	16.5%	44.3%	36.2%	0.0%	1.7%	0.8%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%
Huila	Timana	38.7%	0.5%	53.6%	0.0%	2.3%	0.0%	4.5%	0.4%	0.0%	0.0%	0.0%	0.0%
Huila	Villa Vieja	7.7%	77.8%	3.0%	0.0%	3.4%	6.7%	0.2%	0.7%	0.6%	0.0%	0.0%	0.0%
Huila	Yaguara	24.0%	51.4%	5.4%	8.3%	6.7%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Magdalena	Aracataca	6.5%	21.3%	64.2%	0.0%	2.1%	0.7%	1.9%	0.5%	0.0%	0.3%	0.4%	1.9%
Magdalena	Ariguani	62.0%	27.9%	6.9%	0.0%	1.3%	1.1%	0.1%	0.2%	0.3%	0.0%	0.0%	0.1%
Magdalena	Cerro San Antonio	15.7%	40.9%	0.7%	22.4%	6.3%	9.7%	0.0%	0.7%	0.5%	0.0%	0.0%	3.1%
Magdalena	Chivolo	57.3%	33.0%	5.9%	0.0%	1.6%	1.2%	0.1%	0.3%	0.3%	0.0%	0.0%	0.2%
Magdalena	Ciénaga	6.9%	2.9%	73.8%	1.9%	2.6%	0.2%	4.8%	1.7%	0.7%	1.0%	1.0%	2.6%
Magdalena	El Banco	17.9%	25.7%	18.2%	24.9%	1.1%	1.4%	0.1%	0.0%	0.5%	0.1%	0.0%	10.1%
Magdalena	El Piñon	40.6%	42.7%	2.3%	1.7%	3.4%	6.4%	0.0%	0.1%	0.0%	0.0%	0.0%	2.9%
Magdalena	Fundacion	32.7%	5.5%	58.2%	0.0%	2.7%	0.3%	0.3%	0.1%	0.0%	0.0%	0.3%	0.0%
Magdalena	Guamal	19.1%	43.2%	14.5%	11.0%	1.2%	3.7%	0.7%	0.2%	0.4%	0.0%	0.0%	6.0%
Magdalena	Pedraza	26.4%	43.2%	2.4%	18.4%	3.9%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%
Magdalena	Pivijay	62.9%	14.8%	17.1%	0.2%	1.8%	0.7%	0.3%	0.3%	0.0%	0.0%	0.0%	1.8%
Magdalena	Plato	32.1%	49.1%	3.8%	6.4%	2.0%	3.3%	0.2%	0.2%	0.2%	0.0%	0.0%	2.6%
Magdalena	Pueblo Viejo	1.1%	0.4%	20.1%	67.0%	0.6%	0.1%	1.2%	0.0%	0.0%	0.0%	0.0%	9.5%
Magdalena	Remolino	13.4%	20.3%	3.5%	13.2%	2.2%	14.7%	0.4%	0.1%	0.0%	0.0%	0.0%	32.3%
Magdalena	Salamina	26.5%	48.5%	1.9%	3.9%	4.8%	9.8%	0.0%	0.0%	0.9%	0.0%	0.0%	3.6%
Magdalena	San Sebastian De Buenavis	24.0%	47.6%	12.1%	3.3%	1.1%	5.3%	0.0%	0.2%	1.7%	0.0%	0.0%	4.8%
Magdalena	San Zenon	22.1%	43.0%	8.9%	9.2%	1.6%	6.5%	0.4%	0.4%	2.6%	0.0%	0.0%	5.3%
Magdalena	Santa Ana	39.2%	46.7%	3.7%	3.9%	1.3%	3.1%	0.0%	0.3%	0.6%	0.0%	0.0%	1.2%
Magdalena	Santa Marta (dist. Esp.)	0.7%	9.0%	81.6%	0.3%	0.3%	0.7%	2.6%	0.1%	0.5%	0.1%	3.3%	0.7%
Magdalena	Santa Marta (dist. Esp.)	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Magdalena	Tenerife	29.2%	40.8%	8.6%	12.0%	3.1%	3.9%	0.4%	0.1%	0.0%	0.0%	0.0%	2.0%
Meta	Acacias	2.0%	30.5%	55.9%	0.0%	0.4%	1.7%	5.5%	0.4%	1.0%	2.2%	0.0%	0.3%
Meta	Barranca De Upia	2.2%	82.3%	15.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Meta	Cabuyaro	1.6%	80.5%	12.7%	0.1%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%
Meta	Castilla La Nueva	6.6%	77.4%	14.8%	0.0%	0.0%	0.7%	0.0%	0.2%	0.4%	0.0%	0.0%	0.0%
Meta	Cubarral	1.5%	11.3%	81.1%	0.0%	0.2%	1.8%	3.8%	0.1%	0.1%	0.0%	0.0%	0.1%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Meta	Cumalal	6.2%	81.0%	10.3%	0.0%	0.3%	1.2%	0.0%	0.0%	0.7%	0.0%	0.0%	0.3%
Meta	El Calvario	2.4%	0.0%	92.1%	0.0%	0.0%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Meta	El Castillo	7.8%	23.2%	60.4%	0.0%	1.0%	4.4%	2.2%	0.3%	0.6%	0.0%	0.0%	0.1%
Meta	El Dorado	18.0%	39.1%	23.7%	0.0%	1.9%	12.3%	3.6%	0.5%	0.0%	0.0%	0.0%	0.9%
Meta	Fuente De Oro	37.2%	45.6%	15.1%	0.0%	0.5%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%
Meta	Granada	25.4%	35.8%	21.0%	0.0%	5.0%	4.3%	2.4%	2.0%	2.4%	0.0%	0.0%	1.7%
Meta	Guamal	2.1%	20.6%	66.8%	0.0%	0.1%	3.9%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Meta	La Macarena	11.2%	18.5%	69.9%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%
Meta	La Uribe	0.9%	0.7%	97.7%	0.0%	0.0%	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Meta	Lejanias	27.9%	11.7%	56.4%	0.0%	2.2%	0.3%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Meta	Mapiripan	0.2%	41.3%	57.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
Meta	Mesetas	5.2%	0.6%	94.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Meta	Puerto Concordia	2.3%	31.1%	62.8%	3.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.5%
Meta	Puerto Gaitan	0.1%	90.0%	9.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Meta	Puerto Lleras	4.0%	48.3%	46.6%	0.4%	0.1%	0.2%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%
Meta	Puerto Lopez	2.3%	91.5%	5.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.5%
Meta	Puerto Rico	1.9%	22.0%	75.4%	0.3%	0.0%	0.1%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%
Meta	Restrepo	3.7%	61.5%	31.1%	0.0%	0.0%	0.9%	0.3%	0.0%	0.1%	0.0%	2.2%	0.2%
Meta	San Carlos De Guaroa	2.7%	65.8%	31.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.1%	0.1%	0.0%	0.0%
Meta	San Juan De Arama	29.4%	21.3%	49.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Meta	San Juanito	2.6%	11.1%	73.3%	0.0%	1.0%	9.2%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Meta	San Martin	6.9%	75.0%	17.6%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
Meta	Villavicencio	4.2%	62.5%	24.3%	0.1%	0.1%	2.5%	1.0%	0.3%	1.2%	0.2%	2.9%	0.7%
Meta	Vistahermosa	6.1%	10.8%	82.9%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
Narino	Alban	27.5%	8.1%	36.3%	0.0%	10.2%	7.7%	6.3%	0.0%	1.8%	2.1%	0.0%	0.0%
Narino	Aldana	55.3%	0.0%	0.0%	0.0%	35.0%	0.0%	0.0%	9.7%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Narino	Ancuya	34.7%	2.3%	58.4%	0.0%	3.4%	0.0%	0.0%	0.8%	0.0%	0.4%	0.0%	0.0%
Narino	Arboleda	19.3%	38.5%	26.7%	0.0%	5.2%	8.1%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Barbacoas	0.8%	0.0%	98.5%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Belen	43.9%	36.4%	14.0%	0.0%	0.9%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Buesaco	10.0%	38.9%	29.5%	0.0%	3.6%	12.7%	3.6%	0.2%	1.1%	0.4%	0.0%	0.0%
Narino	Chachagui	0.0%	83.7%	2.4%	0.0%	0.0%	12.7%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Colon	16.3%	47.3%	4.3%	0.0%	4.3%	18.5%	4.9%	0.0%	4.3%	0.0%	0.0%	0.0%
Narino	Consaca	38.0%	8.7%	25.7%	0.0%	15.3%	3.9%	8.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Contadero	57.5%	0.0%	7.1%	0.0%	28.3%	0.0%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%
Narino	Cordoba	16.6%	0.2%	73.1%	0.0%	5.3%	0.0%	2.8%	2.1%	0.0%	0.0%	0.0%	0.0%
Narino	Cuaspu	62.3%	0.0%	2.0%	0.0%	22.8%	0.0%	0.6%	11.3%	0.0%	0.0%	0.0%	1.1%
Narino	Cumbal	9.3%	23.8%	62.0%	0.2%	0.9%	1.7%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Cumbitara	22.3%	22.2%	51.5%	0.0%	1.0%	0.9%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	El Charco	0.0%	0.7%	83.0%	3.3%	0.0%	0.0%	0.5%	0.0%	0.0%	0.2%	0.0%	12.3%
Narino	El Charco (is.)	0.0%	1.9%	0.0%	23.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	74.8%
Narino	El Rosario	2.5%	31.0%	60.6%	0.0%	1.4%	4.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	El Tablon	9.3%	15.1%	63.1%	0.0%	1.6%	4.2%	3.7%	0.6%	1.2%	1.3%	0.0%	0.0%
Narino	El Tambo	16.1%	62.0%	10.5%	0.0%	1.4%	8.0%	0.3%	0.0%	1.6%	0.0%	0.0%	0.0%
Narino	Francisco Pizarro	0.0%	0.0%	80.2%	2.2%	0.0%	0.0%	1.2%	0.0%	0.0%	0.4%	0.0%	16.0%
Narino	Funes	11.9%	14.8%	62.1%	0.0%	4.3%	6.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Guachucal	26.0%	32.8%	29.7%	0.0%	2.9%	4.1%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Guaitarilla	66.5%	12.2%	0.0%	0.0%	19.6%	0.8%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%
Narino	Gualmatan	37.9%	3.1%	45.1%	0.0%	5.6%	2.1%	6.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Iles	48.5%	6.2%	13.1%	0.0%	29.1%	2.6%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%
Narino	Imues	23.8%	17.3%	0.0%	0.0%	39.5%	5.9%	0.0%	13.6%	0.0%	0.0%	0.0%	0.0%
Narino	Ipiales	7.8%	2.3%	82.6%	0.0%	3.5%	0.3%	1.7%	0.8%	0.1%	0.0%	0.9%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Narino	La Cruz	20.5%	15.8%	44.2%	0.0%	5.6%	7.1%	3.3%	1.3%	2.2%	0.0%	0.0%	0.0%
Narino	La Florida	44.7%	17.1%	30.0%	0.0%	4.9%	1.2%	1.0%	0.7%	0.0%	0.3%	0.0%	0.0%
Narino	La Llanada	0.0%	7.9%	90.7%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	La Tola	0.0%	1.1%	77.0%	4.8%	0.0%	0.0%	0.5%	0.0%	0.0%	0.4%	0.0%	16.2%
Narino	La Union	18.4%	40.5%	8.7%	0.0%	8.1%	13.4%	4.2%	4.0%	2.0%	0.8%	0.0%	0.0%
Narino	Leiva	4.0%	16.5%	76.7%	0.0%	0.3%	1.3%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Linares	9.9%	36.8%	46.1%	0.0%	1.3%	4.0%	0.0%	0.3%	0.8%	0.8%	0.0%	0.0%
Narino	Los Andes	6.6%	14.3%	73.3%	0.0%	1.6%	1.5%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Magui	0.7%	0.4%	97.8%	0.6%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Mallama	13.0%	7.7%	73.4%	0.0%	2.4%	2.2%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Mosquera	0.0%	1.1%	42.8%	6.8%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	48.4%
Narino	Mosquera (is.)	0.0%	5.9%	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.1%
Narino	Olaya Herrera	0.0%	0.9%	82.6%	3.2%	0.0%	0.0%	1.2%	0.0%	0.0%	1.4%	0.0%	10.6%
Narino	Ospina	38.5%	0.9%	4.1%	0.0%	29.0%	1.6%	0.0%	22.1%	3.8%	0.0%	0.0%	0.0%
Narino	Pasto	17.5%	5.9%	57.5%	3.0%	6.7%	1.8%	1.9%	1.9%	0.8%	0.0%	2.6%	0.3%
Narino	Policarpa	6.8%	21.6%	67.8%	0.0%	1.4%	0.9%	1.2%	0.0%	0.3%	0.0%	0.0%	0.0%
Narino	Potosi	13.4%	0.8%	77.4%	0.0%	3.7%	0.3%	2.3%	1.7%	0.0%	0.0%	0.3%	0.0%
Narino	Providencia	23.8%	3.9%	69.1%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	2.6%	0.0%	0.0%
Narino	Puerres	11.1%	0.8%	81.4%	0.0%	2.6%	1.0%	2.3%	0.8%	0.0%	0.0%	0.0%	0.0%
Narino	Pupiales	74.9%	0.0%	0.2%	0.0%	24.5%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%
Narino	Ricaurte	4.2%	0.2%	94.9%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.1%	0.0%	0.0%
Narino	Roberto Payan	0.0%	1.7%	95.5%	1.8%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.2%
Narino	Samaniego	3.1%	6.2%	86.5%	0.0%	0.2%	0.5%	1.7%	0.0%	0.9%	0.9%	0.0%	0.0%
Narino	San Bernardo	45.2%	3.4%	40.9%	0.0%	7.7%	0.0%	1.9%	0.0%	0.0%	1.0%	0.0%	0.0%
Narino	San Lorenzo	10.9%	61.0%	9.4%	0.0%	3.0%	13.2%	1.6%	0.0%	0.6%	0.4%	0.0%	0.0%
Narino	San Pablo	12.1%	42.8%	8.7%	0.0%	0.8%	28.7%	2.3%	2.3%	2.3%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Narino	San Pedro De Cartago	46.4%	23.4%	11.5%	0.0%	10.9%	3.6%	2.1%	0.0%	2.1%	0.0%	0.0%	0.0%
Narino	Sandona	30.8%	16.9%	23.0%	0.0%	7.8%	1.7%	10.8%	3.2%	0.2%	5.7%	0.0%	0.0%
Narino	Santa Barbara	0.0%	1.3%	78.3%	3.6%	0.0%	0.0%	0.8%	0.0%	0.1%	0.2%	0.0%	15.7%
Narino	Santa Cruz	3.3%	4.0%	90.8%	0.0%	0.2%	0.0%	0.8%	0.0%	0.4%	0.6%	0.0%	0.0%
Narino	Sapuyes	48.2%	23.8%	8.8%	0.0%	13.9%	3.4%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Taminango	0.0%	78.2%	2.5%	0.0%	0.4%	16.7%	0.8%	0.8%	0.6%	0.0%	0.0%	0.0%
Narino	Tangua	33.1%	13.9%	14.4%	0.0%	28.5%	9.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Narino	Tumaco	10.1%	0.5%	72.1%	2.1%	0.2%	0.0%	1.2%	0.0%	0.0%	0.0%	0.3%	13.4%
Narino	Tumaco (is.)	0.0%	0.0%	0.0%	17.4%	0.0%	0.0%	34.8%	0.0%	0.0%	0.0%	0.0%	47.8%
Narino	Tuquerres	57.2%	12.2%	27.8%	0.0%	1.5%	0.0%	0.8%	0.0%	0.5%	0.0%	0.0%	0.0%
Narino	Yacuanquer	29.8%	20.8%	31.2%	0.0%	8.2%	9.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Abrego	0.8%	41.0%	52.4%	0.0%	0.3%	4.6%	0.5%	0.2%	0.2%	0.0%	0.0%	0.0%
Norte De Santander	Arboledas	0.0%	9.2%	83.6%	0.0%	0.0%	3.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Bochalema	0.5%	3.8%	90.5%	0.0%	0.5%	0.5%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Bucarasica	1.7%	14.6%	79.1%	0.0%	0.0%	1.4%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Cachira	8.1%	1.9%	87.1%	0.0%	1.5%	0.6%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Cacota	0.0%	77.7%	14.1%	0.0%	0.0%	6.8%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Chinacota	1.0%	4.1%	78.6%	0.0%	0.0%	0.5%	12.0%	0.0%	2.7%	1.1%	0.0%	0.0%
Norte De Santander	Chitaga	0.6%	35.8%	59.4%	0.0%	0.0%	2.3%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Convencion	1.0%	1.9%	94.5%	0.0%	0.1%	0.1%	1.9%	0.1%	0.1%	0.2%	0.0%	0.0%
Norte De Santander	Cucuta	16.2%	2.5%	45.0%	0.0%	11.4%	1.8%	7.9%	5.0%	2.4%	0.7%	7.2%	0.0%
Norte De Santander	Cucutilla	0.0%	23.7%	73.3%	0.0%	0.0%	0.3%	1.9%	0.0%	0.0%	0.8%	0.0%	0.0%
Norte De Santander	Durania	0.5%	0.0%	95.0%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	El Carmen	0.5%	2.6%	96.4%	0.0%	0.0%	0.1%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%
Norte De Santander	El Tarra	0.3%	0.0%	98.0%	0.0%	0.2%	0.0%	1.1%	0.3%	0.0%	0.2%	0.0%	0.0%
Norte De Santander	El Zulia	5.7%	5.0%	81.2%	0.0%	3.0%	1.0%	3.5%	0.2%	0.1%	0.2%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Norte De Santander	Gramalote	2.3%	2.7%	88.4%	0.0%	0.6%	1.2%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Hacari	6.3%	6.7%	85.6%	0.0%	0.6%	0.3%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Herran	2.9%	5.8%	80.8%	0.0%	0.8%	1.3%	6.6%	1.3%	0.0%	0.5%	0.0%	0.0%
Norte De Santander	La Esperanza	55.6%	1.8%	38.1%	0.0%	3.2%	0.0%	0.7%	0.4%	0.0%	0.0%	0.0%	0.1%
Norte De Santander	La Playa	4.5%	52.1%	34.1%	0.0%	0.7%	5.6%	1.7%	0.0%	1.3%	0.0%	0.0%	0.0%
Norte De Santander	Labateca	0.7%	12.2%	83.3%	0.0%	0.0%	1.1%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Los Patios	0.0%	1.9%	65.9%	0.0%	0.0%	4.5%	15.9%	0.0%	0.0%	11.7%	0.0%	0.0%
Norte De Santander	Lourdes	2.1%	5.0%	90.1%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Mutiscua	0.0%	85.4%	7.4%	0.0%	0.7%	3.7%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Ocaña	0.5%	30.0%	52.8%	0.0%	0.0%	9.6%	2.1%	0.3%	1.8%	0.0%	2.9%	0.0%
Norte De Santander	Pamplona	0.4%	27.6%	60.7%	0.0%	0.0%	4.7%	2.9%	0.0%	2.3%	0.7%	0.0%	0.7%
Norte De Santander	Pamplonita	0.0%	6.4%	83.4%	0.0%	0.6%	2.0%	7.3%	0.0%	0.3%	0.0%	0.0%	0.0%
Norte De Santander	Puerto Santander	65.9%	0.0%	18.2%	0.0%	11.3%	0.0%	0.0%	4.4%	0.0%	0.2%	0.0%	0.0%
Norte De Santander	Ragonvalia	4.6%	22.3%	70.9%	0.0%	0.7%	0.0%	1.2%	0.0%	0.0%	0.2%	0.0%	0.0%
Norte De Santander	Salazar	0.2%	5.8%	89.3%	0.0%	0.0%	1.5%	2.7%	0.2%	0.0%	0.2%	0.0%	0.0%
Norte De Santander	San Calixto	1.6%	7.8%	85.2%	0.0%	0.0%	2.5%	1.5%	0.0%	1.2%	0.2%	0.0%	0.0%
Norte De Santander	San Cayetano	2.1%	6.3%	77.3%	0.0%	6.3%	2.1%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Santiago	3.0%	5.4%	85.4%	0.0%	0.0%	1.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Sardinata	1.2%	0.8%	94.0%	0.0%	0.4%	0.0%	2.7%	0.4%	0.0%	0.5%	0.0%	0.0%
Norte De Santander	Silos	0.0%	90.0%	4.2%	0.0%	0.0%	5.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Teorama	0.5%	0.7%	97.7%	0.0%	0.0%	0.0%	0.8%	0.1%	0.0%	0.1%	0.0%	0.0%
Norte De Santander	Tibu	1.9%	0.4%	96.1%	0.1%	0.2%	0.1%	1.0%	0.1%	0.0%	0.1%	0.0%	0.0%
Norte De Santander	Toledo	1.3%	3.9%	87.6%	0.0%	1.0%	1.4%	4.4%	0.2%	0.1%	0.1%	0.0%	0.1%
Norte De Santander	Villa Caro	0.3%	37.3%	57.0%	0.0%	0.0%	3.8%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Norte De Santander	Villa Del Rosario	1.9%	2.4%	49.5%	0.0%	0.5%	3.0%	7.6%	3.6%	4.4%	4.9%	21.3%	0.9%
Putumayo	Colon	18.4%	5.1%	68.0%	0.0%	0.6%	2.9%	2.4%	2.6%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Putumayo	Mocoa	0.8%	0.0%	95.7%	0.0%	0.0%	0.0%	1.2%	0.5%	0.1%	1.4%	0.0%	0.2%
Putumayo	Orito	1.5%	0.2%	95.7%	0.0%	0.1%	0.0%	1.7%	0.1%	0.0%	0.0%	0.7%	0.0%
Putumayo	Puerto Asis	0.6%	0.3%	97.1%	0.6%	0.1%	0.0%	0.9%	0.0%	0.0%	0.0%	0.3%	0.0%
Putumayo	Puerto Caicedo	2.8%	0.5%	95.4%	0.1%	0.5%	0.1%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%
Putumayo	Puerto Guzman	1.2%	0.3%	98.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.2%
Putumayo	Puerto Leguizamo	1.9%	0.1%	96.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
Putumayo	San Francisco	3.3%	1.0%	92.5%	0.0%	0.1%	0.0%	2.5%	0.4%	0.0%	0.1%	0.0%	0.0%
Putumayo	Santiago	2.1%	7.8%	89.4%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Putumayo	Sibundoy	37.1%	0.0%	62.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Putumayo	Valle Del Guamuez (la Hor	6.4%	0.6%	90.5%	0.0%	0.3%	0.0%	1.8%	0.1%	0.1%	0.0%	0.2%	0.0%
Putumayo	Villagarzon	1.2%	0.0%	94.8%	0.0%	0.5%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Quindio	Armenia	23.7%	4.2%	31.9%	0.0%	6.8%	0.2%	5.7%	0.2%	0.9%	5.5%	20.9%	0.0%
Quindio	Buenavista	31.3%	4.8%	41.5%	0.0%	17.0%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Quindio	Calarca	11.2%	10.8%	64.7%	0.0%	1.4%	0.6%	6.7%	0.5%	0.0%	1.1%	2.9%	0.1%
Quindio	Circasia	17.9%	2.0%	62.3%	0.0%	1.6%	0.0%	5.6%	7.9%	0.0%	1.2%	0.0%	1.6%
Quindio	Cordoba	8.9%	2.4%	84.3%	0.0%	0.0%	1.2%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Quindio	Filandia	4.9%	1.7%	83.9%	0.0%	0.5%	0.0%	5.6%	0.7%	1.2%	0.9%	0.0%	0.5%
Quindio	Genova	7.6%	6.4%	84.5%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	1.0%	0.0%	0.0%
Quindio	La Tebaida	37.3%	12.2%	32.1%	0.0%	7.0%	0.6%	2.9%	4.4%	1.2%	1.2%	0.0%	1.2%
Quindio	Montenegro	46.2%	6.7%	39.1%	0.0%	5.4%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Quindio	Pijao	16.1%	7.8%	70.3%	0.0%	2.5%	0.0%	2.6%	0.0%	0.0%	0.4%	0.0%	0.3%
Quindio	Quimbaya	33.9%	23.0%	37.2%	0.0%	0.6%	1.2%	2.7%	0.0%	0.3%	0.9%	0.0%	0.3%
Quindio	Salento	5.9%	16.5%	72.1%	0.0%	0.8%	0.8%	2.1%	0.3%	1.0%	0.1%	0.3%	0.2%
Risaralda	Apia	0.0%	1.2%	96.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.8%	0.0%	0.0%
Risaralda	Balboa	11.9%	1.3%	84.6%	0.0%	1.2%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Risaralda	Belen De Umbria	1.1%	0.0%	93.7%	0.0%	0.1%	0.0%	2.7%	0.0%	0.0%	2.3%	0.0%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Risaralda	Dos Quebradas	2.8%	0.0%	45.1%	0.0%	0.0%	0.0%	5.9%	2.8%	0.0%	4.2%	39.2%	0.0%
Risaralda	Guatica	1.0%	0.0%	80.8%	0.0%	1.9%	0.0%	14.1%	0.0%	0.0%	2.2%	0.0%	0.0%
Risaralda	La Celia	0.0%	0.0%	98.6%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Risaralda	La Virginia	41.5%	6.5%	15.4%	0.0%	4.9%	0.0%	0.0%	15.4%	13.0%	0.0%	0.0%	3.3%
Risaralda	Marsella	11.1%	2.4%	83.2%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	1.7%	0.0%	0.0%
Risaralda	Mistrato	0.0%	0.0%	96.7%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Risaralda	Pereira	16.9%	12.0%	57.0%	0.2%	2.8%	0.2%	4.9%	0.0%	0.2%	0.5%	5.4%	0.0%
Risaralda	Pueblo Rico	0.0%	0.1%	97.9%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.4%	0.0%	0.0%
Risaralda	Quinchia	9.0%	1.0%	72.2%	0.0%	1.3%	0.0%	11.3%	1.3%	0.0%	3.8%	0.0%	0.0%
Risaralda	Santa Rosa De Cabal	1.2%	9.4%	82.0%	0.1%	0.6%	1.2%	2.2%	0.0%	0.0%	1.0%	2.4%	0.0%
Risaralda	Santuario	1.6%	0.2%	95.7%	0.0%	0.4%	0.0%	1.2%	0.0%	0.0%	0.9%	0.0%	0.0%
San Andres Y Providencia	San Andres Y Providencia	1.9%	0.0%	27.5%	38.8%	2.5%	0.0%	1.9%	0.0%	0.0%	15.0%	10.0%	2.5%
San Andres Y Providencia	Santa Catalina	0.0%	0.0%	66.7%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
San Andres Y Providencia	Santa Catarina	3.9%	0.0%	53.9%	28.4%	0.0%	0.0%	13.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Aguada	13.0%	0.0%	80.5%	0.0%	2.2%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Albania	12.4%	0.3%	85.6%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Aratocha	4.2%	48.1%	28.3%	0.0%	0.5%	15.7%	0.6%	0.0%	2.6%	0.0%	0.0%	0.0%
Santander	Barbosa	29.5%	0.0%	59.8%	0.0%	1.5%	0.0%	7.6%	0.0%	0.0%	1.5%	0.0%	0.0%
Santander	Barichara	3.5%	59.9%	19.5%	0.0%	0.0%	14.4%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Barrancabermeja	19.2%	3.0%	63.9%	4.8%	2.0%	0.5%	2.3%	0.2%	0.0%	0.4%	2.5%	1.1%
Santander	Betulia	5.2%	9.1%	83.2%	0.0%	0.5%	1.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Bolivar	7.5%	3.1%	85.6%	0.0%	0.4%	0.2%	3.0%	0.1%	0.0%	0.1%	0.0%	0.0%
Santander	Bucaramanga	0.6%	0.6%	22.6%	0.0%	4.7%	0.7%	8.3%	5.2%	1.5%	3.4%	52.5%	0.0%
Santander	Cabrera	49.8%	8.6%	33.1%	0.0%	2.1%	1.7%	3.8%	1.0%	0.0%	0.0%	0.0%	0.0%
Santander	California	2.5%	6.8%	85.0%	0.0%	0.8%	0.8%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Capitanejo	0.8%	63.7%	3.3%	0.0%	0.0%	30.9%	0.4%	0.0%	1.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Santander	Carcasi	2.1%	55.9%	37.8%	0.0%	0.0%	2.9%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Cepita	0.0%	35.6%	14.4%	0.0%	0.0%	30.9%	0.0%	0.0%	19.1%	0.0%	0.0%	0.0%
Santander	Cerrito	0.0%	88.7%	1.5%	0.0%	0.0%	9.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Charala	8.9%	0.3%	86.1%	0.0%	0.6%	0.0%	3.6%	0.2%	0.0%	0.2%	0.0%	0.2%
Santander	Charta	1.4%	11.9%	78.7%	0.0%	0.0%	0.0%	7.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Chima	0.0%	0.0%	98.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Chipata	39.0%	0.0%	44.6%	0.0%	11.3%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Cimitarra	15.7%	6.2%	73.2%	2.3%	0.8%	0.2%	1.0%	0.0%	0.2%	0.2%	0.0%	0.1%
Santander	Concepcion	0.8%	73.7%	19.4%	0.0%	0.0%	4.9%	0.6%	0.3%	0.2%	0.0%	0.0%	0.0%
Santander	Confines	1.8%	0.9%	94.2%	0.0%	0.0%	0.0%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Contratacion	0.8%	1.0%	93.4%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Coromoro	3.6%	8.2%	81.9%	0.0%	0.0%	2.1%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Curiti	2.8%	34.0%	43.0%	0.0%	0.1%	15.5%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	El Carmen	7.8%	0.7%	90.3%	0.0%	0.2%	0.0%	0.6%	0.0%	0.0%	0.4%	0.0%	0.0%
Santander	El Guacamayo	0.2%	0.0%	97.7%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	El Peñon	1.2%	0.1%	96.9%	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	El Playon	0.9%	1.0%	94.2%	0.0%	0.5%	0.0%	2.8%	0.3%	0.0%	0.3%	0.0%	0.0%
Santander	Encino	4.4%	21.9%	70.6%	0.0%	0.2%	1.7%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Enciso	2.4%	53.4%	18.8%	0.0%	0.0%	11.4%	1.9%	0.0%	11.1%	1.0%	0.0%	0.0%
Santander	Florian	2.5%	0.0%	95.6%	0.0%	0.0%	0.0%	0.6%	0.6%	0.0%	0.6%	0.0%	0.0%
Santander	Floridablanca	0.0%	0.8%	30.2%	0.0%	0.0%	7.0%	14.8%	4.0%	6.3%	8.3%	28.6%	0.0%
Santander	Galan	3.9%	9.7%	84.1%	0.0%	0.7%	0.5%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Gambita	7.7%	1.6%	87.3%	0.0%	0.7%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Giron	3.9%	12.6%	53.5%	0.0%	5.2%	11.1%	6.7%	3.7%	0.8%	0.7%	1.9%	0.0%
Santander	Guaca	3.1%	38.7%	48.1%	0.0%	0.0%	5.3%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Guadalupe	6.8%	0.0%	89.5%	0.0%	0.6%	0.0%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Santander	Guapota	21.0%	0.0%	72.8%	0.0%	0.0%	0.0%	6.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Guavata	0.0%	0.0%	95.9%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Guepsa	37.3%	0.0%	31.7%	0.0%	19.7%	0.0%	11.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Hato	0.3%	1.2%	95.3%	0.0%	0.3%	0.6%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Jesus Maria	4.2%	0.0%	90.1%	0.0%	1.5%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Jordan	2.5%	76.1%	20.2%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	La Belleza	2.5%	0.6%	95.3%	0.0%	0.3%	0.0%	0.8%	0.3%	0.3%	0.0%	0.0%	0.0%
Santander	La Paz	4.3%	0.3%	93.4%	0.0%	0.8%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Landazuri	3.4%	1.8%	92.9%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.3%	0.0%	0.0%
Santander	Lebrija	11.4%	3.2%	74.1%	0.0%	3.3%	3.4%	2.9%	0.9%	0.5%	0.4%	0.0%	0.0%
Santander	Los Santos	0.3%	63.5%	1.4%	0.0%	0.3%	33.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Macaravita	4.0%	56.9%	31.7%	0.0%	1.8%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Malaga	4.0%	34.2%	59.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%
Santander	Matanza	3.7%	4.5%	89.1%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Mogotes	4.0%	7.5%	85.3%	0.0%	0.6%	0.3%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Molagavita	0.4%	48.7%	26.6%	0.0%	0.0%	14.4%	0.0%	0.0%	9.9%	0.0%	0.0%	0.0%
Santander	Ocamonte	8.9%	0.0%	89.2%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Oiba	5.1%	0.4%	91.9%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	1.2%	0.0%	0.0%
Santander	Onzaga	2.4%	12.8%	84.1%	0.0%	0.0%	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Palmar	5.4%	0.0%	94.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Palmas Del Socorro	12.4%	0.0%	80.1%	0.0%	1.1%	0.0%	6.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Paramo	4.7%	0.0%	85.8%	0.0%	5.1%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Piedecuesta	0.9%	10.1%	45.7%	0.0%	3.1%	13.3%	13.6%	0.7%	6.8%	2.9%	2.9%	0.0%
Santander	Pinchote	0.0%	0.0%	76.5%	0.0%	7.2%	0.0%	16.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Puente Nacional	17.6%	1.2%	72.1%	0.0%	4.5%	0.0%	3.1%	0.4%	0.0%	1.2%	0.0%	0.0%
Santander	Puerto Parra	22.4%	6.3%	66.3%	3.1%	0.6%	0.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.4%

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Santander	Puerto Wilches	14.5%	6.5%	57.2%	7.3%	1.6%	0.5%	2.3%	0.1%	0.0%	0.1%	0.0%	9.9%
Santander	Rionegro	39.4%	1.2%	52.9%	0.0%	2.7%	0.3%	2.8%	0.3%	0.0%	0.3%	0.0%	0.2%
Santander	Sabana De Torres	44.2%	2.6%	49.0%	0.7%	1.3%	0.2%	0.9%	0.3%	0.2%	0.0%	0.0%	0.7%
Santander	San Andres	0.2%	28.1%	61.6%	0.0%	0.0%	4.9%	3.4%	0.0%	1.8%	0.0%	0.0%	0.0%
Santander	San Benito	24.2%	0.0%	69.8%	0.0%	2.2%	0.0%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	San Gil	19.2%	8.7%	49.6%	0.0%	1.3%	5.8%	7.7%	0.6%	3.9%	3.2%	0.0%	0.0%
Santander	San Joaquin	1.4%	4.1%	92.4%	0.0%	0.0%	0.7%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	San Jose Miranda	0.6%	51.7%	31.3%	0.0%	0.0%	16.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	San Miguel	2.1%	62.6%	33.1%	0.0%	0.0%	0.7%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	San Vicente De Chucuri	8.7%	0.7%	88.6%	0.0%	0.2%	0.0%	1.0%	0.0%	0.0%	0.8%	0.0%	0.0%
Santander	Santa Barbara	0.5%	7.3%	82.0%	0.0%	0.0%	5.1%	4.1%	0.0%	1.0%	0.0%	0.0%	0.0%
Santander	Santa Helena De Opon	0.0%	0.0%	98.4%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Simacota	17.6%	2.1%	74.7%	1.1%	2.2%	0.2%	2.0%	0.0%	0.0%	0.2%	0.0%	0.0%
Santander	Socorro	3.6%	0.0%	89.1%	0.0%	0.8%	0.0%	2.3%	0.8%	0.0%	2.5%	0.0%	0.8%
Santander	Suaita	3.3%	0.0%	92.8%	0.0%	0.6%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Sucre	1.7%	0.9%	93.7%	0.0%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Surata	3.6%	3.1%	90.9%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Tona	0.0%	37.4%	54.4%	0.0%	0.0%	5.5%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Valle De San Jose	6.4%	0.0%	83.9%	0.0%	3.3%	0.0%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Velez	5.9%	0.6%	88.1%	0.0%	0.6%	0.0%	3.5%	0.8%	0.0%	0.6%	0.0%	0.0%
Santander	Vetas	0.0%	17.0%	75.5%	0.0%	0.0%	3.0%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Villanueva	3.0%	58.1%	1.5%	0.0%	5.0%	31.4%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Santander	Zapatoca	3.6%	33.5%	52.4%	0.0%	0.3%	9.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Sucre	Buenavista	61.3%	29.1%	0.0%	0.0%	3.5%	4.3%	0.0%	0.9%	0.9%	0.0%	0.0%	0.0%
Sucre	Caimito	29.9%	38.2%	9.7%	15.1%	0.9%	2.4%	0.4%	0.4%	0.2%	0.0%	0.0%	2.6%
Sucre	Chalan	8.6%	23.7%	63.5%	0.0%	2.1%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Sucre	Coloso (ricaurte)	36.7%	11.3%	43.6%	0.0%	6.2%	1.5%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Sucre	Corozal	60.8%	27.2%	0.2%	0.0%	5.5%	2.9%	0.0%	2.6%	0.5%	0.0%	0.0%	0.2%
Sucre	Galeras	60.0%	34.3%	0.7%	0.1%	2.4%	0.4%	0.0%	0.7%	1.1%	0.0%	0.0%	0.4%
Sucre	Guaranda	20.4%	4.8%	72.7%	0.0%	0.7%	0.2%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Sucre	La Union	37.2%	59.4%	0.0%	0.0%	1.3%	0.8%	0.0%	0.8%	0.4%	0.0%	0.0%	0.0%
Sucre	Los Palmitos	21.0%	55.0%	15.0%	0.0%	2.8%	5.4%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%
Sucre	Majagual	8.9%	36.5%	50.0%	0.2%	0.3%	1.5%	1.6%	0.3%	0.2%	0.2%	0.0%	0.3%
Sucre	Morroa	7.2%	23.8%	41.5%	0.0%	2.6%	12.3%	1.2%	0.9%	9.2%	0.0%	0.0%	1.3%
Sucre	Ovejas	12.2%	21.8%	58.8%	0.0%	2.2%	2.9%	1.1%	0.4%	0.2%	0.4%	0.0%	0.0%
Sucre	Palmito	67.5%	23.3%	0.4%	0.0%	3.9%	3.5%	0.0%	0.8%	0.0%	0.0%	0.0%	0.5%
Sucre	Sampues	61.7%	22.5%	0.0%	0.0%	7.8%	4.6%	0.0%	2.5%	0.4%	0.0%	0.0%	0.4%
Sucre	San Benito Abad	14.8%	35.3%	16.8%	22.5%	0.9%	1.7%	0.2%	0.1%	0.1%	0.0%	0.0%	7.7%
Sucre	San Juan De Betulia	49.1%	42.1%	0.4%	0.0%	5.2%	0.9%	0.0%	1.5%	0.4%	0.0%	0.0%	0.3%
Sucre	San Marcos	28.4%	35.8%	18.5%	9.6%	1.7%	1.1%	0.1%	0.4%	0.1%	0.0%	0.0%	4.4%
Sucre	San Onofre	32.0%	15.9%	36.1%	1.5%	1.9%	1.2%	0.4%	0.5%	0.6%	0.0%	0.0%	9.9%
Sucre	San Onofre (is.)	0.0%	0.0%	0.0%	41.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	58.8%
Sucre	San Pedro	78.4%	14.1%	0.0%	0.0%	4.7%	0.5%	0.0%	1.8%	0.5%	0.0%	0.0%	0.0%
Sucre	Since	77.4%	18.8%	0.5%	0.0%	2.0%	0.1%	0.0%	0.9%	0.3%	0.0%	0.0%	0.1%
Sucre	Sincelejo	24.0%	41.8%	3.4%	0.0%	6.7%	7.5%	0.7%	3.4%	1.0%	0.0%	11.5%	0.0%
Sucre	Sucre	0.1%	32.6%	29.1%	23.2%	0.0%	0.5%	1.0%	0.0%	0.1%	0.4%	0.0%	13.1%
Sucre	Tolu	66.3%	7.0%	8.4%	0.6%	4.5%	1.9%	0.0%	1.9%	0.9%	0.0%	0.0%	8.4%
Sucre	Toluviejo	54.8%	12.7%	15.7%	0.0%	8.1%	5.0%	1.9%	1.5%	0.0%	0.4%	0.0%	0.0%
Tolima	Alpujarra	3.0%	71.6%	15.4%	0.0%	0.6%	8.7%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Alvarado	16.2%	13.5%	64.1%	0.0%	2.6%	0.6%	1.6%	1.4%	0.0%	0.0%	0.0%	0.0%
Tolima	Ambalema	46.5%	5.8%	24.3%	0.1%	19.9%	1.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Anzoategui	2.1%	27.4%	68.1%	0.0%	0.0%	0.5%	0.6%	0.0%	0.8%	0.0%	0.0%	0.4%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Tolima	Armero (guayabal)	23.3%	9.9%	53.8%	0.0%	10.1%	0.2%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Ataco	2.6%	29.0%	64.8%	0.0%	0.5%	1.4%	1.3%	0.3%	0.1%	0.1%	0.0%	0.0%
Tolima	Cajamarca	8.5%	12.4%	77.2%	0.0%	0.4%	0.0%	0.6%	0.2%	0.0%	0.7%	0.0%	0.0%
Tolima	Carmen De Apicala	10.2%	41.7%	46.4%	0.0%	0.7%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Casabianca	5.9%	13.8%	63.6%	0.0%	1.0%	5.4%	1.3%	0.0%	2.6%	0.0%	0.0%	6.5%
Tolima	Chaparral	2.7%	20.1%	76.0%	0.0%	0.1%	0.3%	0.3%	0.1%	0.3%	0.0%	0.0%	0.0%
Tolima	Coello	20.4%	18.5%	51.1%	0.0%	4.0%	1.1%	3.2%	1.2%	0.4%	0.0%	0.0%	0.0%
Tolima	Coyaima	15.7%	55.6%	23.2%	0.2%	1.9%	1.9%	1.1%	0.0%	0.3%	0.2%	0.0%	0.0%
Tolima	Cunday	8.0%	19.0%	71.1%	0.0%	0.0%	0.6%	0.9%	0.2%	0.2%	0.0%	0.0%	0.0%
Tolima	Dolores	7.5%	49.0%	39.4%	0.0%	0.6%	2.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Espinal	65.0%	5.5%	1.0%	0.0%	18.0%	1.3%	0.0%	4.8%	0.4%	0.0%	3.9%	0.0%
Tolima	Falan	0.6%	0.8%	93.9%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	2.6%	0.0%	0.0%
Tolima	Flandes	57.7%	6.7%	1.1%	0.0%	24.5%	3.2%	0.0%	6.5%	0.0%	0.0%	0.3%	0.0%
Tolima	Fresno	3.0%	1.3%	83.2%	0.0%	0.9%	0.0%	8.8%	0.0%	0.0%	2.7%	0.0%	0.0%
Tolima	Guamo	38.9%	43.5%	4.2%	0.0%	7.8%	4.1%	0.0%	1.0%	0.4%	0.2%	0.0%	0.0%
Tolima	Herveo	12.8%	21.3%	58.2%	0.0%	1.1%	2.1%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Honda	19.0%	5.0%	74.3%	0.0%	0.3%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Ibague	11.7%	6.0%	70.2%	0.0%	3.4%	0.6%	1.7%	2.1%	0.7%	0.6%	3.1%	0.0%
Tolima	Icononzo	18.1%	12.9%	63.1%	0.0%	0.8%	1.0%	3.3%	0.0%	0.0%	0.9%	0.0%	0.0%
Tolima	Lerida	12.5%	1.4%	73.0%	0.0%	10.8%	0.6%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Libano	4.5%	2.6%	90.6%	0.0%	0.0%	0.3%	0.3%	0.9%	0.0%	0.6%	0.0%	0.3%
Tolima	Mariquita	12.2%	2.7%	77.1%	0.0%	0.7%	0.3%	3.1%	2.7%	0.0%	0.7%	0.0%	0.3%
Tolima	Melgar	8.2%	25.0%	49.5%	0.0%	2.1%	2.4%	4.3%	3.0%	2.4%	3.1%	0.0%	0.0%
Tolima	Murillo	2.3%	60.1%	27.5%	0.2%	0.0%	3.3%	0.0%	0.0%	3.3%	0.0%	0.0%	3.3%
Tolima	Natagaima	13.9%	50.5%	24.2%	0.4%	2.3%	6.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Ortega	8.9%	33.1%	50.7%	0.0%	1.3%	3.4%	0.7%	0.7%	1.1%	0.1%	0.0%	0.0%

Commissiary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Tolima	Piedras	38.2%	25.7%	21.7%	0.0%	8.1%	3.1%	1.0%	2.2%	0.0%	0.0%	0.0%	0.0%
Tolima	Planadas	0.4%	12.2%	87.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.1%	0.0%	0.0%
Tolima	Prado	24.3%	28.1%	35.8%	6.8%	2.1%	1.7%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Purificacion	35.3%	23.9%	22.4%	4.0%	10.7%	2.5%	0.7%	0.5%	0.2%	0.0%	0.0%	0.0%
Tolima	Rioblanco	0.9%	25.4%	73.3%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%
Tolima	Roncesvalles	14.4%	24.1%	60.2%	0.0%	0.9%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Rovira	3.0%	17.5%	78.7%	0.0%	0.0%	0.6%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
Tolima	Saldaña	37.9%	44.4%	2.4%	0.0%	14.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	San Antonio	3.2%	12.2%	82.8%	0.0%	0.0%	0.0%	1.0%	0.2%	0.0%	0.5%	0.0%	0.0%
Tolima	San Luis	17.1%	31.7%	38.5%	0.0%	6.0%	2.9%	2.1%	1.3%	0.2%	0.2%	0.0%	0.0%
Tolima	Santa Isabel	7.2%	47.2%	38.8%	0.0%	0.0%	2.3%	1.1%	0.0%	3.0%	0.0%	0.0%	0.4%
Tolima	Suarez	41.5%	23.5%	10.9%	0.7%	17.0%	3.9%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Valle De San Juan	11.2%	25.7%	53.0%	0.0%	8.0%	1.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Tolima	Venadillo	25.5%	14.0%	45.5%	0.0%	11.5%	0.7%	1.2%	1.5%	0.0%	0.0%	0.0%	0.0%
Tolima	Villa Hermosa	13.7%	19.0%	55.2%	0.0%	0.4%	4.6%	0.7%	0.0%	0.7%	0.0%	0.0%	5.6%
Tolima	Villarrica	1.0%	6.6%	90.8%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Alcala	23.7%	15.7%	50.1%	0.0%	2.2%	0.0%	4.4%	2.5%	0.0%	1.4%	0.0%	0.0%
Valle Del Cauca	Andalucia	37.7%	20.5%	28.1%	0.0%	8.0%	2.3%	0.5%	0.8%	0.5%	0.0%	1.7%	0.0%
Valle Del Cauca	Ansermanuevo	18.5%	5.4%	73.9%	0.0%	0.5%	0.0%	1.3%	0.3%	0.1%	0.0%	0.0%	0.0%
Valle Del Cauca	Argelia	22.3%	12.6%	61.7%	0.0%	0.5%	0.5%	0.9%	1.5%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Bolivar	11.3%	13.9%	73.2%	0.0%	0.3%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Buenaventura	0.0%	0.2%	95.2%	1.7%	0.0%	0.0%	0.5%	0.0%	0.0%	0.1%	0.3%	1.9%
Valle Del Cauca	Buenaventura (is.)	0.0%	0.9%	52.3%	24.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.3%
Valle Del Cauca	Buga	18.0%	19.6%	53.9%	0.5%	4.0%	0.5%	0.4%	1.6%	0.1%	0.0%	1.4%	0.0%
Valle Del Cauca	Bugalagrande	35.6%	37.3%	13.8%	0.0%	7.8%	3.6%	0.3%	0.9%	0.5%	0.0%	0.0%	0.3%
Valle Del Cauca	Caicedonia	16.6%	16.4%	62.8%	0.0%	0.7%	0.0%	0.7%	0.0%	0.7%	1.5%	0.0%	0.4%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Valle Del Cauca	Cali	16.7%	7.3%	48.0%	0.0%	4.2%	1.4%	0.9%	0.8%	0.8%	0.4%	19.6%	0.0%
Valle Del Cauca	Calima (darien)	2.7%	2.9%	91.5%	1.3%	0.8%	0.5%	0.2%	0.1%	0.0%	0.1%	0.0%	0.0%
Valle Del Cauca	Candelaria	66.2%	0.0%	0.0%	0.0%	18.6%	0.0%	0.0%	6.1%	0.0%	0.0%	8.7%	0.4%
Valle Del Cauca	Cartago	59.4%	5.2%	22.1%	0.0%	6.6%	0.3%	0.8%	1.7%	0.8%	0.3%	2.9%	0.0%
Valle Del Cauca	Dagua	10.9%	13.2%	71.7%	0.0%	0.8%	1.4%	0.6%	0.1%	1.1%	0.1%	0.0%	0.0%
Valle Del Cauca	El Aguila	1.1%	0.4%	98.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%
Valle Del Cauca	El Cairo	1.2%	1.9%	96.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	El Cerrito	42.1%	20.3%	25.9%	0.0%	7.2%	1.7%	0.5%	1.1%	0.5%	0.4%	0.0%	0.4%
Valle Del Cauca	El Dovio	8.1%	7.9%	82.3%	0.0%	0.0%	0.8%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%
Valle Del Cauca	Florida	38.2%	11.1%	39.5%	0.0%	6.0%	0.0%	0.5%	3.0%	0.3%	0.0%	0.0%	1.4%
Valle Del Cauca	Ginebra	24.8%	9.3%	53.7%	0.0%	6.7%	2.1%	0.6%	2.2%	0.4%	0.0%	0.0%	0.0%
Valle Del Cauca	Guacari	43.6%	6.9%	20.2%	0.0%	19.0%	1.6%	0.7%	6.6%	1.1%	0.0%	0.0%	0.5%
Valle Del Cauca	Jamundi	16.2%	3.7%	72.2%	0.0%	2.8%	0.6%	0.8%	1.5%	0.3%	0.4%	1.3%	0.0%
Valle Del Cauca	La Cumbre	35.4%	36.5%	21.3%	0.0%	2.5%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	La Union	38.6%	42.2%	11.2%	0.0%	1.8%	1.0%	0.0%	4.2%	1.0%	0.0%	0.0%	0.0%
Valle Del Cauca	La Victoria	47.4%	35.9%	14.0%	0.0%	1.6%	0.3%	0.0%	0.2%	0.6%	0.0%	0.0%	0.0%
Valle Del Cauca	Name Unknown	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Obando	56.8%	20.9%	16.4%	0.0%	4.7%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Palmira	31.7%	11.6%	29.4%	0.0%	13.4%	0.6%	0.5%	4.2%	0.6%	0.0%	8.0%	0.0%
Valle Del Cauca	Pradera	38.7%	18.0%	33.3%	0.0%	5.6%	0.6%	0.2%	3.3%	0.0%	0.0%	0.0%	0.2%
Valle Del Cauca	Restrepo	25.7%	33.4%	32.8%	0.0%	0.0%	5.7%	0.2%	2.2%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Riofrio	16.2%	12.9%	68.6%	0.0%	1.5%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Roldanillo	28.7%	25.6%	40.5%	0.0%	2.5%	1.8%	0.0%	0.6%	0.3%	0.0%	0.0%	0.0%
Valle Del Cauca	San Pedro	44.9%	12.8%	24.1%	0.0%	12.8%	2.6%	0.9%	1.5%	0.3%	0.0%	0.0%	0.0%
Valle Del Cauca	Sevilla	11.9%	32.1%	53.8%	0.0%	0.6%	0.3%	0.5%	0.1%	0.2%	0.1%	0.0%	0.2%
Valle Del Cauca	Toro	40.1%	22.4%	35.9%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%

Commissary/department	Municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Valle Del Cauca	Trujillo	10.1%	15.0%	71.2%	0.0%	1.2%	0.8%	0.4%	1.2%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Tuluá	19.2%	17.9%	49.2%	0.0%	5.1%	2.0%	1.3%	2.0%	0.5%	0.0%	3.0%	0.0%
Valle Del Cauca	Ulloa	14.1%	28.2%	43.5%	0.0%	2.3%	3.1%	4.6%	4.2%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Versalles	9.8%	9.1%	80.3%	0.0%	0.4%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Vijes	25.5%	35.9%	31.8%	0.0%	0.6%	4.4%	1.7%	0.1%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Yotoco	31.6%	22.3%	37.7%	2.2%	3.7%	1.1%	0.4%	0.9%	0.0%	0.0%	0.0%	0.0%
Valle Del Cauca	Yumbo	6.6%	24.3%	52.9%	0.0%	1.3%	3.5%	1.7%	0.6%	1.7%	0.0%	7.4%	0.0%
Valle Del Cauca	Zarzal	59.5%	18.4%	10.1%	0.0%	5.5%	1.3%	0.3%	2.9%	1.2%	0.0%	0.0%	0.8%
Vaupés	Caruru	0.0%	0.8%	98.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%
Vaupés	Mitu	0.0%	0.0%	99.6%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Vaupés	Pacoa	0.0%	0.0%	99.5%	0.2%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.1%
Vaupés	Papunahua	0.0%	0.4%	99.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Vaupés	Taraira	0.0%	0.0%	99.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Vaupés	Yavarate	0.0%	0.0%	99.0%	0.7%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Vichada	Cumaribo	0.0%	62.4%	35.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%
Vichada	La Primavera	0.3%	97.5%	1.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
Vichada	Puerto Carreno	0.3%	92.0%	3.9%	1.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%
Vichada	San Jose De Ocune	0.0%	17.2%	81.2%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.9%
Vichada	Santa Rita	0.3%	30.7%	66.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%
Vichada	Santa Rosalia	0.1%	96.7%	2.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%

Annex 2

Ethiopia, rural classes (%) by zone

In the following tables, the percentage area of each rural class is reported for each zone in Ethiopia. The class codes shown in the tables refer to the following classes:

Rural activity classes	Cultivation	Livestock production	Forestry and agroforestry	Non-agricultural	Water bodies
Thinly populated rural areas	Class 1	Class 2	Class 3	Class 40	Class 5
Populated rural areas	Class 11	Class 12	Class 13		
Towns, suburbs and densely populated rural areas	Class 21	Class 22	Class 23		
Urban centres	Class 31				

State/city	Zone	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Afar	Zone 1	2.2%	22.3%	0.1%	1.0%	0.2%	0.2%	0.0%	0.1%	0.2%	0.0%	0.1%	73.7%
Afar	Zone 2	0.2%	13.4%	0.0%	0.5%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%	85.5%
Afar	Zone 4	1.2%	53.8%	0.0%	0.0%	0.2%	0.4%	0.0%	0.1%	0.2%	0.0%	0.0%	44.0%
Afar	Zone 5	1.1%	94.8%	0.0%	0.0%	0.1%	0.8%	0.0%	0.1%	0.9%	0.0%	0.0%	2.3%
Afar	Zone 3	9.6%	73.9%	0.0%	0.6%	0.4%	2.1%	0.0%	0.1%	0.3%	0.0%	0.0%	12.9%
Amhara	East Gojam	54.0%	28.8%	3.3%	0.0%	6.7%	1.9%	0.1%	3.0%	0.5%	0.1%	1.5%	0.0%
Amhara	North Wollo	31.2%	52.5%	0.6%	0.0%	6.5%	2.4%	0.1%	4.3%	1.0%	0.0%	1.4%	0.0%
Amhara	Oromia	40.3%	49.8%	1.4%	0.0%	2.9%	0.5%	0.0%	3.4%	0.6%	0.0%	1.1%	0.0%
Amhara	South Gonder	40.6%	43.0%	1.1%	0.2%	6.9%	1.6%	0.1%	4.2%	0.8%	0.1%	1.3%	0.1%
Amhara	Wag Himra	16.6%	80.3%	0.0%	0.6%	0.5%	1.2%	0.0%	0.2%	0.5%	0.0%	0.1%	0.0%
Amhara	West Gojam	70.6%	19.4%	4.5%	0.1%	2.0%	0.3%	0.0%	1.9%	0.1%	0.0%	0.8%	0.3%
Beneshangul Gumu	Asosa	14.8%	51.4%	33.0%	0.0%	0.1%	0.2%	0.1%	0.1%	0.2%	0.1%	0.1%	0.0%
Beneshangul Gumu	Metekel	10.1%	53.6%	31.5%	0.0%	3.3%	0.5%	0.9%	0.1%	0.1%	0.0%	0.0%	0.0%
Dire Dawa	Dire Dawa	19.0%	67.5%	0.1%	0.0%	1.7%	6.5%	0.0%	1.2%	0.8%	0.0%	2.9%	0.3%
Hareri	Hareri	50.4%	14.1%	0.3%	0.0%	12.7%	1.4%	0.3%	11.2%	0.0%	0.0%	9.5%	0.0%
Oromia	Jimma	52.2%	11.9%	26.3%	0.0%	4.0%	1.0%	0.4%	2.3%	0.4%	0.3%	1.2%	0.0%
Oromia	West Harerge	38.8%	58.8%	1.8%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.3%	0.0%
SNNPR	Gedio	50.0%	2.8%	36.9%	0.0%	0.4%	0.0%	0.2%	2.2%	0.0%	6.6%	0.9%	0.1%
SNNPR	Hadiya	32.8%	14.6%	1.5%	0.1%	19.4%	3.2%	0.4%	20.7%	1.2%	0.0%	5.3%	0.7%
SNNPR	Sidama	44.4%	19.5%	20.9%	1.5%	3.8%	0.5%	0.2%	5.0%	0.3%	0.2%	3.7%	0.1%
SNNPR	South Omo	9.1%	73.8%	11.5%	1.2%	1.1%	1.1%	0.3%	0.5%	0.4%	0.1%	0.1%	0.9%
SNNPR	Yem	36.2%	38.7%	3.0%	0.0%	5.1%	9.7%	0.2%	2.9%	4.3%	0.0%	0.0%	0.0%
Somali	Afder	0.2%	97.8%	0.1%	0.0%	0.0%	0.7%	0.0%	0.0%	0.2%	0.0%	0.0%	1.0%
Somali	Jarar	0.0%	98.1%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%
Somali	Shabelle	1.4%	95.2%	0.0%	0.0%	0.5%	1.2%	0.0%	0.2%	0.2%	0.0%	0.3%	0.9%
Somali	Fafan	7.1%	89.2%	0.0%	0.0%	0.4%	1.6%	0.0%	0.3%	0.7%	0.0%	0.6%	0.0%

State/city	Zone	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Somali	Siti	1.1%	47.9%	0.1%	0.0%	0.0%	0.8%	0.0%	0.0%	0.2%	0.0%	0.1%	49.9%
Somali	Doolo	0.0%	99.2%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
Tigray	Central	56.1%	23.7%	0.0%	0.0%	10.9%	2.6%	0.0%	5.1%	0.9%	0.0%	0.5%	0.0%
Tigray	Eastern	39.8%	32.8%	1.4%	0.0%	12.1%	2.4%	0.0%	6.8%	0.7%	0.0%	0.5%	3.5%
Amhara	North Shewa(R3)	70.7%	15.5%	1.2%	0.0%	7.2%	1.5%	0.1%	2.9%	0.3%	0.1%	0.5%	0.0%
Oromia	Borena	3.6%	89.4%	3.3%	1.3%	0.1%	0.5%	0.0%	0.1%	0.2%	0.0%	0.0%	1.5%
Oromia	East Harerge	25.5%	66.7%	1.9%	0.0%	2.3%	0.7%	0.0%	1.6%	0.3%	0.0%	0.9%	0.0%
Oromia	Guji	11.2%	57.1%	31.0%	0.0%	0.0%	0.2%	0.0%	0.1%	0.2%	0.0%	0.2%	0.0%
Oromia	North Shewa(R4)	76.8%	12.0%	1.3%	0.0%	5.0%	0.9%	0.0%	2.5%	0.2%	0.0%	1.2%	0.0%
Oromia	South West Shewa	85.8%	2.7%	0.4%	0.1%	6.6%	0.3%	0.0%	2.5%	0.2%	0.0%	1.4%	0.0%
Oromia	West Shewa	69.8%	13.3%	6.3%	0.1%	5.3%	1.2%	0.2%	2.4%	0.5%	0.2%	0.8%	0.0%
SNNPR	Alaba	59.9%	31.2%	0.0%	0.7%	2.8%	0.9%	0.0%	2.9%	0.5%	0.0%	0.9%	0.1%
SNNPR	Basketo	25.7%	44.5%	16.4%	0.0%	2.4%	2.4%	1.1%	4.9%	2.4%	0.2%	0.0%	0.0%
SNNPR	Dawro	22.1%	50.7%	21.4%	0.0%	1.2%	1.7%	0.3%	0.9%	1.1%	0.2%	0.4%	0.0%
SNNPR	Gamo Gofa	30.3%	42.5%	7.1%	5.5%	5.6%	2.4%	0.2%	3.5%	1.2%	0.1%	1.5%	0.0%
SNNPR	Gurage	74.5%	12.2%	1.9%	0.0%	4.6%	1.0%	0.1%	4.1%	0.7%	0.0%	0.9%	0.0%
SNNPR	Keffa	46.7%	15.1%	33.6%	0.0%	2.0%	0.3%	0.3%	1.5%	0.2%	0.2%	0.2%	0.0%
SNNPR	KT	47.2%	8.0%	1.7%	0.0%	17.4%	1.2%	0.4%	18.7%	1.6%	0.1%	3.8%	0.0%
SNNPR	Konta	14.6%	59.1%	24.9%	0.2%	0.4%	0.5%	0.0%	0.1%	0.1%	0.0%	0.2%	0.0%
SNNPR	Sheka	21.0%	6.8%	66.9%	0.0%	2.3%	0.2%	1.4%	0.7%	0.1%	0.2%	0.4%	0.0%
SNNPR	Selti	65.5%	16.5%	0.0%	0.7%	6.5%	1.5%	0.0%	6.1%	1.0%	0.0%	2.2%	0.0%
SNNPR	Wolayita	40.1%	36.4%	2.5%	0.2%	5.4%	3.2%	0.1%	5.3%	2.8%	0.0%	4.0%	0.0%
Somali	Nogob	0.0%	99.6%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.0%	0.1%	0.0%
Somali	Korahe	0.0%	99.0%	0.1%	0.0%	0.0%	0.5%	0.0%	0.0%	0.3%	0.0%	0.0%	0.1%
Somali	Liben	0.1%	98.7%	0.1%	0.0%	0.1%	0.5%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%
Tigray	North Western	50.6%	39.2%	2.4%	0.0%	3.6%	1.4%	0.0%	1.5%	0.9%	0.0%	0.3%	0.0%

State/city	Zone	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Tigray	Western	31.1%	58.9%	7.9%	0.0%	0.5%	0.6%	0.1%	0.2%	0.5%	0.0%	0.2%	0.0%
Addis Ababa	Region 14	13.5%	0.7%	0.6%	0.0%	8.4%	0.2%	0.8%	11.2%	0.5%	0.0%	64.2%	0.0%
Amhara	Awi/Agew	58.9%	26.2%	12.4%	0.0%	1.0%	0.1%	0.0%	0.8%	0.1%	0.0%	0.3%	0.0%
Amhara	No Name	1.7%	0.2%	0.1%	97.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.4%
Amhara	North Gonder	37.0%	52.7%	8.0%	0.1%	0.6%	0.5%	0.1%	0.4%	0.3%	0.0%	0.3%	0.0%
Amhara	South Wollo	55.5%	29.7%	1.0%	0.2%	6.6%	1.4%	0.0%	3.3%	0.7%	0.0%	1.5%	0.0%
Amhara	Special Woreda	49.6%	35.8%	1.4%	0.0%	4.2%	1.8%	0.3%	6.1%	0.8%	0.0%	0.0%	0.0%
Beneshangul Gumu	Kemashi	9.6%	41.8%	46.3%	0.0%	0.8%	0.3%	1.0%	0.0%	0.1%	0.1%	0.0%	0.0%
Gambela	Agnuak	3.5%	76.0%	20.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.2%
Gambela	Majang	7.2%	16.3%	75.0%	0.0%	0.7%	0.0%	0.1%	0.5%	0.0%	0.0%	0.2%	0.0%
Gambela	Nuer	2.7%	75.9%	0.3%	0.1%	0.2%	18.3%	0.1%	0.0%	0.1%	0.0%	0.1%	2.3%
Oromia	Arsi	60.3%	31.7%	3.8%	0.6%	1.4%	0.5%	0.1%	0.8%	0.2%	0.0%	0.7%	0.0%
Oromia	Bale	9.7%	77.5%	11.0%	0.0%	0.1%	1.2%	0.0%	0.1%	0.3%	0.0%	0.1%	0.0%
Oromia	East Shewa	58.6%	16.2%	0.1%	5.6%	8.4%	4.2%	0.0%	3.5%	0.6%	0.0%	1.7%	1.1%
Oromia	East Wellega	46.5%	20.3%	27.5%	0.0%	2.3%	0.4%	0.5%	1.7%	0.2%	0.2%	0.5%	0.0%
Oromia	Horo Guduru	46.6%	18.3%	27.1%	2.0%	2.4%	0.4%	0.5%	1.4%	0.2%	0.0%	0.0%	1.1%
Oromia	Ilubabor	37.2%	7.5%	51.4%	0.0%	1.4%	0.2%	0.5%	1.1%	0.2%	0.2%	0.2%	0.0%
Oromia	Kelem Wellega	40.2%	11.5%	45.1%	0.0%	1.0%	0.1%	0.2%	1.2%	0.1%	0.4%	0.2%	0.0%
Oromia	West Arsi	54.8%	10.8%	22.6%	5.7%	2.7%	0.8%	0.1%	1.2%	0.4%	0.1%	0.8%	0.2%
Oromia	West Wellega	55.8%	11.9%	18.1%	0.0%	8.1%	0.9%	0.6%	3.6%	0.6%	0.1%	0.2%	0.0%
SNNPR	Bench Maji	20.7%	50.0%	27.5%	0.0%	0.6%	0.1%	0.2%	0.6%	0.0%	0.1%	0.1%	0.0%
SNNPR	Segen Peoples'	17.9%	59.0%	7.0%	1.1%	1.9%	8.3%	0.2%	0.5%	3.2%	0.1%	0.9%	0.0%
Tigray	Southern	50.2%	39.2%	4.0%	0.2%	2.9%	0.6%	0.0%	1.5%	0.1%	0.0%	0.9%	0.4%

Annex 3.

France, rural classes (%) by Region

In the following tables, the percentage area of each rural class is reported for each region of France. The class codes shown in the tables refer to the following classes:

Rural activity classes	Cultivation	Livestock production	Forestry and agroforestry	Non-agricultural	Water bodies
Settlement Model classes					
Thinly populated rural areas	Class 1	Class 2	Class 3	Class 40	Class 5
Populated rural areas	Class 11	Class 12	Class 13		
Towns, suburbs and densely populated rural areas	Class 21	Class 22	Class 23		
Urban centres	Class 31				

Region	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Alsace	14.6%	1.3%	30.3%	0.4%	29.4%	1.8%	8.8%	5.8%	0.1%	0.9%	2.8%	3.7%
Aquitaine	36.4%	4.9%	28.5%	0.8%	18.8%	0.9%	5.2%	1.4%	0.1%	0.2%	0.7%	2.3%
Auvergne	26.4%	24.5%	22.6%	0.1%	13.5%	7.8%	2.6%	0.7%	0.2%	0.1%	0.4%	1.2%
Basse-Normandie	25.6%	23.7%	5.4%	0.3%	24.1%	16.3%	0.7%	1.1%	0.3%	0.0%	0.5%	2.0%
Bourgogne	34.8%	13.5%	24.3%	0.1%	18.1%	4.9%	1.8%	0.7%	0.1%	0.0%	0.3%	1.3%
Bretagne	45.1%	1.4%	4.9%	0.9%	40.1%	0.8%	0.9%	2.1%	0.0%	0.0%	0.6%	3.2%
Centre	49.4%	3.3%	16.8%	0.2%	24.0%	0.7%	2.3%	1.0%	0.0%	0.1%	0.6%	1.6%
Champagne-Ardenne	46.0%	6.1%	21.4%	0.4%	17.8%	3.4%	2.5%	0.5%	0.1%	0.1%	0.4%	1.3%
Corse	5.3%	39.5%	36.2%	2.2%	3.6%	5.9%	3.1%	0.3%	0.2%	0.0%	0.2%	3.4%
Franche-Comte	21.3%	8.8%	37.8%	0.2%	15.8%	6.5%	5.7%	0.9%	0.2%	0.3%	0.6%	2.0%
Haute-Normandie	31.2%	3.4%	10.4%	0.5%	38.8%	4.4%	4.3%	2.0%	0.1%	0.4%	1.5%	3.0%
Ile-de-France	24.3%	0.0%	9.9%	0.3%	29.7%	0.2%	7.7%	5.0%	0.0%	1.7%	16.9%	4.3%
Languedoc-Rousillon	20.6%	15.8%	33.7%	1.4%	15.6%	2.8%	3.8%	2.4%	0.1%	0.2%	0.8%	2.9%
Limousin	30.7%	19.3%	28.2%	0.1%	11.4%	5.1%	3.5%	0.4%	0.1%	0.1%	0.3%	0.9%
Lorraine	29.5%	5.8%	29.6%	0.3%	19.3%	5.0%	4.7%	1.6%	0.2%	0.5%	1.0%	2.5%
Midi-Pyrenees	43.8%	9.5%	21.9%	0.1%	16.7%	1.8%	2.3%	1.1%	0.1%	0.1%	0.6%	2.2%
Nord-Pas-de-Calais	32.7%	2.3%	3.9%	0.2%	36.5%	4.2%	1.5%	7.3%	0.3%	0.3%	4.8%	6.1%
Pays-de-la-Loire	40.4%	4.6%	5.1%	0.4%	39.4%	2.8%	1.0%	1.7%	0.1%	0.0%	0.9%	3.4%
Picardie	43.7%	1.8%	8.3%	0.2%	33.5%	2.1%	4.7%	1.7%	0.0%	0.3%	0.6%	3.1%
Poitou-Charentes	54.6%	3.8%	8.1%	0.1%	27.0%	1.1%	1.4%	1.0%	0.0%	0.0%	0.4%	2.5%
Provence-Alpes-Cote-d'Azur	13.1%	17.9%	33.7%	1.9%	12.4%	3.3%	4.3%	2.4%	0.4%	0.5%	2.0%	8.1%
Rhone-Alpes	13.9%	12.8%	29.6%	1.1%	20.0%	5.8%	5.7%	2.8%	0.3%	0.3%	1.4%	6.3%

Annex 4.

Malaysia, rural classes (%) by District

In the following tables, the percentage area of each rural class is reported for each district in Malaysia. The class codes shown in the tables refer to the following classes:

Rural activity classes	Cultivation	Livestock production	Forestry and agroforestry	Non-agricultural	Water bodies
Thinly populated rural areas	Class 1	Class 2	Class 3	Class 40	Class 5
Populated rural areas	Class 11	Class 12	Class 13		
Towns, suburbs and densely populated rural areas	Class 21	Class 22	Class 23		
Urban centres	Class 31				

State	District	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Johor	Batu Pahit	40.8%	0.1%	11.7%	1.0%	31.7%	0.0%	4.2%	7.8%	0.0%	0.4%	2.0%	0.4%
Johor	Johor Bahru	15.6%	0.1%	24.3%	2.5%	12.7%	0.1%	5.7%	8.2%	0.0%	0.8%	26.3%	3.6%
Johor	Kluang	32.7%	0.2%	51.5%	0.1%	8.2%	0.1%	2.8%	2.6%	0.0%	0.2%	1.6%	0.1%
Johor	Kota Tinggi	29.0%	0.3%	50.7%	4.2%	8.3%	0.0%	4.4%	1.5%	0.0%	0.1%	0.0%	1.5%
Johor	Mersing	10.4%	0.2%	79.2%	2.7%	3.8%	0.1%	2.2%	0.9%	0.0%	0.0%	0.0%	0.6%
Johor	Muar	32.9%	0.0%	28.4%	0.2%	25.3%	0.2%	3.5%	7.2%	0.0%	0.3%	1.4%	0.5%
Johor	Pontian	36.0%	0.0%	13.3%	2.4%	26.2%	0.0%	5.1%	7.0%	0.0%	0.3%	0.0%	9.8%
Johor	Segamat	33.0%	0.0%	49.9%	0.1%	11.7%	0.0%	2.4%	2.7%	0.0%	0.0%	0.0%	0.2%
Kedah	Baling	20.1%	1.8%	61.4%	0.0%	10.8%	0.3%	2.3%	3.0%	0.0%	0.1%	0.0%	0.3%
Kedah	Bandar Baharu	21.5%	1.5%	35.0%	0.0%	22.6%	0.4%	8.9%	8.6%	0.4%	0.4%	0.7%	0.0%
Kedah	Kota Setar	23.2%	0.2%	2.0%	0.3%	35.1%	0.0%	0.2%	27.5%	0.2%	0.0%	11.2%	0.3%
Kedah	Kuala Muda	17.0%	1.6%	20.7%	1.3%	17.7%	0.5%	3.1%	19.6%	0.1%	0.4%	12.6%	5.4%
Kedah	Kubang Pasu	24.8%	0.2%	18.2%	0.2%	37.9%	0.1%	0.8%	16.9%	0.0%	0.2%	0.0%	0.8%
Kedah	Kulim	20.4%	1.3%	41.4%	0.0%	11.9%	1.1%	3.8%	8.9%	0.2%	2.3%	8.0%	0.5%
Kedah	Name Unknown	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Kedah	Padang Terap	33.5%	1.3%	47.7%	4.6%	9.7%	0.1%	1.8%	1.1%	0.0%	0.1%	0.0%	0.0%
Kedah	Pendang	41.0%	3.1%	14.3%	0.0%	26.4%	1.1%	2.1%	12.0%	0.0%	0.0%	0.0%	0.0%
Kedah	Sik	14.8%	1.0%	75.3%	0.7%	4.7%	0.5%	1.2%	1.8%	0.0%	0.0%	0.0%	0.1%
Kedah	Yan	4.2%	0.0%	16.3%	2.3%	46.1%	0.0%	4.0%	26.6%	0.0%	0.0%	0.0%	0.4%
Kelantan	Bachok	8.9%	0.5%	0.5%	2.9%	29.4%	0.3%	0.0%	50.9%	0.0%	0.0%	6.1%	0.5%
Kelantan	Gua Musang	11.3%	0.2%	86.0%	0.0%	1.0%	0.0%	1.1%	0.3%	0.0%	0.2%	0.0%	0.0%
Kelantan	Jeli	20.9%	0.2%	70.2%	0.2%	6.4%	0.0%	1.5%	0.6%	0.0%	0.1%	0.0%	0.0%
Kelantan	Kota Bharu	1.7%	0.0%	0.0%	3.5%	19.6%	0.0%	0.3%	44.8%	0.0%	0.0%	28.2%	1.9%
Kelantan	Kuala Krai	25.6%	0.3%	65.6%	0.1%	5.6%	0.2%	0.5%	2.2%	0.0%	0.0%	0.0%	0.0%
Kelantan	Machang	19.1%	0.0%	41.2%	0.6%	25.7%	0.4%	1.1%	11.7%	0.0%	0.0%	0.0%	0.2%
Kelantan	Pasir Mas	33.1%	0.7%	4.0%	1.3%	33.7%	0.2%	0.4%	25.8%	0.0%	0.0%	0.6%	0.3%

State	District	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Kelantan	Pasir Puteh	21.1%	0.2%	14.3%	0.8%	32.9%	0.0%	1.3%	29.0%	0.0%	0.0%	0.0%	0.4%
Kelantan	Tanah Merah	34.6%	0.3%	38.6%	0.0%	16.2%	0.2%	2.0%	7.6%	0.2%	0.0%	0.0%	0.2%
Kelantan	Tumpat	0.6%	0.0%	0.0%	1.9%	24.8%	0.0%	0.0%	54.2%	0.0%	0.0%	10.3%	8.3%
Kuala Lumpur	Kuala Lumpur	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.8%	0.2%
Labuan	Labuan	0.0%	0.0%	7.1%	8.8%	1.9%	0.0%	12.4%	29.9%	3.0%	18.4%	0.0%	18.4%
Melaka	Alur Gajah	24.5%	0.3%	12.5%	1.2%	35.6%	0.3%	3.7%	19.1%	0.0%	0.4%	0.7%	1.7%
Melaka	Jasin	25.9%	0.0%	22.7%	0.3%	31.5%	0.0%	7.3%	11.0%	0.0%	0.3%	0.2%	0.7%
Melaka	Melaka Tengah	2.6%	0.0%	1.7%	1.0%	9.4%	0.0%	4.4%	23.3%	0.0%	0.3%	56.1%	1.0%
Negeri Sembilan	Jelebu	10.7%	0.3%	74.4%	0.0%	7.1%	0.1%	6.7%	0.7%	0.0%	0.1%	0.0%	0.0%
Negeri Sembilan	Jempol	54.5%	0.2%	26.2%	0.0%	13.8%	0.1%	2.0%	2.8%	0.0%	0.2%	0.0%	0.2%
Negeri Sembilan	Kuala Pilah	21.4%	0.1%	54.2%	0.1%	14.1%	0.0%	7.0%	3.0%	0.0%	0.1%	0.0%	0.0%
Negeri Sembilan	Port Dickson	20.8%	0.7%	29.7%	0.9%	25.4%	0.5%	6.9%	9.7%	0.0%	0.7%	0.0%	4.8%
Negeri Sembilan	Rembau	14.9%	0.2%	42.2%	0.0%	27.2%	0.2%	7.3%	5.7%	0.0%	1.0%	0.0%	1.1%
Negeri Sembilan	Seremban	3.5%	0.1%	37.2%	0.3%	13.3%	0.2%	8.8%	15.6%	0.1%	2.1%	18.4%	0.4%
Negeri Sembilan	Tampin	46.2%	0.1%	26.9%	0.0%	18.8%	0.0%	3.1%	3.9%	0.0%	0.5%	0.0%	0.6%
Pahang	Bentung	13.3%	1.0%	67.3%	0.0%	7.3%	0.2%	8.3%	2.1%	0.0%	0.4%	0.0%	0.2%
Pahang	Cameron Highlands	5.0%	0.0%	82.1%	0.0%	4.2%	0.0%	5.2%	3.2%	0.0%	0.4%	0.0%	0.0%
Pahang	Jerantut	4.9%	0.1%	92.2%	0.0%	1.4%	0.0%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%
Pahang	Kuantan	20.1%	0.1%	59.1%	1.6%	7.9%	0.0%	3.7%	3.4%	0.0%	0.2%	3.0%	0.9%
Pahang	Lipis	6.1%	0.4%	90.2%	0.0%	1.0%	0.1%	1.6%	0.5%	0.0%	0.0%	0.0%	0.0%
Pahang	Maran	17.0%	0.2%	62.3%	0.6%	10.9%	0.1%	7.8%	1.0%	0.0%	0.0%	0.0%	0.0%
Pahang	Pekan	13.2%	0.3%	72.0%	2.7%	6.4%	0.0%	4.1%	0.6%	0.0%	0.1%	0.0%	0.5%
Pahang	Raub	11.2%	1.5%	80.0%	0.0%	2.7%	0.1%	2.8%	1.3%	0.0%	0.2%	0.0%	0.0%
Pahang	Rompin	15.5%	0.2%	71.8%	1.5%	5.6%	0.1%	4.5%	0.4%	0.0%	0.1%	0.0%	0.3%
Pahang	Temerloh	17.3%	0.3%	67.9%	0.2%	6.9%	0.1%	4.7%	2.3%	0.0%	0.2%	0.0%	0.1%
Perak	Batang Padang	17.9%	0.3%	65.0%	0.1%	8.9%	0.1%	3.7%	3.7%	0.0%	0.2%	0.0%	0.2%

State	District	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Perak	Hilir Perak	35.9%	0.0%	37.4%	3.5%	14.6%	0.0%	4.4%	2.5%	0.0%	0.2%	1.2%	0.3%
Perak	Hulu Perak	5.8%	0.3%	87.8%	3.0%	1.7%	0.1%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%
Perak	Kerian	15.6%	0.1%	18.4%	3.0%	24.2%	0.2%	4.2%	18.6%	0.0%	0.2%	1.0%	14.4%
Perak	Kinta	12.6%	0.0%	48.9%	1.1%	13.6%	0.0%	2.3%	9.6%	0.0%	0.5%	11.1%	0.4%
Perak	Kuala Kangsar	15.4%	0.1%	72.4%	0.3%	6.7%	0.0%	1.8%	2.6%	0.0%	0.2%	0.0%	0.5%
Perak	Larut	11.3%	0.9%	76.4%	0.0%	5.9%	0.5%	3.8%	0.6%	0.0%	0.4%	0.0%	0.1%
Perak	Manjung	31.1%	0.1%	28.1%	4.0%	18.1%	0.0%	3.5%	8.3%	0.0%	0.3%	2.9%	3.5%
Perak	Matang	10.4%	0.2%	41.0%	0.3%	11.2%	0.1%	5.0%	3.1%	0.0%	0.6%	5.1%	22.9%
Perak	Perak Tengah	57.4%	0.1%	19.2%	1.8%	15.6%	0.0%	1.1%	4.7%	0.0%	0.0%	0.0%	0.2%
Perlis	Langkawi	4.2%	0.1%	48.2%	6.9%	8.4%	0.2%	8.6%	9.7%	0.0%	2.4%	0.0%	11.5%
Perlis	Perlis	22.5%	0.2%	12.1%	1.6%	31.8%	0.2%	0.8%	28.7%	0.0%	0.5%	0.0%	1.5%
Pulau Pinang	Barat Daya	3.9%	0.0%	31.5%	5.5%	7.8%	0.0%	11.1%	13.6%	0.0%	2.6%	20.7%	3.2%
Pulau Pinang	Seberang Perai Selatan	6.8%	0.0%	5.6%	2.5%	26.2%	0.4%	3.4%	29.4%	0.4%	1.3%	23.0%	0.9%
Pulau Pinang	Seberang Perai Tengah	2.1%	0.4%	3.5%	0.1%	9.5%	1.1%	1.3%	21.1%	0.0%	1.5%	57.9%	1.5%
Pulau Pinang	Seberang Perai Utara	3.2%	0.0%	0.4%	0.4%	15.3%	0.0%	0.8%	26.8%	0.2%	0.6%	51.0%	1.4%
Pulau Pinang	Timur Laut	1.0%	0.0%	26.5%	4.0%	3.2%	0.0%	2.6%	2.8%	0.0%	2.8%	56.7%	0.4%
Sabah	Beaufort	8.7%	2.0%	51.1%	0.5%	11.6%	0.9%	16.8%	0.7%	0.0%	0.0%	0.0%	7.6%
Sabah	Keningau	7.6%	0.5%	68.8%	0.0%	7.0%	0.6%	11.9%	3.1%	0.0%	0.5%	0.0%	0.0%
Sabah	Kinabatangan	5.6%	0.1%	85.6%	0.3%	0.8%	0.0%	2.8%	0.0%	0.0%	0.1%	0.0%	4.6%
Sabah	Kota Belud	8.2%	0.4%	57.2%	1.3%	11.5%	0.5%	13.2%	6.3%	0.1%	0.2%	0.0%	1.2%
Sabah	Kota Kinabalu	0.0%	0.0%	33.9%	3.1%	0.3%	0.0%	14.6%	3.1%	0.5%	5.6%	39.0%	0.0%
Sabah	Kota Marud	6.5%	0.3%	74.5%	0.0%	5.7%	0.4%	6.2%	1.8%	0.2%	0.3%	0.0%	4.0%
Sabah	Kuala Penyu	3.8%	2.7%	27.0%	3.8%	6.3%	2.7%	25.7%	0.0%	0.0%	0.0%	0.0%	28.0%
Sabah	Kudat	7.7%	3.3%	63.0%	3.9%	3.1%	0.9%	8.4%	0.9%	0.4%	0.1%	0.0%	8.2%
Sabah	Labuk & Sugut	13.5%	0.7%	69.1%	0.6%	1.3%	0.1%	2.6%	0.1%	0.0%	0.2%	0.0%	11.9%
Sabah	Lahad Datu	4.3%	0.2%	88.6%	0.4%	0.9%	0.0%	2.9%	0.2%	0.0%	0.2%	0.4%	2.0%

State	District	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Sabah	Papar	3.8%	0.4%	60.7%	0.3%	8.1%	0.6%	16.4%	7.2%	0.1%	0.9%	0.0%	1.5%
Sabah	Penampang	0.0%	0.0%	65.3%	0.4%	0.2%	0.0%	15.8%	3.2%	0.0%	3.0%	12.0%	0.2%
Sabah	Pensiangan	0.6%	0.0%	96.7%	0.0%	0.5%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Sabah	Pitas	8.5%	2.0%	70.8%	0.8%	0.9%	0.3%	2.2%	0.5%	0.0%	0.3%	0.0%	13.7%
Sabah	Ranau	5.3%	0.2%	81.9%	0.0%	3.1%	0.0%	7.0%	1.8%	0.1%	0.5%	0.0%	0.0%
Sabah	Sandakan	6.1%	0.4%	49.2%	2.0%	2.9%	0.1%	6.9%	0.7%	0.0%	0.3%	3.9%	27.5%
Sabah	Semporna	9.8%	0.8%	64.1%	6.8%	2.9%	0.0%	4.6%	0.6%	0.0%	0.1%	0.7%	9.6%
Sabah	Sipitang	0.7%	0.1%	91.5%	0.4%	1.4%	0.1%	4.8%	0.3%	0.0%	0.4%	0.0%	0.4%
Sabah	Tambunan	0.5%	0.1%	81.6%	0.0%	1.5%	0.1%	13.9%	2.3%	0.0%	0.0%	0.0%	0.0%
Sabah	Tawau	16.3%	0.5%	67.8%	1.1%	2.7%	0.0%	2.0%	0.7%	0.0%	0.1%	0.9%	7.8%
Sabah	Tenom	1.2%	0.0%	85.6%	0.0%	4.3%	0.2%	7.5%	1.0%	0.0%	0.3%	0.0%	0.0%
Sabah	Tuaran	0.5%	0.1%	60.6%	2.7%	3.8%	0.2%	19.1%	6.7%	0.4%	1.4%	1.5%	3.1%
Sarawak	Bau	6.9%	0.0%	68.6%	0.0%	11.7%	0.0%	9.1%	2.4%	0.0%	1.1%	0.0%	0.1%
Sarawak	Belaga	1.0%	0.1%	98.1%	0.1%	0.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Sarawak	Betong	10.5%	0.6%	71.4%	4.5%	4.5%	0.1%	7.6%	0.5%	0.0%	0.1%	0.0%	0.2%
Sarawak	Bintulu	11.9%	0.3%	84.0%	0.7%	0.9%	0.0%	1.3%	0.2%	0.0%	0.1%	0.5%	0.2%
Sarawak	Dalat	15.5%	0.2%	78.6%	1.3%	2.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.1%
Sarawak	Daro	22.2%	1.5%	62.1%	5.7%	2.2%	0.1%	3.0%	0.3%	0.1%	0.1%	0.0%	2.7%
Sarawak	Julau	2.4%	0.6%	88.0%	0.0%	1.6%	0.1%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Sarawak	Kanowit	4.0%	0.3%	89.6%	1.0%	1.3%	0.2%	3.3%	0.2%	0.0%	0.0%	0.0%	0.0%
Sarawak	Kapit	0.5%	0.1%	98.9%	0.0%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Sarawak	Kuching	10.4%	0.2%	36.8%	3.1%	11.3%	0.0%	5.2%	5.9%	0.0%	0.6%	9.0%	17.5%
Sarawak	Lawas	1.2%	0.0%	92.1%	0.2%	0.8%	0.1%	3.5%	0.1%	0.0%	0.1%	0.0%	2.0%
Sarawak	Limbang	3.0%	0.1%	93.1%	0.1%	0.6%	0.0%	1.7%	0.3%	0.0%	0.3%	0.0%	0.9%
Sarawak	Lubok Antu	5.8%	0.3%	83.2%	3.4%	3.2%	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sarawak	Lundu	25.8%	0.2%	54.5%	1.3%	6.8%	0.1%	4.1%	0.4%	0.0%	0.0%	0.0%	6.9%

State	District	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Sarawak	Maradong	22.5%	2.8%	55.3%	4.9%	5.1%	0.3%	4.9%	0.3%	0.0%	0.0%	0.0%	4.1%
Sarawak	Marudi	2.5%	0.4%	95.2%	0.2%	0.2%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Sarawak	Miri	22.5%	0.6%	64.8%	2.5%	2.7%	0.1%	3.3%	1.4%	0.0%	0.3%	1.3%	0.5%
Sarawak	Mukah	20.0%	0.0%	73.7%	0.9%	2.3%	0.0%	2.7%	0.1%	0.0%	0.2%	0.0%	0.1%
Sarawak	Samarahan	28.3%	0.2%	39.5%	0.7%	15.7%	0.1%	4.6%	8.5%	0.0%	0.0%	0.2%	2.1%
Sarawak	Saratok	12.0%	0.6%	65.5%	2.5%	4.9%	0.4%	6.9%	0.6%	0.0%	0.0%	0.0%	6.5%
Sarawak	Sarikei	12.1%	1.9%	30.7%	7.5%	4.1%	0.3%	2.2%	0.6%	0.0%	0.1%	0.0%	40.4%
Sarawak	Serian	31.4%	0.2%	50.9%	0.0%	11.9%	0.1%	4.6%	0.9%	0.0%	0.1%	0.0%	0.1%
Sarawak	Sibu	16.1%	0.6%	67.5%	3.7%	3.7%	0.0%	2.5%	1.3%	0.0%	0.1%	1.1%	3.3%
Sarawak	Simunjan	26.1%	0.1%	62.3%	2.1%	6.2%	0.0%	2.6%	0.2%	0.0%	0.0%	0.0%	0.5%
Sarawak	Song	0.2%	0.0%	97.2%	0.0%	0.1%	0.0%	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%
Sarawak	Sri Aman	11.5%	0.4%	77.4%	2.0%	4.4%	0.2%	3.5%	0.3%	0.0%	0.1%	0.0%	0.3%
Sarawak	Tatau	4.8%	0.2%	93.5%	0.2%	0.4%	0.0%	0.7%	0.2%	0.0%	0.1%	0.0%	0.0%
Selangor	Gombak	1.3%	0.0%	40.2%	0.3%	4.0%	0.2%	8.6%	14.5%	0.0%	5.3%	24.7%	1.0%
Selangor	Hulu Selangor	9.8%	0.4%	65.2%	0.4%	8.6%	0.1%	6.1%	6.2%	0.0%	0.8%	1.7%	0.7%
Selangor	Kelang	2.2%	0.2%	2.2%	4.3%	5.0%	0.2%	1.6%	11.6%	0.0%	0.8%	48.8%	23.3%
Selangor	Kuala Langat	12.8%	0.3%	23.2%	0.8%	18.9%	0.1%	14.7%	19.9%	0.3%	2.7%	1.9%	4.4%
Selangor	Kuala Selangor	9.5%	0.3%	40.5%	0.7%	21.9%	0.1%	9.2%	15.3%	0.0%	0.6%	0.3%	1.4%
Selangor	Petaling	0.2%	0.0%	2.4%	0.2%	0.7%	0.0%	0.7%	0.9%	0.0%	0.2%	94.7%	0.0%
Selangor	Sabak Bernam	21.7%	0.0%	42.2%	1.8%	25.8%	0.0%	0.3%	7.4%	0.0%	0.0%	0.0%	0.8%
Selangor	Sepang	10.3%	0.0%	11.9%	1.6%	23.4%	0.7%	6.1%	22.6%	0.2%	1.2%	18.9%	3.2%
Selangor	Ulu Langat	1.2%	0.0%	41.9%	0.7%	4.9%	0.0%	10.0%	7.8%	0.0%	4.1%	29.1%	0.2%
Terengganu	Besut	13.6%	0.0%	58.0%	0.9%	17.3%	0.0%	1.6%	7.6%	0.0%	0.0%	0.0%	1.0%
Terengganu	Dungun	12.8%	0.1%	76.2%	0.6%	5.5%	0.0%	2.7%	1.2%	0.0%	0.0%	0.6%	0.3%
Terengganu	Hulu Terengganu	6.4%	0.1%	81.2%	9.7%	1.3%	0.0%	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%
Terengganu	Kemaman	22.9%	0.1%	62.9%	1.2%	6.0%	0.0%	2.3%	2.3%	0.0%	0.1%	1.1%	1.1%

State	District	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Terengganu	Kuala Terengganu	31.7%	0.2%	31.9%	3.2%	8.9%	0.0%	1.1%	7.4%	0.0%	0.2%	14.7%	0.7%
Terengganu	Marang	25.4%	0.4%	51.6%	3.6%	10.6%	0.0%	0.6%	6.4%	0.0%	0.0%	0.3%	1.0%
Terengganu	Setiu	31.9%	0.8%	54.9%	0.6%	7.1%	0.1%	1.3%	2.4%	0.1%	0.0%	0.0%	0.7%

Annex 5.

Pakistan, rural classes (%) by district

In the following tables, the percentage area of each rural class is reported for each district of Pakistan. The class codes shown in tables refer to the following classes:

Rural activity classes	Cultivation	Livestock production	Forestry and agroforestry	Non-agricultural	Water bodies
Thinly populated rural areas	Class 1	Class 2	Class 3	Class 40	Class 5
Populated rural areas	Class 11	Class 12	Class 13		
Towns, suburbs and densely populated rural areas	Class 21	Class 22	Class 23		
Urban centres	Class 31				

Level 1	Level 2	Percentage											
Province	District	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Balochistan	Awaran District	0.7%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	97.6%
Balochistan	Barkhan District	19.2%	39.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	41.5%
Balochistan	Bolan District	30.0%	7.7%	0.0%	0.0%	12.6%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	49.3%
Balochistan	Chagai District	0.6%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	94.2%
Balochistan	Dera Bugti District	6.9%	29.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	63.6%
Balochistan	Gwadar District	0.5%	0.3%	0.0%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	98.6%
Balochistan	Jaffarabad District	95.8%	1.6%	0.0%	0.0%	0.9%	0.0%	0.0%	0.6%	0.0%	0.0%	0.5%	0.6%
Balochistan	Jhal Magsi District	46.0%	4.8%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.8%
Balochistan	Kalat District	3.9%	18.7%	0.0%	0.0%	0.8%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	75.9%
Balochistan	Kech District	0.5%	0.2%	0.0%	0.2%	0.4%	0.1%	0.0%	0.5%	0.0%	0.0%	0.2%	98.1%
Balochistan	Kharan District	0.9%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	97.9%
Balochistan	Khuzdar District	3.9%	28.6%	0.0%	0.0%	0.2%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	67.0%
Balochistan	Killa Abdullah District	6.1%	14.0%	0.0%	0.0%	0.9%	0.1%	0.0%	0.5%	0.2%	0.0%	0.6%	77.6%
Balochistan	Killa Saifullah District	4.8%	20.5%	0.0%	0.0%	0.1%	0.2%	0.0%	0.1%	0.1%	0.0%	0.0%	74.2%
Balochistan	Kohlu District	4.1%	23.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	72.2%
Balochistan	Lasbela District	8.3%	9.8%	0.0%	0.2%	0.2%	0.1%	0.0%	0.2%	0.0%	0.0%	0.2%	80.9%
Balochistan	Loralai District	6.7%	18.4%	0.0%	0.0%	0.2%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%	74.2%
Balochistan	Mastung District	6.8%	8.5%	0.0%	0.0%	1.9%	0.2%	0.0%	0.8%	0.0%	0.0%	0.4%	81.4%
Balochistan	Musakhel District	6.1%	58.4%	0.1%	0.0%	0.1%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	34.9%
Balochistan	Nasirabad District	57.5%	2.0%	0.0%	0.0%	19.5%	0.9%	0.0%	0.0%	0.0%	0.0%	0.1%	20.0%
Balochistan	Panjgur District	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	99.2%
Balochistan	Pishin District	6.8%	15.2%	0.0%	0.0%	2.7%	0.9%	0.0%	1.3%	0.4%	0.0%	0.7%	71.9%
Balochistan	Quetta District	3.5%	11.4%	0.0%	0.0%	1.1%	0.3%	0.0%	0.8%	0.2%	0.0%	5.0%	77.7%
Balochistan	Sibi District	9.0%	32.8%	0.1%	0.0%	0.2%	0.6%	0.0%	0.2%	0.2%	0.0%	0.0%	56.9%
Balochistan	Zhob District	1.7%	35.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	62.9%

Level 1	Level 2	Percentage											
Balochistan	Ziarat District	1.5%	37.5%	1.5%	0.0%	0.5%	2.3%	0.1%	0.2%	0.4%	0.0%	0.0%	55.9%
Federally Administered Tribal Areas	Bajaur Agency	55.7%	19.3%	9.7%	0.0%	5.2%	1.3%	0.3%	4.1%	0.1%	0.1%	2.0%	2.1%
Federally Administered Tribal Areas	Khyber Agency	23.5%	21.0%	31.2%	0.0%	2.1%	2.0%	0.3%	0.8%	0.9%	0.0%	2.3%	15.9%
Federally Administered Tribal Areas	Kurram Agency	52.3%	30.1%	11.5%	0.0%	2.6%	1.1%	0.3%	0.4%	0.0%	0.0%	0.1%	1.4%
Federally Administered Tribal Areas	Mohmand Agency	27.8%	25.1%	5.8%	0.1%	4.1%	1.0%	0.1%	3.8%	0.6%	0.0%	0.6%	31.0%
Federally Administered Tribal Areas	North Waziristan Agency	9.3%	24.9%	6.2%	0.0%	5.2%	23.9%	12.0%	0.6%	2.5%	0.1%	0.0%	15.4%
Federally Administered Tribal Areas	Orakzai Agency	24.5%	10.2%	38.5%	0.0%	3.1%	0.5%	1.0%	12.0%	3.8%	5.5%	1.0%	0.0%
Federally Administered Tribal Areas	South Waziristan Agency	6.0%	28.5%	6.2%	0.0%	6.6%	19.4%	5.9%	0.2%	0.0%	0.0%	0.3%	27.0%
Federally Administered Tribal Areas	T.A.Adj.Lakki Marwat District	3.9%	61.8%	0.0%	1.8%	0.3%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	31.8%
Federally Administered Tribal Areas	Tribal Area Adj Bannu District	5.7%	69.0%	0.0%	0.0%	0.4%	0.3%	0.0%	0.7%	0.4%	0.0%	0.0%	23.4%
Federally Administered Tribal Areas	Tribal Area Adj D.I.Khan Distt	13.5%	74.2%	0.0%	0.0%	0.2%	0.2%	0.0%	0.1%	0.1%	0.0%	0.0%	11.7%
Federally Administered Tribal Areas	Tribal Area Adj Kohat District	48.1%	26.3%	21.9%	0.0%	1.3%	0.0%	0.0%	1.3%	0.0%	0.0%	0.2%	0.9%
Federally Administered Tribal Areas	Tribal Area Adj Peshawar Distt	44.6%	10.3%	41.1%	0.0%	1.1%	0.0%	0.0%	2.3%	0.4%	0.1%	0.0%	0.0%
Federally Administered Tribal Areas	Tribal Area Adj Tank Distt	12.3%	77.1%	1.9%	0.0%	0.3%	1.2%	0.1%	0.1%	0.0%	0.0%	0.0%	7.0%
Islamabad	Islamabad District	28.7%	1.4%	16.5%	0.7%	12.4%	0.1%	1.4%	7.9%	0.0%	0.2%	27.3%	3.2%
North-West Frontier	Abbottabad District	31.7%	13.5%	30.8%	0.0%	7.6%	2.6%	2.1%	3.6%	0.9%	0.2%	6.8%	0.2%
North-West Frontier	Bannu District	70.5%	8.2%	0.0%	0.1%	2.7%	0.3%	0.0%	3.3%	0.0%	0.0%	4.1%	10.8%
North-West Frontier	Batagram District	33.9%	27.6%	27.5%	0.0%	1.2%	0.7%	0.2%	2.4%	0.5%	0.3%	1.0%	4.6%
North-West Frontier	Buner District	55.1%	19.9%	12.4%	0.0%	3.1%	0.4%	0.2%	4.8%	0.2%	0.1%	3.7%	0.1%
North-West Frontier	Charsadda District	15.0%	0.8%	0.0%	1.3%	8.4%	0.0%	0.0%	6.2%	0.1%	0.0%	67.9%	0.4%
North-West Frontier	Chitral District	2.6%	23.9%	2.3%	0.0%	1.1%	0.7%	0.0%	0.5%	0.2%	0.0%	0.2%	68.5%
North-West Frontier	D. I. Khan District	78.4%	11.2%	0.0%	1.7%	0.9%	0.0%	0.0%	1.1%	0.0%	0.0%	0.2%	6.4%

Level 1	Level 2	Percentage											
North-West Frontier	Hangu District	71.6%	19.4%	2.2%	0.0%	1.4%	0.1%	0.1%	1.8%	0.1%	0.0%	1.0%	2.4%
North-West Frontier	Haripur District	33.0%	13.1%	17.6%	9.2%	10.1%	1.6%	1.5%	6.8%	0.2%	0.1%	6.4%	0.5%
North-West Frontier	Karak District	50.0%	36.5%	1.9%	0.0%	0.8%	0.4%	0.0%	0.6%	0.5%	0.0%	0.3%	8.8%
North-West Frontier	Kohat District	65.7%	22.9%	3.1%	0.3%	2.6%	0.2%	0.0%	1.8%	0.0%	0.0%	1.2%	2.0%
North-West Frontier	Kohistan District	4.5%	47.7%	17.8%	0.0%	0.0%	0.2%	0.0%	0.1%	0.3%	0.1%	0.2%	29.1%
North-West Frontier	Lakki Marwat District	68.3%	14.5%	0.0%	0.0%	0.4%	0.1%	0.0%	0.9%	0.0%	0.0%	0.2%	15.6%
North-West Frontier	Lower Dir District	50.2%	11.9%	19.3%	0.2%	5.6%	0.2%	0.5%	5.6%	0.1%	0.0%	6.3%	0.1%
North-West Frontier	Malakand Protected Area	41.7%	18.9%	11.0%	0.2%	9.8%	0.5%	0.3%	5.3%	0.4%	0.0%	11.2%	0.7%
North-West Frontier	Mansehra District	29.5%	29.0%	20.5%	0.8%	3.9%	1.1%	0.3%	4.0%	0.4%	0.2%	2.4%	8.0%
North-West Frontier	Mardan District	34.3%	5.8%	0.3%	0.0%	16.2%	0.2%	0.0%	12.8%	0.0%	0.0%	30.1%	0.3%
North-West Frontier	Nowshera District	28.3%	16.3%	11.3%	0.7%	6.8%	2.2%	0.1%	3.8%	0.3%	0.0%	27.1%	3.2%
North-West Frontier	Peshawar District	31.0%	0.8%	0.0%	0.2%	7.6%	0.3%	0.0%	4.4%	0.0%	0.0%	52.7%	3.0%
North-West Frontier	Shangla District	51.3%	14.3%	27.7%	0.1%	1.7%	0.1%	0.2%	1.8%	0.1%	0.2%	1.5%	1.0%
North-West Frontier	Swabi District	44.3%	5.4%	1.7%	3.4%	13.8%	0.4%	0.1%	12.4%	0.0%	0.0%	16.4%	2.1%
North-West Frontier	Swat District	19.1%	25.1%	18.3%	0.1%	2.2%	0.3%	0.1%	1.4%	0.1%	0.0%	4.3%	29.0%
North-West Frontier	Tank District	69.1%	18.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.8%	0.0%	0.0%	0.3%	11.5%
North-West Frontier	Upper Dir District	14.5%	27.1%	38.8%	0.0%	0.4%	0.3%	0.2%	0.7%	0.3%	0.1%	0.7%	16.8%
Punjab	Attock District	76.1%	6.1%	4.4%	0.5%	4.7%	0.1%	0.1%	2.6%	0.1%	0.1%	3.5%	1.6%
Punjab	Bahawalnagar District	55.1%	0.6%	0.0%	0.0%	12.0%	0.1%	0.0%	6.9%	0.0%	0.0%	1.0%	24.3%
Punjab	Bahawalpur District	22.6%	0.3%	0.0%	0.0%	1.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.4%	75.0%
Punjab	Bhakkar District	49.5%	2.0%	0.0%	0.5%	1.1%	0.0%	0.0%	0.6%	0.0%	0.0%	0.4%	45.8%
Punjab	Chakwal District	81.7%	6.4%	0.9%	0.0%	4.7%	0.3%	0.1%	2.2%	0.1%	0.0%	0.8%	2.9%
Punjab	Dera Ghazi Khan District	42.8%	28.3%	0.0%	1.1%	1.7%	0.2%	0.0%	2.3%	0.4%	0.0%	1.0%	22.2%
Punjab	Faisalabad District	55.8%	0.0%	0.0%	0.1%	17.2%	0.0%	0.0%	15.5%	0.0%	0.0%	11.2%	0.3%
Punjab	Gujranwala District	39.8%	0.0%	0.0%	0.7%	24.7%	0.0%	0.0%	22.3%	0.0%	0.0%	12.2%	0.2%
Punjab	Gujrat District	46.4%	1.2%	0.0%	1.0%	18.2%	0.1%	0.0%	21.5%	0.0%	0.0%	11.1%	0.4%

Level 1	Level 2	Percentage											
Punjab	Hafizabad District	52.9%	0.0%	0.0%	0.4%	26.7%	0.0%	0.0%	17.2%	0.4%	0.0%	2.2%	0.2%
Punjab	Jhang District	48.0%	0.1%	0.0%	0.9%	24.9%	0.3%	0.0%	11.8%	1.0%	0.0%	2.8%	10.3%
Punjab	Jhelum District	70.8%	4.4%	0.1%	2.3%	7.3%	0.2%	0.0%	5.0%	0.3%	0.0%	2.1%	7.6%
Punjab	Kasur District	64.8%	0.0%	0.0%	0.0%	17.1%	0.0%	0.0%	9.5%	0.1%	0.0%	8.2%	0.1%
Punjab	Khanewal District	58.1%	0.0%	0.0%	0.2%	20.7%	0.0%	0.0%	16.6%	0.0%	0.0%	4.2%	0.2%
Punjab	Khushab District	53.8%	5.3%	0.2%	0.6%	3.2%	0.2%	0.0%	2.9%	0.4%	0.0%	1.0%	32.4%
Punjab	Lahore District	23.8%	0.0%	0.0%	0.1%	14.6%	0.0%	0.0%	12.8%	0.0%	0.0%	48.7%	0.1%
Punjab	Layyah District	61.1%	1.4%	0.0%	1.8%	1.0%	0.0%	0.0%	1.3%	0.2%	0.0%	1.3%	31.9%
Punjab	Lodhran District	79.9%	0.0%	0.0%	0.0%	8.5%	0.0%	0.0%	9.6%	0.0%	0.0%	1.9%	0.2%
Punjab	Mandi Bahauddin District	68.0%	0.0%	0.0%	0.7%	14.4%	0.1%	0.0%	12.0%	0.2%	0.0%	4.5%	0.2%
Punjab	Mianwali District	74.3%	15.0%	0.6%	3.9%	0.3%	0.0%	0.0%	0.8%	0.1%	0.0%	0.3%	4.7%
Punjab	Multan District	57.0%	0.1%	0.0%	0.7%	17.1%	0.1%	0.0%	12.7%	0.4%	0.0%	11.1%	0.8%
Punjab	Muzaffargarh District	70.4%	2.0%	0.5%	2.3%	9.7%	0.2%	0.0%	7.0%	0.4%	0.0%	3.1%	4.2%
Punjab	Narowal District	72.9%	0.0%	0.0%	0.0%	12.3%	0.0%	0.0%	7.8%	0.0%	0.0%	6.8%	0.1%
Punjab	Okara District	55.1%	0.0%	0.0%	0.1%	21.7%	0.0%	0.0%	18.5%	0.0%	0.0%	3.9%	0.7%
Punjab	Pakpattan District	53.1%	0.0%	0.0%	0.0%	25.7%	0.0%	0.0%	15.0%	0.0%	0.0%	6.1%	0.2%
Punjab	Rahim Yar Khan District	44.7%	0.6%	0.0%	0.9%	5.3%	0.0%	0.0%	6.1%	0.0%	0.0%	1.5%	40.9%
Punjab	Rajanpur District	42.5%	7.0%	0.0%	1.1%	1.8%	0.1%	0.0%	1.7%	0.0%	0.0%	0.8%	45.0%
Punjab	Rawalpindi District	60.3%	2.8%	14.1%	0.2%	9.8%	0.1%	0.5%	5.0%	0.1%	0.7%	5.6%	0.8%
Punjab	Sahiwal District	67.7%	0.0%	0.0%	0.0%	14.7%	0.0%	0.0%	13.3%	0.0%	0.0%	4.1%	0.2%
Punjab	Sargodha District	66.1%	0.1%	0.0%	0.2%	16.3%	0.1%	0.0%	12.9%	0.1%	0.0%	3.8%	0.5%
Punjab	Sheikhupura District	34.9%	0.0%	0.0%	0.2%	35.6%	0.0%	0.0%	19.4%	0.0%	0.0%	9.8%	0.1%
Punjab	Sialkot District	43.8%	0.0%	0.1%	0.4%	17.3%	0.0%	0.0%	26.2%	0.0%	0.0%	12.2%	0.0%
Punjab	Toba Tek Singh District	57.1%	0.0%	0.3%	0.0%	18.7%	0.0%	0.0%	20.3%	0.0%	0.0%	3.2%	0.3%
Punjab	Vehari District	65.2%	0.0%	0.0%	0.0%	16.6%	0.0%	0.0%	16.2%	0.0%	0.0%	1.6%	0.4%
Sindh	Badin District	85.0%	0.4%	0.0%	0.3%	4.1%	0.1%	0.0%	3.8%	0.0%	0.0%	0.2%	6.1%

Level 1	Level 2	Percentage											
Sindh	Dadu District	26.9%	5.4%	0.0%	1.2%	2.0%	0.2%	0.0%	1.6%	0.1%	0.0%	0.4%	62.2%
Sindh	Ghotki District	47.3%	0.4%	0.0%	0.3%	2.2%	0.0%	0.0%	2.9%	0.0%	0.0%	0.5%	46.4%
Sindh	Hyderabad District	75.8%	1.6%	0.0%	0.8%	8.3%	0.1%	0.0%	7.4%	0.1%	0.0%	3.6%	2.3%
Sindh	Jacobabad District	89.2%	2.3%	0.0%	2.4%	1.7%	0.0%	0.0%	2.8%	0.0%	0.0%	0.7%	0.8%
Sindh	Karachi Central District	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
Sindh	Karachi East District	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
Sindh	Karachi South District	4.0%	0.0%	0.0%	2.6%	1.5%	0.0%	0.0%	2.2%	0.0%	0.0%	89.7%	0.0%
Sindh	Karachi West District	20.4%	2.1%	0.0%	0.5%	4.9%	0.1%	0.0%	3.0%	0.1%	0.0%	24.5%	44.5%
Sindh	Khairpur District	16.7%	13.0%	0.0%	0.1%	4.8%	0.1%	0.0%	5.0%	0.0%	0.0%	0.3%	60.1%
Sindh	Larkana District	59.7%	6.3%	0.1%	2.3%	4.8%	0.1%	0.0%	6.5%	0.1%	0.0%	1.4%	18.8%
Sindh	Malir District	22.6%	2.7%	0.0%	0.7%	4.9%	0.0%	0.0%	2.8%	0.0%	0.0%	7.3%	58.9%
Sindh	Mirpur Khas District	84.0%	0.1%	0.0%	0.0%	6.6%	0.0%	0.0%	5.8%	0.0%	0.0%	1.5%	2.0%
Sindh	Naushahro Feroze District	64.3%	1.5%	0.0%	1.7%	14.5%	0.0%	0.0%	16.3%	0.0%	0.0%	0.8%	0.9%
Sindh	Nawabshah District	57.1%	3.2%	0.0%	0.9%	13.5%	0.3%	0.0%	7.7%	0.1%	0.0%	0.8%	16.6%
Sindh	Sanghar District	43.0%	6.1%	0.0%	1.0%	6.6%	0.0%	0.0%	2.7%	0.0%	0.0%	0.6%	40.1%
Sindh	Shikarpur District	72.0%	1.6%	0.2%	1.2%	11.1%	0.2%	0.0%	12.1%	0.0%	0.0%	1.2%	0.6%
Sindh	Sukkur District	31.5%	1.1%	0.1%	1.1%	4.1%	0.1%	0.0%	3.6%	0.0%	0.0%	1.8%	56.6%
Sindh	Tharparkar District	68.1%	5.1%	0.0%	0.0%	4.9%	0.6%	0.0%	1.0%	0.1%	0.0%	0.0%	20.1%
Sindh	Thatta District	52.0%	1.7%	0.0%	2.4%	7.6%	0.2%	0.0%	1.8%	0.2%	0.0%	0.5%	33.6%
Sindh	Umer Kot District	68.7%	9.4%	0.0%	0.0%	8.4%	0.4%	0.0%	3.6%	0.1%	0.0%	1.6%	7.7%

Annex 6.

South Africa, rural classes (%) by district municipality and local municipality

In the following tables, the percentage area of each rural class is reported for each district municipality and local municipality of South Africa. The class codes shown in the tables refer to the following classes:

Rural activity classes	Cultivation	Livestock production	Forestry and agroforestry	Non-agricultural	Water bodies
Settlement Model classes					
Thinly populated rural areas	Class 1	Class 2	Class 3	Class 40	Class 5
Populated rural areas	Class 11	Class 12	Class 13		
Towns, suburbs and densely populated rural areas	Class 21	Class 22	Class 23		
Urban centres	Class 31				

Level 2. District municipalities

Province	District municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Eastern Cape	Alfred Nzo District Mun.	10.2%	53.7%	2.8%	0.1%	11.9%	18.3%	0.8%	1.1%	0.8%	0.0%	0.0%	0.4%
Eastern Cape	Amathole District Mun.	9.0%	56.0%	16.2%	0.2%	6.6%	9.7%	1.5%	0.1%	0.5%	0.0%	0.0%	0.2%
Eastern Cape	Buffalo City Metropolitan Mun.	10.0%	27.3%	29.8%	0.9%	4.1%	11.2%	3.2%	0.7%	3.3%	1.0%	6.7%	1.8%
Eastern Cape	Cacadu District Mun.	4.5%	87.5%	5.3%	0.1%	0.7%	1.1%	0.2%	0.1%	0.1%	0.0%	0.0%	0.3%
Eastern Cape	Chris Hani District Mun.	4.9%	84.8%	0.7%	0.2%	2.6%	6.1%	0.0%	0.0%	0.3%	0.0%	0.0%	0.2%
Eastern Cape	Joe Gqabi District Mun.	4.2%	88.1%	1.4%	0.7%	2.0%	3.1%	0.0%	0.2%	0.3%	0.0%	0.0%	0.1%
Eastern Cape	Nelson Mandela Bay Metropolitan Mun.	6.1%	42.9%	14.0%	1.4%	5.8%	6.5%	3.1%	0.3%	1.9%	0.2%	16.8%	1.0%
Eastern Cape	O.R.Tambo District Mun.	16.4%	34.3%	8.6%	0.5%	15.6%	18.9%	2.6%	1.0%	1.2%	0.1%	0.4%	0.4%
Free State	Fezile Dabi District Mun.	35.6%	59.4%	0.1%	1.3%	0.9%	1.6%	0.0%	0.1%	0.4%	0.0%	0.4%	0.2%
Free State	Lejweleputswa District Mun.	39.7%	57.0%	0.0%	0.5%	0.6%	1.0%	0.0%	0.1%	0.2%	0.0%	0.5%	0.3%
Free State	Mangaung Metropolitan Mun.	24.0%	65.1%	0.0%	0.4%	2.4%	3.5%	0.0%	0.1%	0.6%	0.0%	3.6%	0.3%
Free State	Thabo Mofutsanyane District Mun.	29.8%	65.4%	0.0%	0.3%	1.2%	2.1%	0.0%	0.1%	0.4%	0.0%	0.4%	0.3%
Free State	Xhariep District Mun.	6.1%	91.8%	0.0%	0.7%	0.2%	0.9%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
Gauteng	City of Johannesburg Metropolitan Mun.	1.7%	7.6%	0.0%	0.0%	1.6%	7.4%	0.0%	0.2%	2.1%	0.0%	79.3%	0.1%
Gauteng	City of Tshwane Metropolitan Mun.	8.5%	52.8%	0.5%	0.3%	2.7%	14.3%	0.2%	0.4%	1.8%	0.0%	18.1%	0.4%
Gauteng	Ekurhuleni Metropolitan Mun.	7.6%	11.5%	0.1%	0.2%	5.5%	11.0%	0.1%	0.1%	2.5%	0.0%	61.2%	0.5%
Gauteng	Sedibeng District Mun.	19.5%	50.1%	0.1%	1.1%	3.7%	15.9%	0.0%	0.4%	2.6%	0.0%	6.0%	0.8%
Gauteng	West Rand District Mun.	19.2%	50.9%	0.3%	0.1%	5.9%	13.8%	0.0%	0.7%	2.5%	0.0%	5.0%	1.7%
KwaZulu-Natal	Amajuba District Mun.	6.3%	77.2%	2.2%	0.7%	2.3%	7.3%	0.2%	0.8%	0.8%	0.0%	1.1%	1.1%
KwaZulu-Natal	eThekweni Metropolitan Mun.	6.2%	11.6%	1.6%	1.3%	6.8%	14.7%	0.9%	5.0%	11.2%	0.4%	35.5%	4.8%
KwaZulu-Natal	iLembe District Mun.	19.0%	18.8%	7.7%	0.6%	22.7%	19.2%	3.0%	3.7%	3.2%	0.2%	1.3%	0.5%
KwaZulu-Natal	Sisonke District Mun.	12.1%	60.5%	10.2%	0.0%	4.5%	11.0%	0.7%	0.3%	0.4%	0.0%	0.0%	0.3%
KwaZulu-Natal	Ugu District Mun.	13.5%	28.0%	12.6%	0.3%	9.8%	24.1%	1.7%	2.5%	4.9%	0.3%	0.0%	2.2%
KwaZulu-Natal	Umgungundlovu District Mun.	18.2%	45.7%	13.1%	0.5%	7.2%	8.6%	1.2%	0.9%	2.1%	0.2%	1.6%	0.6%

Province	District municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
KwaZulu-Natal	Umkhanyakude District Mun.	9.7%	43.0%	20.0%	3.8%	8.0%	11.4%	2.1%	1.1%	0.4%	0.1%	0.0%	0.5%
KwaZulu-Natal	Umzinyathi District Mun.	16.3%	48.3%	8.3%	0.0%	9.2%	14.8%	0.9%	0.8%	0.9%	0.1%	0.0%	0.4%
KwaZulu-Natal	Uthukela District Mun.	8.2%	73.0%	0.6%	0.5%	4.3%	10.4%	0.0%	1.1%	1.0%	0.0%	0.2%	0.7%
KwaZulu-Natal	Uthungulu District Mun.	17.3%	31.5%	12.3%	0.7%	12.2%	19.7%	1.7%	1.8%	1.1%	0.3%	0.6%	0.7%
KwaZulu-Natal	Zululand District Mun.	11.1%	58.4%	8.3%	0.8%	7.3%	11.4%	0.7%	0.8%	0.7%	0.0%	0.0%	0.4%
Limpopo	Capricorn District Mun.	10.3%	76.5%	1.2%	0.0%	3.2%	4.7%	0.0%	0.5%	0.7%	0.0%	0.6%	2.3%
Limpopo	Mopani District Mun.	7.0%	75.6%	6.1%	0.1%	2.6%	3.8%	0.4%	1.1%	1.3%	0.0%	0.0%	1.9%
Limpopo	Sekhukhune District Mun.	13.0%	63.9%	0.7%	0.1%	5.8%	9.9%	0.0%	1.9%	2.5%	0.0%	0.0%	2.2%
Limpopo	Vhembe District Mun.	3.6%	79.4%	6.1%	0.2%	1.6%	5.0%	0.3%	1.4%	1.7%	0.0%	0.2%	0.6%
Limpopo	Waterberg District Mun.	12.8%	82.6%	0.5%	0.0%	1.2%	1.9%	0.0%	0.1%	0.2%	0.0%	0.1%	0.4%
Mpumalanga	Ehlanzeni District Mun.	10.2%	61.9%	17.5%	0.1%	2.7%	3.0%	0.5%	0.8%	1.2%	0.0%	0.7%	1.4%
Mpumalanga	Gert Sibande District Mun.	16.4%	69.0%	6.5%	0.7%	1.3%	4.3%	0.3%	0.2%	0.5%	0.0%	0.4%	0.4%
Mpumalanga	Nkangala District Mun.	21.9%	62.1%	2.3%	0.4%	2.6%	5.4%	0.0%	0.3%	1.4%	0.0%	1.2%	2.4%
North West	Bojanala District Mun.	11.6%	68.0%	1.6%	0.3%	4.0%	8.4%	0.2%	0.4%	1.9%	0.0%	1.3%	2.3%
North West	Dr Kenneth Kaunda District Mun.	32.3%	58.7%	0.2%	0.4%	2.2%	4.0%	0.0%	0.1%	0.7%	0.0%	1.1%	0.4%
North West	Dr Ruth Segomotsi Mompati District Mun.	13.4%	83.0%	0.0%	0.1%	0.8%	1.9%	0.0%	0.1%	0.1%	0.0%	0.0%	0.5%
North West	Ngaka Modiri Molema District Mun.	38.8%	51.7%	0.1%	0.2%	3.7%	3.4%	0.0%	0.3%	0.4%	0.0%	0.3%	1.1%
Northern Cape	Frances Baard District Mun.	3.7%	93.1%	0.0%	0.2%	0.7%	0.9%	0.0%	0.0%	0.5%	0.0%	0.5%	0.4%
Northern Cape	John Taolo Gaetsewe District Mun.	0.6%	96.6%	0.0%	0.0%	0.1%	1.8%	0.0%	0.0%	0.3%	0.0%	0.0%	0.5%
Northern Cape	Namakwa District Mun.	0.3%	98.6%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%
Northern Cape	Pixley ka Seme District Mun.	0.6%	98.7%	0.0%	0.1%	0.1%	0.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
Northern Cape	Siyanda District Mun.	0.1%	99.0%	0.0%	0.0%	0.2%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%
Western Cape	Cape Winelands District Mun.	9.2%	80.5%	0.2%	0.2%	5.5%	2.7%	0.0%	0.5%	0.2%	0.0%	0.5%	0.4%
Western Cape	Central Karoo District Mun.	0.1%	99.3%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Western Cape	City of Cape Town Metropolitan Mun.	19.6%	28.8%	1.5%	2.8%	5.4%	4.9%	0.4%	0.7%	1.5%	0.1%	29.8%	4.4%
Western Cape	Eden District Mun.	16.4%	67.5%	10.0%	0.4%	2.3%	1.7%	0.6%	0.2%	0.2%	0.1%	0.3%	0.2%

Province	District municipality	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Western Cape	Overberg District Mun.	41.8%	47.5%	2.6%	0.9%	3.1%	2.3%	0.1%	0.1%	0.2%	0.0%	0.0%	1.3%
Western Cape	West Coast District Mun.	26.3%	68.6%	0.0%	0.2%	2.9%	1.3%	0.0%	0.2%	0.1%	0.0%	0.0%	0.4%

Level 3. Local municipalities

Province	District municipality	Local M.	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Eastern Cape	Alfred Nzo	Matatiele	9.6%	69.1%	1.4%	0.0%	8.1%	9.4%	0.3%	0.8%	0.5%	0.0%	0.0%	0.9%
Eastern Cape	Alfred Nzo	Mbizana	13.9%	14.0%	3.8%	0.3%	22.1%	17.2%	1.4%	1.9%	1.7%	0.0%	0.0%	23.6%
Eastern Cape	Alfred Nzo	Ntabankulu	6.1%	45.8%	4.5%	0.0%	10.9%	29.5%	1.3%	0.2%	0.3%	0.0%	0.0%	1.3%
Eastern Cape	Alfred Nzo	Umzimvubu	9.9%	56.0%	3.2%	0.0%	9.2%	18.9%	0.6%	1.2%	0.7%	0.0%	0.0%	0.2%
Eastern Cape	Amathole	Amahlathi	4.7%	69.2%	17.0%	0.2%	1.3%	5.8%	1.1%	0.1%	0.4%	0.0%	0.0%	0.2%
Eastern Cape	Amathole	Great Kei	18.6%	28.1%	44.2%	0.5%	3.0%	2.5%	1.9%	0.2%	0.1%	0.0%	0.0%	0.9%
Eastern Cape	Amathole	Mbhashe	17.3%	24.5%	12.8%	0.4%	20.9%	17.5%	3.8%	0.2%	0.3%	0.0%	0.0%	2.4%
Eastern Cape	Amathole	Mnquma	15.6%	35.0%	11.8%	0.2%	16.3%	17.9%	1.9%	0.0%	0.8%	0.1%	0.0%	0.4%
Eastern Cape	Amathole	Ngqushwa	6.8%	63.5%	13.2%	0.4%	2.6%	11.7%	0.6%	0.1%	0.3%	0.0%	0.0%	0.6%
Eastern Cape	Amathole	Nkonkobe	4.3%	66.1%	16.9%	0.1%	1.7%	8.2%	1.1%	0.2%	0.7%	0.0%	0.0%	0.7%
Eastern Cape	Amathole	Nxuba	0.8%	89.6%	7.9%	0.0%	0.1%	1.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.1%
Eastern Cape	Buffalo City Metr. M.	Buffalo City Metr. M.	10.0%	26.9%	29.8%	0.9%	4.1%	10.6%	3.2%	0.7%	2.8%	1.0%	6.7%	3.3%
Eastern Cape	Cacadu	Baviaans	0.1%	99.1%	0.2%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Eastern Cape	Cacadu	Blue Crane Route	2.0%	94.0%	0.9%	0.0%	0.2%	0.6%	0.0%	0.0%	0.1%	0.0%	0.0%	2.1%
Eastern Cape	Cacadu	Camdeboo	0.5%	98.3%	0.0%	0.0%	0.1%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
Eastern Cape	Cacadu	Ikwezi	0.1%	96.0%	0.2%	0.4%	0.0%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	2.6%
Eastern Cape	Cacadu	Kouga	24.4%	47.4%	15.4%	0.5%	4.6%	3.7%	1.5%	0.6%	0.4%	0.1%	0.0%	1.5%
Eastern Cape	Cacadu	Kou-Kamma	13.2%	69.1%	10.9%	0.4%	2.2%	1.5%	0.5%	0.1%	0.3%	0.0%	0.0%	1.8%
Eastern Cape	Cacadu	Makana	3.1%	85.1%	8.1%	0.0%	0.3%	2.4%	0.2%	0.0%	0.1%	0.0%	0.4%	0.2%
Eastern Cape	Cacadu	Ndlambe	20.4%	35.2%	35.8%	0.7%	1.6%	2.9%	0.8%	0.1%	1.0%	0.0%	0.0%	1.5%
Eastern Cape	Cacadu	Sundays River Valley	11.5%	54.0%	19.2%	0.1%	2.3%	1.0%	0.2%	0.1%	0.1%	0.0%	0.0%	11.4%
Eastern Cape	Chris Hani	Emalahleni	8.0%	71.3%	0.3%	0.7%	4.5%	14.3%	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%
Eastern Cape	Chris Hani	Engcobo	26.5%	32.5%	4.5%	0.0%	18.8%	16.7%	0.4%	0.0%	0.4%	0.0%	0.0%	0.1%
Eastern Cape	Chris Hani	Inkwanca	0.1%	98.4%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.3%	0.0%	0.0%	0.1%

Province	District municipality	Local M.	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Eastern Cape	Chris Hani	Intsika Yethu	15.9%	52.2%	2.6%	0.7%	7.5%	19.8%	0.1%	0.0%	0.2%	0.0%	0.0%	1.0%
Eastern Cape	Chris Hani	Inxuba Yethemba	1.8%	94.6%	0.0%	0.1%	0.4%	0.9%	0.0%	0.0%	0.2%	0.0%	0.0%	2.0%
Eastern Cape	Chris Hani	Lukanji	1.1%	88.4%	0.1%	0.1%	0.7%	7.6%	0.0%	0.1%	0.8%	0.0%	0.4%	0.7%
Eastern Cape	Chris Hani	Sakhisizwe	5.0%	79.3%	2.7%	0.0%	2.0%	10.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.3%
Eastern Cape	Chris Hani	Tsolwana	0.4%	97.8%	0.0%	0.1%	0.0%	1.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.2%
Eastern Cape	Joe Gqabi	Elundini	10.6%	67.3%	7.1%	0.0%	6.0%	7.7%	0.1%	0.1%	0.4%	0.0%	0.0%	0.7%
Eastern Cape	Joe Gqabi	Gariep	0.6%	93.3%	0.0%	1.9%	0.0%	0.9%	0.0%	0.0%	0.2%	0.0%	0.0%	3.1%
Eastern Cape	Joe Gqabi	Maletswai	3.2%	93.1%	0.0%	0.0%	0.1%	1.4%	0.0%	0.0%	0.1%	0.0%	0.0%	2.1%
Eastern Cape	Joe Gqabi	Senqu	4.7%	87.0%	0.0%	0.0%	2.7%	3.3%	0.0%	0.6%	0.3%	0.0%	0.0%	1.4%
Eastern Cape	Nelson Mandela Bay Metr. M.	Nelson Mandela Bay Metr. M.	6.1%	41.0%	14.0%	1.4%	5.8%	5.6%	3.1%	0.3%	1.4%	0.2%	16.8%	4.3%
Eastern Cape	Nkangala	Emalahleni	25.1%	52.5%	0.1%	0.6%	2.6%	8.0%	0.0%	0.1%	1.1%	0.0%	3.1%	6.9%
Eastern Cape	O.R.Tambo	King Sabata Dalindyebo	26.5%	24.2%	3.8%	0.9%	22.7%	16.1%	0.7%	0.9%	1.3%	0.0%	1.5%	1.4%
Eastern Cape	O.R.Tambo	Mhlontlo	14.7%	46.6%	8.7%	0.1%	10.9%	17.0%	0.6%	0.1%	0.1%	0.0%	0.0%	1.2%
Eastern Cape	O.R.Tambo	Ngquza Hill	10.4%	20.5%	7.5%	0.9%	16.0%	18.4%	2.3%	2.4%	1.9%	0.1%	0.0%	19.7%
Eastern Cape	O.R.Tambo	Nyandeni	14.1%	35.4%	6.9%	0.1%	12.8%	18.3%	3.0%	1.1%	1.4%	0.0%	0.1%	6.9%
Eastern Cape	O.R.Tambo	Port St Johns	12.1%	6.6%	25.1%	1.0%	13.7%	12.1%	11.2%	0.8%	0.4%	0.4%	0.0%	16.6%
Free State	Fezile Dabi	Mafube	28.4%	66.5%	0.0%	1.0%	0.3%	1.1%	0.0%	0.0%	0.5%	0.0%	0.0%	2.2%
Free State	Fezile Dabi	Metsimaholo	27.1%	46.2%	0.0%	11.7%	0.8%	3.4%	0.0%	0.4%	0.9%	0.0%	2.7%	6.8%
Free State	Fezile Dabi	Moqhaka	44.1%	51.4%	0.3%	0.1%	1.6%	1.4%	0.0%	0.1%	0.1%	0.0%	0.5%	0.4%
Free State	Fezile Dabi	Ngwathe	32.1%	65.2%	0.0%	0.2%	0.4%	1.2%	0.0%	0.1%	0.5%	0.0%	0.0%	0.2%
Free State	Lejweleputswa	Masilonyana	20.8%	76.3%	0.0%	0.4%	0.1%	0.8%	0.0%	0.0%	0.2%	0.0%	0.0%	1.2%
Free State	Lejweleputswa	Matjhabeng	52.6%	36.3%	0.0%	0.2%	1.6%	1.6%	0.0%	0.4%	0.4%	0.0%	3.1%	3.9%
Free State	Lejweleputswa	Nala	81.0%	14.6%	0.0%	0.1%	0.9%	1.2%	0.0%	0.1%	0.1%	0.0%	0.0%	2.0%
Free State	Lejweleputswa	Tokologo	16.6%	80.5%	0.0%	0.0%	0.1%	0.6%	0.0%	0.0%	0.1%	0.0%	0.0%	2.0%
Free State	Lejweleputswa	Tswelopele	55.9%	35.6%	0.0%	1.8%	0.9%	0.8%	0.0%	0.1%	0.1%	0.0%	0.0%	4.7%
Free State	Mangaung Metr. M.	Mangaung Metr. M.	24.0%	64.8%	0.0%	0.4%	2.4%	3.1%	0.0%	0.1%	0.6%	0.0%	3.6%	1.1%

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Free State	Thabo Mofutsanyane	Dihlabeng	34.2%	56.1%	0.0%	0.1%	3.1%	4.0%	0.0%	0.1%	0.3%	0.0%	0.5%	1.7%
Free State	Thabo Mofutsanyane	Maluti a Phofung	13.8%	74.9%	0.2%	1.6%	0.6%	2.8%	0.0%	0.2%	1.2%	0.0%	2.0%	2.7%
Free State	Thabo Mofutsanyane	Mantsopa	29.8%	66.6%	0.0%	0.1%	0.7%	1.9%	0.0%	0.0%	0.4%	0.0%	0.0%	0.3%
Free State	Thabo Mofutsanyane	Nketoana	48.4%	48.4%	0.0%	0.0%	1.6%	1.2%	0.0%	0.2%	0.2%	0.0%	0.0%	0.1%
Free State	Thabo Mofutsanyane	Phumelela	13.6%	84.1%	0.0%	0.0%	0.4%	1.6%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
Free State	Thabo Mofutsanyane	Setsoto	42.6%	52.8%	0.1%	0.3%	1.0%	1.6%	0.0%	0.2%	0.2%	0.0%	0.2%	0.9%
Free State	Xhariep	Kopanong	2.8%	93.5%	0.0%	1.4%	0.0%	0.9%	0.0%	0.0%	0.1%	0.0%	0.0%	1.3%
Free State	Xhariep	Letsemeng	12.6%	85.0%	0.0%	0.4%	0.3%	0.8%	0.0%	0.0%	0.1%	0.0%	0.0%	0.8%
Free State	Xhariep	Mohokare	4.4%	93.1%	0.0%	0.0%	0.2%	1.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1.3%
Gauteng	City of Johannesburg Metr. M.	City of Johannesburg Metr. M.	1.7%	7.2%	0.0%	0.0%	1.6%	6.7%	0.0%	0.2%	1.8%	0.0%	79.3%	1.5%
Gauteng	City of Tshwane Metr. M.	City of Tshwane Metr. M.	8.5%	32.5%	0.5%	0.3%	2.7%	11.9%	0.2%	0.4%	1.5%	0.0%	18.1%	23.5%
Gauteng	Ekurhuleni Metr. M.	Ekurhuleni Metr. M.	7.6%	9.7%	0.1%	0.2%	5.5%	8.7%	0.1%	0.1%	1.7%	0.0%	61.2%	5.3%
Gauteng	Sedibeng	Emfuleni	22.3%	28.2%	0.0%	0.8%	6.9%	9.8%	0.1%	0.9%	2.4%	0.0%	24.7%	3.7%
Gauteng	Sedibeng	Lesedi	25.5%	54.9%	0.1%	0.1%	2.8%	9.2%	0.0%	0.2%	1.5%	0.0%	0.1%	5.7%
Gauteng	Sedibeng	Midvaal	12.6%	45.8%	0.1%	2.0%	2.6%	22.1%	0.0%	0.3%	1.6%	0.0%	0.6%	12.2%
Gauteng	West Rand	Merafong City	22.5%	57.1%	0.1%	0.2%	1.9%	5.3%	0.0%	0.5%	1.2%	0.0%	1.0%	10.2%
Gauteng	West Rand	Mogale City	9.9%	38.3%	0.9%	0.0%	6.8%	19.4%	0.0%	0.3%	0.8%	0.0%	10.1%	13.4%
Gauteng	West Rand	Randfontein	27.8%	24.8%	0.0%	0.0%	21.5%	9.5%	0.0%	3.3%	1.1%	0.0%	10.2%	1.8%
Gauteng	West Rand	Westonaria	23.6%	49.6%	0.0%	0.0%	2.4%	14.1%	0.0%	0.0%	3.0%	0.0%	0.3%	7.0%
KwaZulu-Natal	Amajuba	Dannhauser	13.3%	57.3%	0.8%	1.9%	7.0%	10.2%	0.0%	2.9%	1.6%	0.0%	0.1%	4.9%
KwaZulu-Natal	Amajuba	Emadlangeni	3.5%	87.6%	1.5%	0.4%	0.8%	5.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.2%
KwaZulu-Natal	Amajuba	Newcastle	6.0%	68.9%	4.6%	0.3%	1.5%	6.9%	0.3%	0.5%	1.3%	0.0%	3.9%	5.8%
KwaZulu-Natal	eThekwinini Metr. M.	Ethekwini Metr. M.	6.2%	10.2%	1.6%	1.3%	6.8%	13.9%	0.9%	5.0%	10.8%	0.4%	35.5%	7.6%
KwaZulu-Natal	iLembe	KwaDukuza	33.6%	4.4%	1.1%	1.2%	37.2%	4.0%	0.9%	7.7%	1.7%	0.1%	5.9%	2.1%
KwaZulu-Natal	iLembe	Mandeni	20.2%	11.7%	1.6%	1.6%	26.8%	20.7%	1.5%	3.5%	8.2%	0.0%	0.0%	4.2%
KwaZulu-Natal	iLembe	Maphumulo	6.8%	21.7%	16.8%	0.1%	13.5%	20.8%	5.5%	1.2%	2.5%	0.7%	0.0%	10.4%

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KwaZulu-Natal	iLembe	Ndwedwe	18.4%	18.8%	7.7%	0.0%	18.4%	17.8%	3.1%	3.2%	2.2%	0.0%	0.0%	10.3%
KwaZulu-Natal	Sisonke	Greater Kokstad	10.2%	83.6%	1.1%	0.1%	1.1%	2.8%	0.0%	0.0%	0.6%	0.0%	0.0%	0.5%
KwaZulu-Natal	Sisonke	Ingwe	16.5%	40.9%	18.2%	0.0%	6.9%	14.9%	1.9%	0.3%	0.2%	0.0%	0.0%	0.3%
KwaZulu-Natal	Sisonke	Kwa Sani	9.8%	79.8%	2.9%	0.1%	0.8%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%
KwaZulu-Natal	Sisonke	Ubuhlebezwe	15.5%	33.9%	20.7%	0.0%	7.1%	12.7%	1.0%	0.8%	0.9%	0.0%	0.0%	7.4%
KwaZulu-Natal	Sisonke	Umzimkhulu	9.9%	46.4%	12.2%	0.0%	7.3%	20.7%	0.6%	0.5%	0.4%	0.0%	0.0%	2.0%
KwaZulu-Natal	Ugu	Ezingoleni	17.6%	36.5%	8.3%	0.0%	6.1%	20.8%	0.6%	2.7%	3.4%	0.0%	0.0%	4.1%
KwaZulu-Natal	Ugu	Hibiscus Coast	14.3%	8.4%	4.4%	0.9%	18.5%	16.1%	1.5%	3.5%	13.3%	0.9%	0.0%	18.1%
KwaZulu-Natal	Ugu	Umdoni	26.9%	4.7%	0.3%	2.3%	21.2%	10.4%	1.1%	12.1%	7.3%	0.7%	0.0%	13.0%
KwaZulu-Natal	Ugu	UMuziwabantu	11.8%	26.7%	30.5%	0.0%	8.0%	15.3%	1.9%	2.4%	1.2%	0.3%	0.0%	1.8%
KwaZulu-Natal	Ugu	Umzumbe	7.0%	26.4%	9.7%	0.2%	8.4%	23.7%	2.2%	1.0%	2.6%	0.1%	0.0%	18.8%
KwaZulu-Natal	Ugu	Vulamehlo	17.3%	13.4%	9.0%	0.0%	5.7%	16.7%	1.9%	1.0%	1.9%	0.2%	0.1%	32.9%
KwaZulu-Natal	Umgungundlovu	Impendle	6.8%	72.6%	4.8%	0.0%	3.0%	6.7%	0.3%	0.0%	0.0%	0.0%	0.0%	5.8%
KwaZulu-Natal	Umgungundlovu	Mkhambathini	23.1%	27.7%	3.9%	0.1%	13.1%	13.9%	0.4%	1.5%	2.6%	0.0%	0.0%	13.7%
KwaZulu-Natal	Umgungundlovu	Mpofana	13.0%	71.7%	3.3%	0.1%	3.4%	6.5%	0.2%	0.0%	0.5%	0.1%	0.0%	1.2%
KwaZulu-Natal	Umgungundlovu	Richmond	18.6%	23.9%	34.6%	0.0%	5.8%	6.1%	2.5%	0.2%	0.9%	0.3%	0.0%	7.1%
KwaZulu-Natal	Umgungundlovu	The Msunduzi	4.1%	19.5%	4.1%	0.0%	2.3%	9.2%	1.7%	6.2%	15.7%	1.9%	23.4%	11.7%
KwaZulu-Natal	Umgungundlovu	uMngeni	20.3%	42.8%	15.7%	1.7%	7.4%	6.3%	1.5%	0.3%	1.4%	0.2%	0.0%	2.5%
KwaZulu-Natal	Umgungundlovu	uMshwathi	33.5%	17.8%	20.4%	0.8%	14.2%	7.4%	1.9%	1.3%	1.1%	0.0%	0.0%	1.6%
KwaZulu-Natal	Umkhanyakude	Hlabisa	10.2%	11.2%	6.8%	0.1%	8.9%	8.0%	1.4%	0.6%	0.2%	0.0%	0.0%	52.7%
KwaZulu-Natal	Umkhanyakude	Jozini	8.2%	22.3%	12.9%	0.4%	6.4%	8.7%	1.9%	0.4%	0.4%	0.1%	0.0%	38.4%
KwaZulu-Natal	Umkhanyakude	Mtubatuba	17.9%	10.4%	23.6%	4.8%	18.8%	8.5%	2.8%	3.7%	1.3%	0.2%	0.0%	7.9%
KwaZulu-Natal	Umkhanyakude	The Big 5 False Bay	8.1%	24.3%	18.2%	12.8%	2.6%	3.7%	0.7%	0.0%	0.0%	0.0%	0.0%	29.6%
KwaZulu-Natal	Umkhanyakude	Umhlabuyalingana	8.0%	12.8%	30.6%	2.9%	7.3%	5.9%	3.1%	1.5%	0.1%	0.0%	0.0%	27.7%
KwaZulu-Natal	Umzinyathi	Endumeni	9.3%	80.3%	0.6%	0.0%	1.6%	6.0%	0.1%	0.4%	0.8%	0.1%	0.0%	0.7%
KwaZulu-Natal	Umzinyathi	Msinga	9.5%	50.7%	1.0%	0.0%	9.9%	25.9%	0.2%	0.8%	1.0%	0.0%	0.0%	1.1%

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KwaZulu-Natal	Umzinyathi	Nqutu	27.7%	36.0%	0.1%	0.0%	17.9%	14.8%	0.0%	1.7%	1.1%	0.0%	0.0%	0.7%
KwaZulu-Natal	Umzinyathi	Umvoti	18.7%	32.6%	26.8%	0.0%	6.6%	8.7%	2.8%	0.5%	0.5%	0.3%	0.0%	2.3%
KwaZulu-Natal	Uthukela	Emnambithi/Ladysmith	3.4%	79.2%	0.7%	0.0%	1.9%	9.3%	0.0%	1.3%	1.6%	0.0%	0.7%	1.8%
KwaZulu-Natal	Uthukela	Imbabazane	6.8%	71.2%	0.3%	0.0%	5.2%	8.5%	0.1%	1.0%	2.1%	0.0%	0.0%	4.9%
KwaZulu-Natal	Uthukela	Indaka	16.3%	50.4%	0.4%	0.0%	8.3%	19.8%	0.0%	3.7%	0.0%	0.0%	0.0%	1.0%
KwaZulu-Natal	Uthukela	Okhahlamba	13.4%	69.8%	1.0%	1.3%	5.8%	6.5%	0.0%	0.9%	0.3%	0.0%	0.0%	1.0%
KwaZulu-Natal	Uthukela	Umtshezi	1.9%	77.9%	0.1%	0.3%	2.0%	16.2%	0.0%	0.1%	0.6%	0.0%	0.0%	0.9%
KwaZulu-Natal	Uthungulu	Mfolozi	17.5%	14.2%	27.7%	0.9%	14.2%	14.5%	5.5%	0.8%	0.8%	0.7%	0.0%	3.1%
KwaZulu-Natal	Uthungulu	Mthonjaneni	18.1%	26.4%	25.4%	0.3%	4.7%	15.4%	1.8%	0.0%	0.5%	0.0%	0.0%	7.5%
KwaZulu-Natal	Uthungulu	Nkandla	14.1%	44.5%	6.3%	0.0%	10.2%	19.9%	0.8%	0.0%	0.0%	0.0%	0.0%	4.1%
KwaZulu-Natal	Uthungulu	Ntambanana	13.7%	37.3%	3.8%	0.0%	6.0%	28.9%	0.1%	1.0%	1.0%	0.0%	0.0%	8.1%
KwaZulu-Natal	Uthungulu	uMhlathuze	20.3%	2.4%	14.6%	4.6%	18.4%	3.6%	2.5%	10.9%	3.7%	2.1%	6.4%	10.5%
KwaZulu-Natal	Uthungulu	uMlalazi	20.3%	26.6%	5.7%	0.4%	17.3%	20.5%	0.7%	1.8%	1.3%	0.0%	0.0%	5.2%
KwaZulu-Natal	Zululand	Abaqulusi	10.3%	63.2%	9.5%	0.1%	3.0%	9.1%	1.0%	0.4%	0.8%	0.0%	0.0%	2.7%
KwaZulu-Natal	Zululand	eDumbe	15.5%	54.9%	12.2%	0.2%	4.6%	8.5%	2.0%	0.5%	0.4%	0.1%	0.0%	1.1%
KwaZulu-Natal	Zululand	Nongoma	18.2%	36.8%	1.5%	0.0%	18.5%	17.8%	0.4%	1.1%	0.7%	0.0%	0.0%	4.9%
KwaZulu-Natal	Zululand	Ulundi	7.3%	63.1%	3.2%	0.0%	7.3%	16.1%	0.1%	0.8%	0.7%	0.0%	0.0%	1.4%
KwaZulu-Natal	Zululand	UPhongolo	8.7%	40.0%	13.9%	3.5%	6.9%	4.7%	0.6%	1.4%	0.6%	0.1%	0.0%	19.8%
Limpopo	Capricorn	Aganang	27.6%	48.1%	0.0%	0.0%	6.3%	7.8%	0.0%	0.1%	0.3%	0.0%	0.0%	9.8%
Limpopo	Capricorn	Blouberg	5.9%	68.1%	0.7%	0.0%	2.5%	2.2%	0.0%	0.1%	0.3%	0.0%	0.0%	20.1%
Limpopo	Capricorn	Lepele-Nkumpi	8.7%	61.2%	4.5%	0.0%	3.1%	5.8%	0.0%	0.4%	0.9%	0.0%	0.0%	15.4%
Limpopo	Capricorn	Molemole	10.8%	76.8%	1.1%	0.0%	1.5%	2.9%	0.0%	0.7%	0.3%	0.0%	0.0%	5.9%
Limpopo	Capricorn	Polokwane	13.2%	58.7%	0.0%	0.0%	5.1%	7.9%	0.0%	1.5%	1.7%	0.0%	3.4%	8.4%
Limpopo	Mopani	Ba-Phalaborwa	1.3%	14.2%	2.8%	0.1%	0.4%	0.4%	0.1%	0.1%	0.5%	0.0%	0.0%	80.1%
Limpopo	Mopani	Greater Giyani	8.6%	10.1%	3.6%	0.3%	2.8%	2.9%	0.0%	1.1%	0.6%	0.0%	0.0%	70.0%
Limpopo	Mopani	Greater Letaba	10.1%	22.4%	7.3%	0.0%	5.4%	6.8%	0.3%	2.4%	2.0%	0.1%	0.0%	43.0%

Province	District municipality	Local M.	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Limpopo	Mopani	Greater Tzaneen	18.0%	12.1%	16.9%	0.3%	6.6%	3.2%	1.8%	3.6%	1.9%	0.1%	0.0%	35.4%
Limpopo	Mopani	Maruleng	5.3%	37.2%	5.3%	0.0%	1.9%	2.6%	0.2%	0.5%	0.6%	0.0%	0.0%	46.4%
Limpopo	Sekhukhune	Elias Motsoaledi	11.2%	67.6%	1.9%	0.0%	4.3%	6.8%	0.1%	1.5%	1.2%	0.0%	0.0%	5.4%
Limpopo	Sekhukhune	Ephraim Mogale	18.6%	38.8%	0.1%	0.6%	11.5%	7.2%	0.0%	0.3%	0.5%	0.0%	0.0%	22.4%
Limpopo	Sekhukhune	Fetakgomo	17.4%	48.1%	0.0%	0.0%	6.7%	12.2%	0.0%	2.6%	4.0%	0.0%	0.0%	9.0%
Limpopo	Sekhukhune	Greater Tubatse	3.8%	71.6%	0.3%	0.0%	2.5%	11.3%	0.0%	1.4%	3.5%	0.0%	0.0%	5.5%
Limpopo	Sekhukhune	Makhuduthamaga	28.7%	34.2%	0.1%	0.0%	10.0%	10.2%	0.0%	5.2%	2.4%	0.0%	0.0%	9.2%
Limpopo	Vhembe	Makhado	4.1%	60.7%	7.1%	0.1%	1.6%	3.7%	0.4%	1.9%	1.8%	0.1%	0.0%	18.6%
Limpopo	Vhembe	Musina	1.5%	63.7%	0.1%	0.1%	0.7%	1.5%	0.0%	0.0%	0.1%	0.0%	0.0%	32.4%
Limpopo	Vhembe	Mutale	4.2%	41.0%	12.9%	0.3%	1.9%	4.2%	0.3%	0.3%	0.0%	0.0%	0.0%	34.8%
Limpopo	Vhembe	Thulamela	5.2%	11.6%	8.0%	0.3%	2.4%	3.9%	0.5%	3.1%	2.2%	0.1%	0.8%	61.8%
Limpopo	Waterberg	Bela-Bela	27.6%	48.9%	0.5%	0.1%	2.5%	2.2%	0.0%	0.1%	0.2%	0.0%	0.0%	17.8%
Limpopo	Waterberg	Lephalale	4.1%	52.4%	0.8%	0.0%	0.7%	0.7%	0.0%	0.1%	0.0%	0.0%	0.0%	41.1%
Limpopo	Waterberg	Modimolle	15.6%	59.2%	0.5%	0.0%	0.9%	1.5%	0.0%	0.1%	0.1%	0.0%	0.0%	22.2%
Limpopo	Waterberg	Mogalakwena	7.9%	47.7%	0.2%	0.0%	2.5%	3.4%	0.0%	0.5%	0.5%	0.0%	0.7%	36.5%
Limpopo	Waterberg	Mookgopong	39.5%	33.3%	0.2%	0.1%	1.3%	0.5%	0.0%	0.1%	0.0%	0.0%	0.0%	25.1%
Limpopo	Waterberg	Thabazimbi	6.8%	40.0%	0.4%	0.0%	0.9%	0.8%	0.0%	0.0%	0.1%	0.0%	0.0%	50.9%
Mpumalanga	Ehlanzeni	Bushbuckridge	3.3%	34.5%	10.5%	0.0%	1.2%	1.0%	0.2%	1.1%	1.2%	0.0%	0.0%	47.0%
Mpumalanga	Ehlanzeni	Mbombela	9.5%	40.7%	19.2%	0.1%	3.6%	4.0%	0.7%	0.7%	1.2%	0.1%	2.7%	17.5%
Mpumalanga	Ehlanzeni	Nkomazi	19.4%	21.1%	16.9%	0.3%	6.0%	1.4%	0.7%	1.4%	1.2%	0.1%	0.7%	30.7%
Mpumalanga	Ehlanzeni	Thaba Chweu	14.7%	55.3%	23.2%	0.3%	1.5%	2.6%	0.6%	0.1%	0.2%	0.1%	0.0%	1.5%
Mpumalanga	Ehlanzeni	Umjindi	12.8%	25.9%	35.5%	0.0%	2.9%	2.9%	1.0%	0.2%	0.6%	0.0%	0.0%	18.2%
Mpumalanga	Gert Sibande	Albert Luthuli	11.4%	69.7%	9.8%	0.4%	1.0%	5.3%	0.3%	0.4%	0.8%	0.0%	0.0%	1.0%
Mpumalanga	Gert Sibande	Dipaleseng	30.9%	62.9%	0.0%	1.1%	0.9%	1.2%	0.0%	0.1%	0.4%	0.0%	0.0%	2.5%
Mpumalanga	Gert Sibande	Govan Mbeki	19.3%	66.9%	0.0%	0.4%	1.2%	4.7%	0.0%	0.1%	1.1%	0.0%	1.3%	4.8%
Mpumalanga	Gert Sibande	Lekwa	23.7%	67.5%	0.0%	0.7%	2.0%	4.6%	0.0%	0.0%	0.2%	0.0%	0.7%	0.5%

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Mpumalanga	Gert Sibande	Mkhondo	19.3%	46.4%	21.7%	1.1%	3.3%	5.1%	1.4%	0.4%	0.3%	0.0%	0.4%	0.5%
Mpumalanga	Gert Sibande	Msukaligwa	14.6%	71.2%	7.7%	1.0%	0.5%	3.6%	0.4%	0.0%	0.2%	0.0%	0.4%	0.3%
Mpumalanga	Gert Sibande	Pixley Ka Seme	5.6%	89.4%	0.1%	0.0%	0.4%	3.6%	0.0%	0.1%	0.6%	0.0%	0.0%	0.1%
Mpumalanga	Nkangala	Dr JS Moroka	10.6%	49.1%	0.0%	2.0%	4.9%	8.4%	0.0%	2.2%	3.6%	0.0%	0.0%	19.2%
Mpumalanga	Nkangala	Emakhazeni	11.8%	77.7%	6.9%	0.0%	0.6%	2.2%	0.1%	0.0%	0.3%	0.0%	0.0%	0.3%
Mpumalanga	Nkangala	Steve Tshwete	33.8%	51.0%	0.8%	0.5%	3.2%	5.4%	0.1%	0.1%	0.5%	0.0%	1.5%	3.3%
Mpumalanga	Nkangala	Thembisile	8.7%	77.6%	0.7%	0.4%	0.4%	3.9%	0.0%	0.2%	3.0%	0.0%	2.9%	2.1%
Mpumalanga	Nkangala	Victor Khanye	47.1%	36.0%	0.1%	0.0%	8.5%	6.9%	0.0%	0.1%	0.8%	0.0%	0.0%	0.5%
North West	Bojanala	Kgetlengrivier	20.0%	68.0%	4.1%	0.1%	2.1%	5.2%	0.2%	0.1%	0.3%	0.0%	0.0%	0.1%
North West	Bojanala	of Madibeng	7.7%	58.8%	0.3%	0.8%	9.9%	13.2%	0.3%	0.5%	1.8%	0.0%	4.2%	2.4%
North West	Bojanala	Moretele	9.9%	52.4%	0.0%	0.0%	3.5%	10.3%	0.0%	1.1%	4.0%	0.0%	0.2%	18.6%
North West	Bojanala	Moses Kotane	8.5%	79.1%	0.6%	0.2%	0.8%	5.3%	0.1%	0.2%	1.1%	0.0%	0.0%	4.1%
North West	Bojanala	Rustenburg	12.1%	58.8%	2.6%	0.4%	5.2%	10.1%	0.2%	0.6%	3.5%	0.0%	2.4%	4.2%
North West	Dr Kenneth Kaunda	City of Matlosana	27.5%	56.3%	0.0%	0.1%	2.4%	5.0%	0.0%	0.2%	0.9%	0.0%	2.9%	4.7%
North West	Dr Kenneth Kaunda	Maquassi Hills	46.8%	46.9%	0.0%	0.9%	1.5%	2.4%	0.0%	0.1%	0.5%	0.0%	0.0%	0.9%
North West	Dr Kenneth Kaunda	Tlokwe City Council	15.9%	71.9%	0.8%	0.2%	2.9%	5.3%	0.0%	0.2%	0.2%	0.0%	1.9%	0.6%
North West	Dr Kenneth Kaunda	Ventersdorp	30.5%	63.3%	0.1%	0.1%	2.4%	3.0%	0.0%	0.1%	0.4%	0.0%	0.0%	0.1%
North West	Dr Ruth Segomotsi Mompoti	Greater Taung	4.2%	85.6%	0.0%	0.2%	1.6%	4.6%	0.0%	0.2%	0.4%	0.0%	0.0%	3.3%
North West	Dr Ruth Segomotsi Mompoti	Kagisano/Molopo	10.0%	13.0%	0.0%	0.0%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	76.2%
North West	Dr Ruth Segomotsi Mompoti	Lekwa-Teemane	10.8%	85.4%	0.0%	1.3%	0.1%	1.7%	0.0%	0.0%	0.4%	0.0%	0.0%	0.3%
North West	Dr Ruth Segomotsi Mompoti	Mamusa	43.9%	52.1%	0.0%	0.1%	1.5%	2.1%	0.0%	0.2%	0.1%	0.0%	0.0%	0.2%
North West	Dr Ruth Segomotsi Mompoti	Naledi	18.1%	78.5%	0.0%	0.0%	0.8%	1.5%	0.0%	0.0%	0.1%	0.0%	0.0%	1.0%
North West	Ngaka Modiri Molema	Ditsobotla	43.4%	48.3%	0.0%	0.0%	4.0%	2.9%	0.0%	0.4%	0.1%	0.0%	0.0%	0.7%
North West	Ngaka Modiri Molema	Mafikeng	39.8%	42.0%	0.0%	0.2%	8.0%	4.3%	0.0%	0.5%	0.4%	0.0%	2.1%	2.9%

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North West	Ngaka Modiri Molema	Ramotshere Moiloa	4.2%	74.9%	0.3%	0.3%	1.1%	4.5%	0.0%	0.2%	0.7%	0.0%	0.0%	14.0%
North West	Ngaka Modiri Molema	Ratlou	39.7%	44.8%	0.0%	0.1%	2.2%	1.5%	0.0%	0.3%	0.2%	0.0%	0.0%	11.2%
North West	Ngaka Modiri Molema	Tswaing	74.2%	17.3%	0.0%	0.4%	4.9%	2.1%	0.0%	0.5%	0.2%	0.0%	0.0%	0.6%
North West	Xhariep	Naledi	6.9%	88.9%	0.0%	0.5%	0.3%	1.2%	0.0%	0.0%	0.4%	0.0%	0.0%	1.8%
Northern Cape	Frances Baard	Dikgatlong	0.8%	0.8%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	97.9%
Northern Cape	Frances Baard	Magareng	5.6%	1.3%	0.0%	0.6%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	91.6%
Northern Cape	Frances Baard	Phokwane	34.7%	5.0%	0.0%	0.1%	6.2%	0.4%	0.0%	0.4%	0.5%	0.0%	0.0%	52.8%
Northern Cape	Frances Baard	Sol Plaatjie	1.5%	2.1%	0.0%	0.0%	0.4%	0.1%	0.0%	0.0%	0.1%	0.0%	2.0%	93.9%
Northern Cape	John Taolo Gaetsewe	Gamagara	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.8%
Northern Cape	John Taolo Gaetsewe	Ga-Segonyana	0.2%	6.4%	0.0%	0.0%	0.1%	0.6%	0.0%	0.0%	0.7%	0.0%	0.0%	92.0%
Northern Cape	John Taolo Gaetsewe	Joe Morolong	0.8%	9.8%	0.0%	0.0%	0.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	88.6%
Northern Cape	Namakwa	Hantam	0.7%	24.2%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	75.0%
Northern Cape	Namakwa	Kamiesberg	1.0%	6.5%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	92.4%
Northern Cape	Namakwa	Karoo Hoogland	0.1%	35.7%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	64.1%
Northern Cape	Namakwa	Khâi-Ma	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.7%
Northern Cape	Namakwa	Nama Khoi	0.1%	0.7%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.1%
Northern Cape	Namakwa	Richtersveld	0.1%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.6%
Northern Cape	Pixley ka Seme	Emthanjeni	0.1%	34.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	65.3%
Northern Cape	Pixley ka Seme	Kareeberg	0.1%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	93.1%
Northern Cape	Pixley ka Seme	Renosterberg	0.8%	29.9%	0.0%	1.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	67.9%
Northern Cape	Pixley ka Seme	Siyancuma	1.7%	1.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	97.0%
Northern Cape	Pixley ka Seme	Siyathemba	0.9%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	98.4%
Northern Cape	Pixley ka Seme	Thembehle	1.7%	1.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	97.0%
Northern Cape	Pixley ka Seme	Ubuntu	0.0%	61.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	38.5%
Northern Cape	Pixley ka Seme	Umsobomvu	0.2%	90.4%	0.0%	0.3%	0.0%	0.7%	0.0%	0.0%	0.2%	0.0%	0.0%	8.2%
Northern Cape	Siyanda	!Kheis	0.3%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.2%

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Northern Cape	Siyanda	//Khara Hais	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	99.5%
Northern Cape	Siyanda	Kai !Garib	0.3%	0.8%	0.0%	0.0%	0.6%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	98.0%
Northern Cape	Siyanda	Kgatelopele	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.2%
Northern Cape	Siyanda	Mier	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.3%
Northern Cape	Siyanda	Tsantsabane	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	99.9%
Western Cape	Cape Winelands	Breede Valley	8.0%	76.4%	0.2%	0.9%	5.1%	3.3%	0.0%	0.4%	0.3%	0.0%	0.7%	4.7%
Western Cape	Cape Winelands	Drakenstein	34.4%	35.1%	0.8%	1.0%	19.5%	1.8%	0.0%	2.1%	0.1%	0.0%	3.2%	2.1%
Western Cape	Cape Winelands	Langeberg	9.9%	81.5%	0.2%	0.0%	2.9%	2.8%	0.0%	0.3%	0.4%	0.0%	0.0%	2.0%
Western Cape	Cape Winelands	Stellenbosch	15.8%	22.0%	0.7%	0.0%	34.4%	3.7%	0.4%	3.0%	0.1%	0.1%	2.9%	16.9%
Western Cape	Cape Winelands	Witzenberg	5.3%	70.5%	0.0%	0.0%	2.6%	2.0%	0.0%	0.2%	0.0%	0.0%	0.0%	19.3%
Western Cape	Central Karoo	Beaufort West	0.1%	74.9%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	24.6%
Western Cape	Central Karoo	Laingsburg	0.1%	85.3%	0.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	14.2%
Western Cape	Central Karoo	Prince Albert	0.1%	61.4%	0.0%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	37.9%
Western Cape	City of Cape Town Metr. M.	City of Cape Town Metr. M.	19.6%	13.0%	1.5%	2.8%	5.4%	3.1%	0.4%	0.7%	1.0%	0.1%	29.8%	22.5%
Western Cape	Eden	Bitou	9.0%	19.4%	57.4%	1.6%	1.8%	1.0%	3.9%	0.2%	0.4%	0.5%	0.0%	4.7%
Western Cape	Eden	George	9.2%	70.9%	7.8%	0.3%	3.0%	1.6%	0.7%	0.3%	0.0%	0.1%	0.7%	5.5%
Western Cape	Eden	Hessequa	40.1%	48.0%	6.6%	0.3%	1.9%	1.1%	0.2%	0.2%	0.1%	0.0%	0.0%	1.5%
Western Cape	Eden	Kannaland	2.0%	89.4%	0.0%	0.0%	1.1%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	6.2%
Western Cape	Eden	Knysna	8.1%	7.1%	68.9%	3.1%	2.2%	1.0%	4.3%	0.2%	0.6%	0.7%	0.0%	3.8%
Western Cape	Eden	Mossel Bay	30.0%	49.6%	10.8%	0.7%	2.2%	2.3%	0.8%	0.3%	0.3%	0.0%	1.0%	1.9%
Western Cape	Eden	Oudtshoorn	5.0%	83.5%	0.1%	0.1%	3.8%	2.9%	0.0%	0.1%	0.2%	0.0%	0.5%	3.9%
Western Cape	Overberg	Cape Agulhas	48.0%	31.6%	3.3%	0.8%	1.4%	0.5%	0.1%	0.1%	0.1%	0.0%	0.0%	14.1%
Western Cape	Overberg	Overstrand	11.6%	56.2%	4.5%	2.3%	0.9%	4.3%	0.3%	0.1%	0.5%	0.0%	0.0%	19.2%
Western Cape	Overberg	Swellendam	44.1%	47.3%	1.9%	0.1%	1.9%	0.9%	0.1%	0.0%	0.1%	0.0%	0.0%	3.6%
Western Cape	Overberg	Theewaterskloof	48.5%	32.5%	1.9%	1.1%	7.5%	3.7%	0.2%	0.3%	0.2%	0.0%	0.0%	4.1%
Western Cape	West Coast	Bergrivier	52.0%	32.4%	0.0%	0.2%	5.8%	2.0%	0.0%	0.2%	0.1%	0.0%	0.0%	7.2%

Province	District municipality	Local M.	Class 1	Class 2	Class 3	Class 5	Class 11	Class 12	Class 13	Class 21	Class 22	Class 23	Class 31	Class 40
Western Cape	West Coast	Cederberg	18.3%	50.8%	0.0%	0.3%	1.9%	0.7%	0.0%	0.1%	0.1%	0.0%	0.0%	27.9%
Western Cape	West Coast	Matzikama	5.8%	73.5%	0.0%	0.0%	0.5%	0.7%	0.0%	0.1%	0.1%	0.0%	0.0%	19.3%
Western Cape	West Coast	Saldanha Bay	47.2%	34.2%	0.1%	0.9%	1.8%	1.9%	0.0%	0.7%	0.3%	0.0%	0.0%	12.9%
Western Cape	West Coast	Swartland	73.2%	13.0%	0.0%	0.2%	10.9%	0.9%	0.0%	0.5%	0.1%	0.0%	0.0%	1.2%

Annex 7.

Distribution of population in rural classes (test countries)

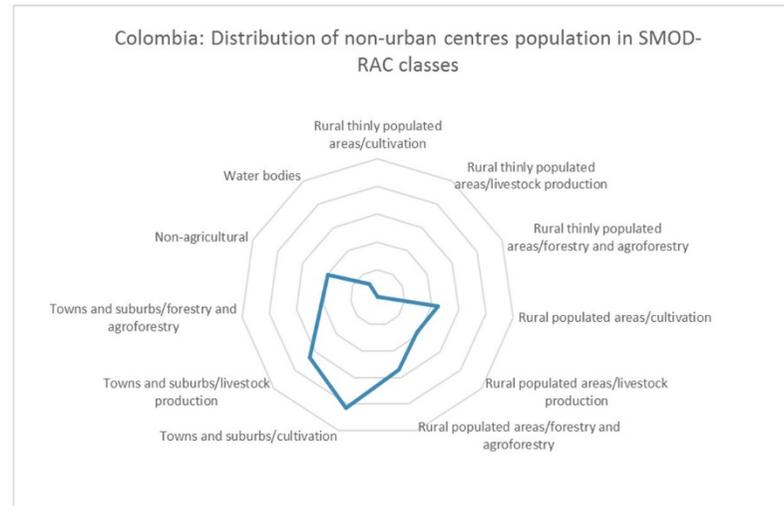
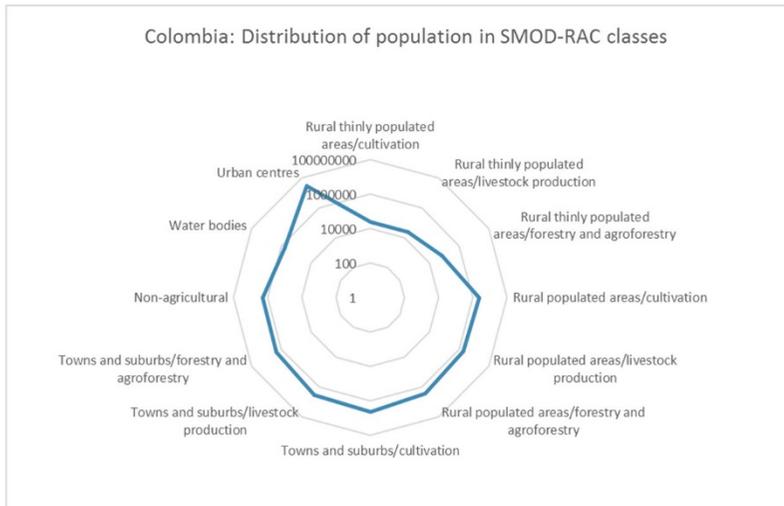
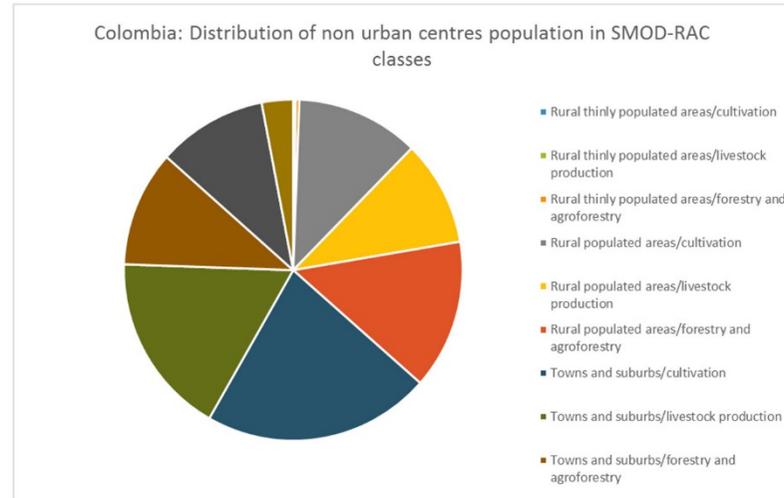
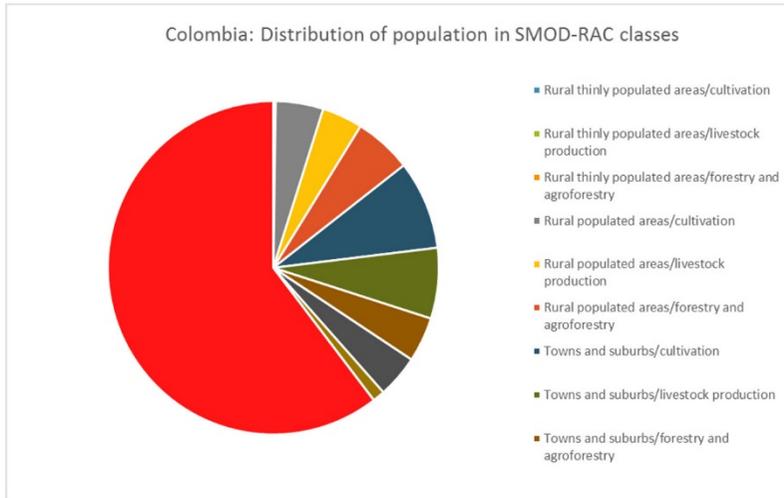
This annex reports, for each test country considered, pie charts and radar charts with the distribution of the population among rural typology classes.

For both types of graphs, the left one includes all rural typologies, while the one on the right does not consider the population living in the “urban centres” class.

The values of radar graphs including all rural typologies are in logarithmic scale in order to balance the effects of highest values in the “urban centres” class.

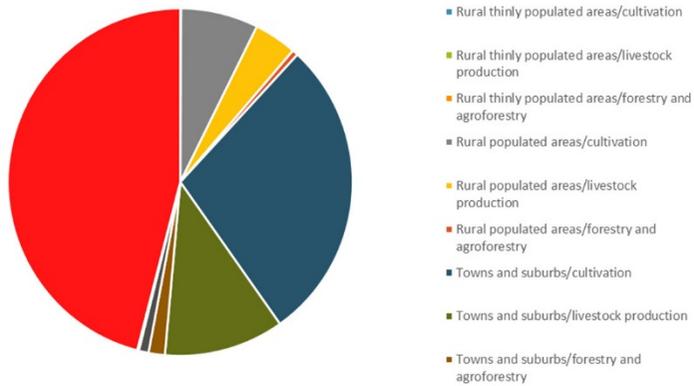
Data sources for the preparation of graphs are available in an Excel file, which is included in the data package.

Colombia

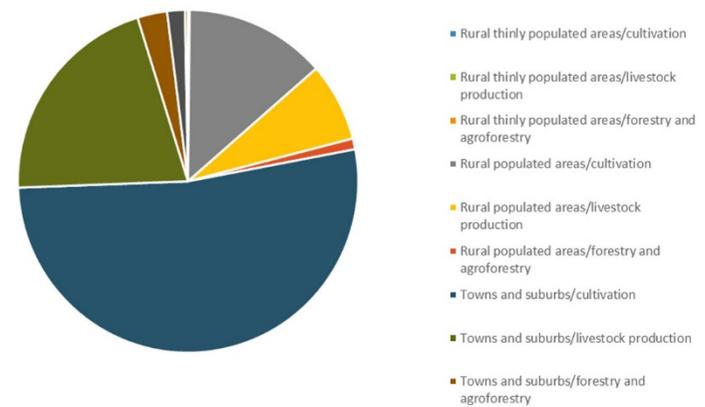


Ethiopia

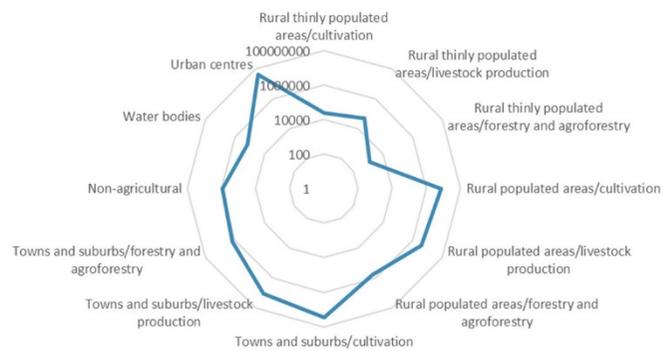
Ethiopia: Distribution of population in SMOD-RAC classes



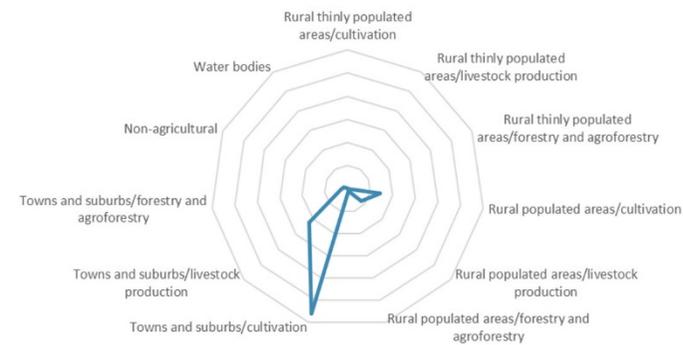
Ethiopia: Distribution of non urban centres population in SMOD-RAC classes



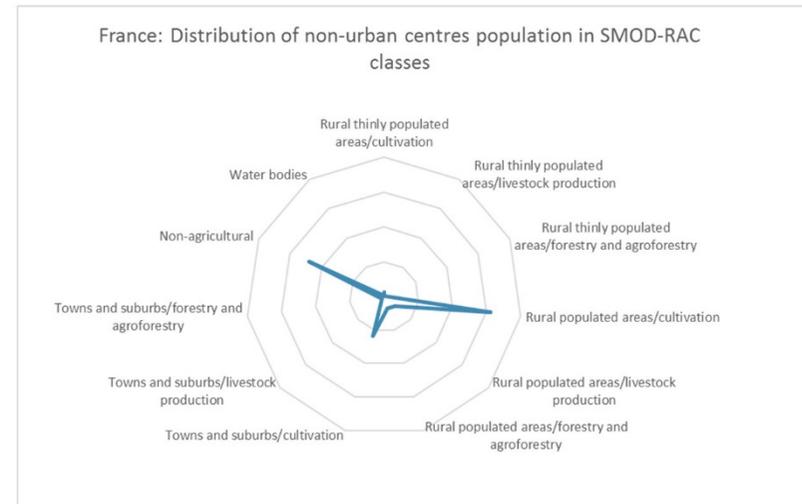
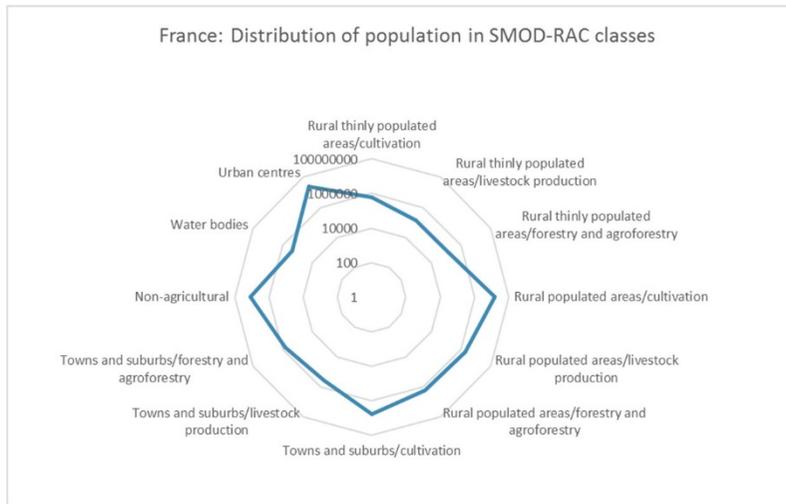
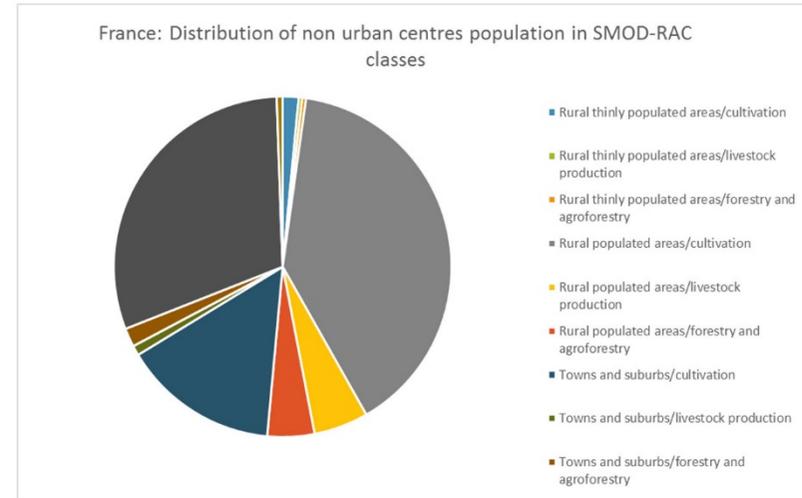
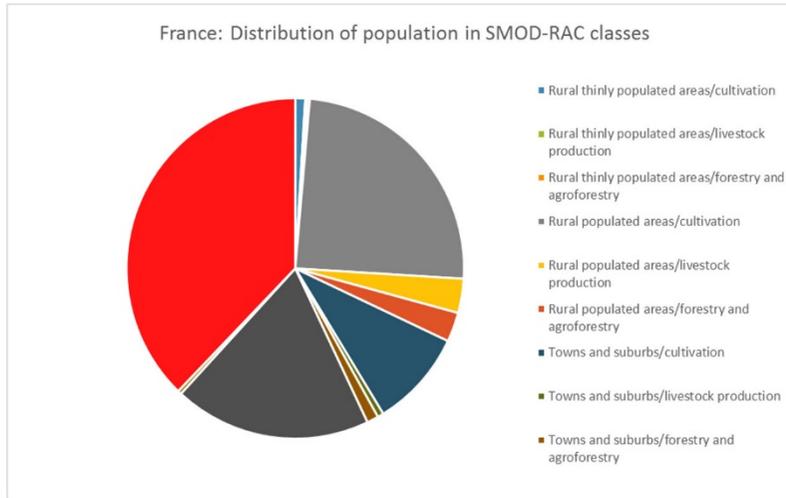
Ethiopia: Distribution of population in SMOD-RAC classes



Ethiopia: Distribution of non-urban centres population in SMOD-RAC classes

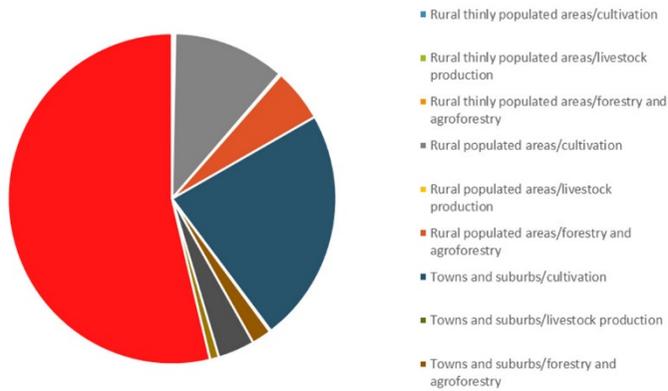


France

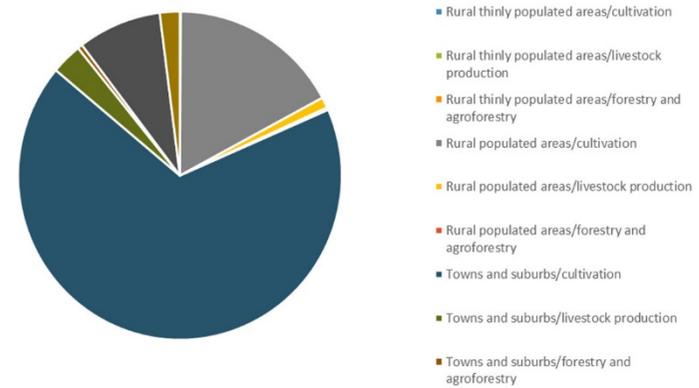


Pakistan

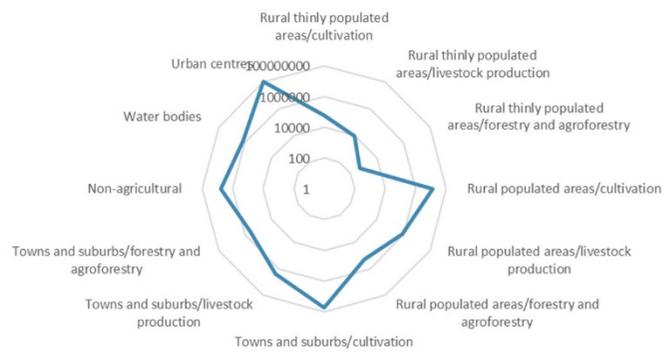
Pakistan: Distribution of population in SMOD-RAC classes



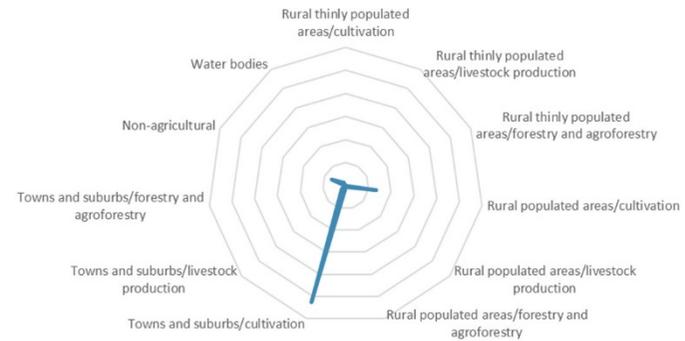
Pakistan: Distribution of non urban centres population in SMOD-RAC classes



Pakistan: Distribution of population in SMOD-RAC classes



Pakistan: Distribution of non-urban centres population in SMOD-RAC classes



South Africa

