

# SECOND ADMINISTRATIVE LEVEL BOUNDARIES DATA SPECIFICATIONS

Version 2.0

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## TERMINOLOGY

<b>Data specifications</b>	Detailed description of a data set or data set series together with additional information that will enable it to be created, supplied to, and used by another party
<b>Common geographies</b>	A set of geographies, such as administrative units, for the display, storage, reporting, and analysis of social, economic and environmental comparisons across statistical datasets from different sources
<b>Functional Areas</b>	Geographical extent of administrative, legislative, regulatory, electoral, statistical, governance, service delivery and activity management areas
<b>Administrative units</b>	Delineated geographical areas within a particular sovereign state or territory created for the purpose of administration
<b>Coding system</b>	Specific methods and processes of establishing and assigning a unique and consistent code (identifier) to the data through time and space
<b>Geospatial data</b>	Also referred to as "spatial data," data about the locations and shapes of geographic features and the relationships between them, usually stored as coordinates and topology
<b>Geospatial dataset</b>	A specific set of geospatial data
<b>Geographic feature</b>	A representation of a real-world object in a geospatial dataset in the shape of a specific geometry type
<b>Geometry type</b>	Type of geometric entity represented by either points, lines or polygons
<b>Encoding</b>	Process of converting data or a given sequence of characters, symbols, alphabets, etc., into a specified format for the secure transmission of data
<b>Metadata</b>	A set of data that describes and gives information about other data

## ACRONYMS

<b>UN-GGIM</b>	Committee of Experts on Global Geospatial Information Management <a href="http://ggim.un.org/documents/E_Res_2011.24_en.pdf">http://ggim.un.org/documents/E_Res_2011.24_en.pdf</a>
<b>UNGEGN</b>	United Nations Group of Experts on Geographic Names <a href="https://unstats.un.org/unsd/ungegn/">https://unstats.un.org/unsd/ungegn/</a>
<b>UNTERM</b>	United Nations Terminology Database <a href="https://unterm.un.org/unterm/portal/welcome">https://unterm.un.org/unterm/portal/welcome</a>
<b>ISO</b>	International Organization for Standardization <a href="https://www.iso.org/home.html">https://www.iso.org/home.html</a>
<b>SALB</b>	Second Administrative Level Boundaries programme
<b>NGIA</b>	National Geospatial Information Authority, used as an encompassing term to cover National Mapping, National Cartographic, National Geospatial Information Agencies and Authorities
<b>XML</b>	eXtensible Markup Language
<b>UTF-8</b>	Unicode Transformation Format 8-bit

## INTRODUCTION

The Second Administrative Level Boundaries (SALB) programme of the United Nations makes available a global repository of authoritative information and geospatial data about the administrative structure of countries down to the second subnational level, and through time. Administrative units are part of the minimum list of “Global Fundamental Geospatial Data Themes”<sup>1</sup> defined by the Committee of Experts on Global Geospatial Information Management (UN-GGIM) under the theme of “Functional Areas.”

The SALB Data, hereinafter Data, encompasses the Historical tables and Geospatial data, along with their associated codes, and products collected, compiled, and shared in the context of the SALB programme. All terms in upper case refer specifically to SALB Data products as Geospatial data, Historical table and Coding system.

This Data Specification document describes the methods, parameters and components of the Data made available on administrative units in the context of the SALB programme. The application of the Data Specification is the mean for a common and global representation of administrative units of Member States.

The Data Specification is composed of four main sections:

- **General characteristics** provides an overview of the definition, usage, classification, processes, parameters, names and products published.
- **Coding system** details the methodology and processes for assigning the unique identifiers, or codes, across administrative units and through time. These codes are consistently applied both to the Historical table and the Geospatial data.
- **Historical table** specifies the content and format of the table to summarize and present the historical changes to the administrative structure of a given country for the 1<sup>st</sup> and 2<sup>nd</sup> subnational levels since January 2000, and when available, before that for 1<sup>st</sup> subnational level.
- **Geospatial data** presents the parameters of the geospatial data for 1<sup>st</sup> and 2<sup>nd</sup> subnational level administrative units of a given country since January 2000.

## DISCLAIMER AND TERMS

The designations employed and the presentation of material of the SALB programme of the United Nations do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The Terms for the Contribution of Data in the context of the SALB programme are detailed under Annex 01, see page 30.

The Terms of Use of the Data published in the context of the SALB programme are detailed under Annex 02, see page 32.

## SECTION 1- GENERAL CHARACTERISTICS

### 1.1 DEFINITIONS AND ROLE

In the context of the SALB programme, drawing from the general definition<sup>2</sup>, an administrative unit can be defined as a delineated geographical area within a particular sovereign state or territory created for the purpose of administration.

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<sup>1</sup> UN-GGIM (2018) “Minimum list of global fundamental geospatial data themes” [E/C.20/2018/7/Add.1](#)

<sup>2</sup> Wikipedia “Administrative divisions” [https://en.wikipedia.org/wiki/Administrative\\_division](https://en.wikipedia.org/wiki/Administrative_division) [Accessed 26 February 2021]

Administrative units are further defined in Europe as “units of administration, dividing areas where Member States have and/or exercise jurisdictional rights, for local, regional and national governance, separated by administrative boundaries.”<sup>3</sup>

The Global Statistical Geospatial Framework considers administrative units as common geographies, the latter defined as “an agreed set of geographies for the display, storage, reporting, and analysis of social, economic and environmental comparisons across statistical datasets from different sources.”<sup>4</sup>

Common geographies have been identified as key to the consistent aggregation and dissemination of statistical data for measuring and monitoring of the targets and indicators for the Sustainable Development Goals of the 2030 Agenda for Sustainable Development.

The definitions and fundamental role of administrative units highlights their pivotal role both as a framework for action and administration, but also as a vehicle for integrating, aggregating, reporting and visualizing data and statistics, and are therefore a lens for understanding and knowledge.

## 1.2 HIERARCHY TERMINOLOGY

In the context of the SALB programme, the second administrative level corresponds to the second level below the national level, the national level being considered as administrative level 0.

It is important to note that the terminology used to refer to administrative units in other reference or scoping documents developed by regional committees of UN-GGIM is different from the one used in the context of the SALB programme. For example, in describing the hierarchies of administrative units, the Americas refer to “geographic levels”<sup>5</sup> and Africa to “functional areas.”<sup>6</sup>

The same applies to the way administrative hierarchies or levels are defined by these regional entities; both define national level or area as level/area 1. As such, the second subnational level as defined in the SALB programme corresponds to “geography level 3” for UN-GGIM Americas and the “third level of functional area” for UN-GGIM Africa.

Despite the denomination and classification differences, the objective of the programme and these regional entities are aligned in the goal of collecting information about administrative units two levels below national.

## 1.3 NAMES

With reference to names of countries, the Data stores the English short form of the names provided by Member States, as referred to in the United Nations Terminology Database (UNTERM).<sup>7</sup>

The spelling of the names of the administrative units stored in the Data, both the Historical tables and Geodata, are based on the use of romanized names of administrative units as defined by countries and in accordance with the practices promoted by the United Nations Group of Experts on Geographic Names (UNGEGN) and as captured in the technical reference manual for the standardization of geographical names.<sup>8</sup> As such, the programme implements a single romanization system for the spelling of administrative unit names or the conversion of non-Roman writing systems to the Roman alphabet.

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<sup>3</sup> European Commission, INSPIRE, “Administrative Units” <https://inspire.ec.europa.eu/theme/au> [Accessed 26 February 2021]

<sup>4</sup> UN-GGIM & Statistical Commission (2020) “The Global Statistical Geospatial Framework” [https://ggim.un.org/meetings/GGIM-committee/9th-Session/documents/The\\_GSGF.pdf](https://ggim.un.org/meetings/GGIM-committee/9th-Session/documents/The_GSGF.pdf)

<sup>5</sup> UN-GGIM Americas (2018) “Statistical and Geospatial Framework for the Americas-MEGA” [http://www.un-ggim-americas.org/en/contenido/GT-Integracion-de-Informacion-Estadistica-y-Geografica/pdf/Estandarizacion\\_MEGA\\_V10.pdf](http://www.un-ggim-americas.org/en/contenido/GT-Integracion-de-Informacion-Estadistica-y-Geografica/pdf/Estandarizacion_MEGA_V10.pdf)

<sup>6</sup> UN-GGIM Africa & Economic Commission for Africa (2020) “Geospatial data taxonomy for the Sustainable Development Goals in Africa,” reference to document in [https://ggim.un.org/meetings/GGIM-committee/10th-Session/documents/Africa\\_Agenda-item-7.pdf](https://ggim.un.org/meetings/GGIM-committee/10th-Session/documents/Africa_Agenda-item-7.pdf)

<sup>7</sup> UNTERM Database, <https://unterm.un.org/unterm/portal/welcome>

<sup>8</sup> UNGEGN (2017) “Technical reference manual for the standardization of geographical names” [https://unstats.un.org/unsd/geoinfo/ungegn/docs/pubs/UNGEGN%20tech%20ref%20manual\\_m87\\_combined.pdf](https://unstats.un.org/unsd/geoinfo/ungegn/docs/pubs/UNGEGN%20tech%20ref%20manual_m87_combined.pdf)



Administrative unit names are encoded using the Unicode Transformation Format 8-bit (UTF-8)<sup>9</sup> which can represent most characters (over one million), including those required for the recommended denomination of romanized names and diacritics required to spell them as per the UNGEGN manual.

## 1.4 DATA SOURCE

The Data published is compiled from official documents and national data released and published by the National Geospatial Information Authority (NGIA) in the country.

The Historical tables are created from official documents released by the national mandated authority. The Geospatial data are sourced from the NGIA. Should there be none available, data from other sources might be used as reference to support and work with the NGIA to make it compliant to their expectations and to the present specifications.

In any case, both the Historical tables and Geospatial data is verified and validated by NGIA before being published on the SALB website. The NGIA focal point which provided the validation is referenced on the SALB website.

As such, the programme promotes the country specific custodian of the data and ensures a unique source of truth for the data published.

## 1.5 COUNTRIES CODES

The Data uses three letter (alpha-3) Country Codes (ISO 3166 - 1) as set by the International Organization for Standardization (ISO).<sup>10</sup> The ISO Country Codes alpha-3 are hereinafter referred to as "ISO3CD", also used within the Data. For example, the ISO3CD for "Spain" is "ESP."

## 1.6 DATE FORMAT

The Data uses the date format as set by the International Organization for Standardization (ISO) on Representation of dates and times (ISO 8601), related to Gregorian time.<sup>11</sup> The standard data format is used across the Geospatial data and Historical tables and is in the form of YYYY-MM-DD, as 4 digit year, hyphen, 2 digit month, hyphen, 2 digit day. For example, 09 April 2012 is 2012-04-09.

# SECTION 2 - CODING SYSTEM

## 2.1 OVERVIEW

The SALB programme implements a specific coding system that establishes and ensures a unique and consistent identifier, hereinafter Code, to be associated to any administrative unit in the Data.

The Coding system is not meant to replace the national official coding scheme but to complement it. National coding systems are considered in the National and Statistical codes.

The application of the Coding system is managed centrally and as such must be performed by the SALB coordination team on data validated by the country. Codes generated through another process can NOT be recognized as authoritative codes as they could potentially incorporate unofficial or mistaken administrative units or omit periods where changes occurred.

The Coding system is based on the administrative unit hierarchies and structured as follows from the national down to the 2<sup>nd</sup> subnational level:

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<sup>9</sup> UTF-8 is an ASCII-preserving encoding method for Unicode (see [Unicode and 10646](#))  
See also ISO/IEC 10646:2020 – Information technology – Universal Coded Character Set (UCS) .  
<https://www.iso.org/standard/76835.html> [Accessed 12 February 2021]

<sup>10</sup> ISO (2020) 3166-1 on "Country Codes" <https://www.iso.org/iso-3166-country-codes.html> [Accessed on 24 February 2021]

<sup>11</sup> ISO 8601 "Data elements and interchange formats – Information interchange – Representation of dates and times"  
<https://www.iso.org/iso-8601-date-and-time-format.html> [Accessed on 01 March 2021]

- National level code: ISO3CD  
Example for Senegal: SEN
- 1<sup>st</sup> subnational level code: ISO3CD + 3 digits  
Example for Dakar Region, Senegal: SEN001
- 2<sup>nd</sup> subnational level code: ISO3CD + 3 digits from the 1<sup>st</sup> subnational level + 3 digits  
Example for Pikine Department, Dakar Region, Senegal: SEN001002

The Coding system is first applied to the validated list of administrative units down to the 2<sup>nd</sup> subnational level as observed in January 2000 (Sub-section 2.2) before coding the historical changes that occurred since then (Sub-section 2.3).

## 2.2 CODING THE INITIAL LIST OF ADMINISTRATIVE UNITS AS OF JANUARY 2000

The following sub-sections describe how the Coding system is applied to the official list of 1<sup>st</sup> and 2<sup>nd</sup> subnational level administrative units observed in the country in January 2000.

In the examples, "ABC" refers to the ISO3 code of a hypothetical country.

### 2.2.1 CODING THE FIRST SUBNATIONAL LEVEL

The attribution of the code to each administrative unit composing the 1<sup>st</sup> subnational level as of 01 January 2000 is done as follows (Figure 1):

- The list of administrative units is sorted by alphabetical order of the administrative unit names
- The code [ISO3CD] + 001 (e.g. ABC001) is attributed to the first unit in the alphabetical order [ADM1CD]
- The other units are then coded sequentially following the alphabetical order keeping the ISO3CD at the beginning (e.g. ABC002, ABC003...).

Figure 1: Coding system of the administrative units for the 1<sup>st</sup> subnational level (in yellow)

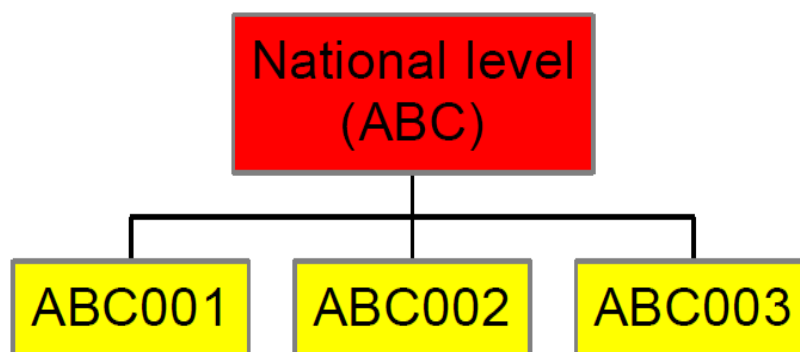


Table 1 shows the result of the above-mentioned process for the 1<sup>st</sup> subnational level administrative units of Germany as of January 2000.

Table 1 – Codes for the 1<sup>st</sup> subnational level administrative units of Germany as of January 2000

ADM1NM	ADM1CD
Baden-Wuerttemberg	DEU001
Bayern	DEU002
Berlin	DEU003
Brandenburg	DEU004
Bremen	DEU005
Hamburg	DEU006
Hessen	DEU007
Mecklenburg-Vorpommern	DEU008
Niedersachsen	DEU009
Nordrhein-Westfalen	DEU010
Rheinland-Pfalz	DEU011
Saarland	DEU012
Sachsen	DEU013
Sachsen-Anhalt	DEU014
Schleswig-Holstein	DEU015
Thueringen	DEU016

## 2.2.2 CODING THE SECOND SUBNATIONAL LEVEL

The attribution of the code to each administrative unit composing the 2<sup>nd</sup> subnational level as of January 2000 is done as follows (Figure 2):

- The 2<sup>nd</sup> level administrative units within each 1<sup>st</sup> level administrative unit are sorted alphabetically
- The first 2<sup>nd</sup> level administrative unit after the sorting by alphabetical order is attributed the code: [ADM1CD] + 001 (e.g. ABC001001)
- The other 2<sup>nd</sup> level administrative units within that same 1<sup>st</sup> level administrative units are then coded sequentially following the alphabetical order and keeping the code at the beginning (e.g. ABC001002, ABC001003...).

Figure 2: Coding of the administrative units for the 2<sup>nd</sup> subnational level (in green)

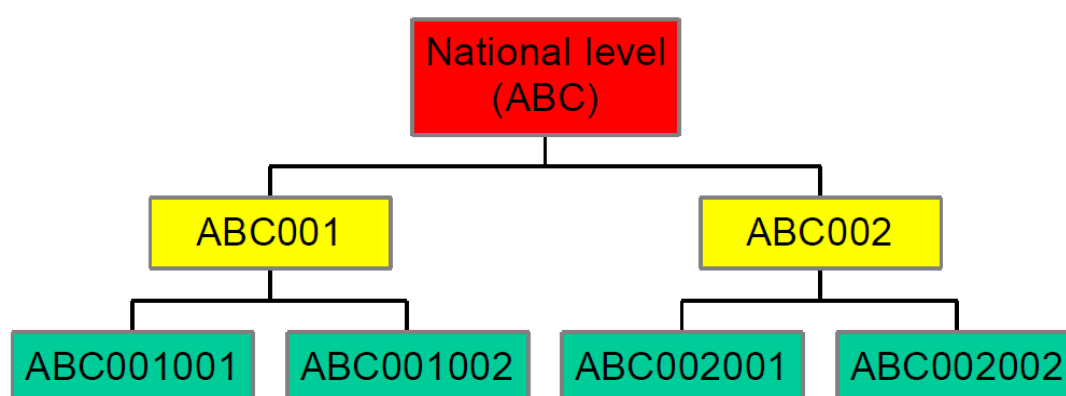


Table 2 shows the result of the above-mentioned process for part of the 2<sup>nd</sup> subnational level administrative units of Germany as of January 2000.

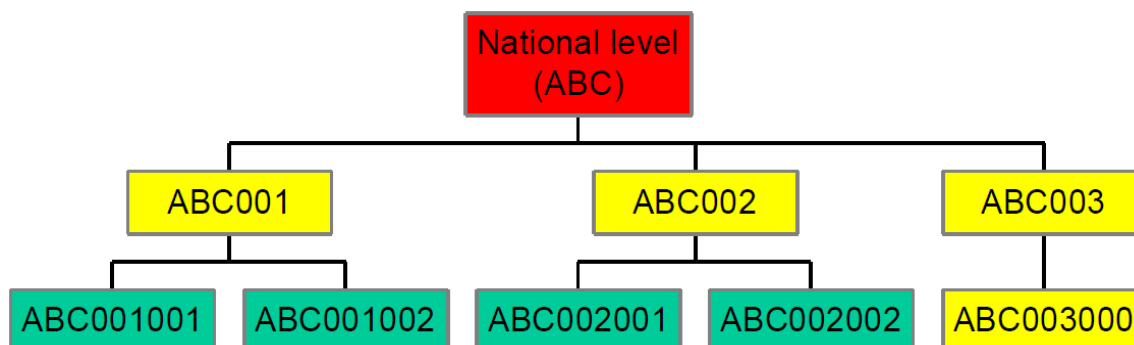
Table 2 Codes for part of the 2<sup>nd</sup> subnational level administrative units of Germany as of January 2000

ADM1NM	ADM1CD	ADM2NM	ADM2CD
Baden-Wuerttemberg	DEU001	Freiburg	DEU001001
Baden-Wuerttemberg	DEU001	Karlsruhe	DEU001002
Baden-Wuerttemberg	DEU001	Stuttgart	DEU001003
Baden-Wuerttemberg	DEU001	Tuebingen	DEU001004
Bayern	DEU002	Mittelfranken	DEU002001
Bayern	DEU002	Niederbayern	DEU002002
Bayern	DEU002	Oberbayern	DEU002003
Bayern	DEU002	Oberfranken	DEU002004
Bayern	DEU002	Oberpfalz	DEU002005
Bayern	DEU002	Schwaben	DEU002006
Bayern	DEU002	Unterfranken	DEU002007

### 2.2.3 CODING UNITS PRESENTING THE SAME GEOGRAPHIC EXTENT AT THE 1<sup>st</sup> AND 2<sup>nd</sup> SUBNATIONAL LEVEL

If a 2<sup>nd</sup> level administrative unit keeps the same geographic extent as at the 1<sup>st</sup> level (Figure 3) the following code applies: [ADM1CD] + 000. This keeps the consistency between the levels and indicates the particularity of the unit.

*Figure 3: Example of coding of a unit that has the same geographic extent between 1<sup>st</sup> and 2<sup>nd</sup> subnational level*



The only exception to the above is when the territory doesn't have any administration at the 2<sup>nd</sup> administrative level. This case is presented in sub-section 2.2.4.

### 2.2.4 CODING AREAS WITHOUT ADMINISTRATION

It may happen that part of a country is not administered by the government at a considered level. This is, for example, the case of the 1<sup>st</sup> level Region of Bruxelles-Capitale in Belgium which is not administered at the 2<sup>nd</sup> subnational level. In this case, the part of the code corresponding to the concerned level for that area is set to XXX.

Table 3 presents the case of the 1<sup>st</sup> level Region of Bruxelles-Capitale as an illustration of this type of special administrative unit.

Table 3 – Example of coding for an area without administration (in yellow)

ADM1NM	ADM1CD	ADM2NM	ADM2CD
Region de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest	BEL001	Area without administration at 2nd level	BEL001XXX
Region wallonne	BEL002	Brabant wallon	BEL002001
Region wallonne	BEL002	Hainaut	BEL002002
Region wallonne	BEL002	Liege	BEL002003
Region wallonne	BEL002	Luxembourg	BEL002004
Region wallonne	BEL002	Namur	BEL002005
Vlaams Gewest	BEL003	Antwerpen	BEL003001
Vlaams Gewest	BEL003	Limburg	BEL003002
Vlaams Gewest	BEL003	Oost-Vlaanderen	BEL003003
Vlaams Gewest	BEL003	Vlaams-Brabant	BEL003004
Vlaams Gewest	BEL003	West-Vlaanderen	BEL003005

### 2.2.5 CODING AREAS UNDER NATIONAL ADMINISTRATION

Part of the territory of some countries is not administered at the subnational level but only at the national level. In this case, the area in question is attributed a code like any other administrative unit at that particular level with the only difference that this area comes last after the alphabetical sorting and, as such, is the last one to receive a code.

Table 4 illustrates this case by presenting the coding of the 1<sup>st</sup> subnational level of Malawi as of January 2000.

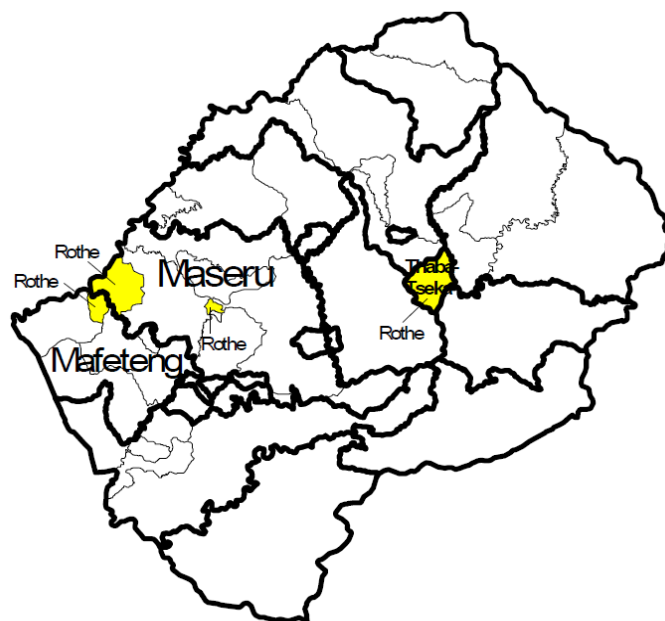
*Table 4 – Example of coding for an area under national administration (in yellow)*

ADM1NM	ADM1CD
Area under National Administration	MWI004
Central Region	MWI001
Northern Region	MWI002
Southern Region	MWI003

### 2.2.6 CODING SECOND SUBNATIONAL LEVEL UNITS LOCATED ACROSS DIFFERENT FIRST LEVEL UNITS

In some countries, some 2<sup>nd</sup> administrative level units are not made of a unique area located within a particular 1<sup>st</sup> administrative level unit but of multiple areas located in different 1<sup>st</sup> administrative level units. This is, for example, the case in Lesotho, as presented in Figure 4.

*Figure 4 - Example of map showing a 2<sup>nd</sup> level administrative unit (Wards) composed of multiple areas spread in different 1<sup>st</sup> level administrative units (Districts) in Lesotho*



In the case of Lesotho, each of these geographically separated parts of a single Ward has to report to the district in which it is located. As such, each of these parts has been attributed a code following the same approach as the one described in Section 3 (Extract in Table 5).

*Table 5 – Example of coding of 2<sup>nd</sup> level administrative unit composed of multiple areas spread in different 1<sup>st</sup> level administrative units and reporting to the 1<sup>st</sup> level administrative unit in which they are located (Lesotho)*

ADM1NM	ADM1CD	ADM2NM	ADM2CD
Mafeteng	LS0004	Likhoele	LSO004001
		Matelile (sector 1)	LSO004002
		Matelile (sector 2)	LSO004003
		Matelile (sector 3)	LSO004004
		<b>Rothe (Mafeteng)</b>	<b>LSO004005</b>
		Tajane (sector 1)	LSO004006
		Tajane (sector 2)	LSO004007
		Tajane (sector 3)	LSO004008
		Tebang (sector 1)	LSO004009
		Tebang (sector 2)	LSO004010
		Maseru	LS0005
Matsieng (sector 1)	LSO005002		
Matsieng (sector 2)	LSO005003		
Matsieng (sector 3)	LSO005004		
Matsieng (sector 4)	LSO005005		
Matsieng (sector 5)	LSO005006		
Matsieng (sector 6)	LSO005007		
Matsieng (sector 7)	LSO005008		
Ramabanta	LSO005009		
<b>Rothe (Maseru, sector 1)</b>	<b>LSO005010</b>		
<b>Rothe (Maseru, sector 2)</b>	<b>LSO005011</b>		
Thaba-Bosiu (sector 1)	LSO005012		
Thaba-Bosiu (sector 2)	LSO005013		
Thaba-Tseka	LS0010	<b>Rothe (Thaba-Tseka)</b>	<b>LSO010001</b>

### 2.3 CODING OF HISTORICAL CHANGES

When the geographic extent of an administrative unit, either at the 1<sup>st</sup> or 2<sup>nd</sup> subnational level, changes significantly, with or without a change in name, the code associated with the resulting administrative unit must be changed from the codes used for the original administrative unit of 01 January 2000. The following sub-sections detail each of these cases as well as the coding rules that have been applied to each of them.

#### 2.3.1 SPLITTING OR MERGING ADMINSTRATIVE UNIT

The split (Figure 5), the merge (Figure 6), or the combined split and merge (Figure 7) of one or more administrative units to create new ones results in the attribution of new codes to the units that were created through such changes.

Figure 5 -Example of administrative unit being split into two new ones (Senegal)

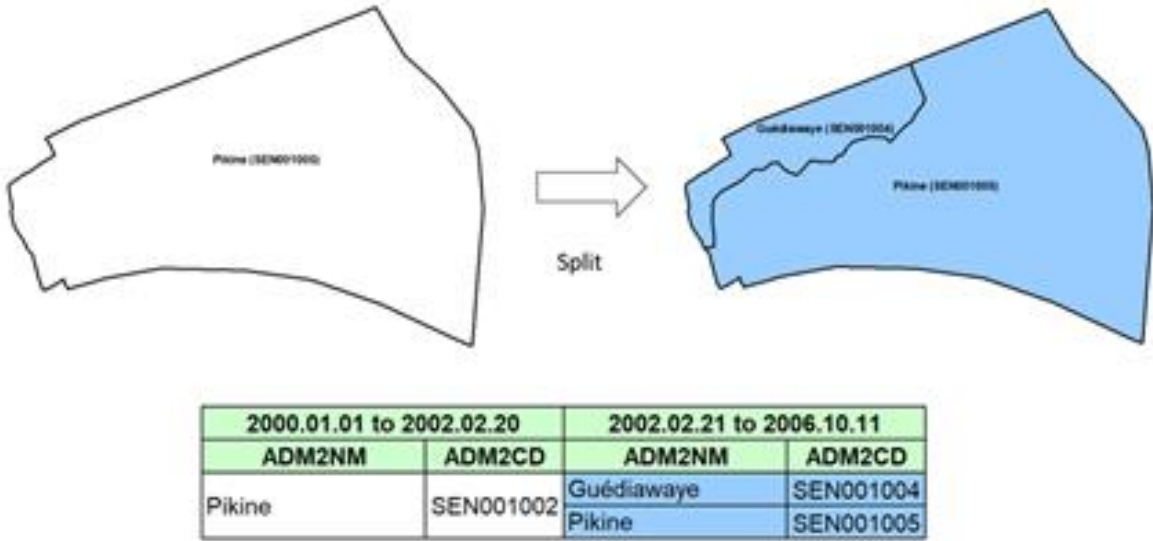


Figure 6 -Example of two administrative units being merged into a new one (Uzbekistan)

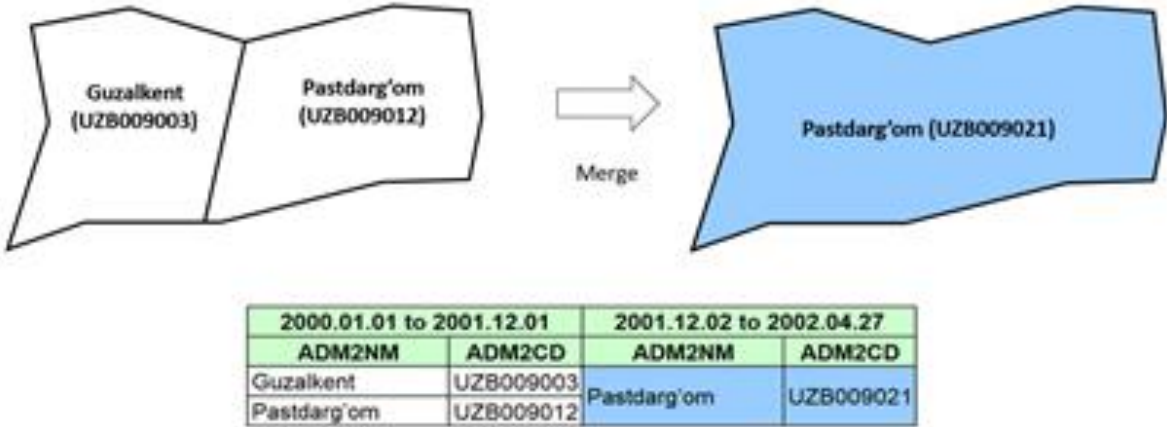
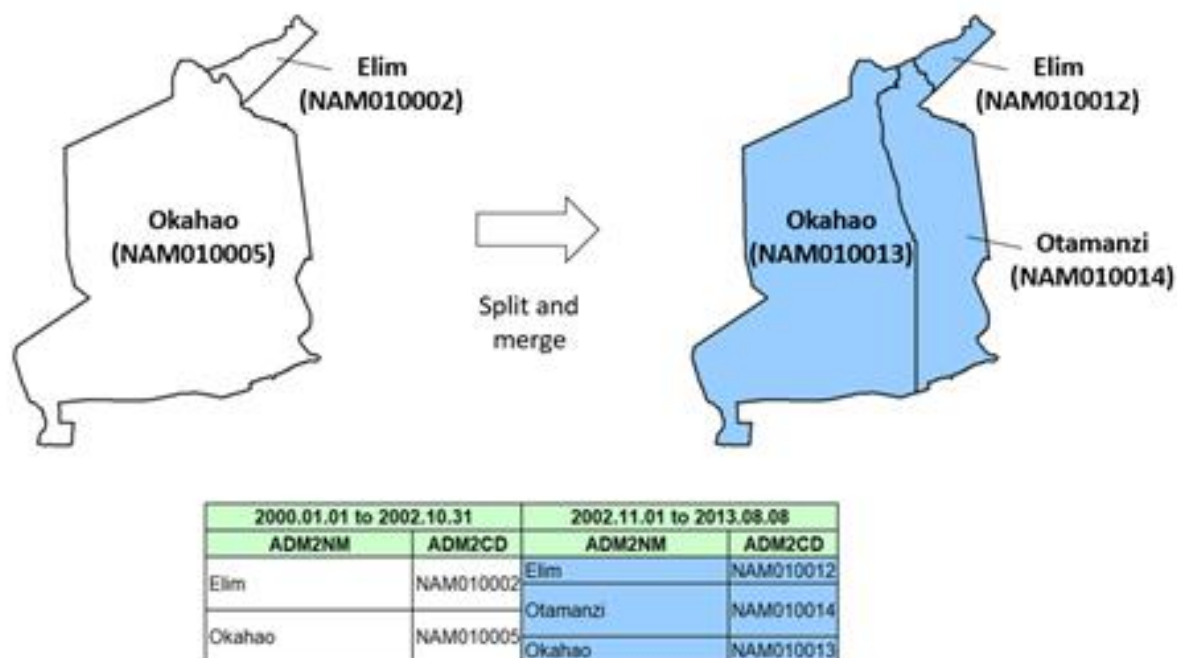


Figure 7 – Example of change involving administrative units that are both a split and a merged (Namibia)



When splitting one administrative unit (SEN001002 in Figure 5), the next two available codes are assigned to the two newly created units (SEN001004 and SEN001005 in Figure 5), including when one keeps the name of the formerly existing unit. The new codes are attributed in alphabetical order for the name of the newly established administrative units. The code used to identify the unit before the split (SEN001002 in Figure 5) remains attached to this unit over the subject period (2000.01.01 to 2002.12.31 in Figure 5).

When merging two units (UZB009003 and UZB009012 in Figure 6), the next available code is assigned to the newly created unit (UZB009021), including when the resulting merged unit keeps the name as one of the formerly existing units. The codes used to identify the units before the split (UZB009003 and UZB009012 in Figure 6) remain attached to these units over the subject period (2000.01.01 to - 2001.12.01 in Figure 6).

In some cases, a new unit (NAM010014 in Figure 7) is created by merging parts of different existing administrative units (NAM010002 and NAM010005). In this case the next available codes are attributed to the newly created unit (NAM010014) as well as the modified remainder of the previously existing units (NAM010012 and NAM010013). The new codes are attributed in alphabetical order for the name of the newly established administrative units. The code used to identify the units before the split (NAM010002 and NAM010005 in Figure 7) remains attached to this unit over the subject period (2000.01.01 to 2002.10.31 in Figure 7).

If the change (split, merge or combined) happens at the 1<sup>st</sup> subnational level, the code of all the concerned 2<sup>nd</sup> subnational level units is also modified as follows (example for the Philippines in Table 6 a and b):

- The 3 digits corresponding to the 1<sup>st</sup> subnational level are changed to correspond to the code of the newly created administrative units
- The part of the code corresponding to the 2<sup>nd</sup> subnational level (last 3 digits in the code) are re-coded starting from 001 and following the alphabetical order.



Table 6 – Example showing how a change in code happening at the 1<sup>st</sup> subnational level (a) is reported to the administrative units of the 2<sup>nd</sup> subnational level (b) (Philippines)

a)

2001.09.19 to 2002.05.16		2002.05.17 to 2006.07.04	
ADM1NM	ADM1CD	ADM1NM	ADM1CD
Region III (Central Luzon)	PHL006	Region III (Central Luzon)	PHL022
Region IV (Southern Tagalog)	PHL007	Region IV-A (Calabarzon)	PHL023
		Region IV-B (Mimaropa)	PHL024

b)

2001.09.19 to 2002.05.16		2002.05.17 to 2006.07.04	
ADM2NM	ADM2CD	ADM2NM	ADM2CD
Bataan	PHL006001	Bataan	PHL022002
Bulacan	PHL006002	Bulacan	PHL022003
Nueva Ecija	PHL006003	Nueva Ecija	PHL022004
Pampanga	PHL006004	Pampanga	PHL022005
Tarlac	PHL006005	Tarlac	PHL022006
Zambales	PHL006006	Zambales	PHL022007
Aurora	PHL007001	Aurora	PHL022001
Batangas	PHL007002	Batangas	PHL023001
Cavite	PHL007003	Cavite	PHL023002
Laguna	PHL007004	Laguna	PHL023003
Quezon	PHL007009	Quezon	PHL023004
Rizal	PHL007010	Rizal	PHL023005
Marinduque	PHL007005	Marinduque	PHL024001
Occidental Mindoro	PHL007006	Occidental Mindoro	PHL024002
Oriental Mindoro	PHL007007	Oriental Mindoro	PHL024003
Romblon	PHL007011	Romblon	PHL024005
Palawan	PHL007008	Palawan	PHL024004

### 2.3.2 RENAMING ADMINISTRATIVE UNITS

If an administrative unit is renamed, either at the 1<sup>st</sup> or 2<sup>nd</sup> subnational level, without any significant change in its extent, then the same code is kept. In the example below (Table 7), the province of Newfoundland changed its name to Newfoundland and Labrador on 6 December 2001 without any change in its code since the extent of the province did not change. In this case, only the cell containing the new name is colored (in blue in Table 7).

Table 7 – Example of renaming of administrative unit (Canada)

1999.04.01 to 2001.12.05		2001.12.06 to 2002.11.30	
ADM1NM	ADM1CD	ADM1NM	ADM1CD
Newfoundland	CAN005	Newfoundland and Labrador	CAN005

### 2.3.3 ADDING A NEW ADMINISTRATIVE LEVEL IN THE ADMINISTRATIVE STRUCTURE

The administrative structure of a given country is sometimes modified by adding a new administrative level between existing ones. This is, for example, the case in Burkina Faso where Regions were established as the first subnational level on 8 August 2001, resulting in the Provinces (former 1<sup>st</sup> subnational level) becoming the 2<sup>nd</sup> subnational level on that same date (Extract reported in Table 8).

In this case, all the administrative units forming the 1<sup>st</sup> subnational level after the change are coded using the next available codes at that level (Table 8.a). The codes attached to the administrative units forming the former 1<sup>st</sup> subnational level remain attached to these units over the subject period (1996-04-24 to 2001-08-01 in Table 8).

The same approach is applied to the administrative units that are now forming the 2<sup>nd</sup> subnational level (Table 8.b).

Please also note that the change in type of administrative level is indicated at the top of the table (Provinces to Regions at the 1<sup>st</sup> subnational level and Departments to Provinces at the 2<sup>nd</sup> subnational level) with the cell containing the new name highlighted in blue to emphasize the change.

Table 8 – Example of new administrative level added to the existing administrative structure and resulting change in code at the 1<sup>st</sup> and 2<sup>nd</sup> subnational level<sup>12</sup> (Burkina Faso)

a)

1996.04.24 to 2001.08.01		2001.08.02 to 2009.04.28	
Provinces		Régions (regions)	
ADM1NM	ADM1CD	ADM1NM	ADM1CD
Koulpelogo	BFA018	Centre-Est	BFA049
Boulgou	BFA005		
Kouritenga	BFA019		
Kadiogo	BFA013	Centre	BFA048
Ganzourgou	BFA008	Plateau Central	BFA056
Kourweogo	BFA020		
Ouhritenga	BFA029		

b)

2000.01.01 to 2001.08.01		2001.08.02 to 2009.04.28	
Départements (departments)		Provinces	
ADM2NM	ADM2CD	ADM2NM	ADM2CD
Bagre	BFA005001	Boulgou	BFA049001
Bane	BFA005002		
Beguedo	BFA005003		
...	...		
Dourfenga	BFA018001	Koulpelogo	BFA049002
Komin Yanga	BFA018002		
Lalgaye	BFA018003		
...	...		
Andemtenga	BFA019001	Kouritenga	BFA049003
Baskoure	BFA019002		
Dialgaye	BFA019009		
...	...		
Komki Ipala	BFA013001	Kadiogo	BFA048001
Komsilga	BFA013002		
Koubri	BFA013003		
...	...		
Bousse	BFA020001	Kourweogo	BFA056002
Laye	BFA020002		
Niou	BFA020003		
...	...		
Absouya	BFA029001	Ouhritenga	BFA056003
Dapelogo	BFA029002		
Loumbila	BFA029003		
...	...		
Boudry	BFA008001	Ganzourgou	BFA056001
Kogo	BFA008002		
Meguet	BFA008003		
...	...		

#### 2.3.4 CHANGING THE ADMINISTRATIVE UNIT TYPE FOR A GIVEN ADMINISTRATIVE LEVEL

In some cases, the type or name of administrative units (Provinces, Districts, Communes...) associated with a given administrative level is modified without being linked to the addition of a new administrative level in the administrative structure (see Sub-section 2.3.3).

This was, for example, the case in Denmark when the Amter (Counties) were abolished and were replaced by Regions in December 2006 (Table 9), without changing the type of administrative units at the 2<sup>nd</sup> subnational level (Municipalities).

<sup>12</sup> Only part of the administrative units have been included at the 2<sup>nd</sup> subnational level

Table 9 – Example of change of administrative unit type without the addition of a new administrative level (Denmark)

1990.01.01 to 2006.12.31		2007.01.01 to 2008.04.16	
Amter (Counties)		Regioner (Regions)	
ADM1NM	ADM1CD	ADM1NM	ADM1CD
Bornholm	DNK002	Hovedstaden	DNK018
Frederiksberg	DNK016		
Frederiksborg	DNK003		
Koebenhavn	DNK005		
Koebenhavn city	DNK017		
Nordjylland	DNK007	Nordjylland	DNK020
Viborg	DNK015	Midtjylland	DNK019
Aarhus	DNK001		
Ringkoebing	DNK009		
Vejle	DNK013	Syddanmark	DNK021
Fyn	DNK004		
Ribe	DNK008		
Soenderjylland	DNK011		
Roskilde	DNK010	Sjaelland	DNK022
Storstroem	DNK012		
Vestsjaelland	DNK014		

The attribution of the new codes in this case follows the same approach as the ones described in Sub-section 2.3.1 in case of administrative units being split, merged or combined split/merge and the new type of administrative units indicated at the top of the table and highlighted in blue.

### 2.3.5 REMOVING AN ADMINISTRATIVE LEVEL

It can sometime happen that an administrative level, generally the first one is removed from the administrative structure. This has for example been the case for Madagascar in April 2007 when the Autonomous Provinces have not been used anymore as the 1<sup>st</sup> subnational level as shown in Table 10.

Table 10 – Example of administrative level not being used anymore from a given point in time (Madagascar)

1990-01-01 to 2007-04-26		2007-04-27 to 2014-09-26	
Faritany mizakatena (Autonomous Provinces)		Faritra (Regions)	
ADM1NM	ADM1CD	ADM1NM	ADM1CD
Antananarivo	MDG001	Analamanga	MDG007
		Bongolava	MDG008
		Itasy	MDG009
		Vakinankaratra	MDG010
Antsiranana	MDG002	Diana	MDG011
		Sava	MDG012
Fianarantsoa	MDG003	Amoron'i Mania	MDG013
		Atsimo Atsinanana	MDG014
		Haute Matsiatra	MDG015
		Ihorombe	MDG016
		Vatovavy Fitovinany	MDG017
		Betsiboka	MDG018
Mahajanga	MDG004	Boeny	MDG019
		Melaky	MDG020
		Sofia	MDG021
		Alaotra Mangoro	MDG022
Toamasina	MDG005	Analanjirifo	MDG023
		Atsinanana	MDG024
		Androy	MDG025
Toliara	MDG006	Anosy	MDG026
		Atsimo Andrefana	MDG027
		Menabe	MDG028

In this case, the administrative units forming the lower level are being upgraded to the level that has been removed (Regions in Table 10) and a new code needs to be attributed to all of them.

The coding process in this case follow a similar approach than when splitting administrative units (Figure 5), meaning that the next available codes at the considered level are assigned to the units that have been promoted. This is done following the alphabetical order for the name of the promoted

administrative units and this separately for each of the units that were previously forming the level that has been removed and following the order in which these previous units were coded.

In Table 10 for example, the coding first took place for the Antananarivo Autonomous Province (MDG001). The Regions that replaced it took the next available 1<sup>st</sup> subnational level codes after listing them by alphabetical order (Analamanga (MDG007), Bongolava (MDG008), etc). the new type of administrative units is indicated at the top of the table and highlighted in blue.

When the change happens at the 1<sup>st</sup> subnational level (Autonomous Provinces to Regions in Table 10) then the administrative units that used to form the 3<sup>rd</sup> subnational level are being promoted to become the 2<sup>nd</sup> subnational level and the coding process described here above also needs to be implemented at that level.

2.3.6 RE-INTRODUCING AN ADMINISTRATIVE LEVEL

It can happen that an administrative level that has been removed for a given period of time is finally being re-introduced from a given date.

This is for example what happened in Madagascar where, after having been removed over the 2007-04-27 to 2014-09-26 period, the Provinces have been re-introduced starting from September 2014 (Table 11).

Table 11 – Example of administrative level being re-introduced after a given period of time (Madagascar)

1990-01-01 to 2007-04-26		2007-04-27 to 2014-09-26		2014-09-27 to 2021-04-23	
Faritany mizakatena (Autonomous Provinces)		Faritra (Regions)		Provinces	
ADM1NM	ADM1CD	ADM1NM	ADM1CD	ADM1NM	ADM1CD
Antananarivo	MDG001	Analamanga	MDG007	Antananarivo	MDG029
		Bongolava	MDG008		
		Itasy	MDG009		
		Vakinankaratra	MDG010		
Antsiranana	MDG002	Diana	MDG011	Antsiranana	MDG030
		Sava	MDG012		
Fianarantsoa	MDG003	Amoron'i Mania	MDG013	Fianarantsoa	MDG031
		Atsimo Atsinanana	MDG014		
		Haute Matsiatra	MDG015		
		Ihorombe	MDG016		
		Vatovavy Fitovinany	MDG017		
Mahajanga	MDG004	Betsiboka	MDG018	Mahajanga	MDG032
		Boeny	MDG019		
		Melaky	MDG020		
		Sofia	MDG021		
Toamasina	MDG005	Alaotra Mangoro	MDG022	Toamasina	MDG033
		Analanjirofo	MDG023		
		Atsinanana	MDG024		
Toliara	MDG006	Androy	MDG025	Toliara	MDG034
		Anosy	MDG026		
		Atsimo Andrefana	MDG027		
		Menabe	MDG028		

Even if the geographic extent of the Provinces observed after 2014-09-27 corresponds to the extent of the corresponding Autonomous Provinces observed before 2007-04-26 their code needs to be different and this in anticipation of new changes to happen in the future.

The attribution of the new codes in this case follows the same approach as the ones described in Sub-section 2.3.1 in case of administrative units being split, merged or combined split/merge and the new type of administrative units indicated at the top of the table and highlighted in blue. When the change happens at the 1<sup>st</sup> subnational level (Regions to Provinces in Table 11) then the administrative units that used to form the 1<sup>st</sup> subnational level are generally being downgraded to become the 2<sup>nd</sup> subnational level and the coding process described here above also needs to be implemented at that level.

2.3.7 TERRITORIES WITH SPECIAL STATUS

- **Territory without administration**

While no changes have occurred for this type of territory during the implementation of the SALB programme to date several countries contain parts of their territory that are without administration (Belgium, Dominican Republic, Syrian Arab Republic and Turkmenistan).

This sub-section describes how a change concerning the type of territories would be coded in the context of the SALB programme.

Two types of change may occur for these kinds of territories:

- 1) The whole territory without administration becomes an administrative unit at a given point in time. In this case the XXX part of the code used to indicate this special status is replaced by the next available code for that administrative level and both the cell containing the name of the new administrative unit and of its code are highlighted in blue (Table 12).

Table 12 – Example of territory without administration that become an administrative unit (Fake example)

2000.01.01 to 2002.02.20		2002.02.21 to 2006.10.11	
ADM2NM	ADM2CD	ADM2NM	ADM2CD
Territory without administration at the 2nd subnational level	ABC001XXX	XYZ district	ABC001002

- 2) Only part of this territory becomes an administrative unit, the rest remaining without any administration. In this case (Table 13):
  - The part of the territory becoming an administrative unit is attributed the next available code and both the cell containing the name of the new administrative unit and of its code are highlighted in blue
  - The part of the territory remaining without administration sees the XXX part of the code being converted into XX1 to illustrate the change in the extent of the territory

Table 13 – Example of territory without administration that sees part of it becoming an administrative unit (Fake example)

2000.01.01 to 2002.02.20		2002.02.21 to 2006.10.11	
ADM2NM	ADM2CD	ADM2NM	ADM2CD
Territory without administration at the 2nd subnational level	ABC001XXX	XYZ district	ABC001004
		Territory without administration at the 2nd subnational level	ABC001XX1

- **Territory under national administration**

Territories under national administration are coded like any other administrative unit at that particular level with the only difference that this area comes last in the alphabetical sorting when attributing the code.

A change occurring on this kind of territory will be made using the same rules as those described in Sub-sections 2.3.1 to 2.3.4.

## SECTION 3 – HISTORICAL TABLES

### 3.1 OVERVIEW

The Historical tables aim to present historical changes to the administrative structure of a country for the period from 01 January 2000 to the present. Depending on the availability of information, the data can go back further in time, before 01 January 2000.

The most recent data and information, and therefore currency, depends on the last time that the SALB programme has been in contact with the NGIA. In any case, the latest time of contact is specified in the data to ensure users can appreciate when the latest verification was received.

### 3.2 CONTENT

Historical changes tables are stored in country specific MS Excel files not only because this is a widespread format but also to have the possibility to store the information in different worksheets.

The MS Excel file storing the historical changes tables contains four worksheets:

- More recent (YYYY-MM-DD): Most recent list of administrative units for the 1<sup>st</sup> and 2<sup>nd</sup> subnational level obtained from the NGIA
- Historic changes for ADM1: Historic changes observed at the 1<sup>st</sup> subnational level between 01 January 2000, or older, and the most recent list obtained from the NGIA
- Historic changes for ADM2: Historical changes observed at the 1<sup>st</sup> subnational level between 01 January 2000 and the most recent list obtained from the NGIA
- Metadata – Data catalog: Information for the user to understand the content of the other worksheets

The way the information is organized in the Historical table worksheets, together with the structure of the coding system, allows the user to recreate the complete list of administrative units at the 1<sup>st</sup> and 2<sup>nd</sup> subnational level since 01 January 2000.

The historical changes tables are organized in such a way that each period of representation is captured in a separate set of columns containing the official name and the code of each administrative unit observed in the country over that period. An extract of one of these tables for Senegal is captured in Table 14.

Table 14 – Extract of the historical changes table for the 2nd subnational level of Senegal

2006.10.12 to 2008.03.17		2008.03.18 to 2008.07.09		2008.07.10 to 2021.01.26	
ADM2NM	ADM2CD	ADM2NM	ADM2CD	ADM2NM	ADM2CD
Dakar	SEN001001	Dakar	SEN001001	Dakar	SEN001001
Guédiawaye	SEN001004	Guédiawaye	SEN001004	Guédiawaye	SEN001004
Pikine	SEN001005	Pikine	SEN001005	Pikine	SEN001005
Rufisque	SEN001003	Rufisque	SEN001003	Rufisque	SEN001003
Bambey	SEN011001	Bambey	SEN011001	Bambey	SEN011001
Diourbel	SEN011002	Diourbel	SEN011002	Diourbel	SEN011002
Mbacké	SEN011003	Mbacké	SEN011003	Mbacké	SEN011003
Gossas	SEN012003	Gossas	SEN016003	Gossas	SEN016003
		Kaolack			
Fatick	SEN012001	Fatick	SEN016001	Fatick	SEN016001
Foundiougne	SEN012002	Foundiougne	SEN016002	Foundiougne	SEN016002
				Guinguinéo	SEN018003
Kaolack	SEN004002	Kaolack	SEN018001	Kaolack	SEN018004
Nioro du Rip	SEN004003	Nioro du Rip	SEN018002	Nioro du Rip	SEN018002
				Birkilane	SEN017003
Kaffrine	SEN004004	Kaffrine	SEN017001	Kaffrine	SEN017004
				Malèm Hodar	SEN017005
Koungheul	SEN004005	Koungheul	SEN017002	Koungheul	SEN017002

### 3.3 FORMAT AND LAYOUT

In these tables, colors and differences in fonts are being used to facilitate user understanding to easily identify when a change happens from one period to the next. The colors and fonts being used are as follows (Table 12):

- **Blue (no change in fonts):** Changes that could be represented in a simple way because the lines containing the concerned administrative units are next to each other in the table. For example, in Table 1:
  - The Fatick, Foundiougne and Niour du Rip Departments changed Region on 18 March 2008
  - The Guinguinéo Department was created by splitting the Kaolack Department on 10 July 2008
  - The Gossas Department was split on 18 March 2008 and one part of the original Department kept the same name
- **Other colors and change in font:** Changes that could not be represented in a simple way because the lines containing the concerned administrative units could not be brought next to each other in the table. For example, in Table 1:
  - A part of the Gossas Department moved to the Department of Kaolack on 18 March 2008. As such:
    - Both the cells containing the part from the Gossas Department that has been moved as well as the resulting Kaolack Department have been colored in green;
    - The cells colored in grey over the 12 October 2006 and 17 March 2008 period are there to illustrate that the part of Gossas that has been moved to Kaolack was not attached to this Department before 18 March 2008;
    - The cells colored in grey over the 18 March 2008 and 26 January 2021 period are there to illustrate that the part of Gossas that has been moved to Kaolack is no longer attached to the Gossas Department starting 18 March 2008.

In addition to the above, the coloring of the cell containing the name of an administrative unit and the one containing the code depends on the type of change. Namely, when:

- only the cell containing the administrative unit's name is colored (cell containing the code is not colored): Change of name for the administrative unit (see Sub-section 2.3.2)
- only the cell containing the code is colored (cell containing the administrative unit's name is not colored): 2<sup>nd</sup> subnational level administrative unit transferred from one 1<sup>st</sup> subnational level unit to another without changing its extent (see Sub-section 2.3.3)
- both the cells containing the administrative unit's name and code are colored: Change in the geographic extent of the administrative (split, merge, combined split and merge) (see Sub-section 2.3.1)

Finally, thick horizontal lines between pairs of administrative units are used for the 2<sup>nd</sup> subnational level to help visualize how the administrative units at that level are being grouped to form the 1<sup>st</sup> subnational level. When the information is available, the historical changes table for the 1<sup>st</sup> subnational level starts before 01 January 2000 to cover the whole period for which the list of 1<sup>st</sup> administrative units is valid at this level.

# SECTION 4 - GEOSPATIAL DATA

## 4.1 OVERVIEW

The programme aims to deliver Geospatial data on administrative units for all countries, territories and special areas, including Non-Self-Governing-Territories currently administered by other Member States. The Geospatial data incorporates the Coding system that ensures the unique and consistent identification of any administrative unit. The Geospatial data for a country may include one to several geospatial datasets depending on frequency of changes since 01 January 2000.

Each country is represented using one geospatial dataset per period of representation. Each geospatial dataset includes geospatial features describing each administrative unit with its associated code. Each geospatial dataset for the period of representation corresponds to a period described in the columns of the Historical table.

Each geospatial dataset represents both 1<sup>st</sup> and 2<sup>nd</sup> administrative units in the same geospatial dataset. This approach aims to minimize redundancy and to provide one geospatial dataset per period of representation for multiple levels, as both administrative levels 1 and 2 below national are concatenated within one geospatial dataset per period.

This approach also allows encoding of hierarchies and relationships between the first and second level administrative units. The method is presented in the sections on Coding system and Historical tables. The one geospatial dataset per period of representation allows the creation of higher geography levels, if needed, using attribute queries or by using dissolve functions based on attributes.

## 4.2 GEOMETRY TYPE

The Geodata is provided in the form of a single geospatial dataset per period of representation.

Geospatial data can be in the form of points and multi-points, lines and multi-lines as well as polygons and multi-polygons. The Geospatial data from the SALB programme uses the geometry in the form of polygon for the geospatial dataset, with each of the points of the polygons defined by coordinates within the coordinate reference system.

## 4.3 COORDINATE REFERENCE SYSTEM

The coordinate reference system is the main component to measure and define the exact location on the Earth and is a prerequisite for the accurate collection, integration, and use of geospatial data. The coordinate reference system used since the inception of the programme in 2001 is the World Geodetic System of 1984 (WGS84).

The coordinate reference system parameters are as per the below:

Name	World Geodetic System (WGS) 1984
ESPG ID	4326
Angular Unit	Degree (0.0174532925199433)
Prime Meridian	Greenwich (0.0)
Datum	D_WGS_1984
Spheroid	WGS_1980
Semimajor Axis	6378137.0
Semiminor Axis	6356752.314245179
Inverse Flattening	298.257223563

The conversion from national and local datums to the reference global coordinate reference systems above should ideally be performed by Member States prior to transmitting the Geospatial data to ensure proper conversion to the global coordinate reference system.



## 4.4 SCALE AND HORIZONTAL ACCURACY

The reference scale for the Geospatial data is equivalent to 1:1,000,000 scale, or larger scale.

The horizontal accuracy standard<sup>13</sup> requires that the positions of 90 percent of all points tested must be accurate within 1219.2 centimetres on a map at 1:24,000 scale. Therefore, for geospatial data equivalent to 1:1,000,000 scale, the horizontal accuracy standards should be within 508 meters. As such the programme considers the threshold of maximum positional accuracy shift tolerated for the considered scale to be 500 meters.

The Geospatial data could be a generalized version from best available source information at the largest scale possible available in the national context, provided that it agrees with the maximum positional accuracy shift threshold.

## 4.5 FILE FORMAT AND NAME

The Geospatial data format used is shapefile as one of the most popular and common geospatial vector data based on open specification for geographic information systems. The format is used by a large number of users, including Member States, making it the most appropriate choice to facilitate the adoption and use of the Geospatial data. The geospatial dataset in shapefile is a collection of multiple files: projection (.prj), tabular (.dbf), shape (.shp), metadata (.xml), etc...

Each geospatial dataset, and related shapefile, is named based on the definition of “delineated geographic area” (or boundary and area, BNDA), then the ISO3CD, and the beginning and end date in accordance to the ISO standard on representation of dates and times. For example, for the geospatial dataset of Senegal of the initial period of representation the file name is: BNDA\_SEN\_2000-01-01\_2002-02-20. For a geospatial dataset that is still current the name of the file is left open as: BNDA\_SEN\_2008-07-10\_present.

The shapefile, and its associated collection of files, are then compressed into a zip file. The file name convention for the zip file is automated during the upload and publication of the geospatial dataset through the SALB website. Upon upload the .zip file containing each geospatial dataset is time stamped as per the start date of validity of the geospatial dataset as ISO\_YYYY\_MM\_DD\_SALB.

Once a new geospatial dataset is uploaded, the older version is moved to the bottom and is no longer valid starting with validity time of subsequent geospatial dataset. The details of the period of representation are captured through the name of the files contained in the zip file and in the metadata.

## 4.6 GEOSPATIAL DATASET TYPE AND ATTRIBUTES

<b>Feature Type Name: Administrative Units</b>
Geometry Type: Polygon
Feature Type Definition: The administrative units in the form of delineated geographic area.
Feature Type Code: BNDA
Feature Type Aliases: Administrative units
Feature Attribute Code: ISO3CD CTY_NM ADM1NM ADM1CD ADM2NM ADM2CD

<sup>13</sup> United States Geological Survey (1999) “Map Accuracy Standards” <https://pubs.usgs.gov/fs/1999/0171/report.pdf>

## 4.7 TOPOLOGY

The Geospatial data transmitted should receive topological verification to ensure that each geospatial dataset and the geographic features representing administrative units do not include overlaps or gaps.

### ATTRIBUTES

Feature Type: Administrative units (Polygon)  
Feature Attribute Code: ISO3CD  
Feature Attribute Name: ISO Country Code 3  
Description: ISO-3166-1 three letter code  
Type: Text  
Length: 3  
Rule: Mandatory  
Feature Attribute value: ISO-3166-1 3 letter Country Codes administering the geographic area  
Feature Attribute example: SEN [Senegal]

Feature Type: Administrative units (Polygon/Area)  
Feature Attribute Code: CTY\_NM  
Feature Attribute Name: Country name  
Description: Country name, English short form from United Nations Terminology  
<https://unterm.un.org/>  
Type: Text  
Length: 70  
Rule: Mandatory  
Feature Attribute value: Country name  
Feature Attribute example: Senegal

Feature Type: Administrative units (Polygon/Area)  
Feature Attribute Code: ADM1NM  
Feature Attribute Name: Administrative unit level 1 name  
Description: Administrative unit name in Romanized characters  
Type: Text  
Length: 256  
Rule: Mandatory  
Feature Attribute value: Specific name for the administrative unit  
Feature Attribute example: Kédougou [located in Senegal]

Feature Type: Administrative units (Polygon/Area)  
Feature Attribute Code: ADM1CD  
Feature Attribute Name: Administrative unit level 1 code  
Description: Administrative unit code of first level administrative boundaries, in the form of ISO3-3166-1 three letter code; code for administrative level 1 as 3 number sequence, based on alphabetically classified Administrative unit name. The code is therefore as ISO3CD + XXX  
See details in Section 2 - Coding system  
Type: Text  
Length: 7  
Rule: Mandatory  
Feature Attribute value: Specific code for the administrative unit level 1  
Feature Attribute example: SEN007 [Kédégou - Senegal]

Feature Type: Administrative units (Polygon/Area)  
Feature Attribute Code: ADM2NM  
Feature Attribute Name: Administrative unit level 2 name  
Description: Administrative unit name in Romanized characters

Type: Text  
 Length: 256  
 Rule: Mandatory  
 Feature Attribute value: Specific name for the administrative unit  
 Feature Attribute example: Saraya [located in Kédégou, Senegal]

Feature Type: Administrative units (A)  
 Feature Attribute Code: ADM2CD  
 Feature Attribute Name: Administrative unit level 2 code  
 Description: Administrative unit code of second level administrative boundaries, in the form of ISO-3166-1 three letter code; AND code for administrative level 1 as 3 number sequence, based on alphabetically classified Administrative unit name; AND code for administrative level 2 as 3 number sequence, based on alphabetically classified Administrative unit name. The code is therefore:  
 ISO3CD + ADM1CD + XXX  
 See details in Section 2 - Coding system

Type: Text  
 Length: 11  
 Rule: Mandatory  
 Feature Attribute value: Specific code for the administrative unit level 2  
 Feature Attribute example: SEN007003 [located in Kédégou, Senegal]

## 4.9 METADATA PROFILE

The metadata profile used is the ISO 19115: Geographic information - Metadata standard<sup>14</sup>, with series of additional ISO 191\*\* standards have been developed to update, extend, and supplement the 19115 standards. The metadata is using the eXtensible Markup Language (XML) encoding. The below information is a sample of reference included the metadata (for further reference and details consult ISO 19115 Metadata Implementation Specification):

### Topics and Keywords

Themes or categories of the resource boundaries  
 Content type Downloadable data  
 Theme keywords United Nations, Cameroon  
 Other Keywords Boundaries, Geospatial data, Administrative units, SALB programme

### Citation

Title Cameroon, SALB, United Nations  
 Creation date 2021-02-22 00:00:00  
 Presentation format Digital map

### Resource details

Dataset languages English  
 Dataset character set utf8 – 8bit UCS Transfer Format  
 Spatial representation type vector  
 Spatial resolution 1000000

<sup>14</sup> International Standard Organization (2003) "Geographic information: Metadata standards" <https://www.iso.org/standard/80275.html> [Access on 01 March 2021]

Credits	Institut National de Cartographie, Cameroun / National Institute of Cartography, Cameroon. SALB programme, United Nations.
Extent	Geographic Extent: West longitude: 8.498833 East longitude: 16.194408 North latitude: 13.083335 South latitude: 1.655900

**Spatial reference**

Type	Geographic
Geographic Coordinate Reference	GCS_WGS_1984
Coordinate reference details	4326 [...] <i>field details</i>

**Reference system identified**

Value	4326
Codespace	EPSG
Fields	[...] <i>field details</i>

**NATIONAL AND STATISTICAL CODES**

The Data Specification document aims to describe the methods, parameters and components of the Data made available on administrative units in the context of the SALB programme. The application of the Data Specification is the mean for a common and global representation of administrative units of Member States. Notwithstanding the standardization of processes and methods for the Data, the programme recognizes the need for further exchange between the programme and Member States to ensure consistency of topological relationship and data quality of the data between administrative units and countries.

Also, the programme implements the Coding system to ensure unique identification by country through time. As mentioned, this Coding system is not meant to replace the national official coding scheme but to complement it. Guided by the principles of the Global Statistical and Geospatial Framework, the programme acknowledges the importance of interoperability of statistical and geospatial data. As such, the programme endeavours to include reference to the unique statistical codes if available through the NGIA. A guiding principle of the framework is to support the process of linking geographic references to respective statistical unit records. This process, often referred to as geospatially enabling data, is also supported by including statistical codes that relate to the administrative units of countries, when this information is available. When provided by the NGIA, the official national statistical coding system is included in the the Geospatial data. The method to achieve this inclusion, including through time is not yet fully developed and may require re-work as the programme receives such data from Member States.

Nevertheless, the national state or statistical codes corresponding to each administrative units are included when available as follows:

**ATTRIBUTES**

Feature Type:	Administrative units (Polygon)
Feature Attribute Code:	SST1CD
Feature Attribute Name:	alpha numerical string from country
Description:	applicable national or statistical code provided by country for administrative units level 1

Type: Text  
Length: 10  
Rule: Optional  
Feature Attribute value: alpha numerical string from country  
Feature Attribute example: 09 [Statistical code]

Feature Type: Administrative units (Polygon)  
Feature Attribute Code: SST2CD  
Feature Attribute Name: alpha numerical string from country  
Description: applicable national or statistical code provided by country for administrative units level 1

Type: Text  
Length: 15  
Rule: Optional  
Feature Attribute value: alpha numerical string from country  
Feature Attribute example: 091 [Statistical code]

Therefore, the Data Specification document is to be further based on feedback from Member States, International Organizations, Academia, Private Sector and other lessons learned in the context of integration with statistics.

## **ACKNOWLEDGEMENT**

Thank you to all individuals, institutions, organizations, partners, contributors and in particular National Geospatial Information Authorities who provided support in developing the current version of the Data Specification.

# **Annex 1**

## **TERMS FOR THE CONTRIBUTION OF DATA**

## TERMS FOR THE CONTRIBUTION OF DATA

The Second Administrative Level Boundaries programme of the United Nations aims to make available an interoperable, accessible, and global repository of authoritative information, tables and geospatial data, about the administrative units and names of countries down to the second subnational level, including through time (hereinafter the “**SALB Data**”) from information contributed by the relevant authorities of Member States of the United Nations (hereinafter the “**Contributors**”). The SALB Data is provided free of charge to national governments, international organizations, international civil society organizations, as well as statisticians, *geospatial* experts and researchers, and the general public (hereinafter the “**Users**”).

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- In the metadata of the respective SALB Data, the originating office name will be spelled in full including the country name.

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**Annex 2**  
**TERMS OF USE**



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