

MADAGASCAR METADATA NOTES: Administrative Boundaries and Population Data

2018 10 31 update by FIS (alters section highlighted in yellow below):

The Tana 1-6 districts were therefore re-re-coded with 'A' suffixes to satisfy a UNICEF requirement that no feature have the same administrative level 2 and 3 P-code. Therefore the codes can no longer align with the BNGRC (National Disaster Management Agency) data .

2018 08 update by ROSEA:

Administrative Boundary Levels in Madagascar:

(Provinces/Faritany were reportedly abolished in 2007, but are still referred to)

1. Regions
2. Districts
3. Communes
4. Fokontany

Madagascar Administrative Boundaries level 0 to 4 (COD AB) :

Boundary Data Source:

Madagascar BNGRC (National Disaster Management Agency) Boundaries, edited and cleaned by OCHA ROSEA. (<https://www.bngrc-mid.mg/>)

The OCHA Fokontany (admin 4) shapefile was dissolved to create the Administrative Boundaries for level 3, 2, 1 and 0 boundary shapefiles, in order to ensure nesting, and topology cleaned.

The shapefile data is in a Geographic Coordinate System (WGS84)

Population data for Madagascar Administrative Boundaries level 0 to 4 (COD PS) : **(total only, no gender or age disaggregation)**

Population Data Source:

INSTAT/ Madagascar BNGRC (National Disaster Management Agency) 2009 population data with population growth rate estimations for 2010 to 2018 from the BNGRC (Population growth rates applied respectively per year of 2.76 , 2.75 , 2.74, 2.72 , 2.71 and 2.7 for 2015 to 2018). Population data obtained from the BNGRC in August 2018 (estimations only as the last census was undertaken in 1993, however Census 2018 is currently underway)

INSTAT is reportedly currently undertaking the first Census since 1993, underway since May 2018, with funding support from UNFPA and the World Bank, however results are only likely to be available in 2019/2020: <http://www.theeastafrican.co.ke/news/africa/Madagascar-begins-national-census/4552zzzzz902-4568464-dll935/index.html>

**Note: Slight differences in total population at Fokontany, Commune, District and National level are as a result of rounding of decimal places from the population growth estimate calculations for 2010 to 2018.*

**Note: Population data has been joined at Administrative Boundary 4 level for all Fokontany, however in 2 communes, namely Tsiroanomandidy Ville and Tsaraitso communes, no individual fokontany spatial boundaries were available. The fokontany population data for these two communes was therefore summed to commune level for the population join at fokontany level.*

METADATA BACKGROUND

It was noted during the Cyclone Enawo response that the BNGRC (National Disaster Management Agency) are using different codes for Regions (administrative boundary level 1) and Districts (administrative boundary level 2), that do not correlate with the Fokontany (administrative boundary level 4) codes, but which the BNGRC use in their disaster reporting system and mapping shapes. The p-codes in the HDX COD Administrative Boundaries are built from the Fokontany (administrative boundary level 4) codes in order to meet COD code hierarchy standards. Over time a move should therefore be made to use the P-Codes where possible. It is however important that the data can be linked to the BNGRC data, as they are the key Disaster Management Agency and there is a need to join their report data for mapping. A **Look Up Table** will therefore be provided with the COD data on HDX which includes the BNGRC Region and District codes/names as well as P-Codes, should these be required for disaster response.

The District shapefile was changed to include Tana 1-6 (Arrondissement 1-6) from the Commune shapefile in place of the old Antananarivo- Renivohitra district, as requested by the BNGRC. The Tana 1-6 districts were therefore re-coded, using the same P-code as the commune code (P-Codes MG11101001 - MG11101006). **The communes are therefore now the district level in the old Antananarivo-Renivohitra district and the district is replaced by Arrondissement 1-6 polygons, in order to align with the BNGRC (National Disaster Management Agency) data .**

The following additional changes were made to the shapefiles in August 2018:

- Fokontany duplicate code MG42412070007 (Marerano) from the BNGRC data set was corrected (One of the polygons was corrected to MG42412070002 and renamed Andahono which was missing in Tsiamalao Commune, based on BNGRC Fokontany population spreadsheet and point locations).
- Fokontany duplicate code MG42409092006 was corrected to MG42409092007 and renamed AMBODIMANGA II, as per BNGRC Fokontany population spreadsheet and point locations.
- Fokontany name for code MG23207130014 was changed to Andapa as per as per BNGRC fokontany population spreadsheet and point locations (replaced Ambalavero II duplicate name).
- Cleaned topology (Antsirabato fokontany gap) , Province names (Toliara/y) and spaces before Adm4_En Fokontany names.
- Corrected BNGRC district codes to 113 (Ambatondrazaka) and 105.
- Replaced 'Unknown' fokontany / commune names and p-codes as indicated below:

Unknown name Fokontany/Commune Polygon MG14111030998 changed to MG14111010008 Tsiroanomandidy Ville Commune (verified on google earth), based on BNGRC Fokontany population table records. (The fokontany spatial divisions within Tsiroanomandidy Ville Commune are missing in all available shapefiles, however according to the population table there are 16 fokontany in Tsiroanomandidy Ville Commune, as indicated below). **The population data at fokontany level was therefore summed to commune level for Tsiroanomandidy Ville Commune shape.**

Fokontanies within Tsiroanomandidy Ville Commune (No fokontany spatial division data available, therefore population for 2009-2018 summed to Commune Level for Tsiroanomandidy Ville Commune):

| DISTRICT | COMMUNE | CODE | FOKONTANY | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|------------------------|------------------------------|------------------|-------------------------------|------------|------------|------------|------------|------------|--------------|--------------|--------------|--------------|--------------|
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010001 | ATSIMOTSENA | 1 032 | 1 060 | 1 090 | 1 120 | 1 150 | 1 181 | 1 213 | 1 246 | 1 279 | 1 314 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010002 | AMPARIHIKAMBANA | 2 140 | 2 199 | 2 260 | 2 321 | 2 385 | 2 449 | 2 515 | 2 583 | 2 653 | 2 725 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010003 | MANGARIVOTRA | 3 498 | 3 595 | 3 693 | 3 795 | 3 898 | 4 004 | 4 112 | 4 223 | 4 337 | 4 454 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010004 | ANDREFAN'NY GARA | 1 324 | 1 361 | 1 398 | 1 436 | 1 475 | 1 515 | 1 556 | 1 598 | 1 641 | 1 686 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010005 | AVARATSENA | 2 212 | 2 273 | 2 336 | 2 400 | 2 465 | 2 532 | 2 600 | 2 670 | 2 742 | 2 816 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010006 | TSARALALANA | 1 682 | 1 728 | 1 776 | 1 825 | 1 874 | 1 925 | 1 977 | 2 030 | 2 085 | 2 142 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010007 | ANOSIVOLA | 784 | 806 | 828 | 850 | 874 | 897 | 922 | 946 | 972 | 998 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010008 | TSIROANOMANDIDY ATSIMO | 880 | 904 | 929 | 955 | 981 | 1 007 | 1 034 | 1 062 | 1 091 | 1 120 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010009 | TSARAHONENANA | 1 303 | 1 339 | 1 376 | 1 414 | 1 452 | 1 491 | 1 532 | 1 573 | 1 615 | 1 659 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010010 | ANKADINAKANGA | 1 320 | 1 356 | 1 394 | 1 432 | 1 471 | 1 511 | 1 552 | 1 593 | 1 637 | 1 681 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010011 | SOANAFINDRA | 3 064 | 3 149 | 3 235 | 3 324 | 3 414 | 3 507 | 3 602 | 3 699 | 3 799 | 3 901 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010012 | ANDROTRA | 1 962 | 2 016 | 2 072 | 2 128 | 2 186 | 2 246 | 2 306 | 2 369 | 2 432 | 2 498 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010013 | AMBOASARIKELY | 892 | 917 | 942 | 968 | 994 | 1 021 | 1 049 | 1 077 | 1 106 | 1 136 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010014 | SOAMAHAMANINA | 3 500 | 3 597 | 3 696 | 3 797 | 3 900 | 4 006 | 4 114 | 4 225 | 4 339 | 4 456 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010015 | AMBOHITSOA | 1 500 | 1 541 | 1 584 | 1 627 | 1 672 | 1 717 | 1 763 | 1 811 | 1 860 | 1 910 |
| TSIROANOMANDIDY | TSIROANOMANDIDY VILLE | 111010016 | AMPARIHIBE | 620 | 637 | 655 | 673 | 691 | 710 | 729 | 748 | 769 | 789 |

Unknown name Fokontany/Commune Polygon MG53517070999 changed to MG53517030001 Tsaraitso Commune (verified from the following website: <https://www.mindat.org/loc-300746.html>), based on BNGRC Fokontany missing population table records. (The fokontany spatial divisions within Tsaraitso Commune are missing from all available shapefiles, however according to the population table there are 6 fokontany in Tsaraitso Commune, as indicated below). The population data at fokontany level was therefore summed to commune level for Tsaraitso Commune shape.

Fokontanies within Tsaraitso Commune (No fokontany spatial division data available, therefore population summed to Commune Level for Tsaraitso Commune):

| DISTRICT | COMMUNE | CODE | FOKONTANY | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|----------------|------------------|------------------|------------------|------------|------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| BETROKA | TSARAITSO | 517030001 | TSARAITSO | 924 | 950 | 976 | 1 002 | 1 030 | 1 058 | 1 086 | 1 115 | 1 146 | 1 176 |
| BETROKA | TSARAITSO | 517030002 | TAPERAPIA | 567 | 583 | 599 | 615 | 632 | 649 | 666 | 684 | 703 | 722 |
| BETROKA | TSARAITSO | 517030003 | AMBONDRO II | 1 219 | 1 253 | 1 287 | 1 322 | 1 358 | 1 395 | 1 433 | 1 472 | 1 511 | 1 552 |
| BETROKA | TSARAITSO | 517030004 | BEMA | 913 | 938 | 964 | 990 | 1 017 | 1 045 | 1 073 | 1 102 | 1 132 | 1 162 |
| BETROKA | TSARAITSO | 517030005 | ANALASOA | 925 | 951 | 977 | 1 003 | 1 031 | 1 059 | 1 087 | 1 117 | 1 147 | 1 178 |
| BETROKA | TSARAITSO | 517030006 | ANDREA | 890 | 915 | 940 | 965 | 992 | 1 019 | 1 046 | 1 074 | 1 103 | 1 133 |

The following changes were made to the Madagascar COD shapefiles previously in 2017 , based on feedback from the BNGRC:

- Added 7 missing Fokontany from the BNGRC data set that were missing from the Fokontany COD in Antanandava District, including: Antanandava; Antsirabe; Ambodirotra; Ambongabe; Bekatsaka; Ambodiapaly; and Manambato Fokontany (topology cleaned).
- The FKT pre-fix was removed from Fokontany names to assist with alphabetical sorting.
- The following duplicate P-Codes from the Fokontany (administrative boundaries level 4) COD shapefile were corrected:
 - MG24216231002 (polygons with different names-changed one to 003 as in BNGRC shape) ANDRIAMANERO 003 and FANDRANARIVO 002
 - MG52516152005 (duplicate ID-BNGRC data has same duplicate ID but different Fokontany names, namely Ampanaperandrotsy I & II in BNGRC shape. Changed II to code 006 which was missing.

Therefore the following new Fokontany P-Codes were added to the Fokontany shape: MG24216231003 and MG52516152006.