



**Shelter Cluster NWSW Cameroon**  
ShelterCluster.org  
Coordinating Humanitarian Shelter



**Southwest Region Cameroon  
Environmental Atlas**



## Introduction

In preparation for a series of environmental mainstreaming workshops and trainings to be held for Shelter Cluster partners in 2023, it was essential to get to know the natural environment of the Southwest Region of Cameroon.

What follows is a series of maps that were produced for the workshop, but which also serve as valuable secondary data for all stakeholders to the humanitarian response to understand what might be the environmental situation and how it is linked with the ongoing humanitarian crisis in the region. While designed by the Shelter Cluster it was decided to not use Shelter Cluster branding to indicate that a lot of information was gathered through Open Source Data and can be used by all stakeholders to the humanitarian response.

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Shelter Cluster Coordinator  
Northwest Southwest Region Cameroon  
March 2023



**Shelter Cluster NWSW Cameroon**

**ShelterCluster.org**

Coordinating Humanitarian Shelter

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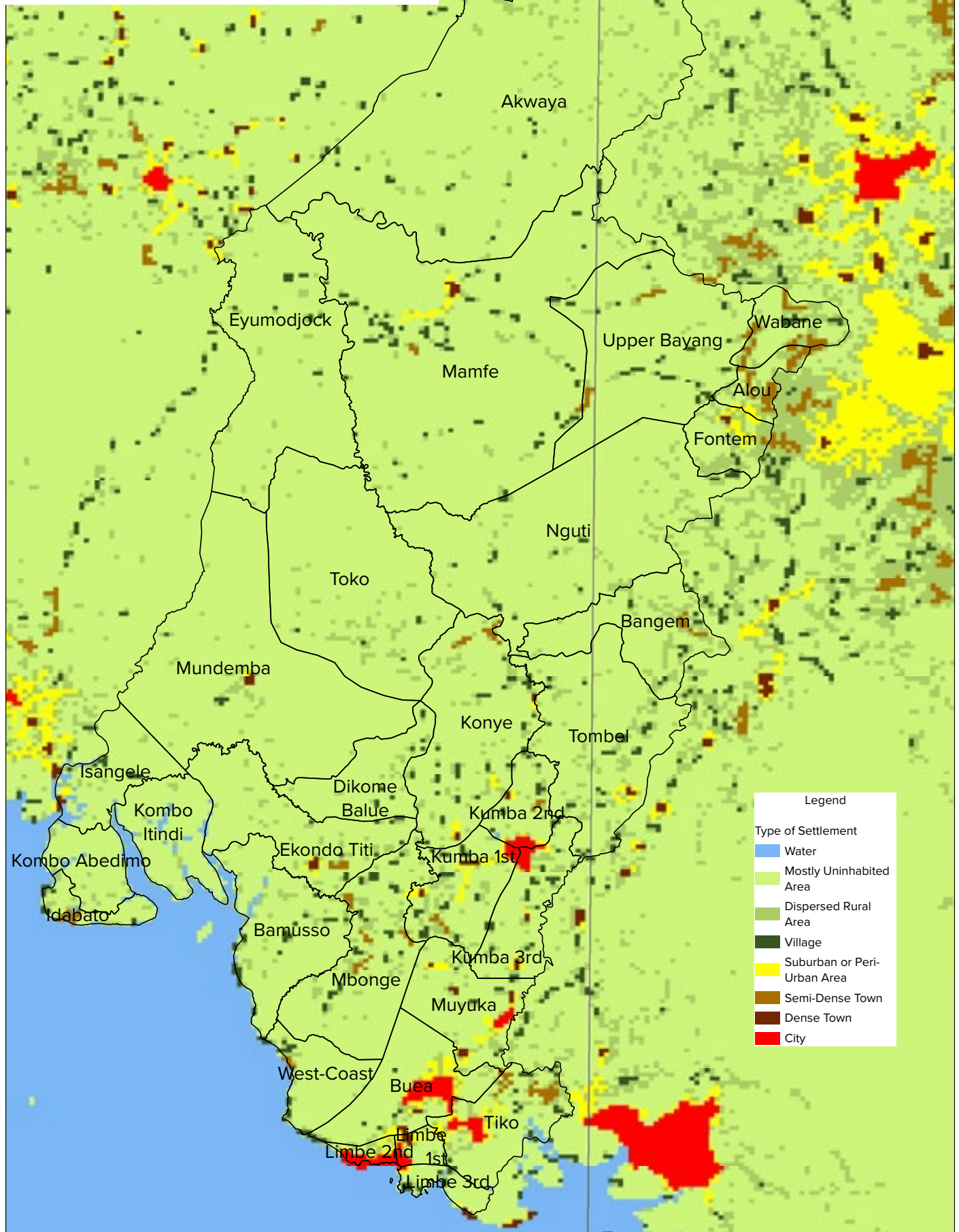
@Shelter Cluster an IDP in Limbe at the communal cooking space near her wooden shelter.



## Table of Contents

1. [Southwest Region Settlement Types](#) (European Commission Global Human Settlement Layers, Degree of Urbanisation Methodology)
2. [Southwest Region, Estimated Population per Subdivision](#) (Oakridge Laboratory, Landsat Imagery 2021)
3. [Number of Estimated Internally Displaced People per Subdivision](#) (OCHA Multisector Needs Assessment)
4. [Number of Estimated People per Village](#) ((European Commission Global Human Settlements Layer, Oakridge Laboratory, Landsat Imagery 2021)
5. [Ecoregions of the Southwest Region of Cameroon](#) (World Wildlife Fund Ecoregions of Africa)
6. [Southwest Region Elevation Profile in Elevation Max](#) (World Food Programme, Elevation Raster, Humanitarian Data Exchange Download)
7. [Southwest Region Slope in % Gradient](#) ((World Food Programme, Elevation Raster, Humanitarian Data Exchange Download)
8. [Southwest Region Surficial Lithology](#) (ArcGIS Esri, Africa Surficial Lithology layer)
9. [Northwest Region Soil Texture](#) (World Harmonised Soil Database Texture)
10. [Southwest Region Annual Precipitation per month Highest highs and Lowest lows](#) (Esri)
11. [Southwest Region Annual Precipitation per month in Graduated mm](#) (Esri)
12. [Southwest Region Distance to Bodies of water and waterways](#) (Open Street Map, GeoFabrik Download)
13. [Southwest Region Groundwater Productivity](#) (British Geological Survey, Groundwater Maps of Africa)
14. [Southwest Region Bivariate Temperature Distribution between Dry and Rainy Season 1980-2010](#) (Esri)
15. [Southwest Region February \(Dry Season\) Monthly Temperature Averages \(1980-2010\)](#) (Esri)
16. [Southwest Region August \(Rainy Season\) Monthly Temperature Averages \(1980-2010\)](#) (Esri)
17. [Southwest Region Below and Above Ground Biomass](#) (UN Biodiversity Labs, detailed citation in map)
18. [Southwest Region Land Use and Land Cover Sentinel 2-10 M](#) (Esri and Microsoft)
19. [Southwest Region Forest Fragmentation](#) (World Wildlife Fund, NOAA)
20. [Southwest Region Landuse](#) (Open Street Map, GeoFabrik Download)

**Global Human Settlements Layer  
Degree of Urbanisation Southwest Region**



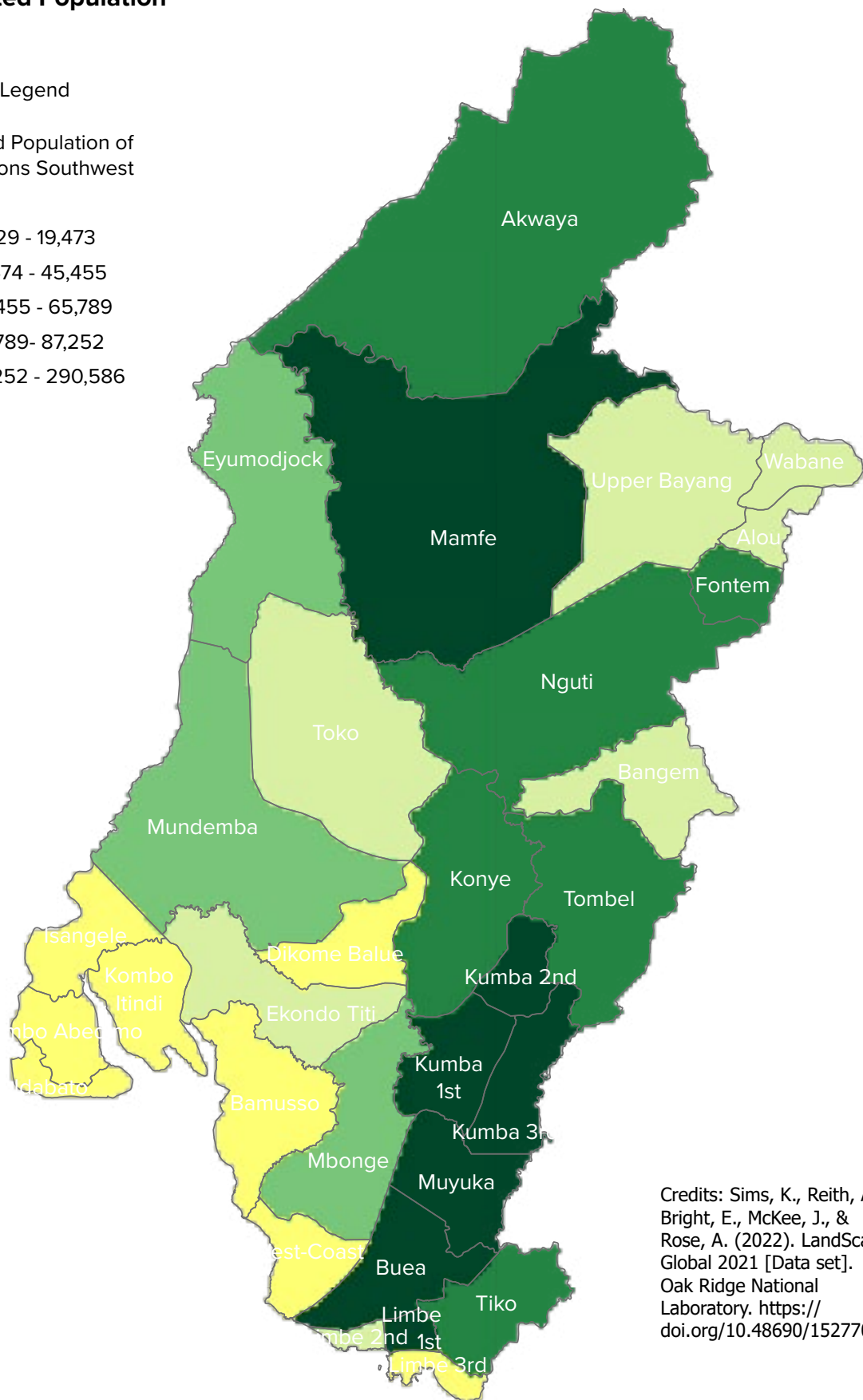
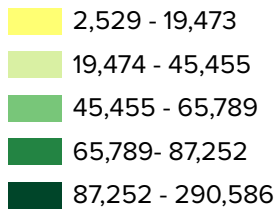


## Southwest Subdivisions Estimated Population

### Legend

Estimated Population of  
Subdivisions Southwest

Value



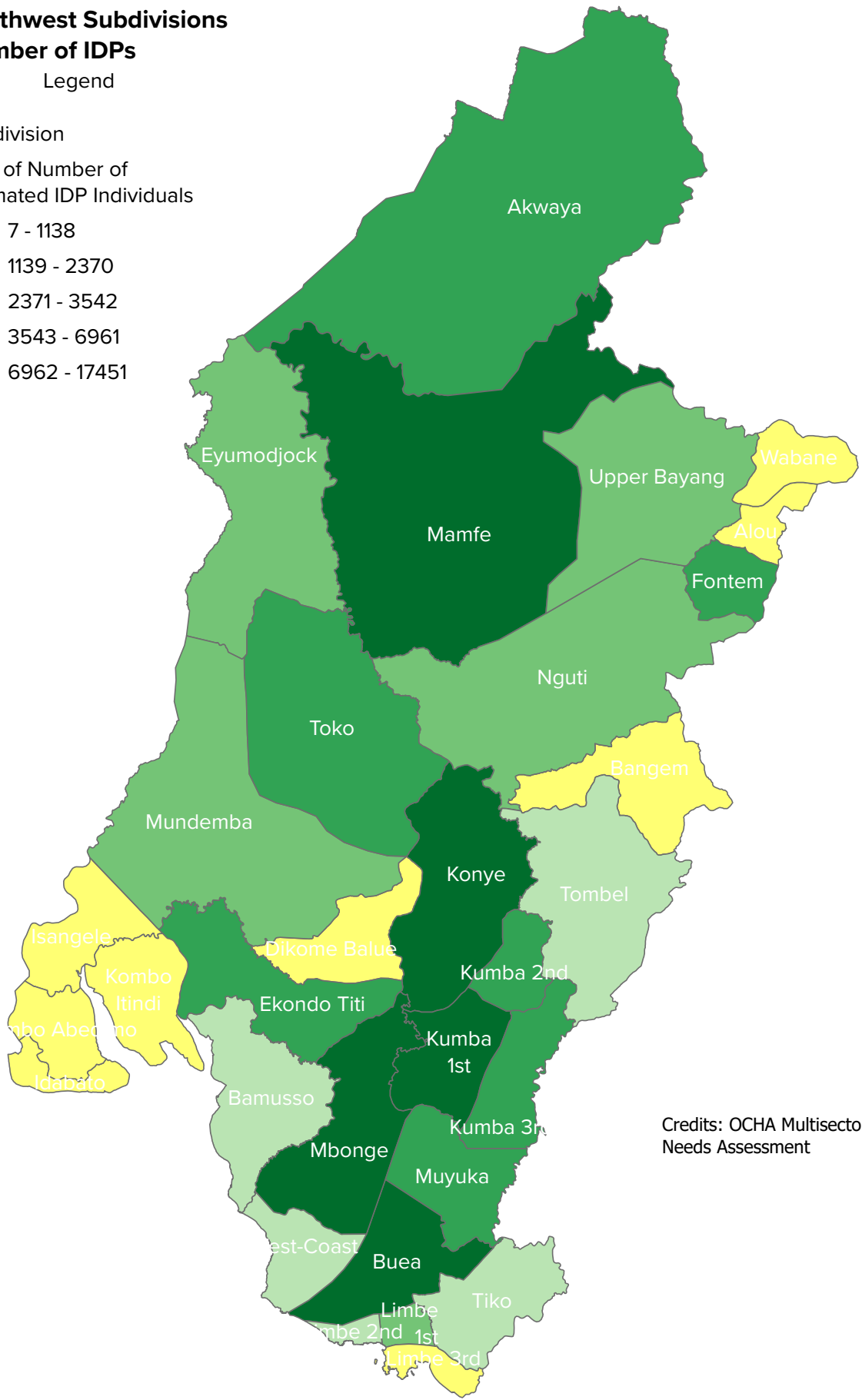
Credits: Sims, K., Reith, A.,  
Bright, E., McKee, J., &  
Rose, A. (2022). LandScan  
Global 2021 [Data set].  
Oak Ridge National  
Laboratory. [https://  
doi.org/10.48690/1527702](https://doi.org/10.48690/1527702)

**Southwest Subdivisions  
Number of IDPs**

Legend

Subdivision  
Sum of Number of  
Estimated IDP Individuals

- 7 - 1138
- 1139 - 2370
- 2371 - 3542
- 3543 - 6961
- 6962 - 17451

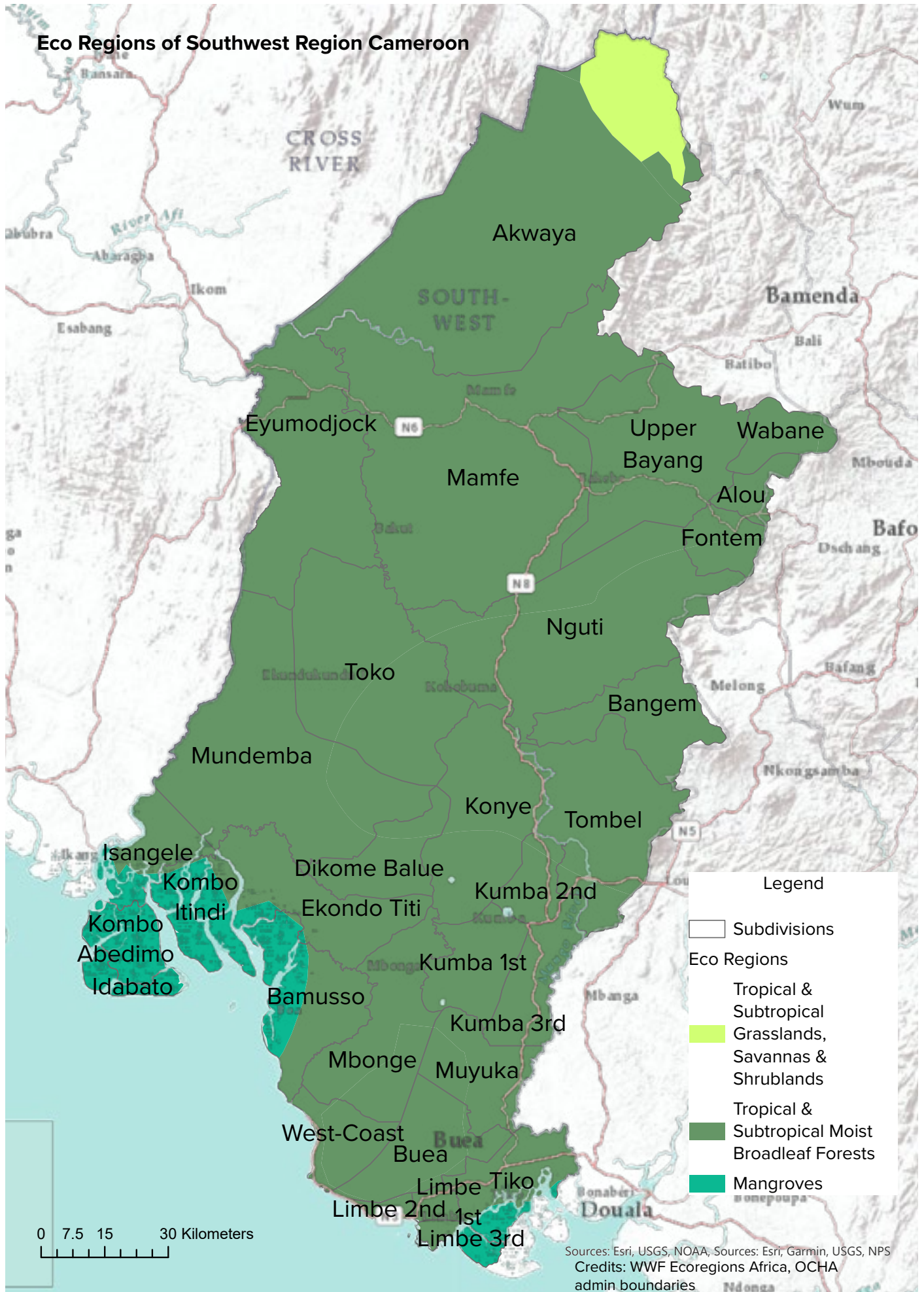


Credits: OCHA Multisector Needs Assessment






# Eco Regions of Southwest Region Cameroon



**Legend**

-  Subdivisions
- Eco Regions**
-  Tropical & Subtropical Grasslands, Savannas & Shrublands
-  Tropical & Subtropical Moist Broadleaf Forests
-  Mangroves

0 7.5 15 30 Kilometers

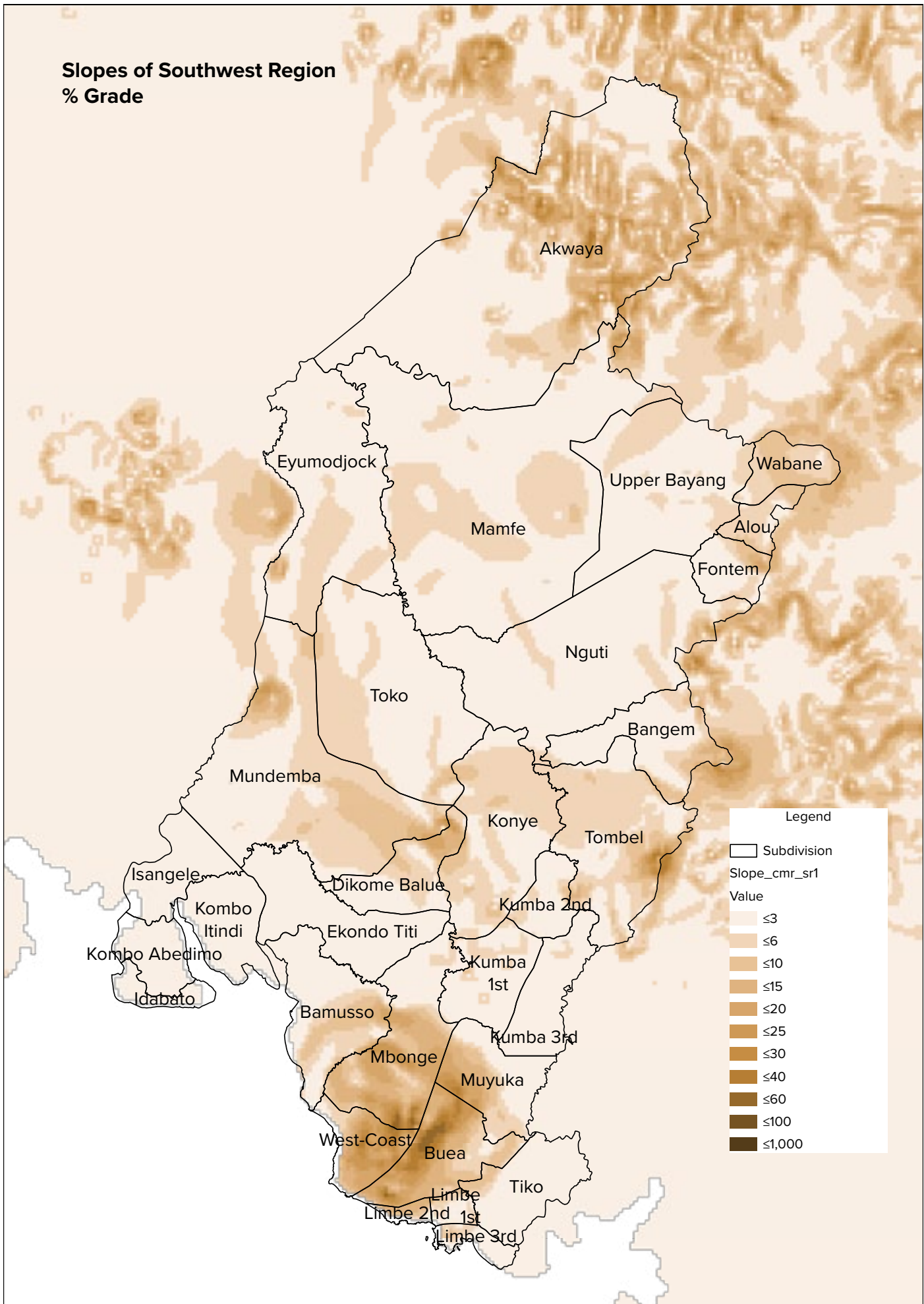
Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS  
Credits: WWF Ecoregions Africa, OCHA admin boundaries



# Elevation Profile Southwest Region



# Slopes of Southwest Region % Grade

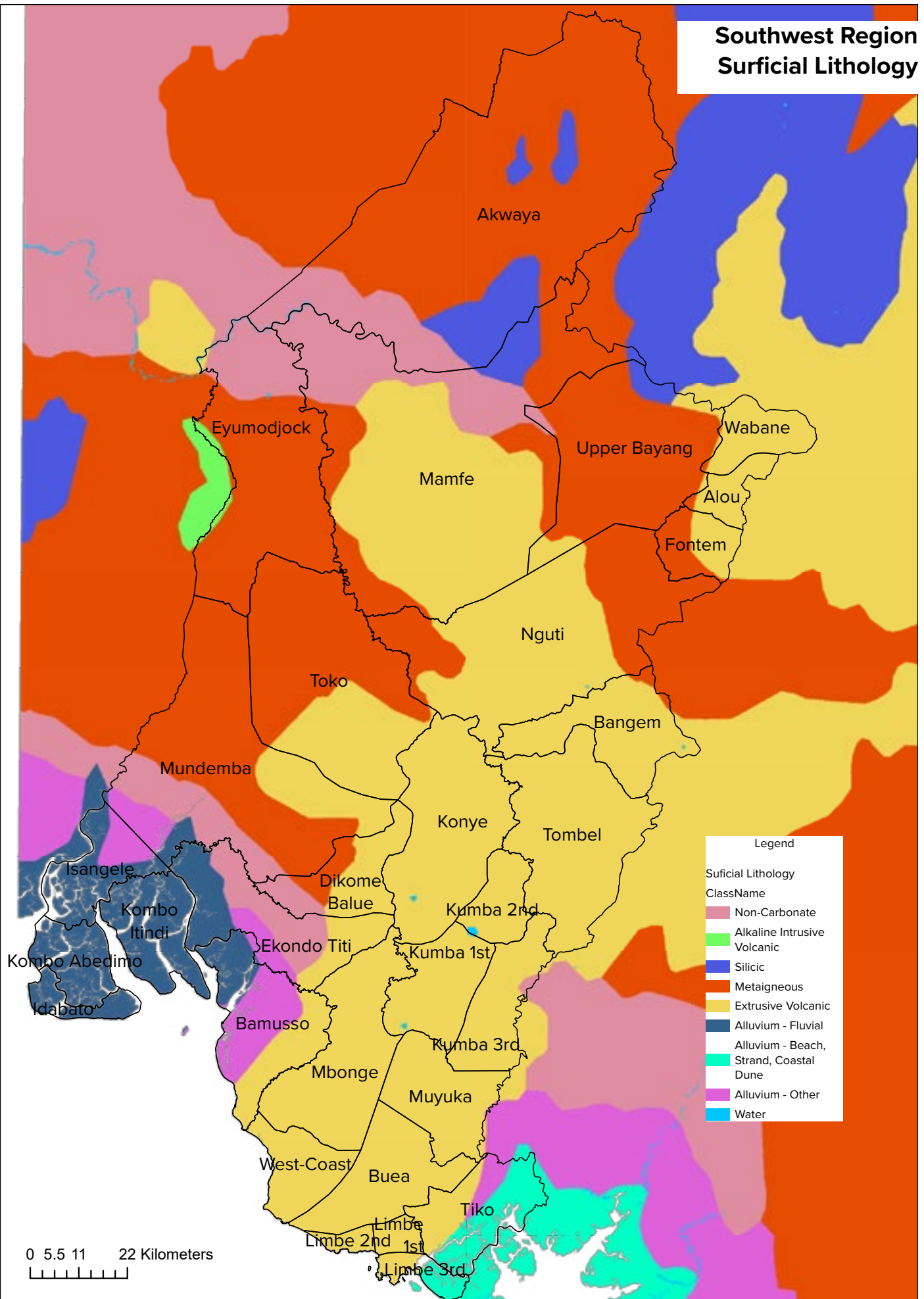


**Legend**

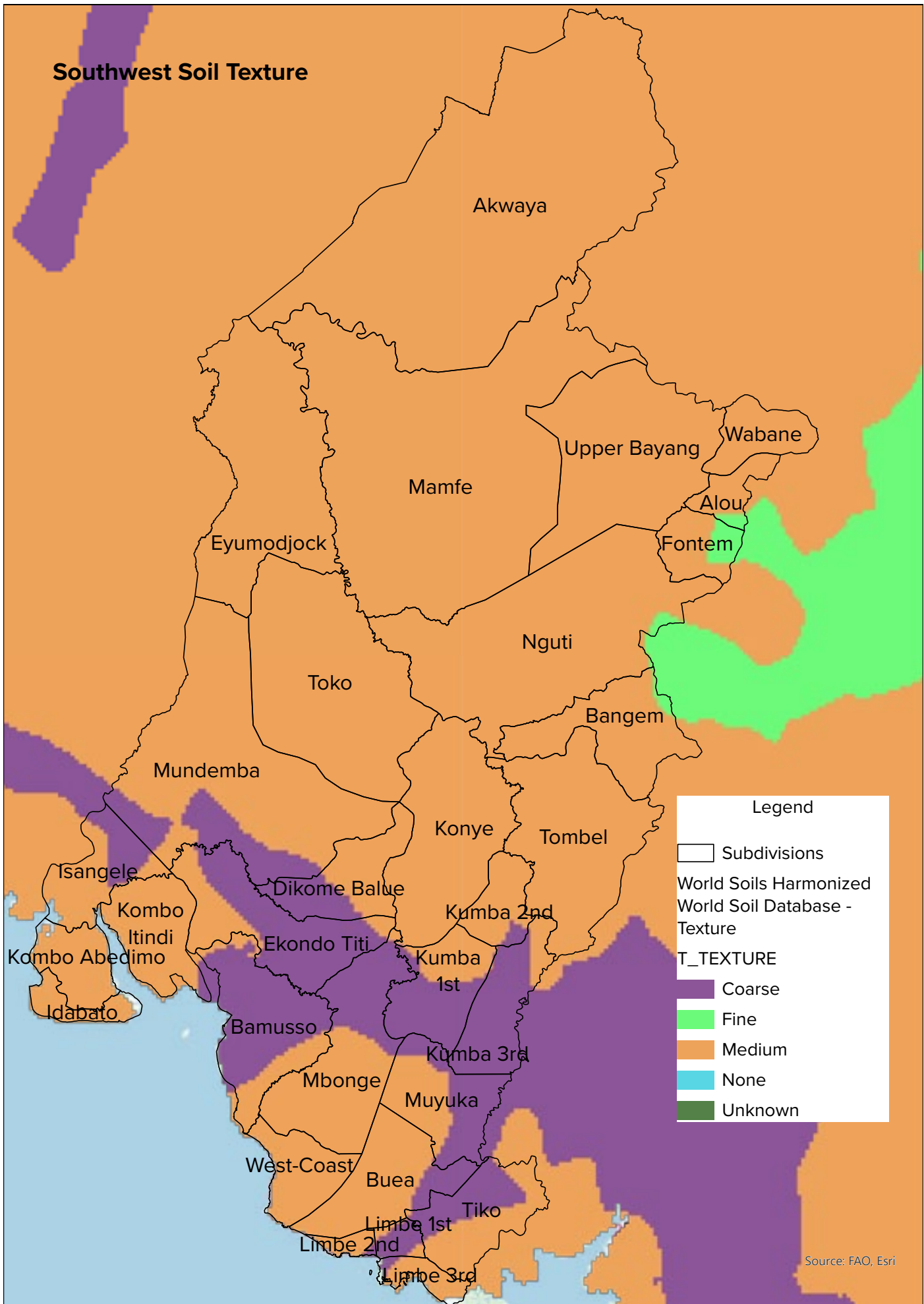
- Subdivision
- Slope\_cmr\_sr1
- Value
- ≤3
- ≤6
- ≤10
- ≤15
- ≤20
- ≤25
- ≤30
- ≤40
- ≤60
- ≤100
- ≤1,000



# Southwest Region Surficial Lithology



# Southwest Soil Texture



**Legend**

- Subdivisions
- World Soils Harmonized World Soil Database - Texture
- T\_TEXTURE
- Coarse
- Fine
- Medium
- None
- Unknown

Source: FAO, Esri

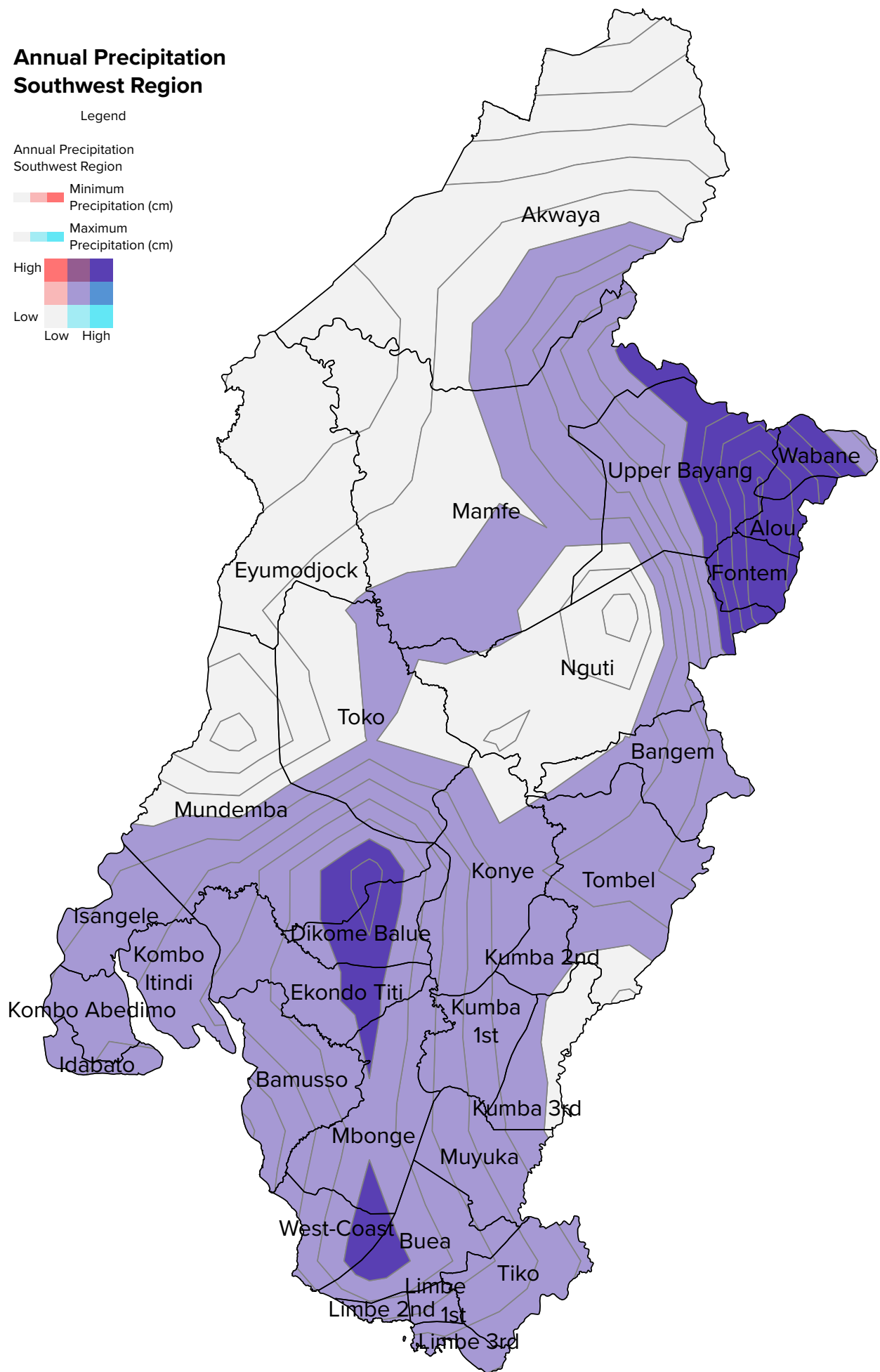
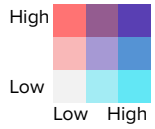
# Annual Precipitation Southwest Region

Legend

Annual Precipitation Southwest Region

Minimum Precipitation (cm)

Maximum Precipitation (cm)



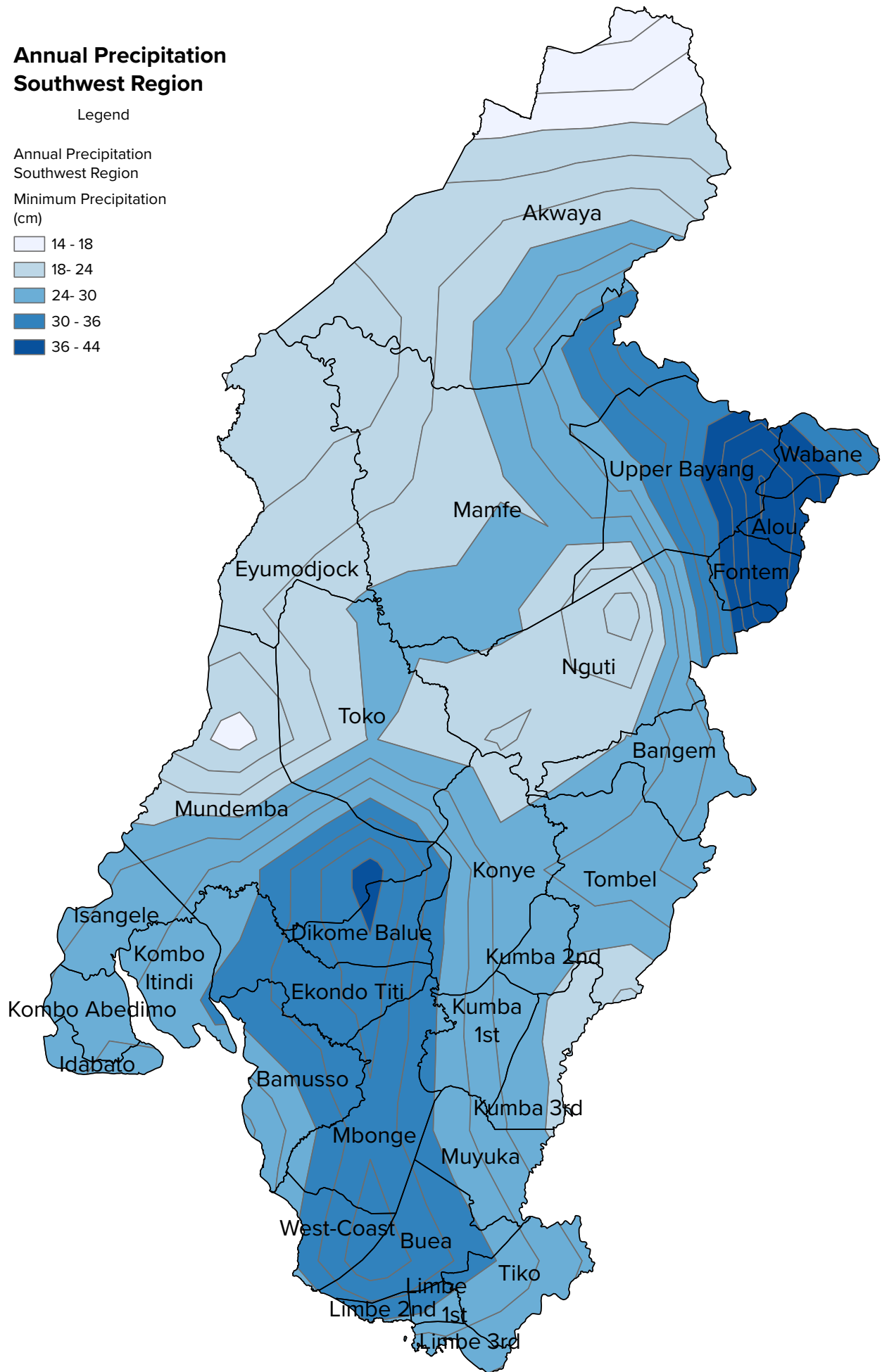


# Annual Precipitation Southwest Region

Legend

Annual Precipitation Southwest Region  
Minimum Precipitation (cm)

- 14 - 18
- 18 - 24
- 24 - 30
- 30 - 36
- 36 - 44



# Distance to Water and Locations of Case Study Villages

## Legend

● Case Study Villages

### Waterways

fclass

— canal

— river

— stream

— <all other values>

### Bodies of Water

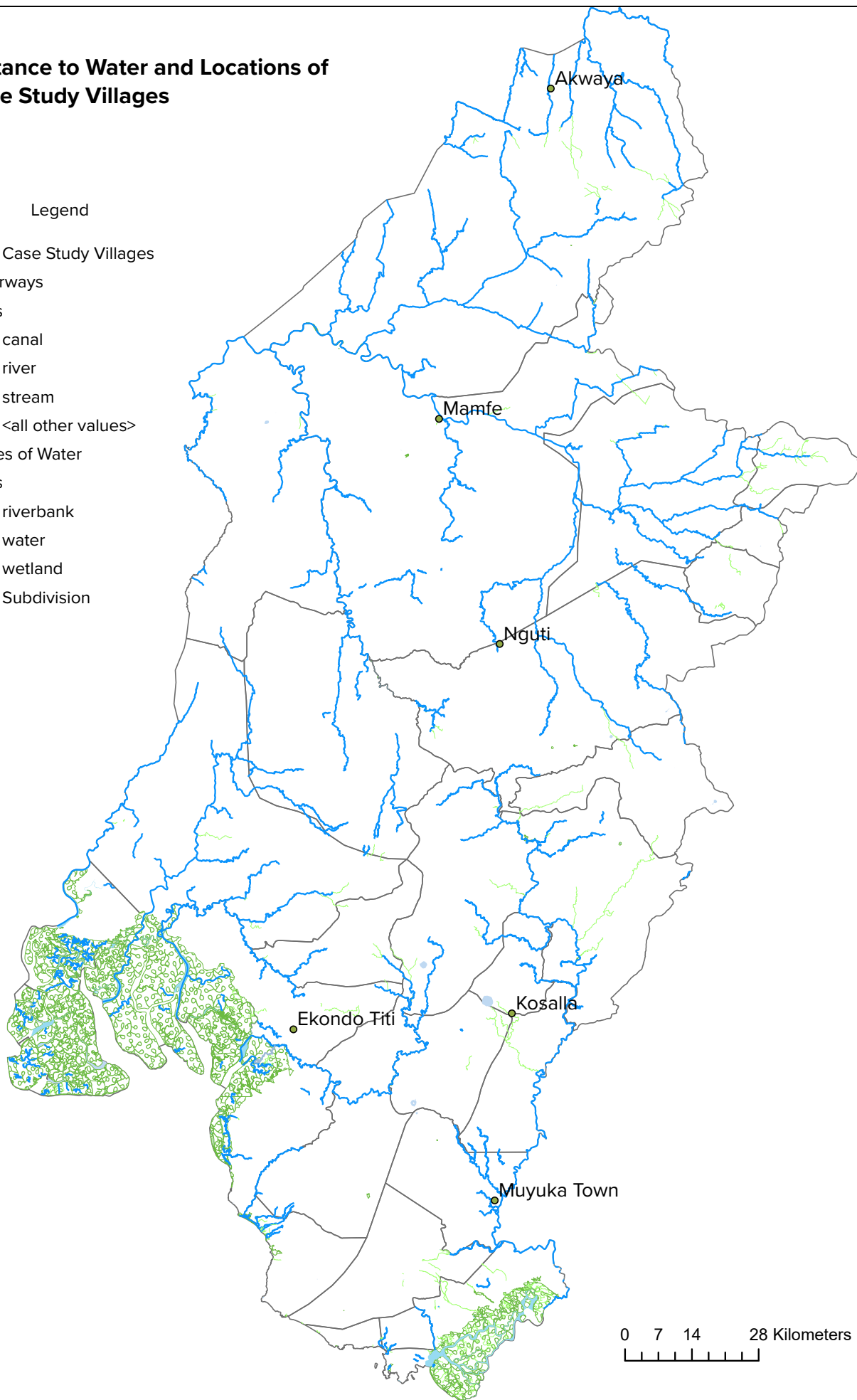
fclass

riverbank

water

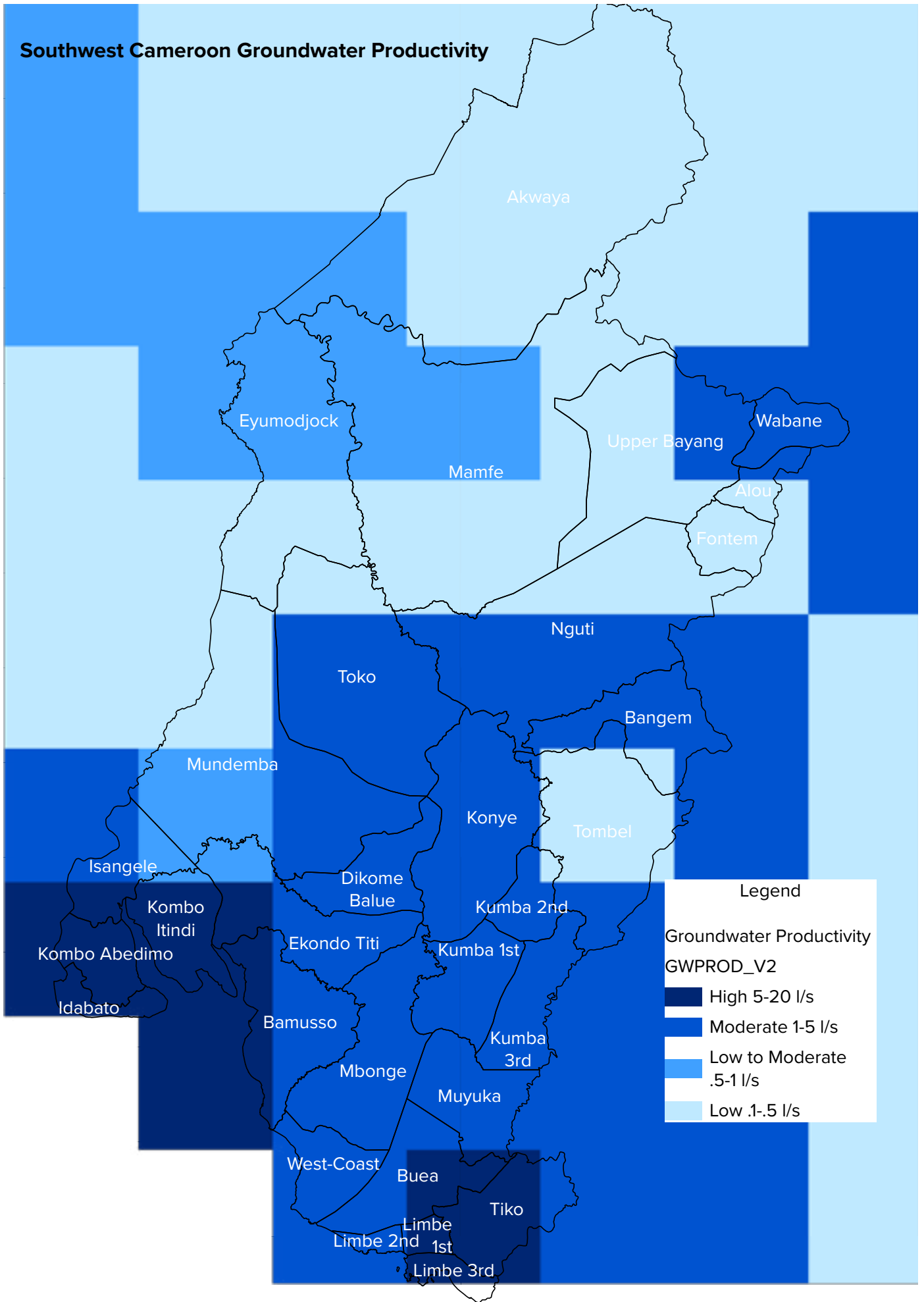
wetland

Subdivision



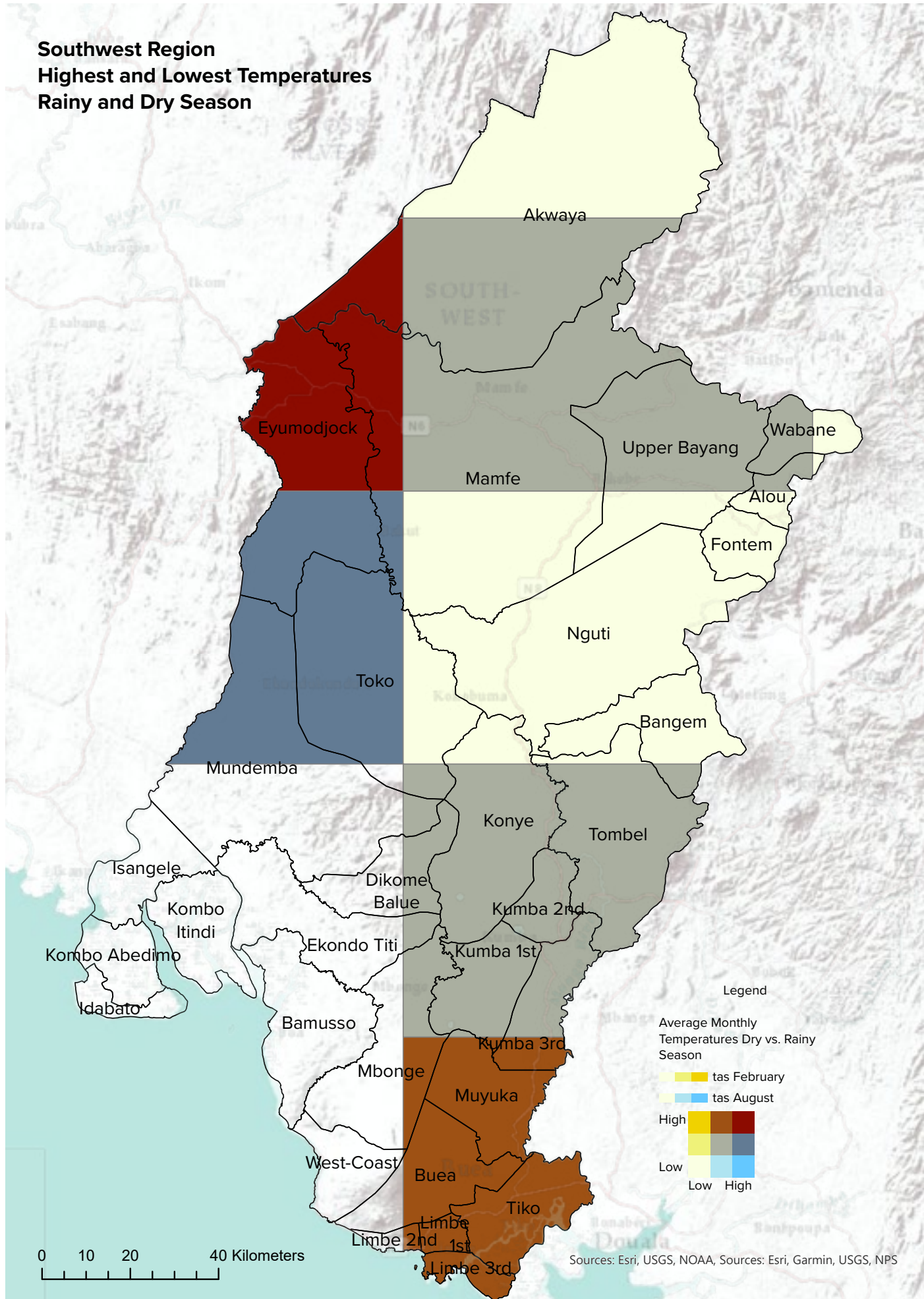
0 7 14 28 Kilometers

# Southwest Cameroon Groundwater Productivity

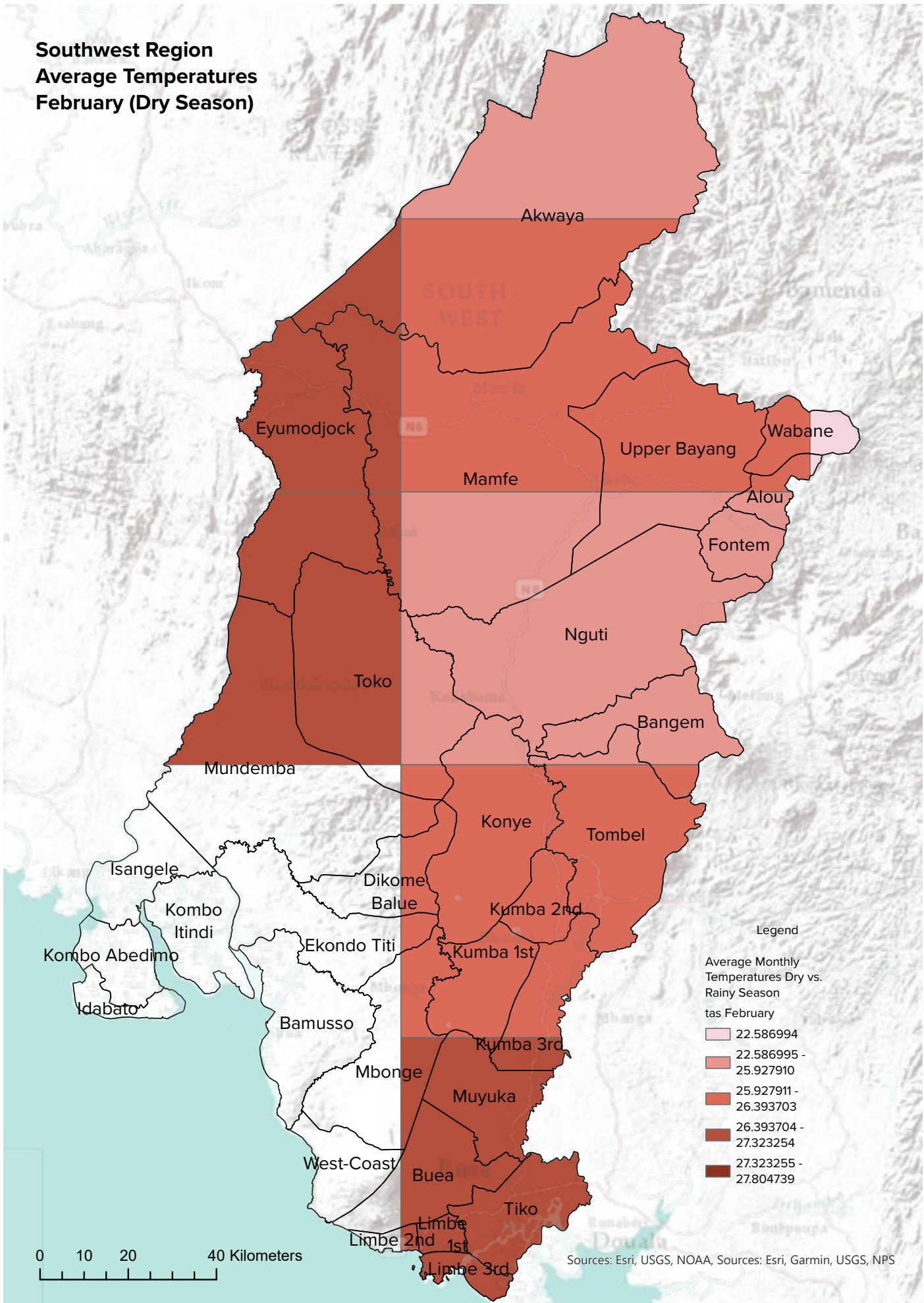




**Southwest Region  
Highest and Lowest Temperatures  
Rainy and Dry Season**

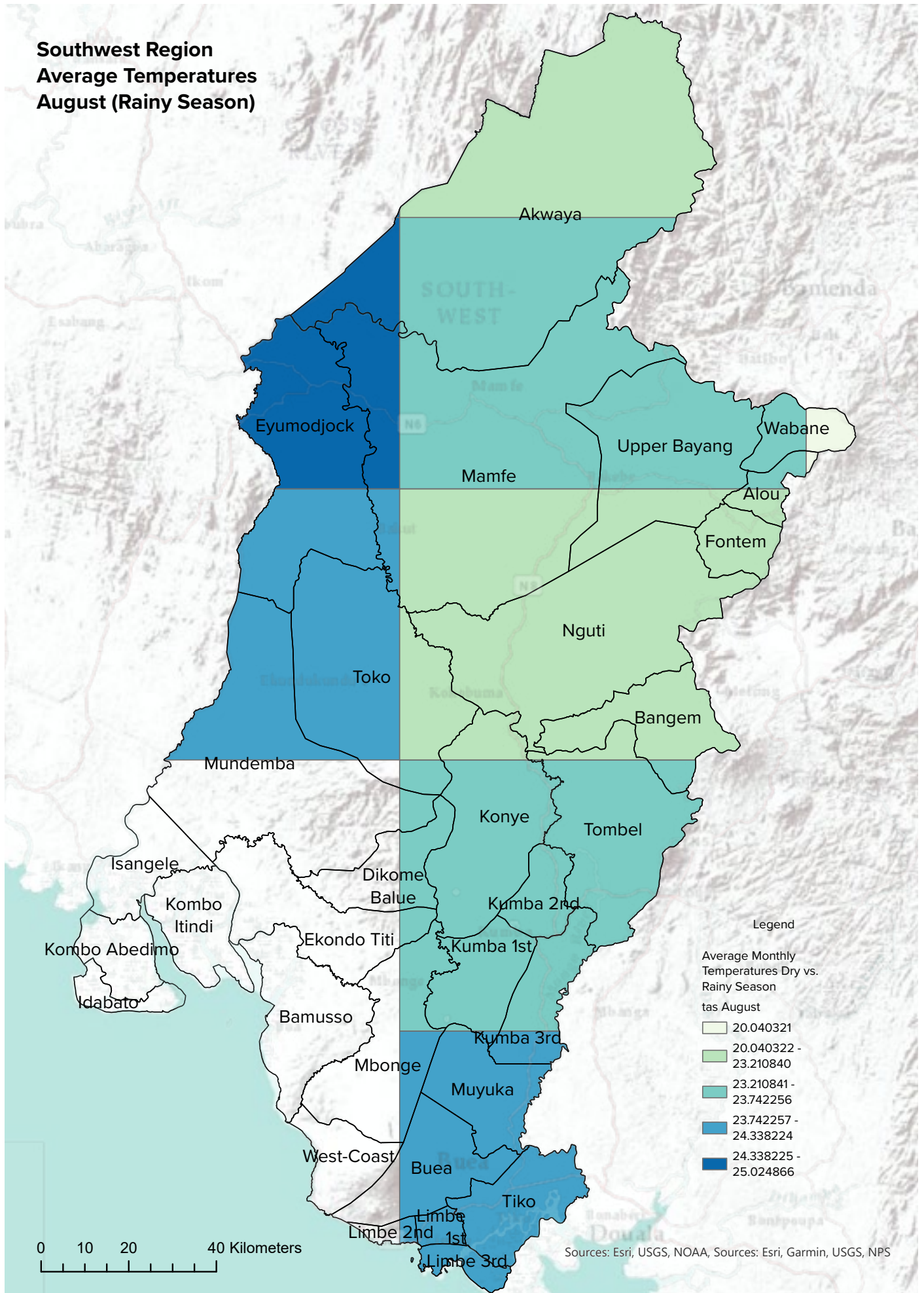


**Southwest Region  
Average Temperatures  
February (Dry Season)**



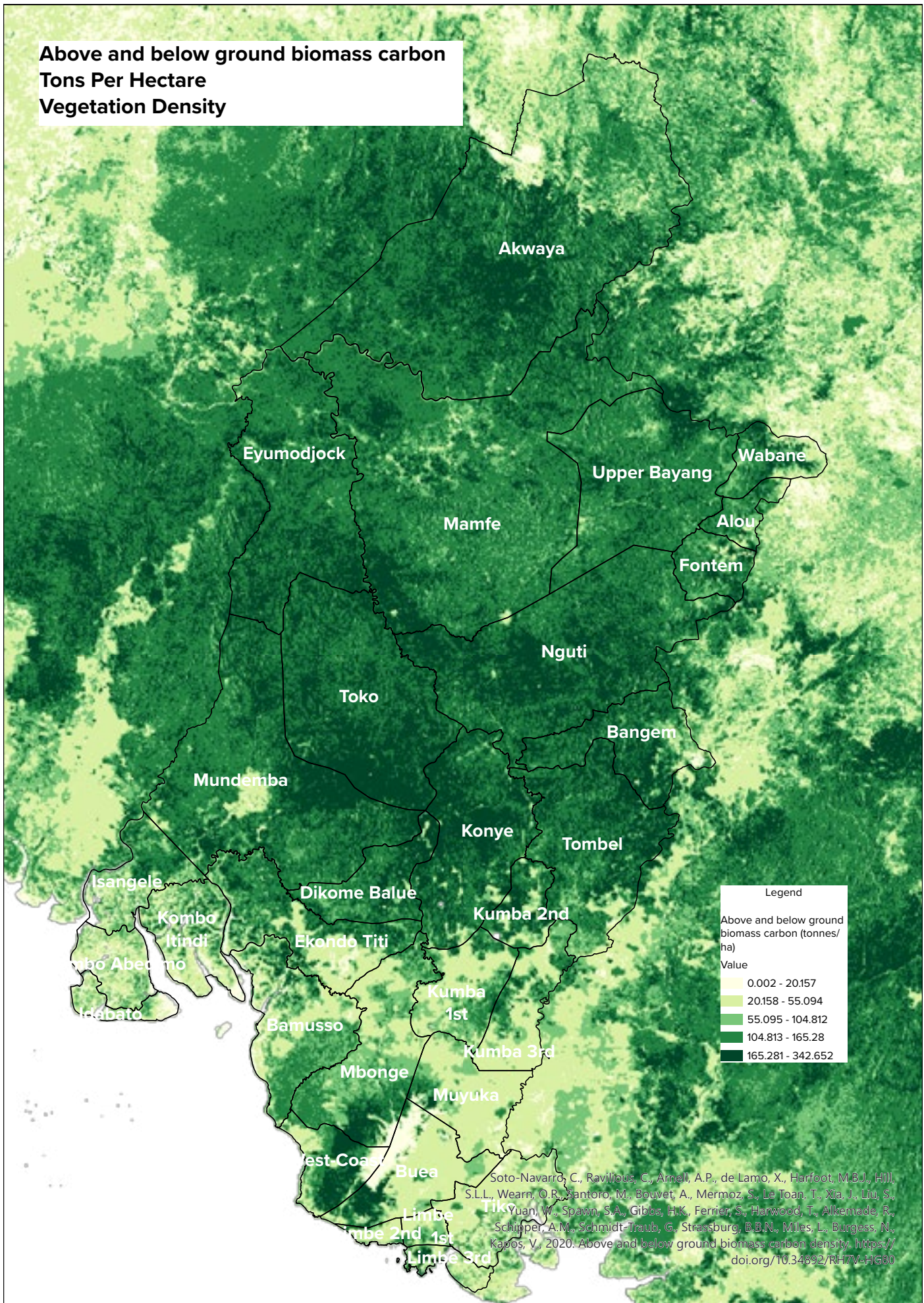


**Southwest Region  
Average Temperatures  
August (Rainy Season)**





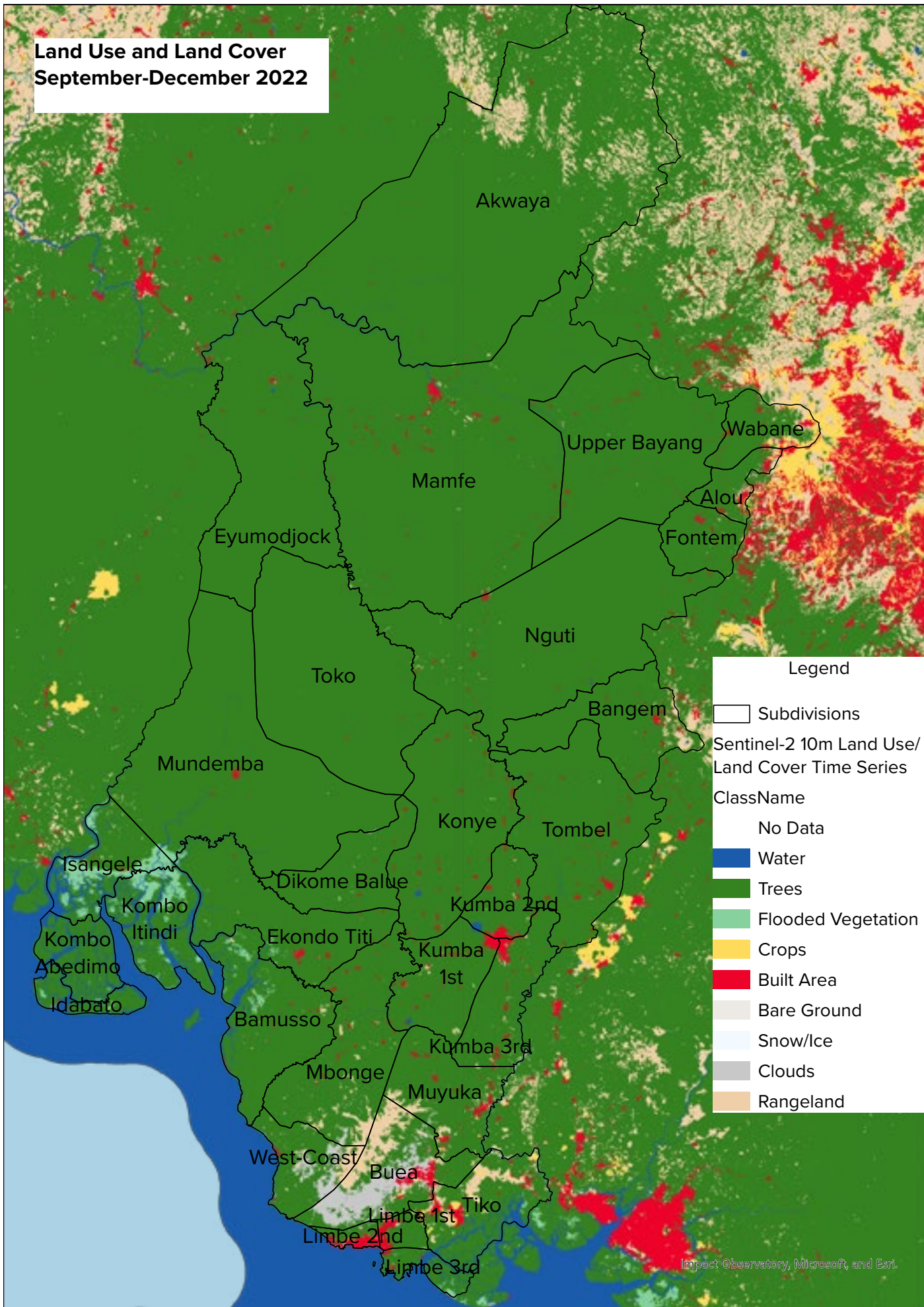
**Above and below ground biomass carbon  
Tons Per Hectare  
Vegetation Density**














Soto-Navarro, C., Ravilious, C., Arnell, A.P., de Lamo, X., Harfoot, M.B.J., Hill, S.L.L., Wearn, O.R., Santoro, M., Bouvet, A., Mermoz, S., Le Toan, T., Xia, J., Liu, S., Yuan, W., Spawn, S.A., Gibbs, H.K., Ferrier, S., Harwood, T., Alkemade, R., Schipper, A.M., Schmidt-Traub, G., Strassburg, B.B.N., Miles, L., Burgess, N., Kapos, V., 2020. Above and below ground biomass carbon density. <https://doi.org/10.34892/RH7V-HG80>



**Land Use and Land Cover  
September-December 2022**

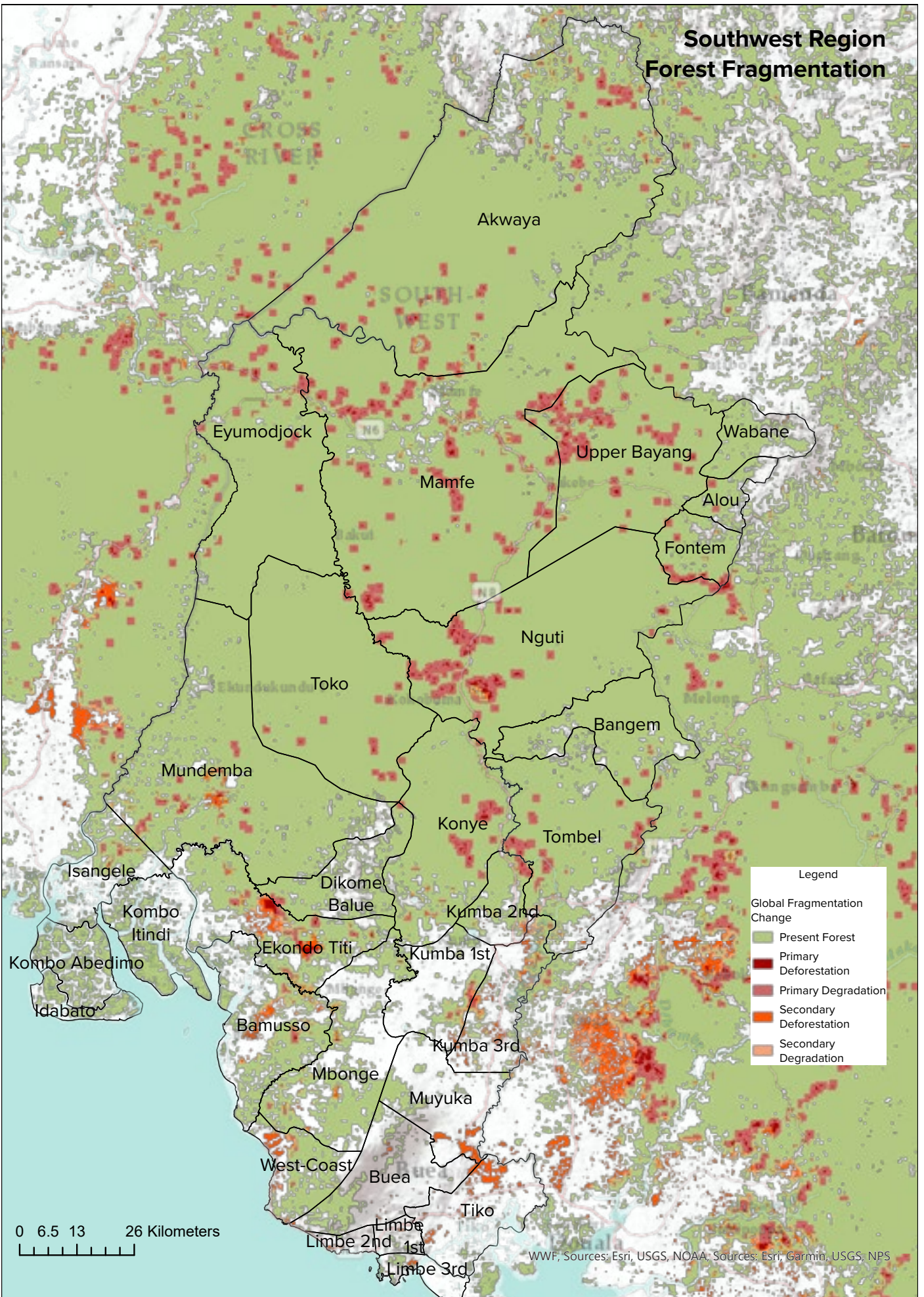


**Legend**

-  Subdivisions
- Sentinel-2 10m Land Use/  
Land Cover Time Series
- ClassName
-  No Data
-  Water
-  Trees
-  Flooded Vegetation
-  Crops
-  Built Area
-  Bare Ground
-  Snow/Ice
-  Clouds
-  Rangeland



# Southwest Region Forest Fragmentation

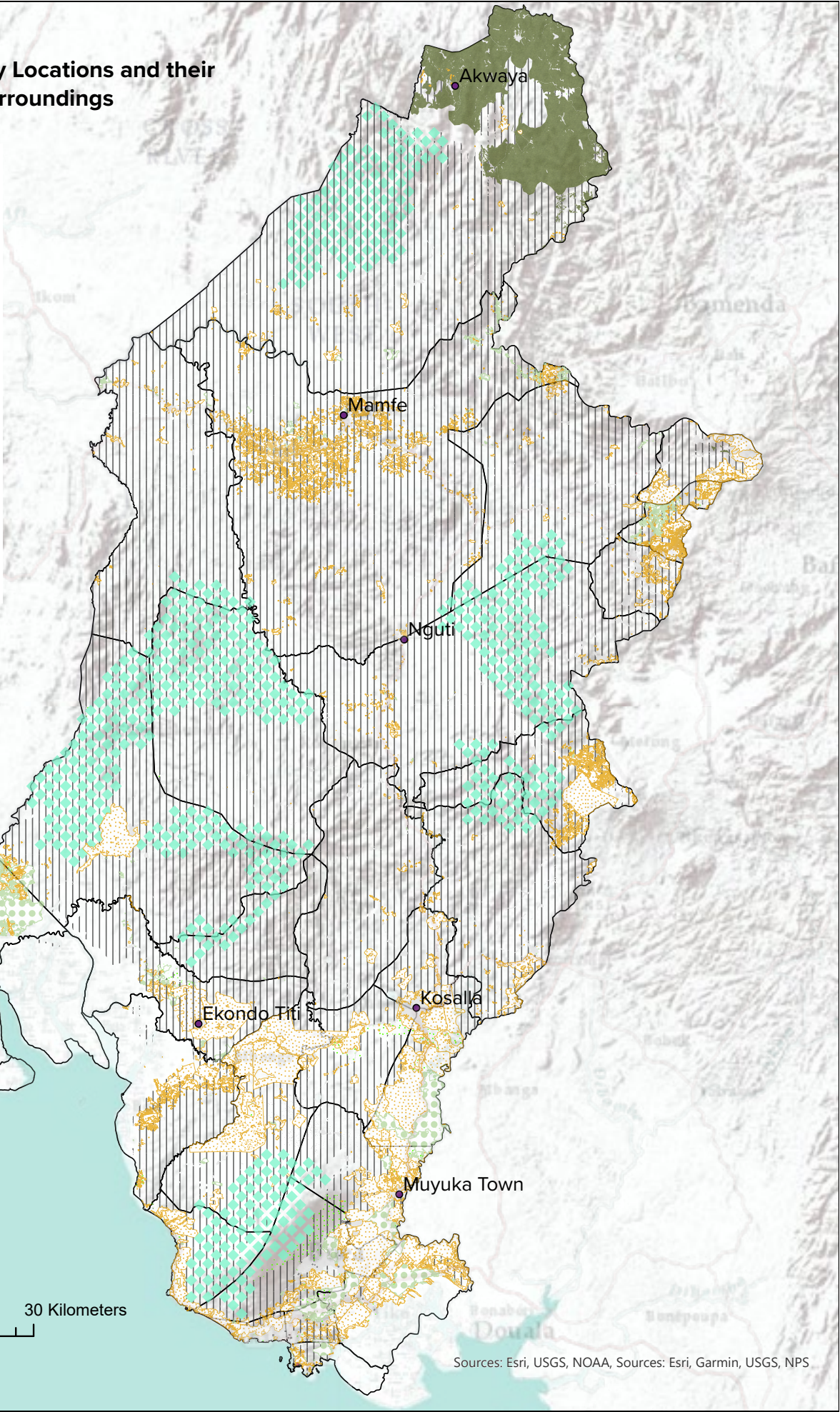




# Case Study Locations and their Natural Surroundings

## Legend

- Case Study Villages
- Landuse Patterns
- fclass
- allotments
- cemetery
- commercial
- farmland
- farmyard
- forest
- grass
- heath
- industrial
- meadow
- military
- nature\_reserve
- orchard
- park
- quarry
- residential
- retail
- scrub
- <all other values>
- Subdivision



0 7.5 15 30 Kilometers

Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS