AI\_Gen\_Nigeria\_vegetation

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## R Markdown

# Install required packages if not already installed  
# install.packages(c("rnaturalearth", "rnaturalearthdata"))  
  
# Load the necessary libraries  
library(sf)

## Linking to GEOS 3.9.3, GDAL 3.5.2, PROJ 8.2.1; sf\_use\_s2() is TRUE

library(ggplot2)  
library(rnaturalearth)  
library(rnaturalearthdata)

##   
## Attaching package: 'rnaturalearthdata'

## The following object is masked from 'package:rnaturalearth':  
##   
## countries110

# Load Nigeria shapefile (you need to have the shapefile)  
# You can get Nigeria's shapefile from naturalearth or other sources  
nigeria <- ne\_countries(scale = "medium", country = "Nigeria", returnclass = "sf")  
  
# Assuming you have a shapefile for vegetation data in Nigeria  
# For example, let's say it's named "nigeria\_vegetation.shp"  
# Load the vegetation shapefile (provide the correct path to your shapefile)  
# kindly download the shapefile using this link: https://opendata.sambusgeospatial.com/datasets/sambusgeospatial::nigeria-protected-areas/explore  
vegetation <- st\_read("Nigeria\_Protected\_Areas.shp")

## Reading layer `Nigeria\_Protected\_Areas' from data source   
## `C:\Users\Usman Ola\Documents\GastroIPI\_SRMA\Nigeria\_Protected\_Areas.shp'   
## using driver `ESRI Shapefile'  
## Simple feature collection with 967 features and 31 fields  
## Geometry type: MULTIPOLYGON  
## Dimension: XY  
## Bounding box: xmin: 2.60459 ymin: 4.341919 xmax: 15.14086 ymax: 13.77178  
## Geodetic CRS: WGS 84

# Plot the map  
ggplot() +  
 geom\_sf(data = nigeria, fill = "white", color = "black") +  
 geom\_sf(data = vegetation, aes(fill = desig\_eng)) + # Assuming your vegetation shapefile has a column named 'vegetation\_type'  
 labs(title = "Vegetation Map of Nigeria",  
 fill = "desig\_eng") +  
 theme\_minimal()

