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FINAL PROJECT PROPOSAL

Forest Reserves and Mineral Resources Areas in Ghana

Ghana is well endowed with a wide range of mineral resources which includes but not limited to gold, timber, diamonds, bauxite, manganese, fish, rubber, petroleum, silver, salt and limestone among others. A significant proportion of these resources are either located in or close to Forest Reserves which pose a danger to plant and animal life species during exploitation. Often, the exploration of mineral resources in such areas destroys these reserves, leading to loss of valuable plant and animals' species.

Despite the foregoing, Ghana has no documented interactive map on the location of its mineral resources and nature reserves and how one affects the other. Thus, the purpose of this project is to create an interactive map and that shows the spatial location of mineral resources and areas of concentration of various mineral types, and how their exploration could affect available nature reserves.

To achieve this, the project will make use of some technologies including Git-hub for saving and testing codes, leaflet Plugins for loading and displaying shapefiles, CSV files and Geojson files. Leaflet heatmap Plugin would also be used to create a mineral heatmap. Mapbox APIs and Map box Studio style editor would also be used to upload base maps and create map styles respectively. External Geojson layers will also be created and uploaded in the leaflet map by converting shapefiles for Forest Reserves to Geojson using the QGIS.

My only anticipated challenge with this project is that, although I desire to convert my point shapefiles (point location of minerals resources) to external Geojson format and upload in my leaflet map, assigning colours to the point Geojson layers base on their attribute is quite challenging to me.

Data sources

Shapefiles of Mineral Resource in Ghana. https://data.gov.gh/dataset/shapefiles-mineral-resource-ghana-2010

Shapefiles of Forest and Game Reserves in Ghana.https://data.gov.gh/dataset/shapefiles-forest-and-game-reserves-ghana-2010

Shapefiles of all Regions in Ghana. https://data.gov.gh/dataset/shapefiles-all-regions-ghana-2010-10-regions