

Spatial Data Management Plan for NIGERIA



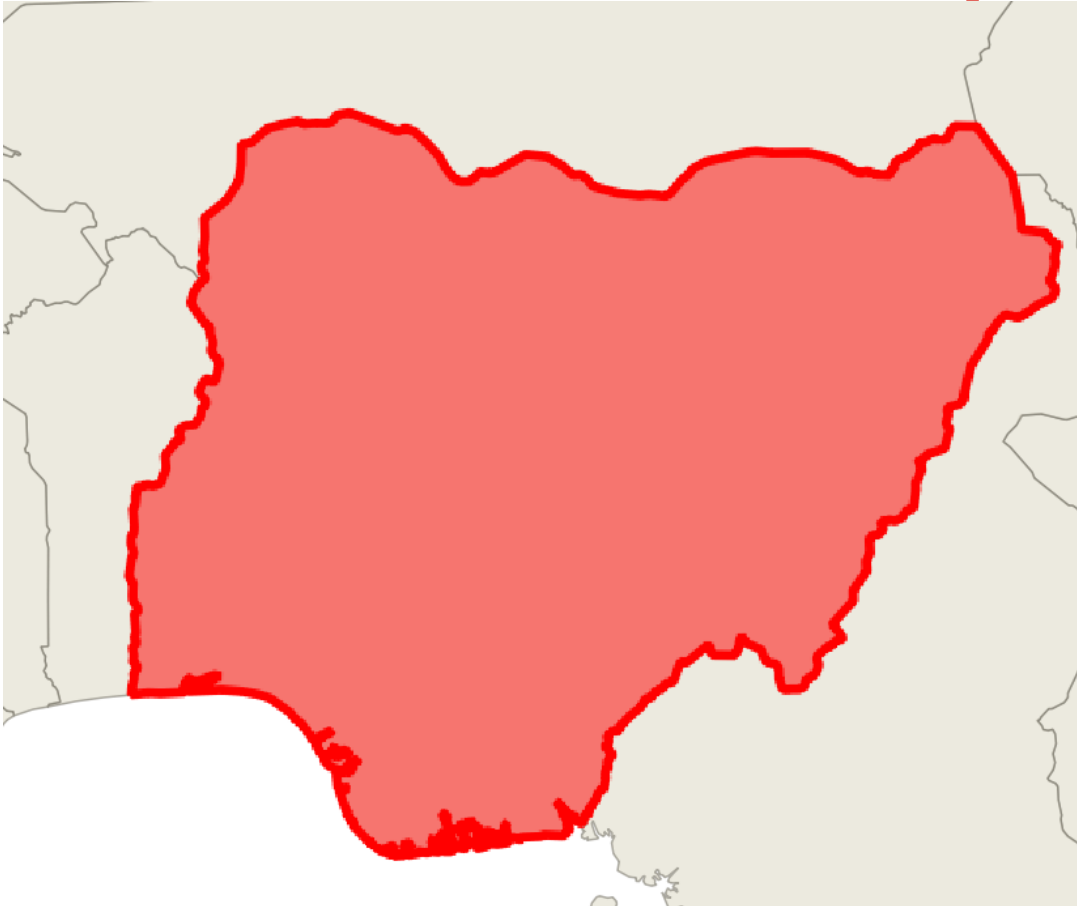
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ICTP JOINT SUMMER SCHOOL FOR SUSTAINABLE DEVELOPMENT 2023



Nigeria Profile



Area

- Total

923,769 km²

Population

- 2023 estimate

230,842,743

GDP (PPP)

2023 estimate

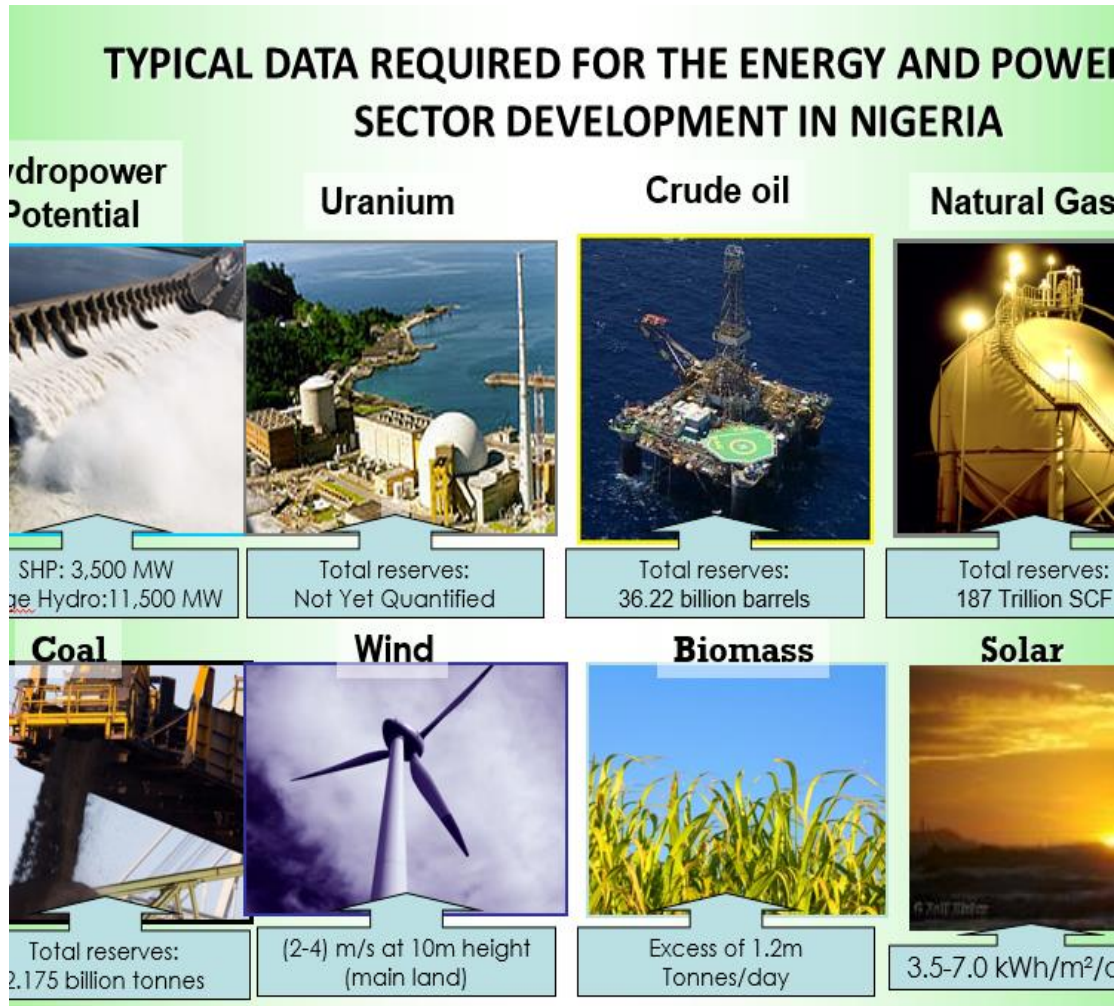
- Total

\$1.360 trillion

- Per capita

\$6,122

Nigeria Energy Resources



Source: REMP (2005) and FMEEnv

Data Management plan for Nigeria

- Enable online access to a wide range of spatial information and services
- Enable integration of geographically distributed spatial information
- Enable collaboration by multilateral information exchange and synchronization
- Allow autonomous organizations to develop interdependent relationships in a distributed environment
- Facilitate the definition and sharing of spatial semantics

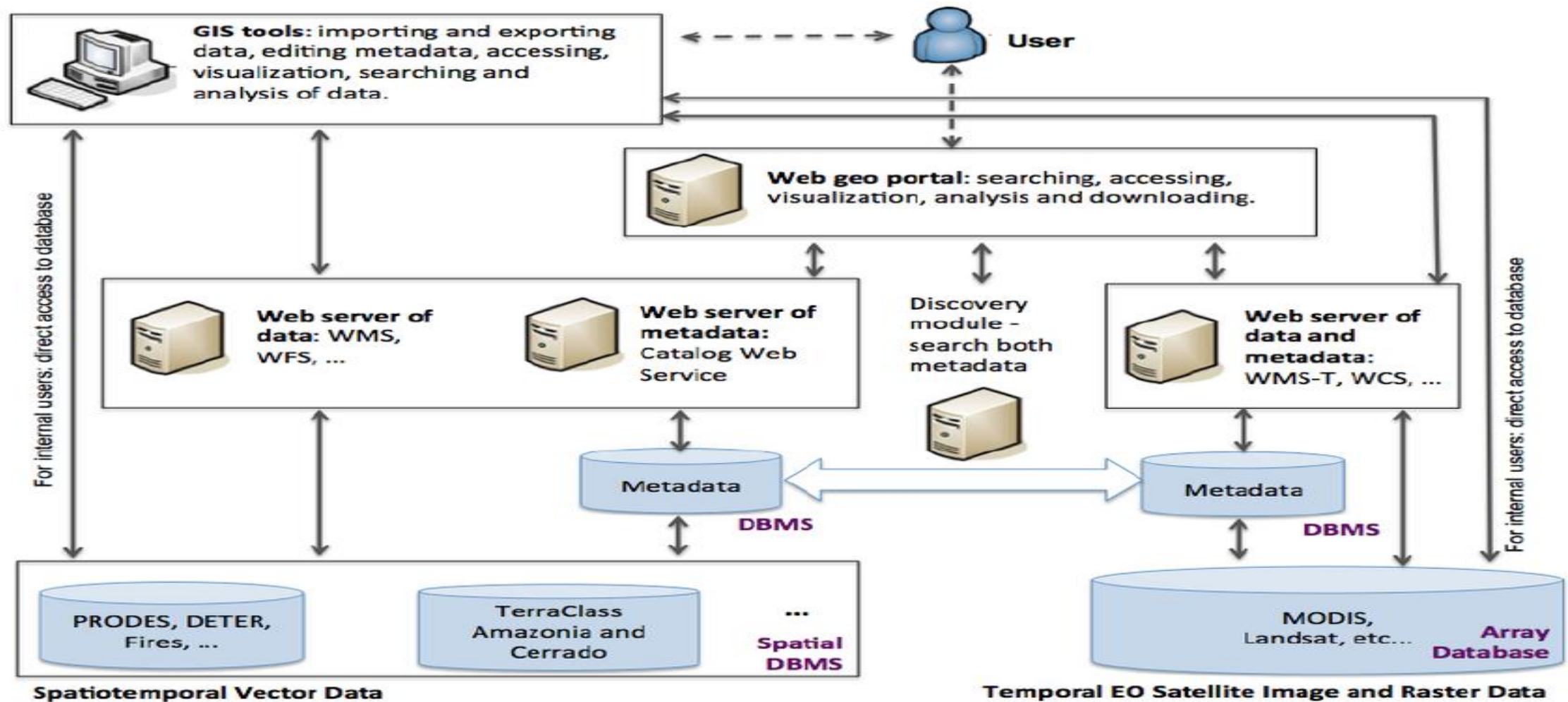
The Plan

Stakeholders

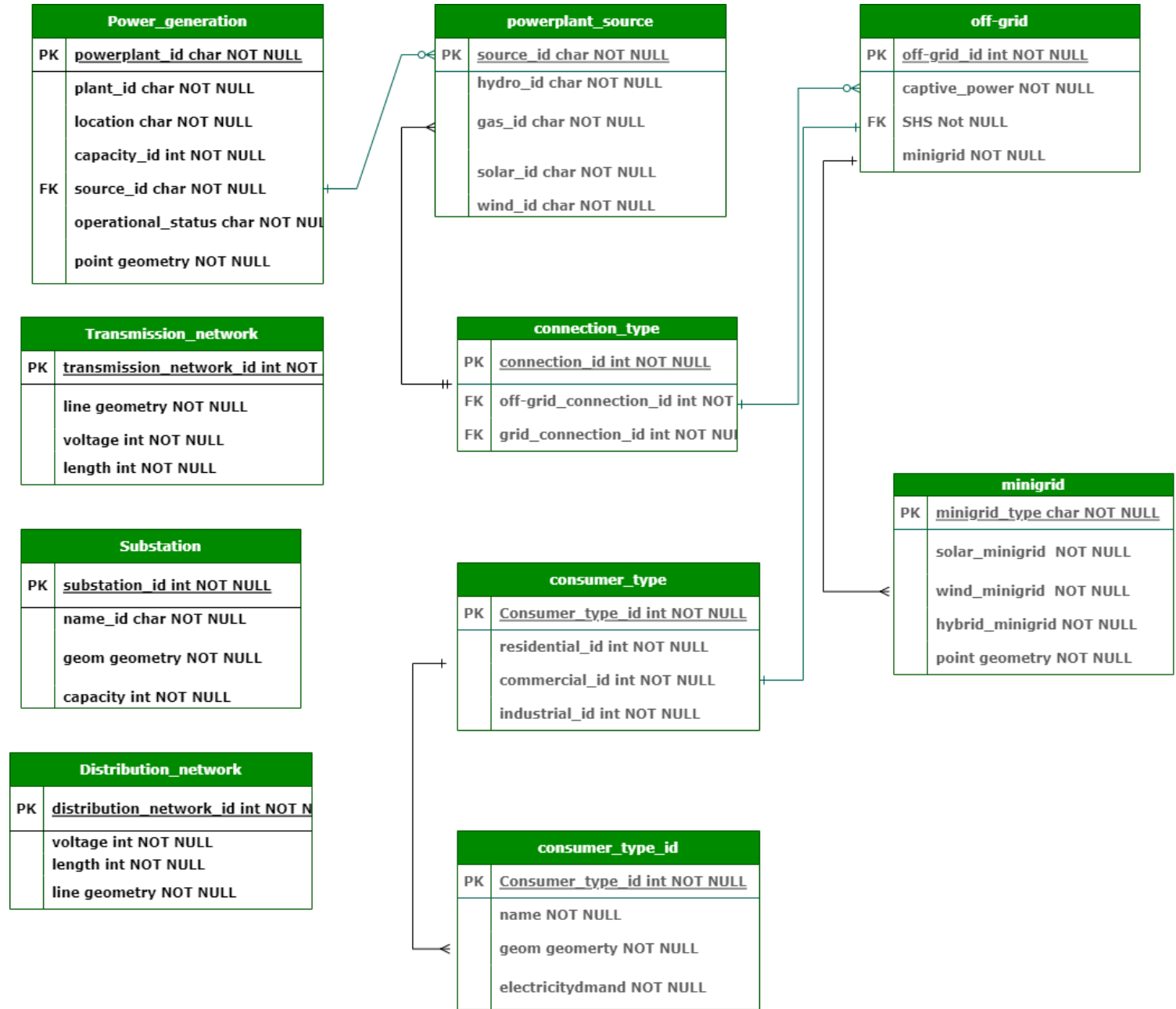
Actors

Funders

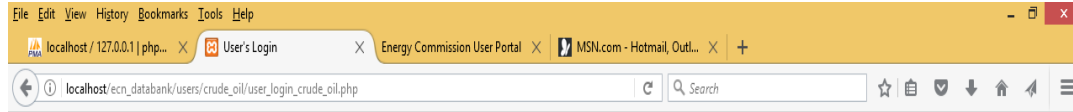
System Architecture



Database Design



UI/UX



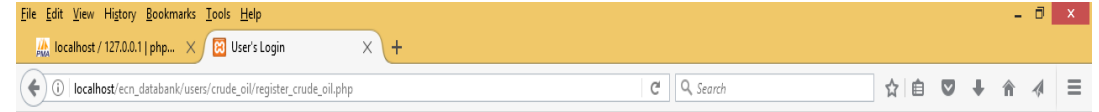
Welcome to NEDB Data Management Login page!

Log in below by supplying your Username/Password...
Or [Click here](#) to register.

Username:

Password:

| [Cancel](#)



Welcome to NEDB Data Management: Login registration page!

Register as a User here!
The Username, Password, Email, First Name, Last Name fields are required!

Username:

Password:

Email:

First Name:

Last Name:

[Cancel](#)



Result

Nigeria electricity system — QGIS

Project Edit View Layer Settings Plugins Vector Raster Database Web Mesh HCMGIS Processing Help



Layers

- **NGA PowerPlants**
- **Nigeria_final**
- - - **PlannedTransmissionNetwork**
- **Nigeria Electricity Transmission Net**
- **World Map**
- **OpenStreetMap**



Browser

- ★ Favorites
- ▶ Spatial Bookmarks
- ▶ Project Home
- ▶ Home
- ▶ C:\ (Windows)
- ▶ 2023 ICTP
 - ▶ Nigeria Transmission
 - NGA_PowerPlants.shp
 - ▶ Nigeria electricity system
 - Nigeria Electricity Transmission Net
 - Nigeria_final.shp
 - ▶ summerschool
 - ▶ summerschool 2
- ▶ fp
- ▶ GLOBAL MAP
- ▶ HP_LaserJet_Enterprise_600_M601_M602
- ▶ inetpub
- ▶ Intel
- ▶ MoManI
- ▶ PerfLogs
- ▶ Program Files
- ▶ Program Files (x86)
- ▶ Programs
- ▶ Python27

srtn

Coordinate 12.87°, 14.93° Scale 1:7923945 Magnifier 100% Rotation 0.0° Render EPSG:4326

Conclusion

- Having a central SDI in Nigeria will go a long way in harmonising all the spatial data we have in different organizations for energy planning

Future Work

Collaboration with subnational governments in establishing their own SDI for energy planning

Reference

- <https://databank.energy.gov.ng>
- <https://tcn.gov.ng>
- <https://energydata.info/dataset/72eab52a-da83-4b75-8993-bc9defcc5e4e/resource/78efd2c1-0155-4f39-87ca-70d7c4763f59/download/powerplants.geojson>
- <https://energydata.info/dataset/1a812945-1130-4acc-910a-f36fac56b6af/resource/3b61d4b8-a5a9-4149-8958-a7d41304f9b1/download/nga-popngapppv2c2015unadj>.