

## CASE STUDY



Name:

**Abbas AbdulRafiu**

Title:

**Senior Scientist,  
National Environmental  
Standards and  
Regulations  
Enforcement Agency  
(NESREA)**

Country:

**Nigeria**

IM4DC Program:

**Practical and Effective  
Integration of Cadastral,  
Geoscience and  
Geographical Data in  
GIS Systems for  
Exploration and Mining  
Projects, Burkina Faso,  
2012**

Tell us about what you have been doing since you returned to work and the experiences you have had since the program.

Prominent among my recommendations was to get approval to step-down GIS training in other state offices. So far, north central states will participate.

I also introduced GIS to the agency through building a suite of GIS applications that are specifically designed for environmental study. The threat of land subsidence from mine tunnel collapse and acid mine discharge from abandoned mines in most part of the country has adversely impacted development in and around. The resultant maps will show the location and the type of pollution of different stream and land segments that are prioritized for future remediation or urgent action.

I am also working on how to design and implement an enterprise GIS environmental and management system that will support the environmental compliance monitoring databank.

This will ensure the agency can attach its environmental compliance monitoring database to a digital map, which will in turn provide a powerful means of visual display and production of maps, charts, tables and graphs.

To what extent have you been able to implement your return to work project, or skills learned, to your situation?

I have introduced the use of GIS to my agency for environmental compliance monitoring of projects and mining facilities. The idea of building a GIS suite has been successful, and now we are waiting on funding from the federal government.

**What have been your successes?**

Influencing the implementation of GIS training in other state offices and continuing to share my experience with other colleagues.

**What have been the challenges involved?**

The cost of getting the GIS software is a challenge. So far, I have been using free trial software.

**What are your future plans and the ultimate goal of your project/work?**

To undergo advanced GIS training if available, or secure a scholarship to study a Masters in GIS and remote sensing. My ultimate goal is to design and implement an enterprise GIS environmental and management system that will support the environmental compliance monitoring databank. This will equip the agency in the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of mining projects.