



# Opportunities for Spatially Enabling Ghana

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# About Ghana



<b>Location</b>	<b>: West Africa</b>
<b>Total Area</b>	<b>: 239,460 sq. km</b>
<b>Population</b>	<b>: 26 Million</b>
<b>Climate</b>	<b>: Tropical</b>
<b>Terrain</b>	<b>: Mostly low plains</b>
<b>Time Zone</b>	<b>: GMT + 0</b>
<b>Currency</b>	<b>: Ghana Cedi</b>
<b>GDP*</b>	<b>: US\$ 33 billion</b>
<b>Official Language: English</b>	

\*2015 Estimate

# Priority issues for GI applications

## Development Issues:

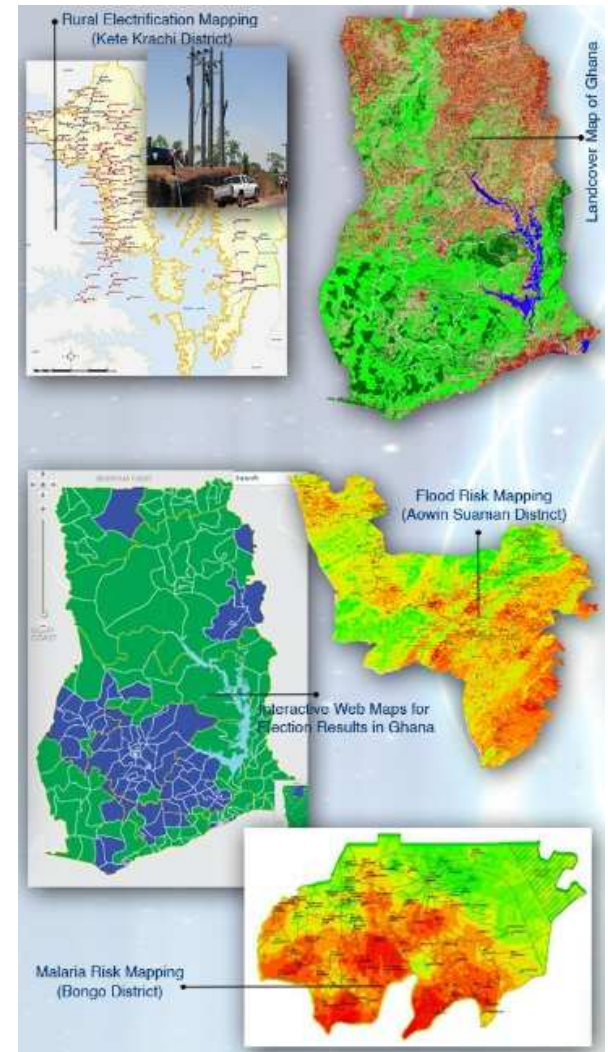
- Natural resource and environmental degradation
- Low agricultural productivity and food insecurity
- Deforestation and forest degradation
- Urban sprawl and expansion
- The impact of climate change on food security and human health
- Disaster risk prediction and management
- The impact of land use change on water resources and the coastal zone
- Unemployment

## Capacity building priorities:

- Generation of GI-based information products for decision support
- Disaster and health risk modelling and mapping
- Forest cover mapping for monitoring
- Water resources and coastal zone monitoring
- Enhanced spatial modeling capability

# About CERSGIS

- Established by EPA-Ghana and University of Ghana
- It is a self-financing/sustaining Center
- Provides geographic information services and the application of GIS and remote sensing to sector specific projects
- Provides services to government agencies, non-governmental organizations, research institutions and the private sector
- Provides research support to university community



# Organizational Mandate

To Provide GIS and Remote Sensing services to public, private and non-governmental organizations and to promote the use of these technologies as decision, policy and research support tools for sustainable social and economic development.

# Strategic Goals (2015 -2019)

- **Establish Long Term Collaboration and Partnerships for The Development and Uptake of Geospatial Services**
- **Development of Infrastructure for Geo-spatial Service Delivery**
- **Institutional Capacity Enhancement and Diversification of Geospatial Products**
- **Ensuring Operational Sustainability**

# Target Stakeholders

- Environmental Protection Agency of Ghana
- Parliament of Ghana
- National Development Planning Commission
- Forestry Commission of Ghana
- Ministry of Food and Agriculture
- Ministry of Lands, Forestry and Mines
- Ministry of Local Government and Rural Development
- Ministry of Energy
- Ministry of Health
- National Disaster Management Organization
- Development Partners (USAID, DANIDA, FAO, WB, UNDP, AfDB, EC)
- Private Companies (eg

# Core Services

- **Spatial Database Development**
- **Spatial modelling and analysis**
- **Web GIS Application Development**
- **Satellite Image Processing and Interpretation**
- **Social Infrastructure Mapping**
- **GIS, GPS Mapping and Remote Sensing Training**
- **Capacity Building**



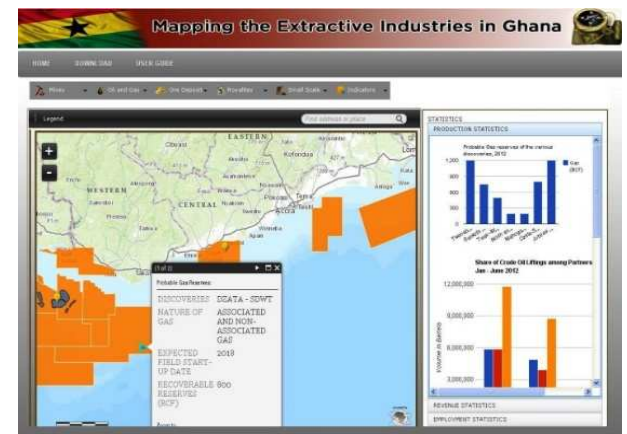
# Geospatial Data Portal Development



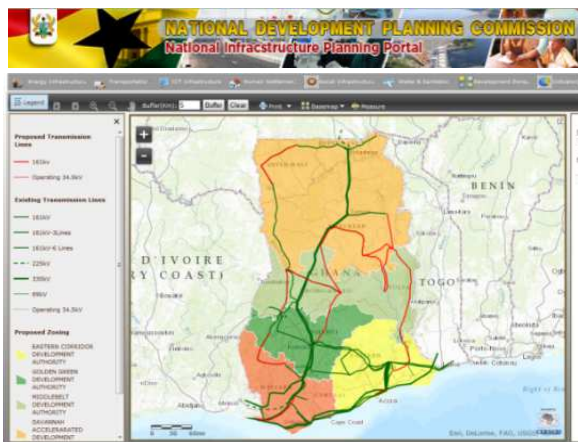
**CERSGIS SDI Platform**



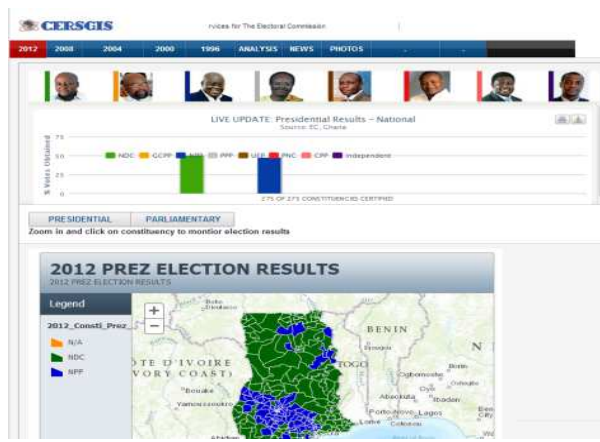
**Agriculture Spatial Data Portal**



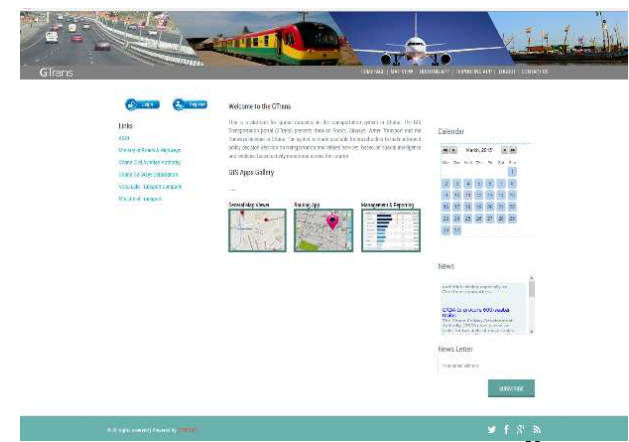
**Extractives Industries Data Portal**



**Development Planning Portal**



**Electoral Information Portal**



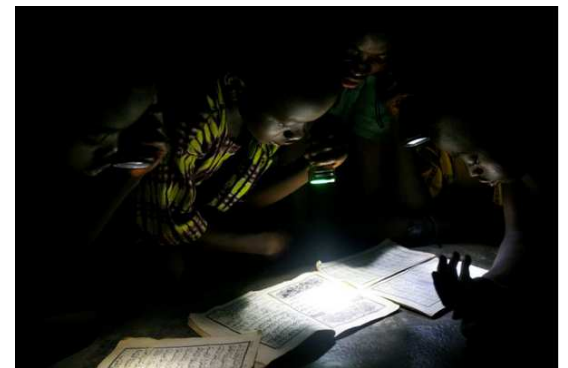
**Transportation Infrastructure Portal**

# Opportunities

## 1. National spatial data infrastructure development for the uptake of geospatial information

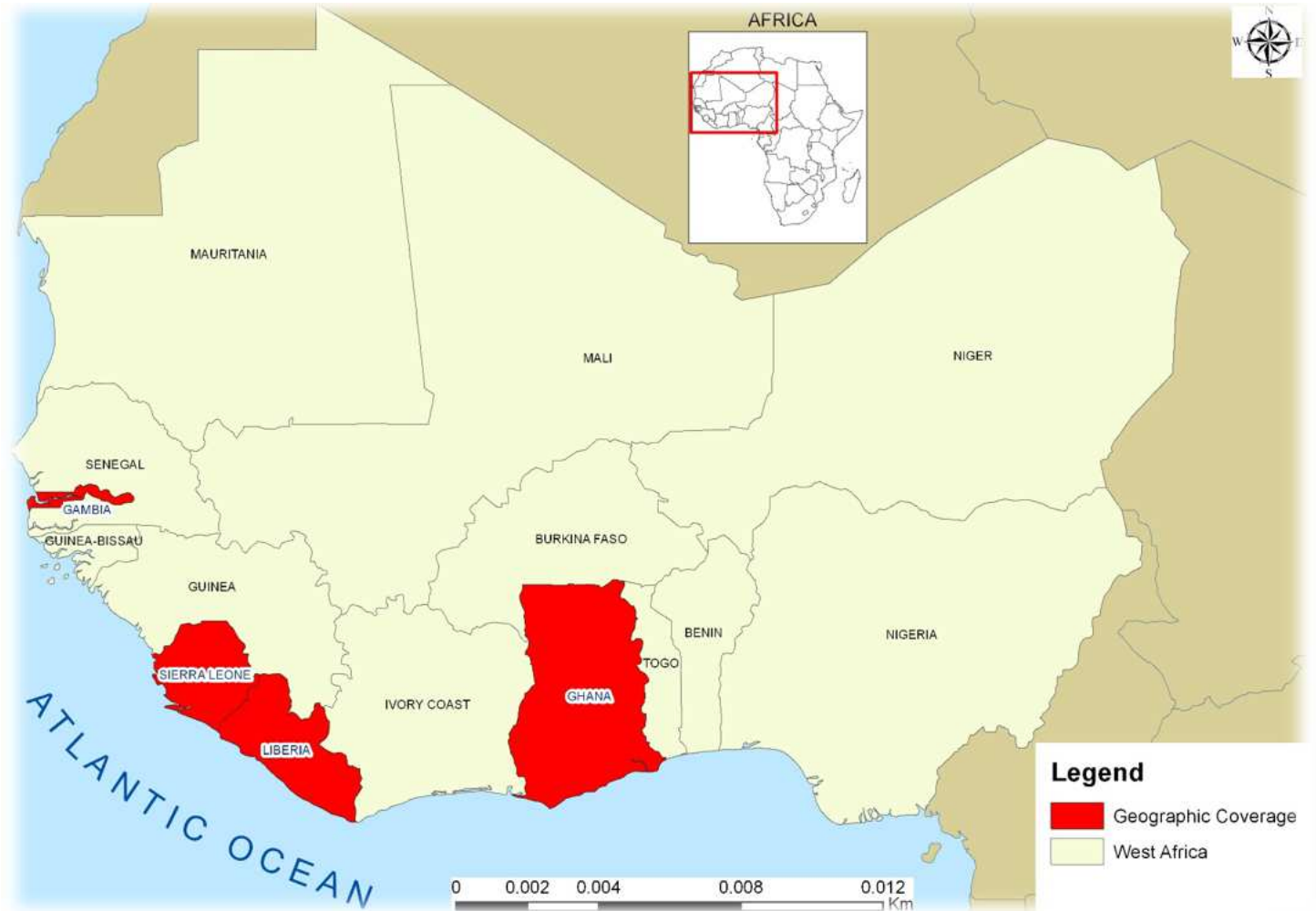
## 2. Applications Development for:

- Food Security Early Warning/Crop Production statistics
- Digital Topographic Mapping
- Disaster Management (Flood and Desertification Risk Mapping)
- Land Degradation and GHG Emission Monitoring
- Mainstreaming Urban LULCC data into urban/spatial planning
- Spatial data/product dissemination

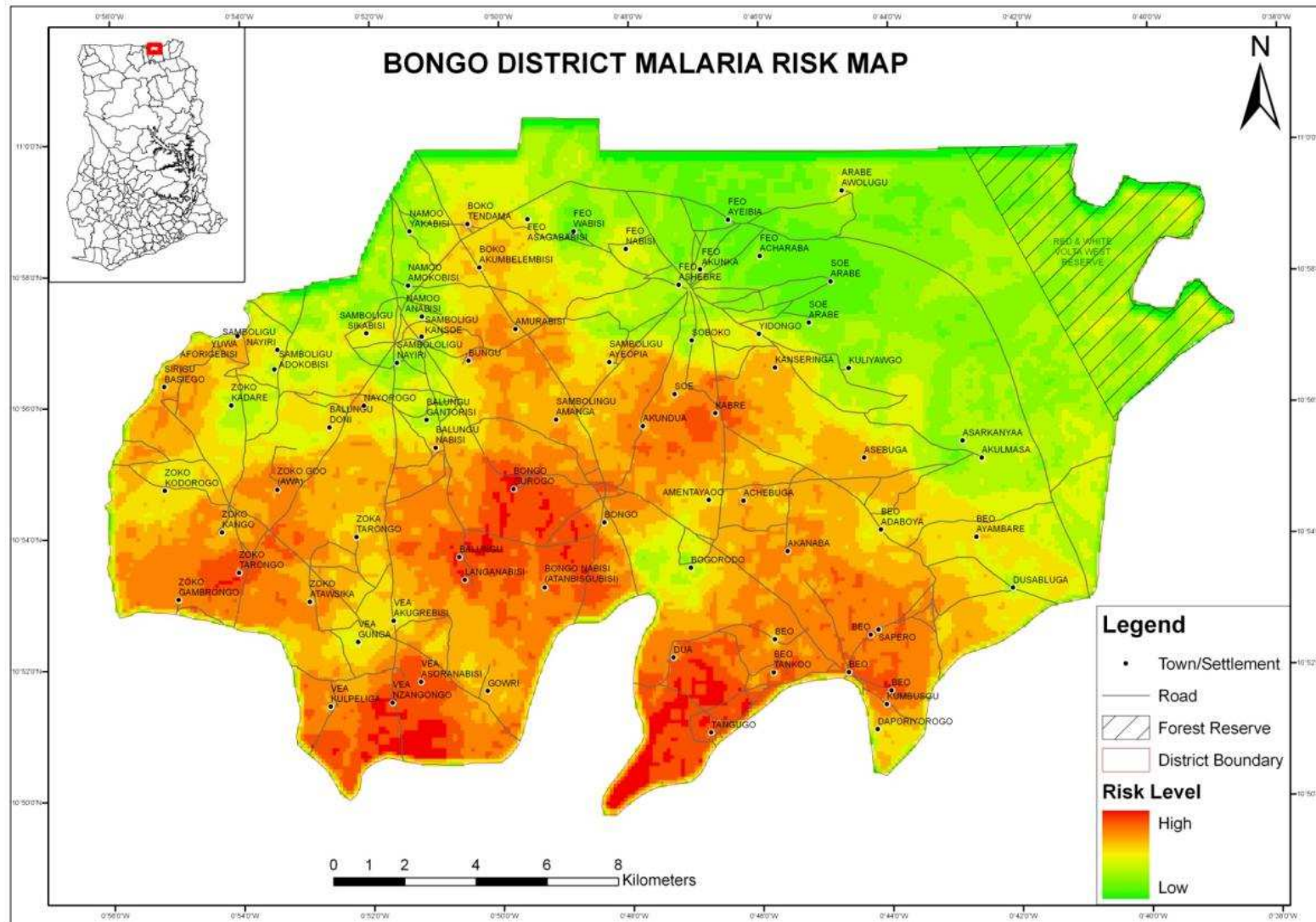


# Geographic Coverage

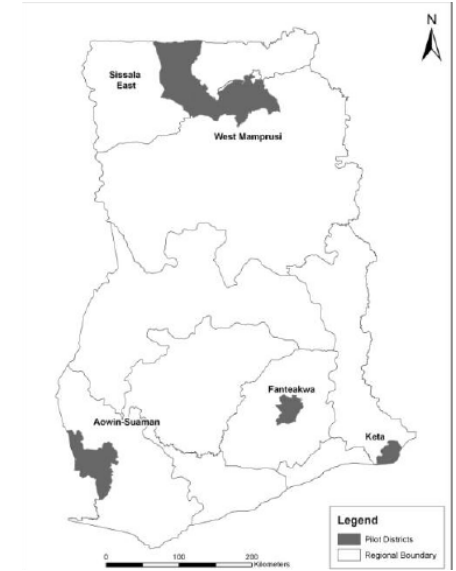
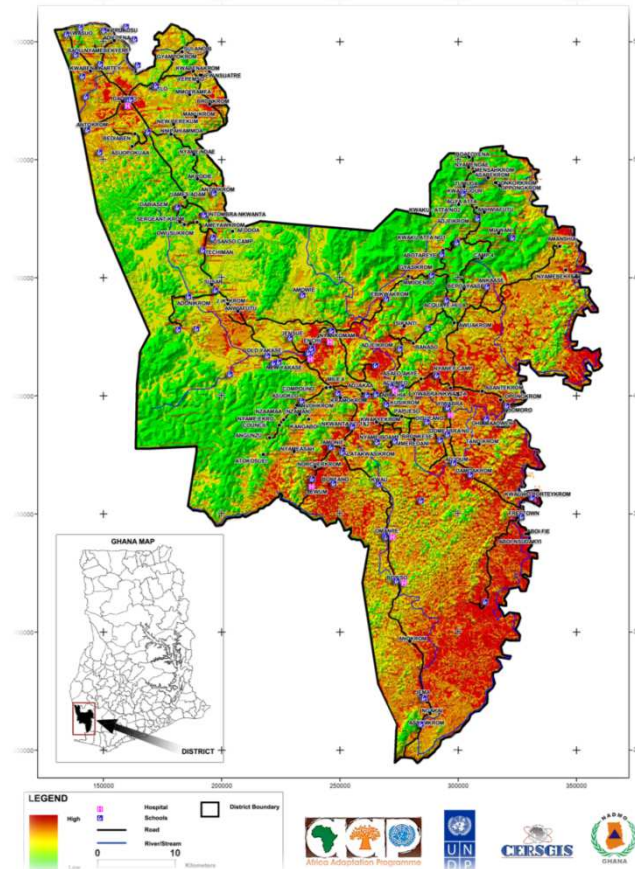
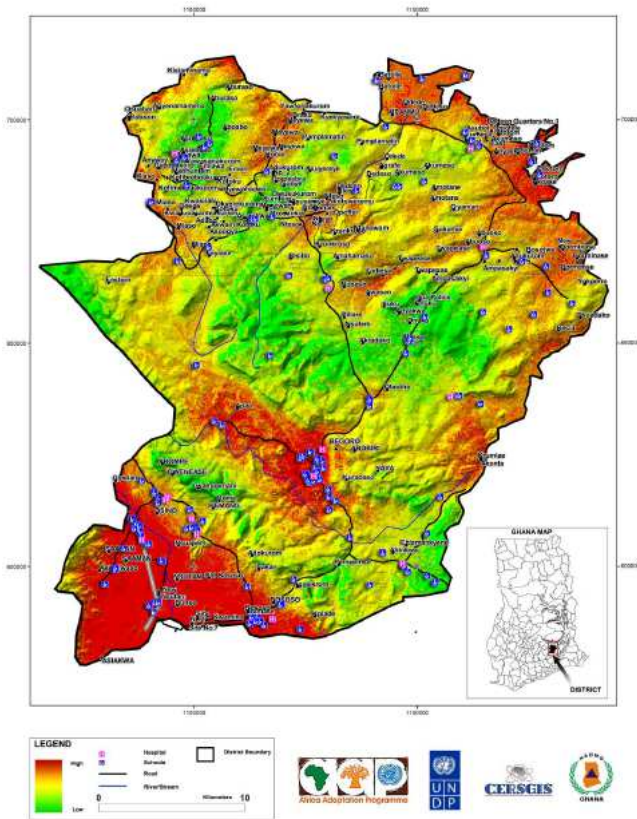
- Ghana
- Sierra Leone
- Liberia
- Gambia



# Mapping climate-sensitive diseases for selected districts (Ministry of Health/UNDP)



# Flood and drought risk mapping for pilot districts



# Expectations of and Requirements for IRLOGI Volunteer Programme

# Possible tasks for volunteer

- NSDI development
- Spatial Analysis and Impact evaluations
- Satellite image (optical/radar) processing
- Land cover mapping and change analysis
- Topographic mapping
- Building geo-portals
- Capacity building support

# Preferred Skills

- **Ability to use GIS software for geospatial data visualization and analysis**
- **Satellite image processing and interpretation**
- **Demonstrated capacity for training and instruction**
- **Software customization and applications development**
- **Digital cartography**



# **You can make a difference**

**Sponsors indirectly and volunteers directly will make a significant contribution in a developing African country**

**Looking forward to a long and mutually rewarding relationship**

**THANK YOU !**