USAID | GHANA
FROM THE AMERICAN PEOPLE

Applying Innovative Solutions for Better Spatial Planning

THE UNIVERSITY OF RHODE ISLAND GRADUATE SCHOOL OF OCEANOGRAPHY | CRC COASTAL RESOURCES CENTER

Hɛn Mpoano

DO THE RIGHT THING
Friends of the Nation

SNV SMART DEVELOPMENT WORKS

SSG ADVISORS
Catalyzing Development Through Partnership

HELPING WOMEN
Daasgift
HELP THEMSELVES

Development Action Association

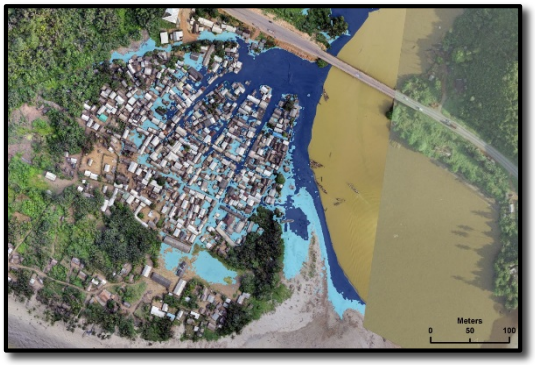
CEWEFIA
UNITY & PROGRESS

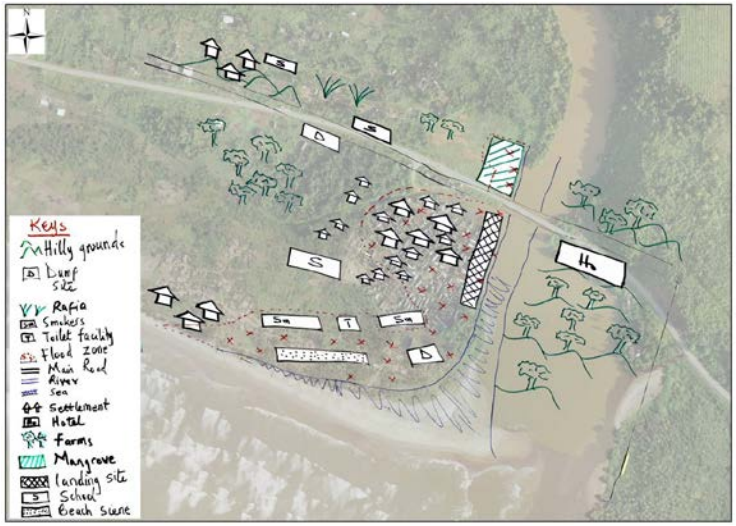
SpS | SPATIAL SOLUTIONS

Sustainable Fisheries Management Project (SFMP)

Presentation Overview

- Why invest in spatial planning?
- USAID's past and present contributions to coastal spatial planning
- Regional "Data Hubs" and capacity building
- Innovative technological approaches – UAVs, open source web data
- Future Directions





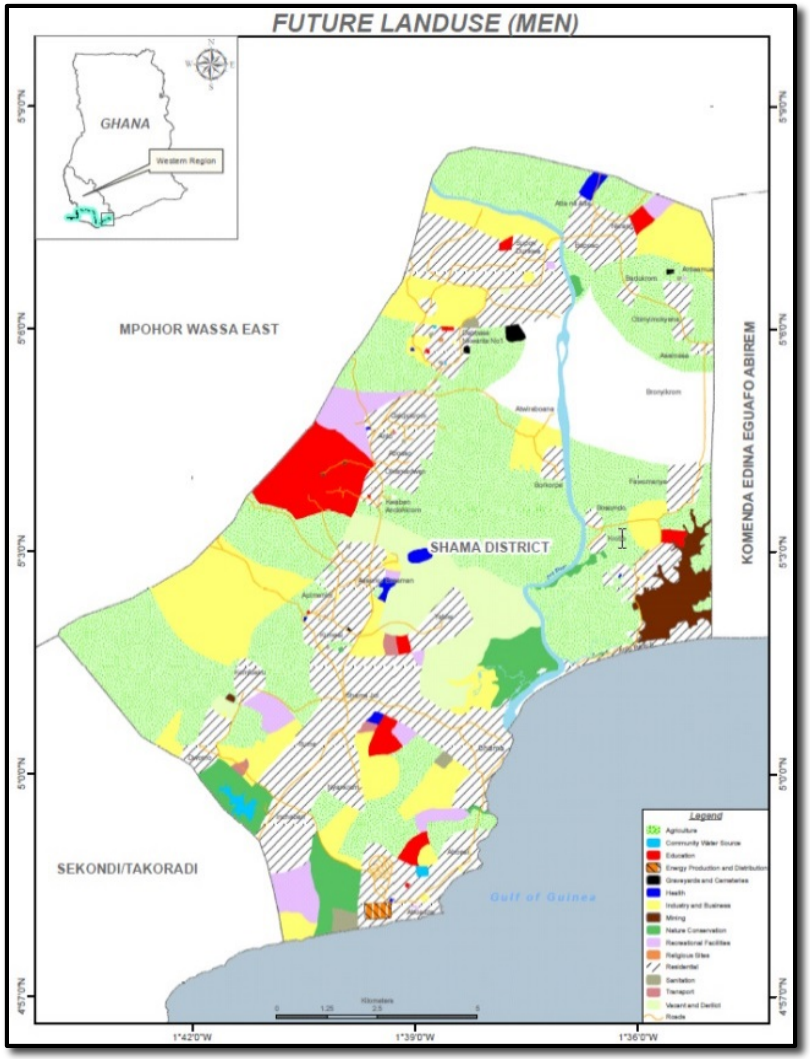
Why Invest in Spatial Planning?

Tidal flooding in Anlo (http://www.gbcghana.com/1.7864130)

(Property damage of coastal communities in Accra http://www.myjoyonline.com/news/2016/September-5th/accra-fishermen-count-losses-after-tidal-waves-destruction.php)

- Fishermen and women engaged in fish processing need access to the shorefront to conduct their livelihoods
- Coastal erosion and flooding are major threats to life and property in coastal areas
- Forests and wetlands need to be preserved for fish nursery grounds and to mitigate the impacts of climate change
- Spatial planning is key for generating and applying information to design, monitor and manage conservation sites, fisheries management, disaster risk reduction and other investments to increase the resilience of fishing families and sustain food production

What is Spatial Planning?

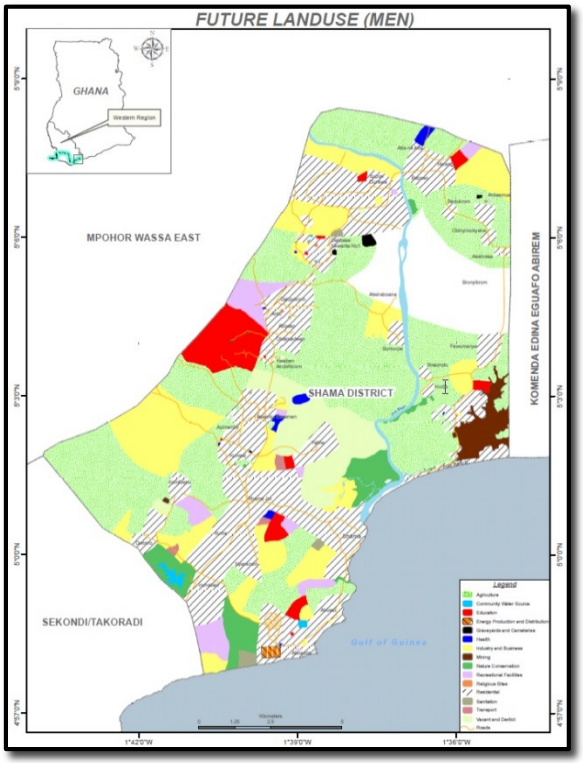


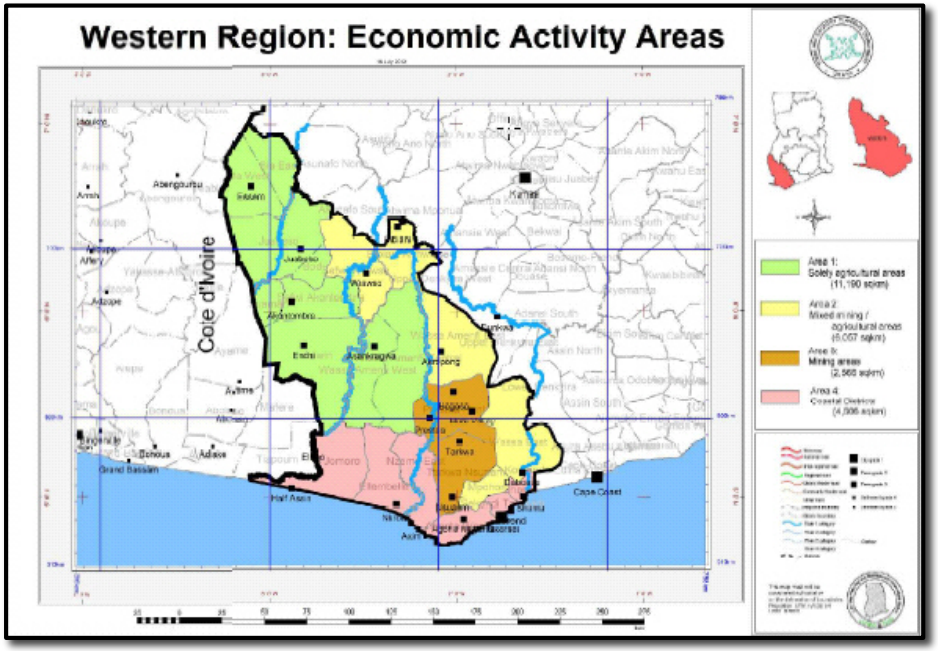
"*Regional/spatial planning gives geographical expression to the economic, social, cultural and ecological policies of society. It is at the same time a scientific discipline, an administrative technique and a policy developed as an interdisciplinary and comprehensive approach directed towards a* ***balanced regional development*** *and the physical organization of space according to an overall strategy*"

European Regional/Spatial Planning Charter, 1983

A scalable integrated approach

- Region
- District
- Community

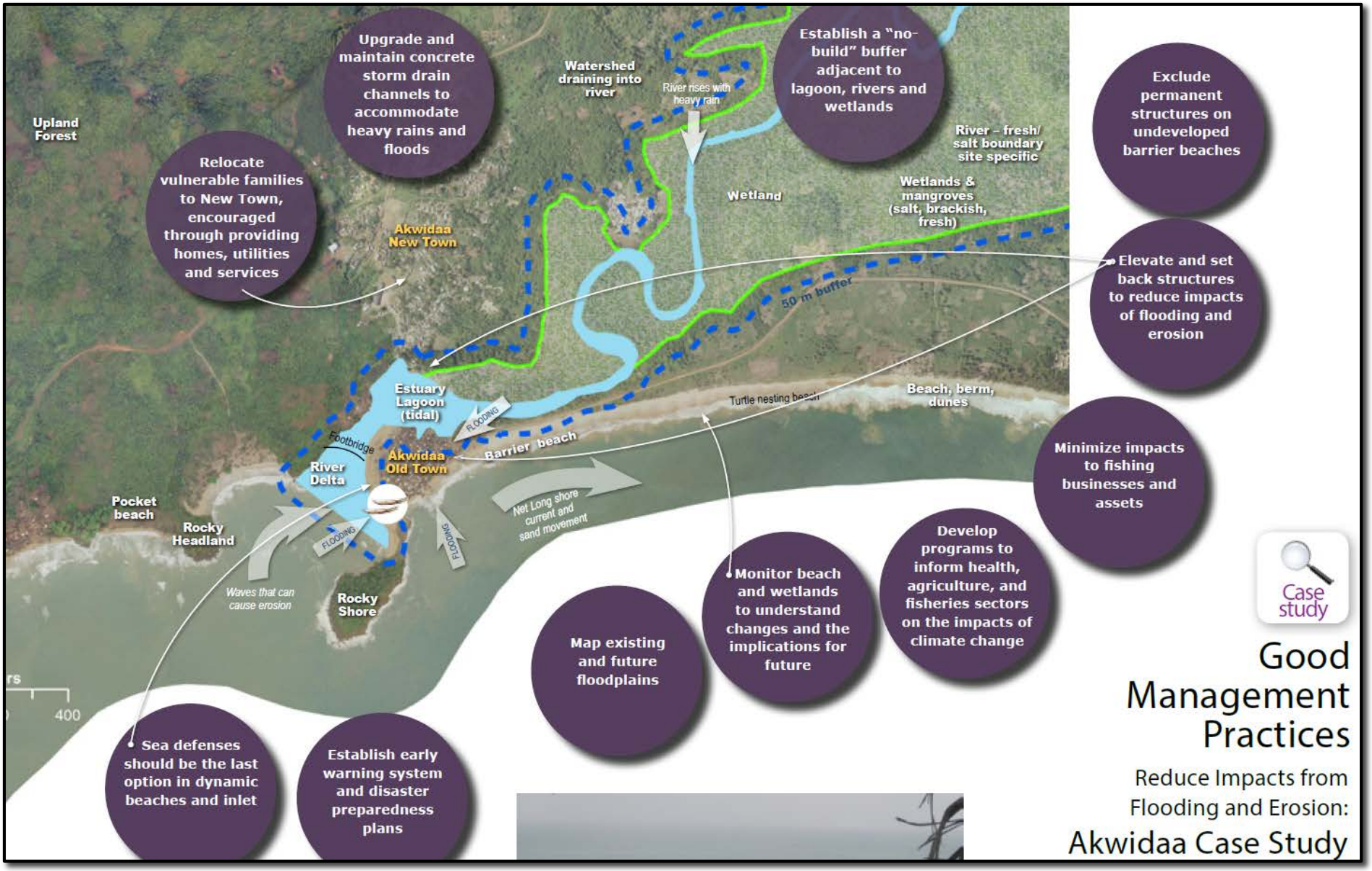




Integrated Coastal Management Toolkits

USAID/Ghana
Integrated Coastal and Fisheries Governance Project (2009-2014)

Vulnerability Assessments in Fishing Communities



Regional Data Hub Vision
Town and Country Planning Department

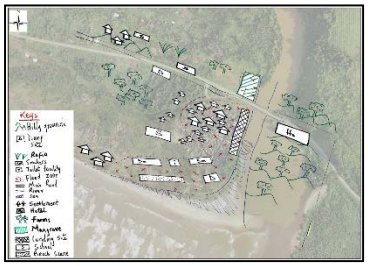
Capacity Building

Equipment | Training | Support

Stakeholders

Knowledge | Collaboration | Data

Local Knowledge

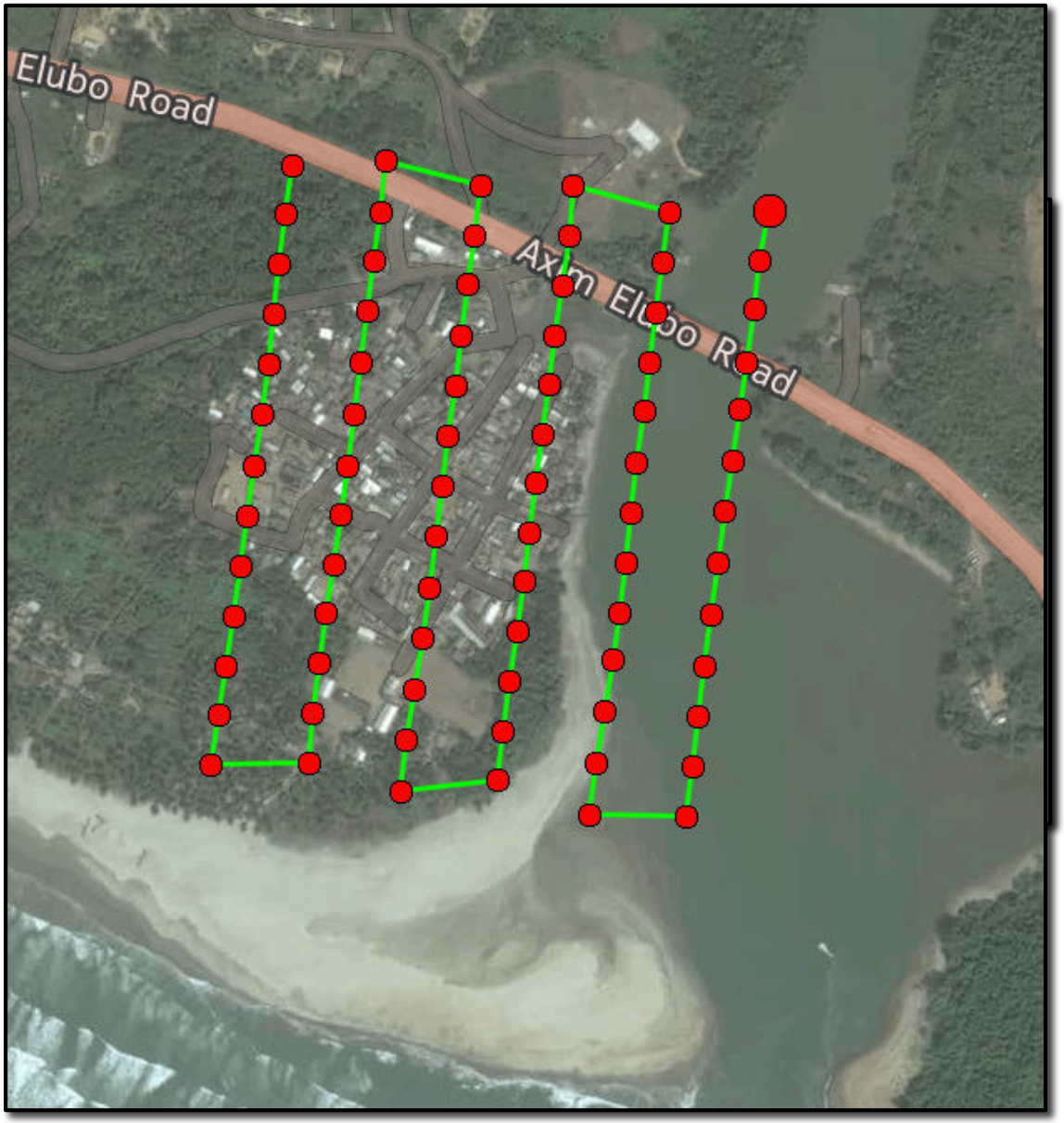


Functions

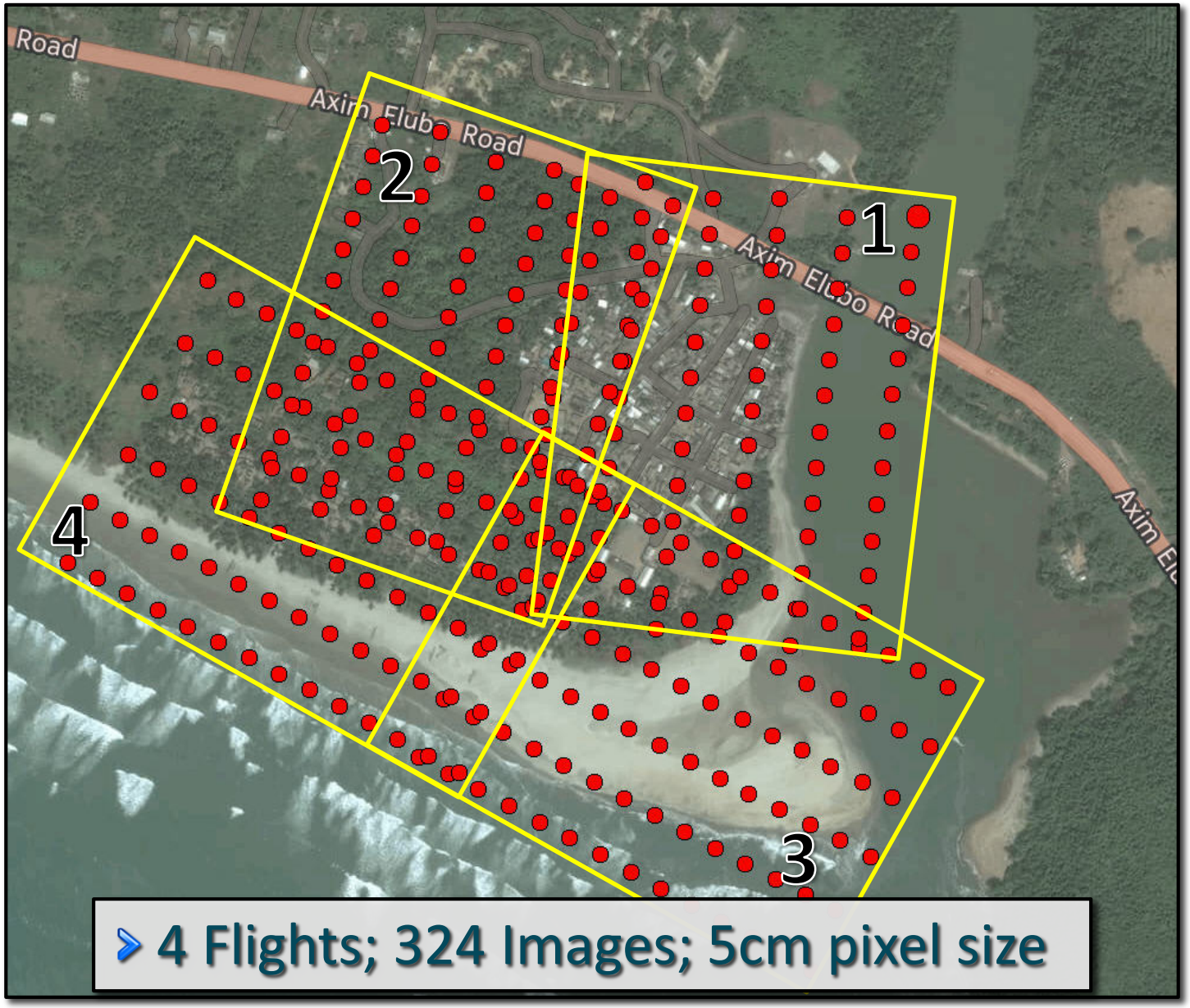
- Central storage for official data
- Merge regional data
- Coordinate cross-boundary projects
- Data collection standards and documentation
- Provide access to official data

UAV Mapping System

- Drone
  - DJI Phantom2 Vision+
- Mission Planning
  - Pix4D Capture App
- Post Processing
  - Pix4Dmapper



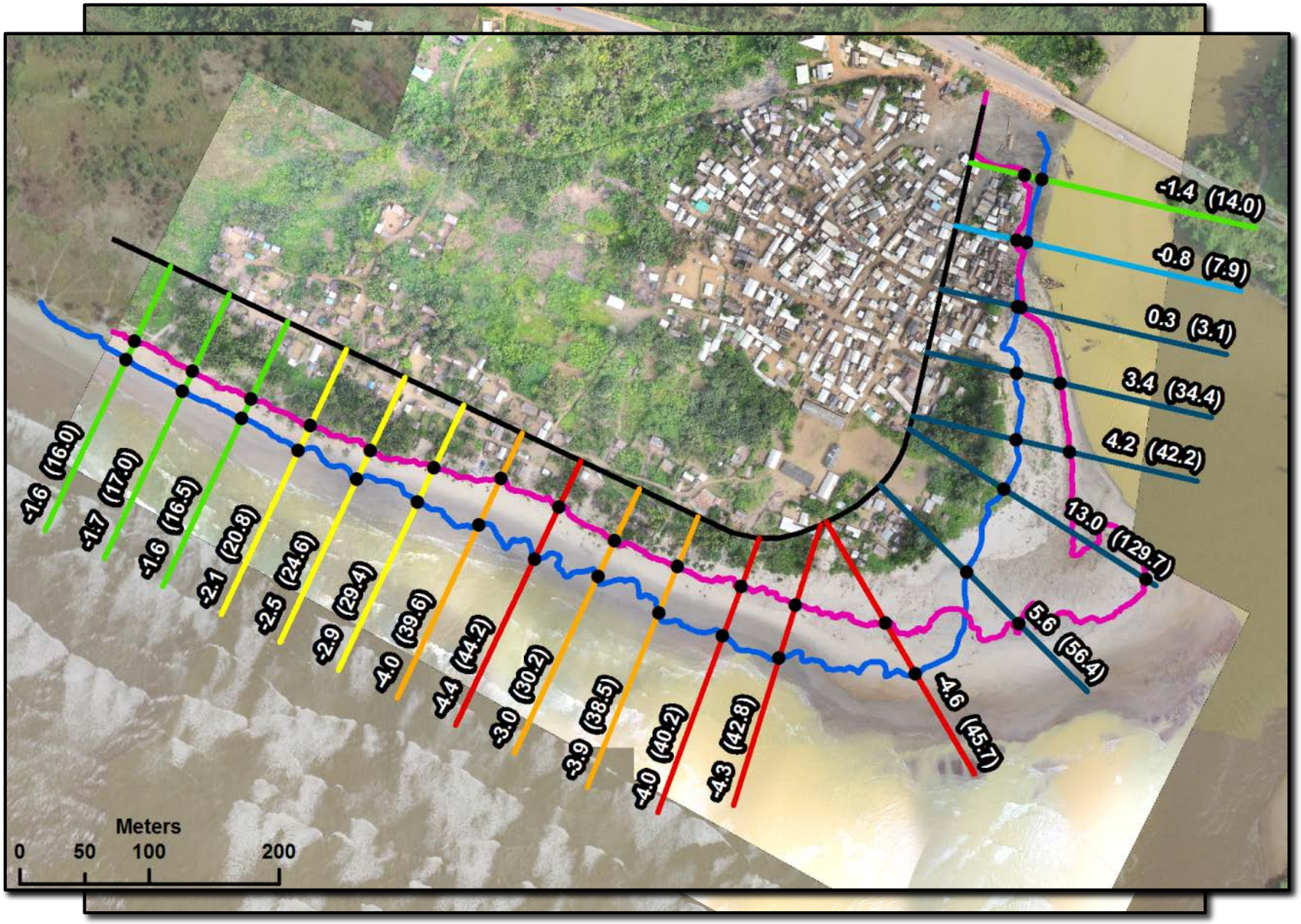
Sanwoma (Ankobra)



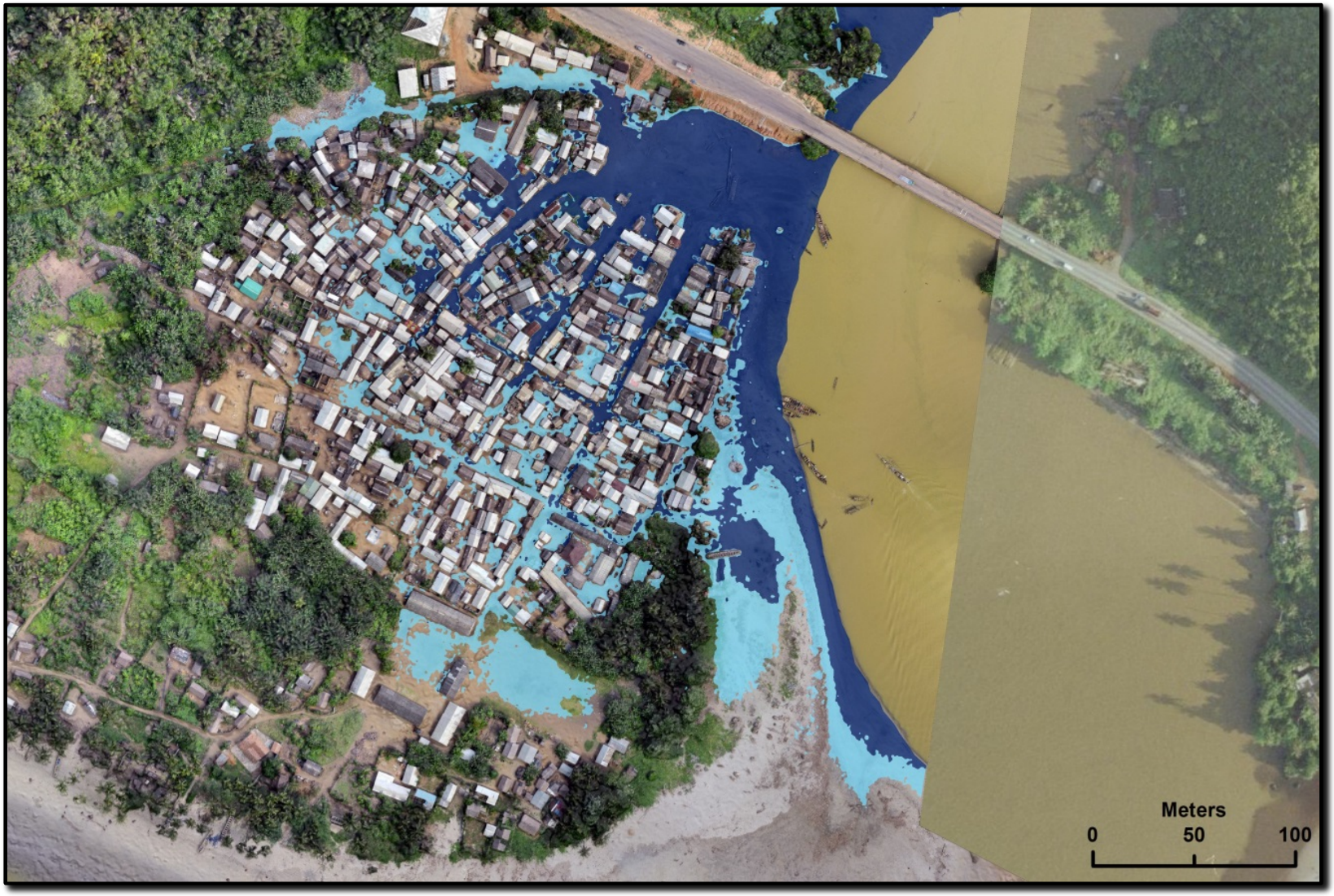
- 4 Flights; 324 Images; 5cm pixel size

Sanwoma (Ankobra)

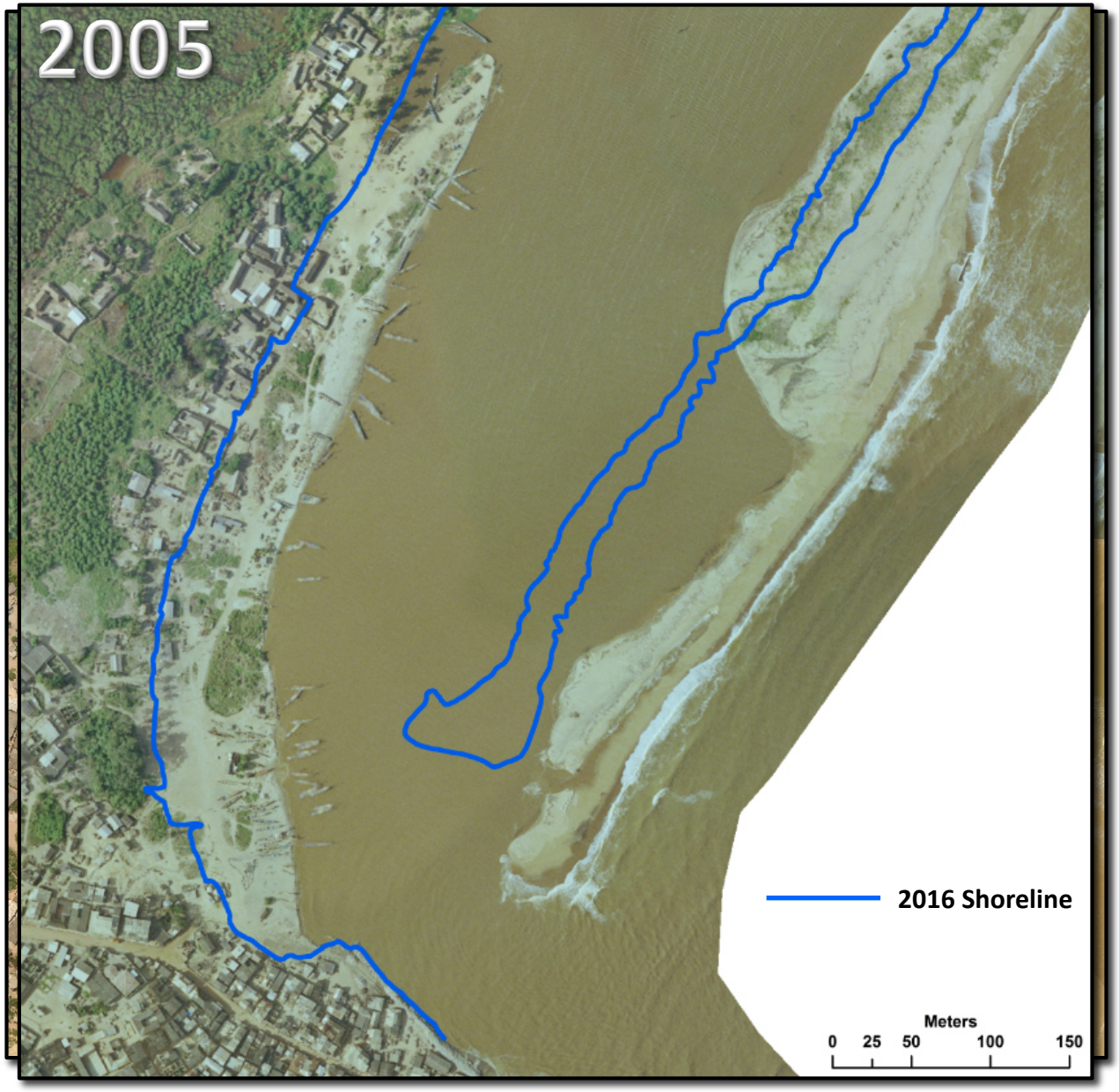
Sanwoma Erosion



Sanwoma Flooding



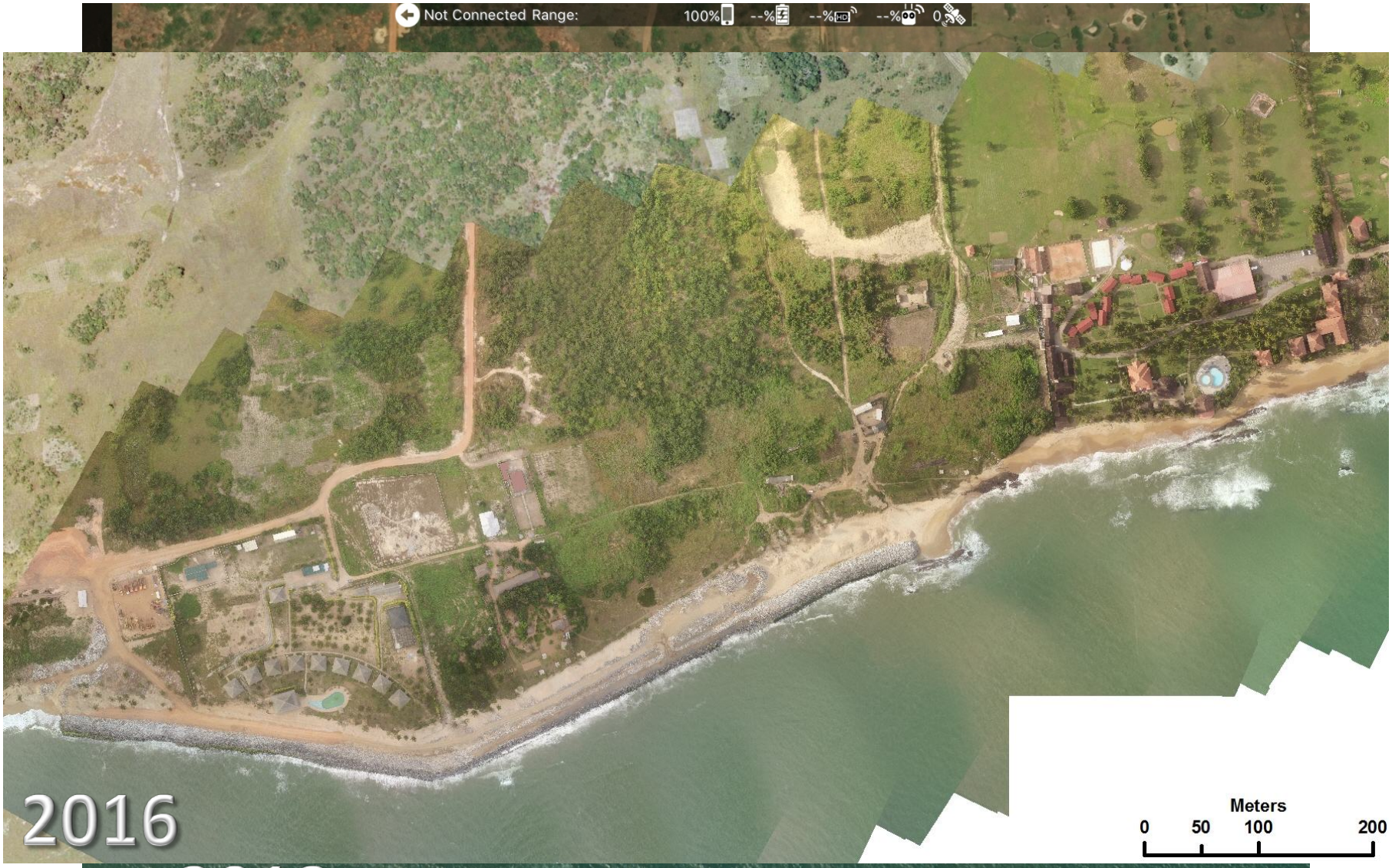
Old Shama Erosion



Ecological Monitoring

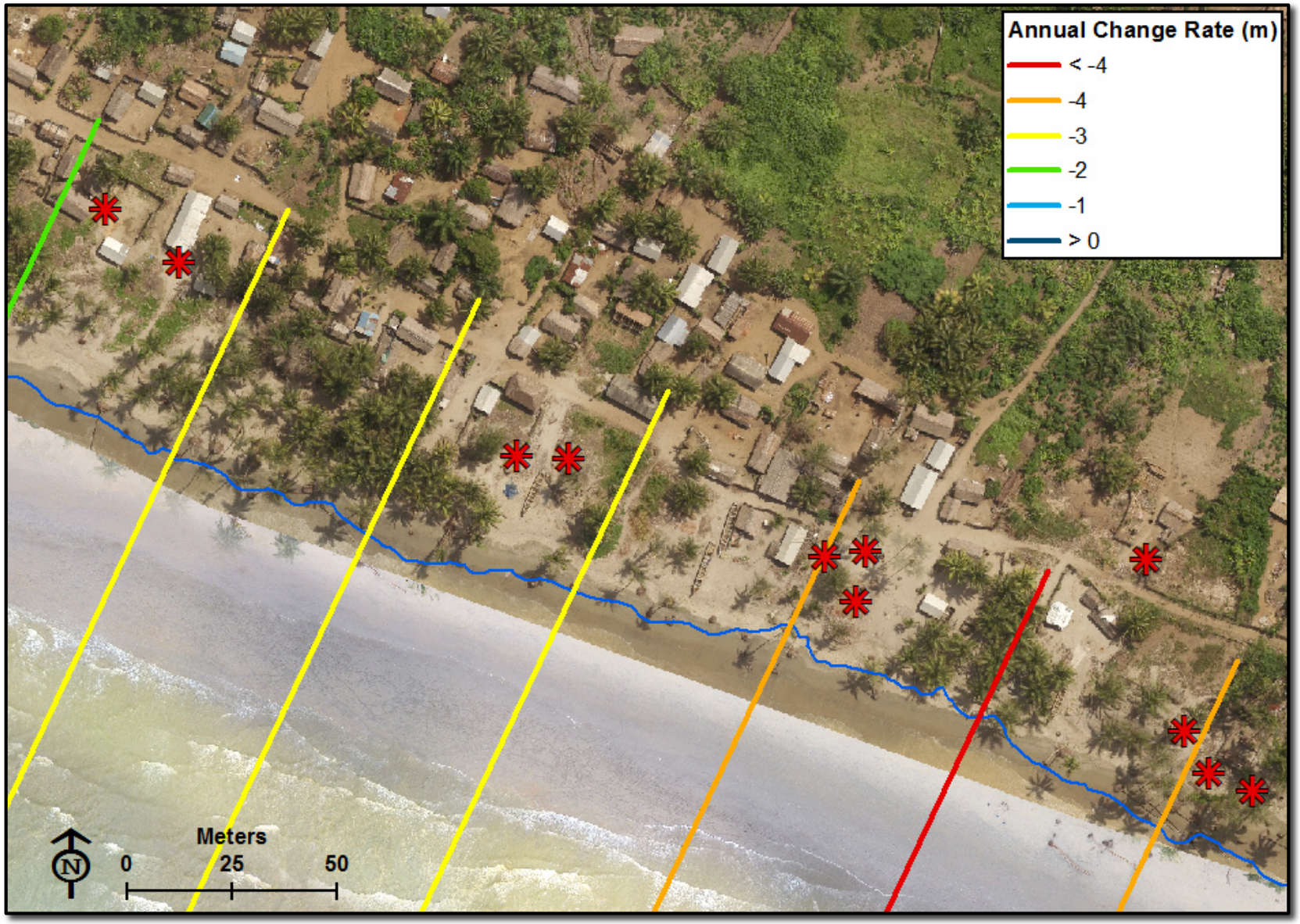
Ecological Monitoring

Elmina Bay Resort



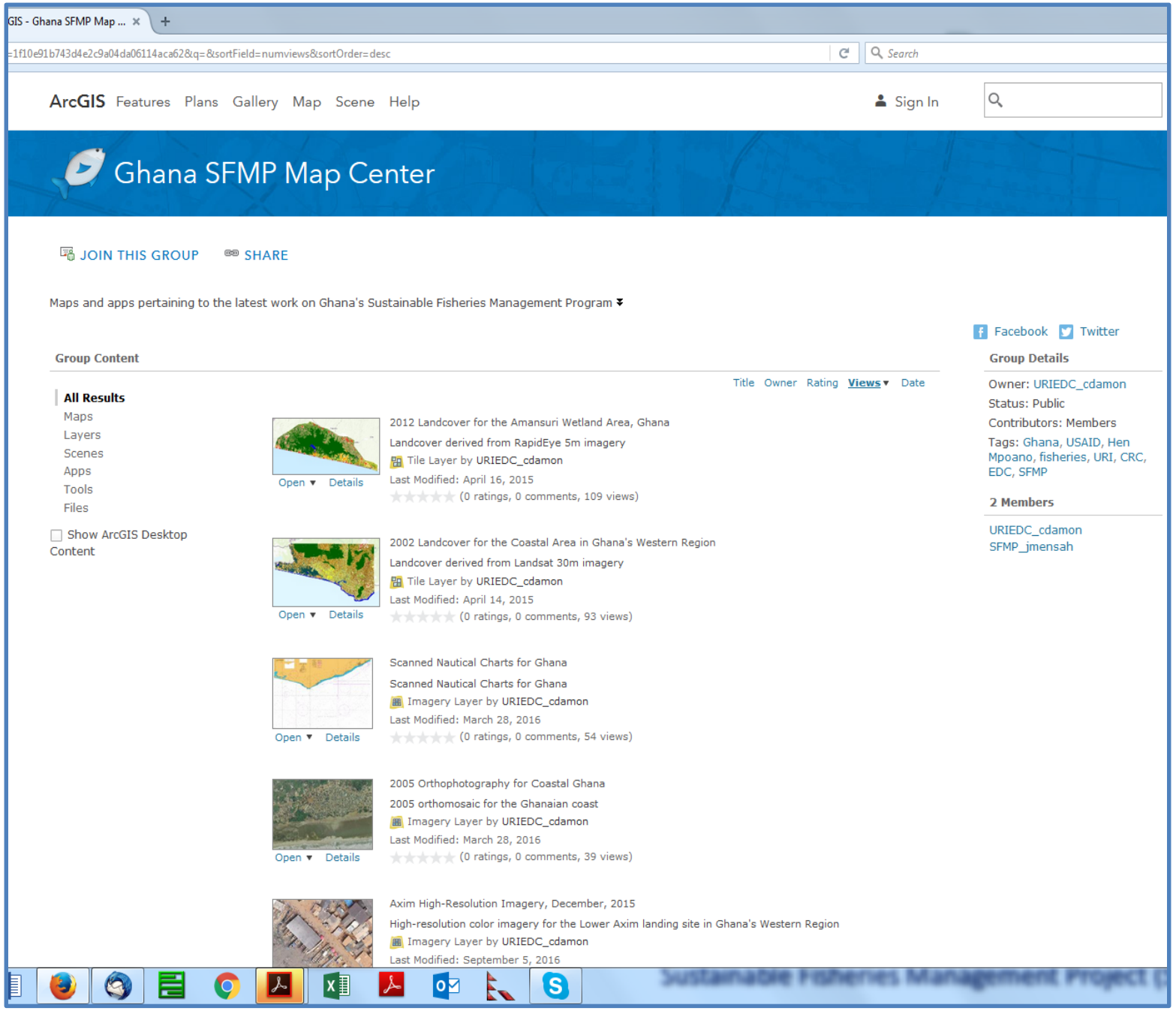
Upper Axim Infrastructure

Sanwoma Damage Assessment



Building Capacity

SFMP GIS Data available on-line



http://arcg.is/1RKgAS6

UAV Pilot Summary

- UAVs provide cost effective means to capture current, high res. imagery for planning and analysis
- High-quality products fill data gaps
- Output products directly compatible with Ghanaian GIS systems
- Specialized software and equipment needed for quality products
- Limited battery capacity = Low coverage

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Moving Forward We Can:

- Reduce the need for costly solutions
- Save lives and property
- Preserve space for food production needs
- Sustain fishing as a way of life

Daily Graphic
Ghana's biggest selling newspaper since 1950
60 Million-dollar Sakumono Sea Defence Project completed
By Emmanuel Ebo Hawkson, ACCRA
VACANCY
A reputable training entity wishes to fill the following positions:
SALES OFFICER
HND Holder with minimum of four(4) years working experience
ACCOUNTS OFFICER
HND Holder with one to four years working experience
WAREHOUSE OFFICER
HND Holder with one to four years working experience
SERVICE TECHNICIAN
Experience in Electrical Home Appliances and Generators who can work independently
ADMINISTRATIVE OFFICER
HND or Degree Holder with a minimum of four years working experience.
Closing Date: Friday, 18th September, 2015
SEND ALL APPLICATIONS TO THE PERSONAL MANAGER POST OFFICE BOX GPO 17406, ACCRA
E-mail: joycesackitey@ymail.com
QUICK READ
Work on a US$60 million Sakumono Sea Defense Project has been completed.
Petroleum Price Indications

Sustainable Fisheries Management Project (SFMP)

Resources

Map Data
http://arcg.is/1RKgAS6

National Coastal Planning Workshop
http://www.crc.uri.edu/download/GH2014_SCI020_HM_FIN508.pdf

Small Unmanned Aircraft (SUA) Pilot Project
http://www.crc.uri.edu/download/GH2014_SCI019_EDC_FIN508.pdf

Ankobra Vulnerability Assessment
http://www.crc.uri.edu/download/GH2014_ACT023_HM_FIN508.pdf

Exchange Visit For TCPD Officers: Workshop Report, June 29-30, 2015
http://www.crc.uri.edu/download/GH2014_SCI013_HM_FIN508.pdf

Ahanta West Integrated Coastal Management Toolkit
http://www.crc.uri.edu/download/GH2009DC3P012_AWDtoolkit__508.pdf

Analysis Of Spatial Planning Options: Ankobra
http://www.crc.uri.edu/download/GH2014_ACT046_SpS_FIN508.pdf