## Overview of Mapping in Ghana

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#### **Outline of Presentation**

Background

Legacy Data on Maps

Challenges

Way Forward

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#### Background

- The Survey and Mapping Division (formerly Survey Department) is mandated by the Survey Act 127 and Lands Commission Act 767 to conduct, supervise and regulate mapping activities in Ghana.
- Historically, the Survey and Mapping Division has relied on external funding and private sector participation due to limited human and financial resources.
- Map updates has therefore become inconsistent with the standard practise of updating maps every 5 years.
- The last time Ghana was mapped comprehensively was in 1974. Since then, mapping has been done for limited areas.

#### Legacy Data on Maps

- Mapping of Ghana between 1972 1974
  - $\checkmark$  Division of the country into two blocks
    - Northern part by Terra surveys (Canada)
    - Southern part by Ordinance Survey (Britain)
  - ✓ Output were 1:50,000 Topographic Map series for the whole country
  - Ghana Urban Mapping Project (2002)
    - ✓ 2D line maps at 1:2,500 scale for selected cities
  - Ghana Coastline Mapping, courtesy Ministry of Tourism (2005)
    ✓ Orthophoto production at 1:10,000 for 9km inland of Ghana's coastline
  - Land Administration Project, Phase 1 (2008)
    - ✓ Orthophoto production at 1:2,500 for 15,000 sq. km
  - Land Administration Project, Phase 2 (2013)
    - ✓ Orthophoto Mapping at 1:2,500 for 25,000 sq. km
    - ✓ 3D Line Maps for Northern Ghana approximately 17,000 Sq. Km
    - ✓ Lidar Mapping for 4,000 sq. km

#### Rational for Map Update

- Rapid Development and Urbanization
- Planning Purposes
- Utility Services
- Property Addressing
- Forestry and Mineral Resource Preservation
- Environmental Monitoring



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#### Limited Funding

Failure to Appreciate the importance of maps

Failure to adopt consistent map update regime

Lack of personnel and adequate training

#### Way Forward

- Land Administration Project, Phase 2 extension
  - Orthophoto and Line Maps for the whole country and selected districts
    - 239,000 sq. km for the whole country at 30cm GSD
    - 15, 000 sq. km for selected districts at 10cm GSD
- Public Private Partnership (PPP)
  - ✓ Orthophoto, LiDAR and Line Mapping of Ghana
    - Total area to be covered 239,000 sq. km.
    - To be flown at 30cm GSD
  - ✓ Orthophoto, LiDAR and Line Mapping of sixteen (16) regional capitals and selected towns
    - Total area to be covered 15,000 sq. km.
    - To be flown at 10cm GSD.

#### Poster, Map

# Expectations of the NMA to International Associations (FIG)

- Setting standards for NMAs to regulate new technologies e.g. Drone Mapping, BIM, CORS etc
- Facilitate capacity building for NMA personnel
- Recommend experts/professionals to support NMA activities
- Advice on sourcing of financial support National Geospatial Projects
- Give technical advice on planned projects

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