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Global Geospatial Information Management

The Data Ecosystem for Sustainable Development

Deqing, 17-22nd October, 2019

Effective partnerships towards realizing the
data ecosystem for sustainable
development,

Lucy Mburu

Survey of Kenya



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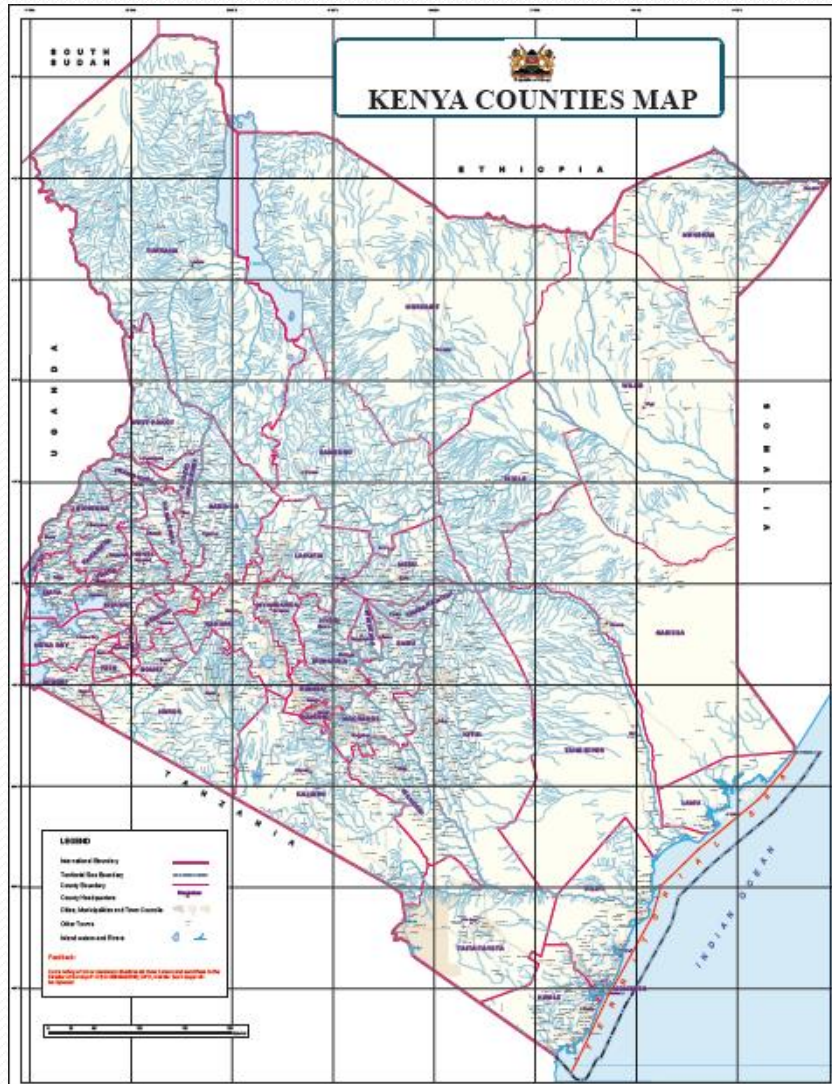
Kenya at the Global Scale



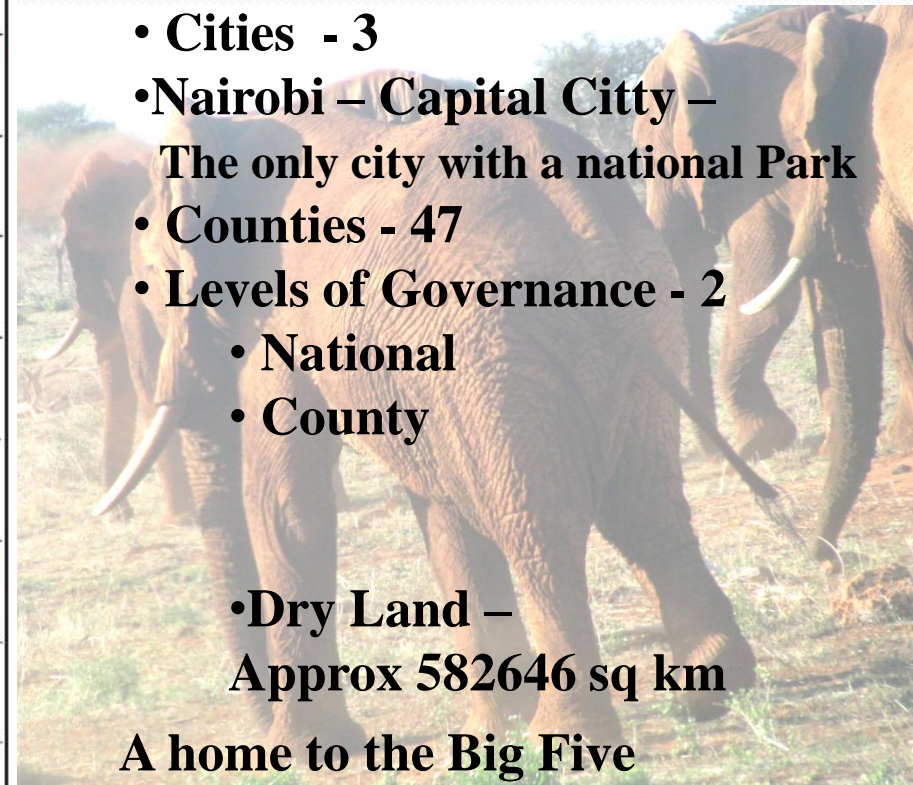


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- **Cities - 3**
 - **Nairobi – Capital City –**
The only city with a national Park
 - **Counties - 47**
 - **Levels of Governance - 2**
 - **National**
 - **County**
 - **Dry Land –**
Approx **582646 sq km**
- A home to the Big Five**





Republic of Kenya
Ministry of Lands and Physical Planning

Survey of Kenya Headquarters



Established in 1903





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The Survey of Kenya, Ministry of Lands and Physical Planning is the **National Mapping Agency** and is **responsible for:**

- Regulating and authenticating geospatial data since 1903
- Production and Management of Geospatial Fundamental data sets
- Development and Custodian of Geospatial Standards among others



Organisational Structure

DIRECTOR OF SURVEYS

GEODETIC,
TECHNICAL,
NATIONAL
AND
INTERNATIONAL
BOUNDARIES

HYDROGRAPHY

CADASTRAL
SURVEY

GEOSPATIAL
DATA
MANAGEMENT

KENYA INSTITUTE
OF SURVEYING
AND MAPPING

PHOTOGRAMMETRY

CARTOGRAPHY

ADJUDICATION
SURVEYS

PHOTOLITHOGRAPHY



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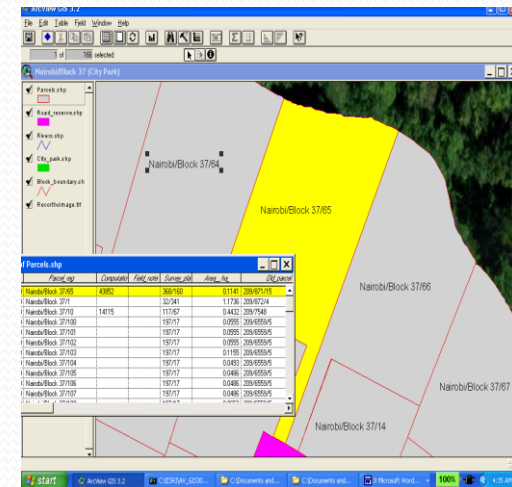
Where We Are - where we want To Be



Analogue to Digital



Paper to digital system





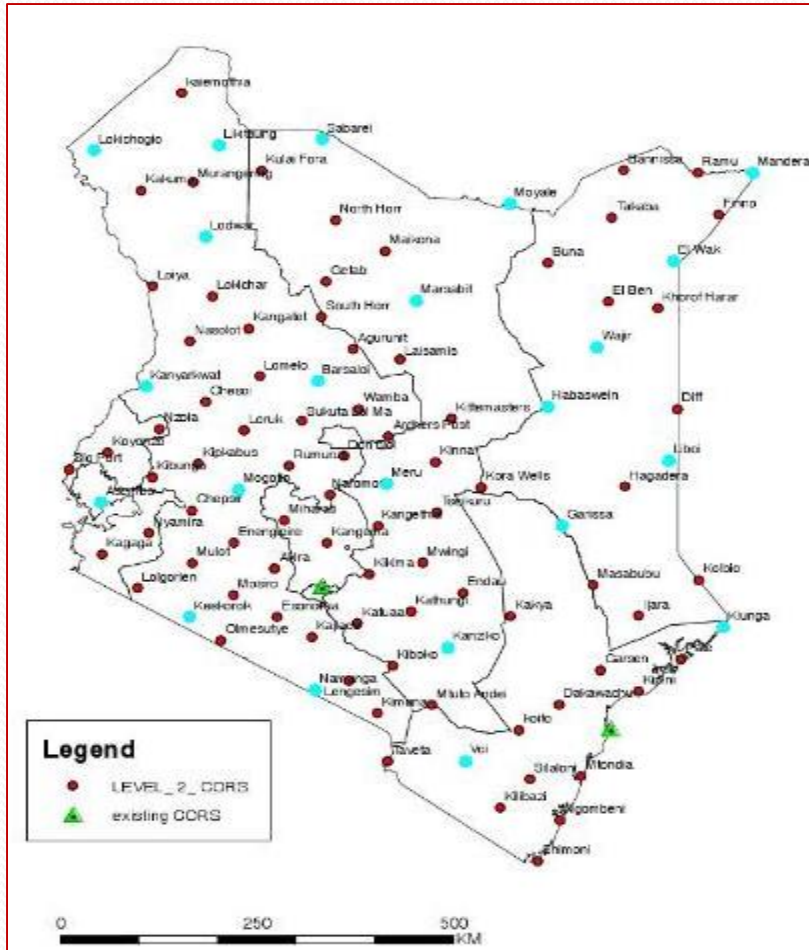
Milestones



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- Kenya National Geodetic Frame (KENREF 2012)



KENREF STN



Moved



- 21 CORs stations Established
- The Control Center - Survey Headquarters



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Milestones

- Establishment of large-scale spatial data framework (digital maps) for the *City of Nairobi, Mombasa and Lamu port*.
- Creation of digital cadastre (ongoing).
- Digitization of Land survey Records covering various regions of Kenya.
- Updating and vectorization of topographical maps.
- Establishment of Geospatial Data Centre.



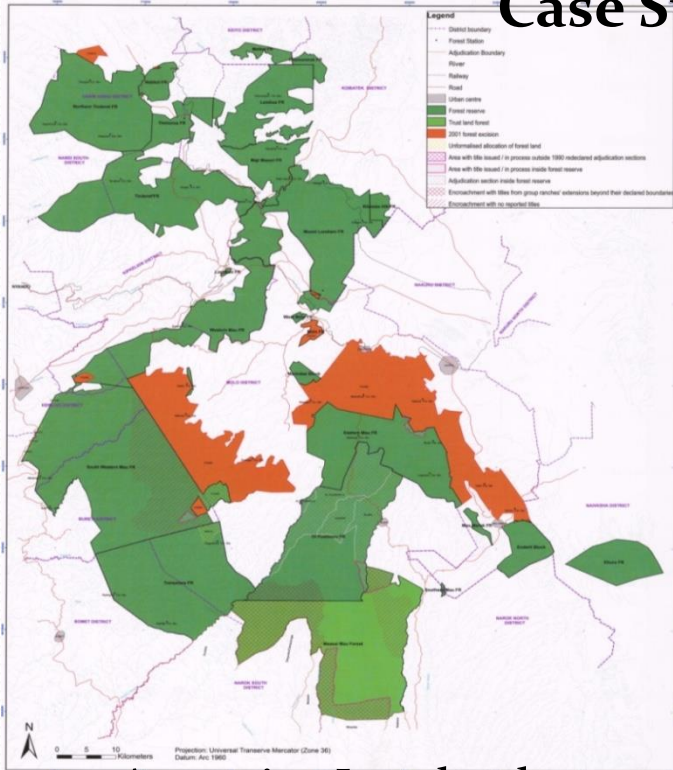


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Multi-Agency Approach initiatives

Case Study: 1 Restoration of the Mau Forest Complex



- A major Water Towers in Kenya
- Approx. 400,000 ha.
- 22 forest blocks
- 21 under the Kenya Forest Service (KFS)
- One, Masai Mau Forest (MMF) - under the Narok County Government (NCG)

• Mau forest ecosystem has been faced by threats and challenges that have led to degradation reducing its capacity to provide critical environmental services especially Maasai Mau Forest (MMF) Block.

Agencies Involved:

Ministry of lands and Physical Planning; National Environment Management Authority; Water Management Authority; Local Administration; National Administration County Government and Opinion Leaders

Muilt-Agency collaborative intiatives

Case Study: 2 Election Exercise 2017

- Geospatial data for all polling stations was collected
- Voters Registration was done as per the polling stations
- Voting was done real-time
- Tallying results were communicated from real-time from the polling station



Agencies Involved:

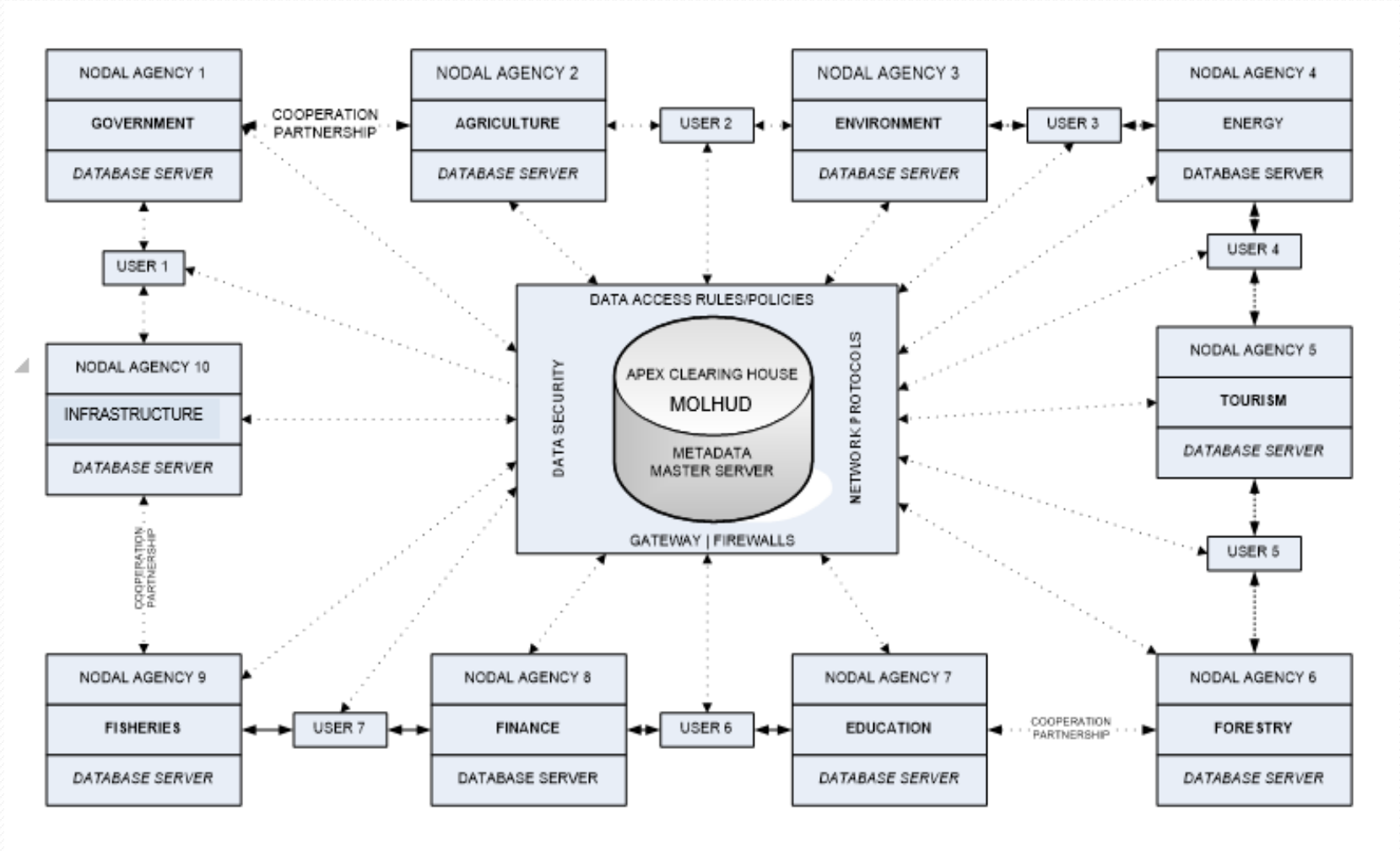
Independent Electoral Boundary Commission; Ministry of lands and Physical Planning; Local Administration; Observers

Strengths

- There is a road map for NSDI
- Geo-spatial Information (GI) Organizations (Stakeholders) identified
- Workshops with stakeholders held
- A Draft KNSDI Policy - approved by stakeholders 2009
- Data Standards based on ISO Standards developed
- Definition and development of the fundamental Datasets done
- Creation of Metadata for Nairobi large scale maps and Cadastral Maps
- NSDI secretariat hosted by Survey of Kenya
- Kenya Geospatial Data Centre established
- Finalization of the KNSDI policy on course
- Good will for digital migration for geospatial industry



KNSDI Architecture





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Challenges

- Most data is in analogue format
- Working in silos
- Lack of an operating digital system
- Legal framework

Opportunities

- High demand for quality and accurate geospatial datasets for decision making
- Room for technical support
- Need for public private partnership among others



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Way Forward

- Support to fully migrate to digital platform
- Formulation of legal framework
- Establishment of interlinked digital systems
- Actualization of the NSDI



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Inform → Inspire → Support

We are One Planet – One Global Village



We need to walk together



Thank you