Hosting Continental NELGA

Land Data Repository

RCMRD

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About RCMRD

The Regional Centre for Mapping of Resources for Development (RCMRD) was established in 1975 under the auspices of the United Nations Economic Commission for Africa (UNECA) and the African Union (AU), previously known as the Organization of African Unity (OAU).
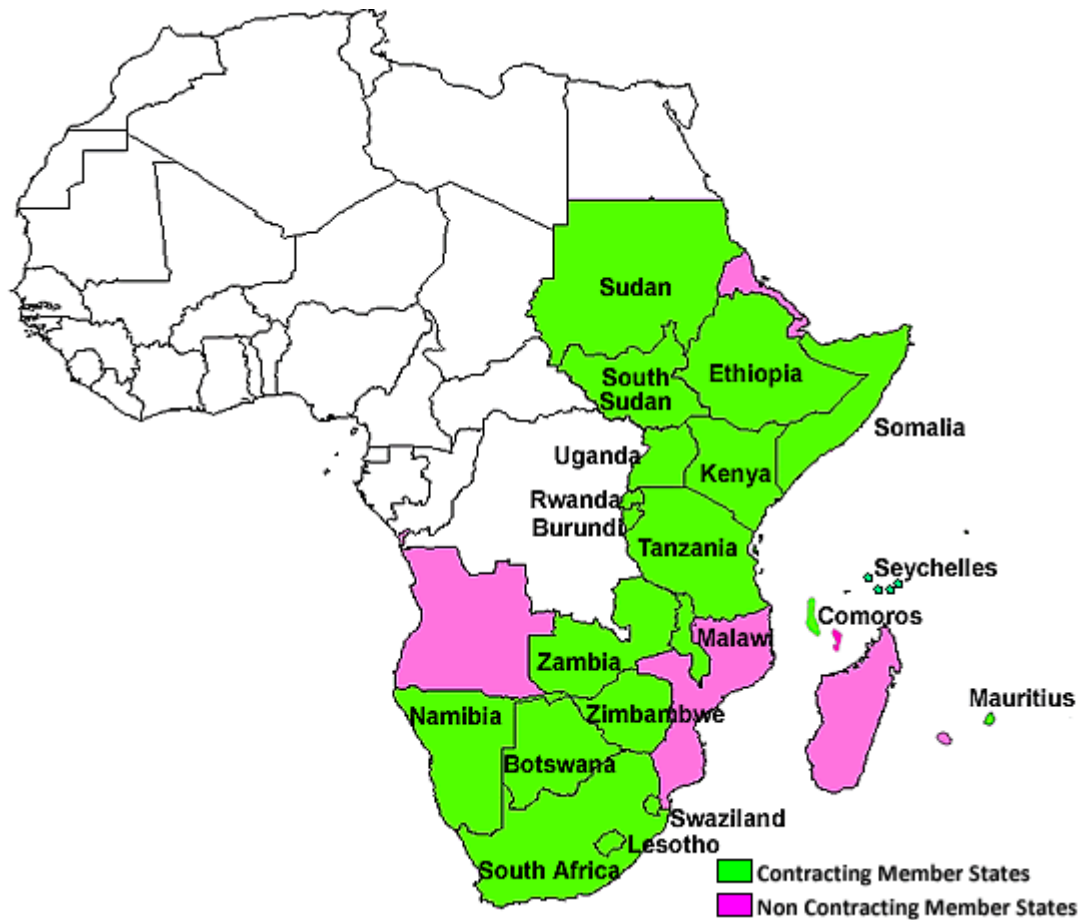
Our Vision: To be a premier Centre of Excellence in the provision of Geo-Information services.

Our Mission: To promote sustainable development through generation, application and dissemination of Geo-Information and allied Information Communication Technology (ICT) services and products in the Member States and beyond.

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Geographical Coverage

Contracting Member States (green)
Non Contracting Member States (magenta)

RCMRD Fact Sheet

- **Centre is 43 years old this month**
- **Inter-governmental with 20 member states**
- **Owned and governed by Member states + UNECA**
- **Its not for profit, the activities are funded by member states and sale of products & services**
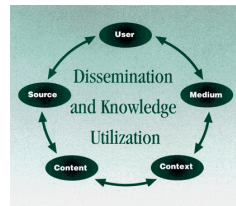- **Headquarters in Nairobi; enjoys diplomatic status**

RCMRD Core Mandate (1)

- **Project Development & Implementation –** Environment, Natural Resources Management, Disaster Management, Infrastructure and Service Provision, Urban Mapping and Planning & Good Governance.

- **Advisory Services –** Development of National Policies and Strategies, Geo- information Standards etc.

- **Capacity Development –** Training in Basic and applied programs.

RCMRD Core Mandate (2)

- **Research and Development –** AFREF, Rapid LCM, Tsetse spread prediction, Crop yield estimation, Water resources management, Land Degradation and Habitat conservation, Disaster management etc.

- **Servicing and Calibration of Surveying & Mapping Equipment.**

- **Data and Information Dissemination –** Acquisition, usage, sharing and discovery.

Experience with similar initiatives

Project Implemented	Funding Agency
1. Regional Eastern Africa Forest Observatory	JRC / EU
2. Africa Biosphere Reserves	UNESCO
3. IGAD Biodiversity Management Programme	EU
4. Marine Biodiversity Database	IGAD / CORDIO
5. Invasive Species Mapping	USAID
6. Mapping Sea Grass and Mangroves	USAID
7. Biodiversity Species Mapping	USAID

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RCMRD Technical Capacity in Data and Knowledge Management

- **Manages its own databases, geoportals & web application all accessible at apps.rcmrd.org, opendata.rcmrd.org and geoportal.rcmrd.org**

- **Has in-house application developers, database & system administrators**

- **Has high end blade server & backups**

- **Utilizes amazon cloud computing**

RCMRD Apps Portal has 14,500 website hits of **apps** access

RCMRD GeoPortal

RCMRD GeoPortal is a platform for disseminating open geospatial datasets and maps for the Eastern and Southern Africa region. RCMRD has partnered with SERVIR-Eastern and Southern Africa to develop the platform for improved utilization of geospatial data within member states to enhance decision making.

308 Layers   14 Maps   1 User

RCMRD Geoportal has 12,115 website hits of **data** access

Key Questions to be answered by Land Data Repository

Is there ....

- Availability of land tenure information
- Cadastral or registry data (land titles)
- A difference between rural and urban tenure data
- A single or multiple registry of this data
- A formal or informal land tenure registration in the country /region
- Examples of this data
- How can the data be obtained
- Information about Parcel that is specific or aggregated
- Land use information available
- Any information on land conflicts and land grabbing
- Any data on mineral rights
- Research information and their sources available

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Why this Repository?

Key question to answer	Existing Initiatives in the Continent							
	USAID land tenure	Land portal	Cadastral Template project	Open Development project	Country portal	Land Matrix	Global Land Indicators Initiative	International Land Coalition
Availability land tenure information	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Cadastral or registry data (land titles)	No	No	No	No	No	No	No	No
A difference between rural and urban tenure data	No	No	Yes	Yes	No	No	No	Yes
A single or multiple registry of this data	No	No	No	No	No	No	No	No
A formal or informal land tenure registration in the country /region	No	No	Yes	No	No	No	Yes	No
Examples of this data	No	Yes	Yes	Yes	No	No	Yes	Yes
How can the data be obtained	No	Yes	No	No	No	Yes	No	No
Information about Parcel that is specific or aggregated	No	No	No	No	No	Yes	Yes	No
Land use information available	No	Yes	No	Yes	No	Yes	No	No
Any information on land conflicts and land grabbing	No	Yes	No	Yes	No	Yes	No	No
Any data on mineral rights	No	Yes	No	Yes	No	Yes	No	No
Research information and their sources available	No	Yes	No	Yes	Yes	Yes	Yes	No

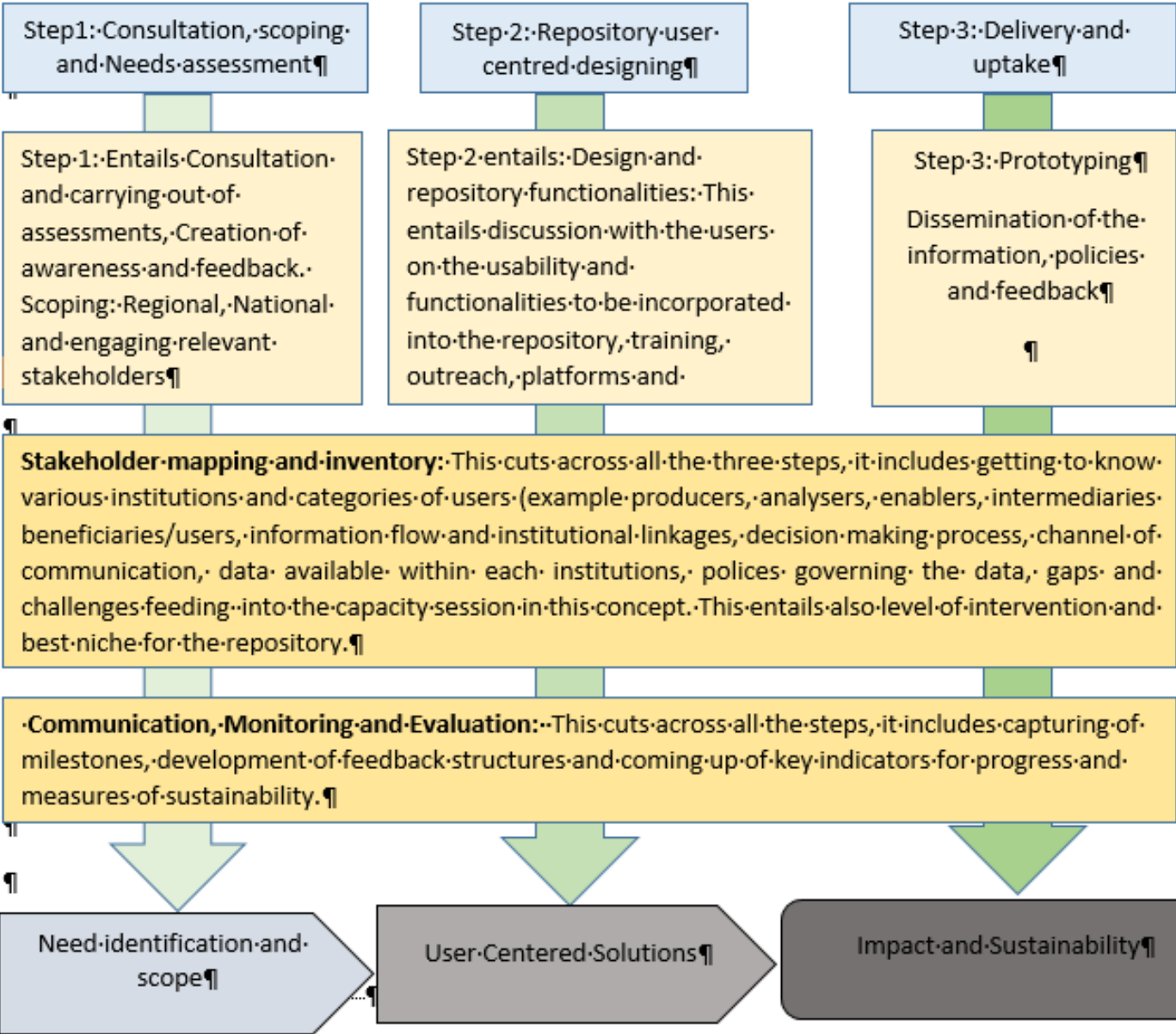# Data to be included in the Portal

- Administrative boundaries

- Land tenure and property rights

- Mineral and Mining rights

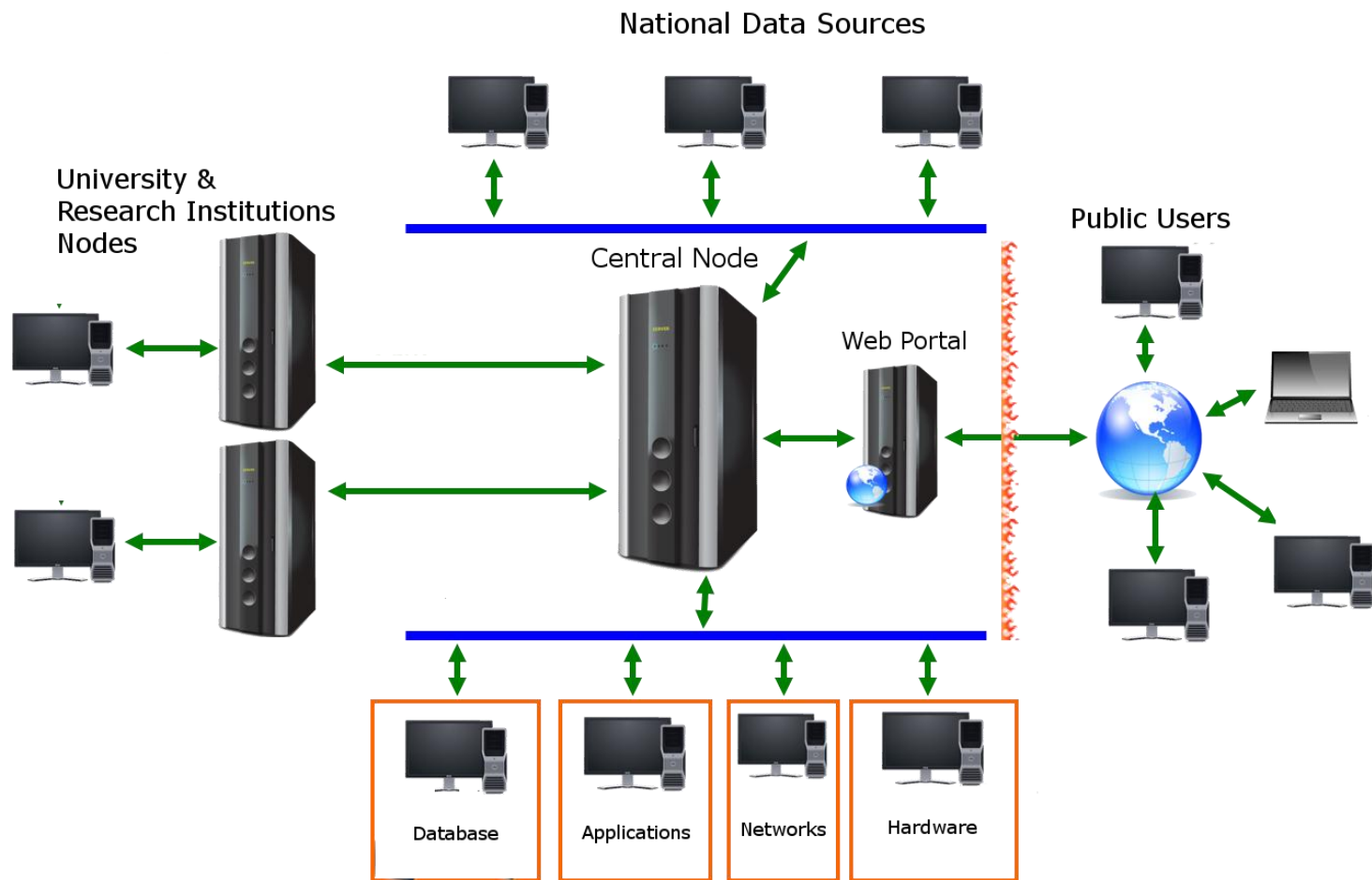- Land Cover

- Land use

- Land conflicts and land grabbing

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Implementation Road Map *(Uses the design thinking approach)*

Step1: Consultation, scoping and Needs assessment¶	Step 2: Repository user centred designing¶	Step 3: Delivery and uptake¶
Step 1: Entails Consultation and carrying out of assessments, Creation of awareness and feedback. Scoping: Regional, National and engaging relevant stakeholders¶	Step 2 entails: Design and repository functionalities: This entails discussion with the users on the usability and functionalities to be incorporated into the repository, training, outreach, platforms and	Step 3: Prototyping¶ Dissemination of the information, policies and feedback¶ ¶

Stakeholder mapping and inventory: This cuts across all the three steps, it includes getting to know various institutions and categories of users (example producers, analysers, enablers, intermediaries beneficiaries/users, information flow and institutional linkages, decision making process, channel of communication, data available within each institutions, polices governing the data, gaps and challenges feeding into the capacity session in this concept. This entails also level of intervention and best niche for the repository.¶

Communication, Monitoring and Evaluation: This cuts across all the steps, it includes capturing of milestones, development of feedback structures and coming up of key indicators for progress and measures of sustainability.¶

Need identification and scope¶	User Centered Solutions¶	Impact and Sustainability¶

Schematic of Repository Architecture

National Data Sources

University &
Research Institutions
Nodes

Central Node

Public Users

Web Portal

Database   Applications   Networks   Hardware

NELGA Repository Management (RCMRD)

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Pillars of Functioning Repository

- **Governance Structure** – clear rules, frameworks and policies governing data access, analysis & collaborations.
- **Memoranda of Understanding (MOU)** – needed for the coordination of collaborations by specifying: roles & responsibilities of the different actors.
- **Data sharing policy and framework** – mechanism to control the access to data for accountability & prevent the misuse of data developed with all relevant stakeholders.
- **Communication and outreach strategy** – How to motivate the actors to contribute data & create demand for repository.
- **Key performance indicators** – To assist managing and measuring the repository performance, it would be good to identify what are the KPI through monitoring, evaluation and learning.
- **Collaboration and User engagement** – Engage with actors & involve them from the beginning by developing a relationship, build trust & good will which affects the willingness to share data.
- **Delivery medium** - not all end users of the target countries have access to good internet hence provision of an offline version of the system is needed.

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Potential Bottlenecks and Risks

- **Hindrances to data sharing processes:**
Reluctance of institutions to contribute data unless they see immediate benefit, institutional bureaucracies in procedures and lengthy communication channels.
- **Land tenure data access:**
Land tenure and ownership data may be perceived as confidential and may not be made open especially if historical injustices are perceived. There is also fear that ownership data may be manipulated by corrupt land cartels.
- **Language barrier:**
Users who are not English speakers may not fully realize the benefit of the repository unless there is an equivalent translation in an alternative language.
- **Managing various datasets from different sources:**
Owing to their different colonial backgrounds, different countries employ different mapping/coordinates systems with inadequate descriptions, in case transformations may be required (-inadequate or misleading metadata). Available data may also have different thematic standards, different collection dates, differing resolutions and scales and data gaps may occur in the same datasets.

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Sustainability Consideration (1)

- RCMRD has been in existence since 1975, starting with a membership of 5 contracting countries that has now grown to 20 – It can only grow stronger and bigger moving forward;

- It is founded on fully ratified binding agreements by Member states as well as a host agreement with the Government of Kenya

- It is housed in its own premises on a 10 acre piece of land for which it holds a freehold title. It owns another 10 acres on the outskirts of Nairobi for expansion of its activities when necessary;

- Now in the final year of its strategic planning cycle – intention is to make data and knowledge management central in the next planning cycle & beyond

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Sustainability Consideration (2)

- In November 2017 the RCMRD Governing Council approved a new master plan for full development of Centre site, expanding its infrastructure, including construction of a new office complex that will commence this year.

- RCMRD has invested in high end, state of the art hardware and software

- RCMRD datasets are discoverable on GEOSS platform and it promotes open data sharing and assists members states in setting up spatial data infrastructure

- RCMRD is the SERVIR hub (partnership with NASA) for Eastern & Southern Africa

- RCMRD is running long term projects such as the recently awarded GMES & Africa project under AUC

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Thank you

www.rcmrd.org

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