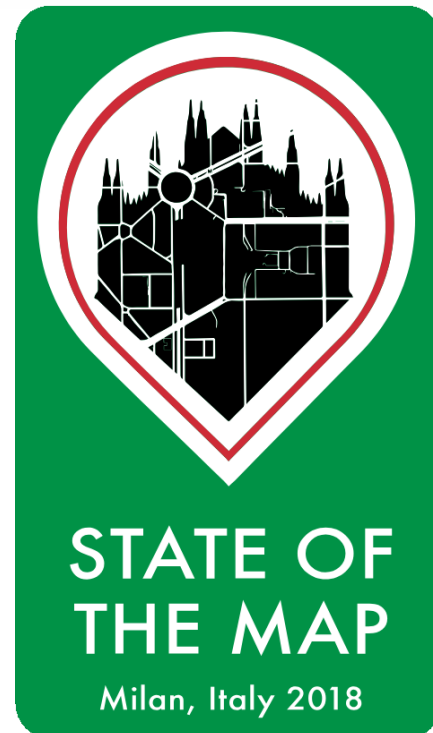


The challenges and issues associated with a natural resource mapping framework based upon OpenStreetMap

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The RADIMA project



UNIVERSITY OF
Southampton



International Institute
for Environment
and Development



Aims and Objectives

Aims (of the project)

- To develop an open tool for sub-national, county-level climate adaptation planning
- Targeted at vulnerable communities who are often marginalised and / or misrepresented
- Integration of community adaptive practice into planning decisions

Objectives (of the system)

- To capture local knowledge from communities whose livelihoods depend upon natural resources
- To depict the inherent (spatial and temporal) variation in pastoral mobility
- To be flexible enough to evolve over time (with our changing climate)

Meeting the needs of (Kenyan) national initiatives

The extendable data model of OSM is a good fit for RADIMA. It is adaptable to capture the key elements of **both** the County Integrated Development Plan (CIDP) and the County Spatial Plan (CSP) for Kenya:

CIDP:

“refer to maps, statistics and other appropriate documents that are not attached but held in a GIS based database system”

CSP:

“protect and integrate rights and interest of minorities and marginalized groups and communities”

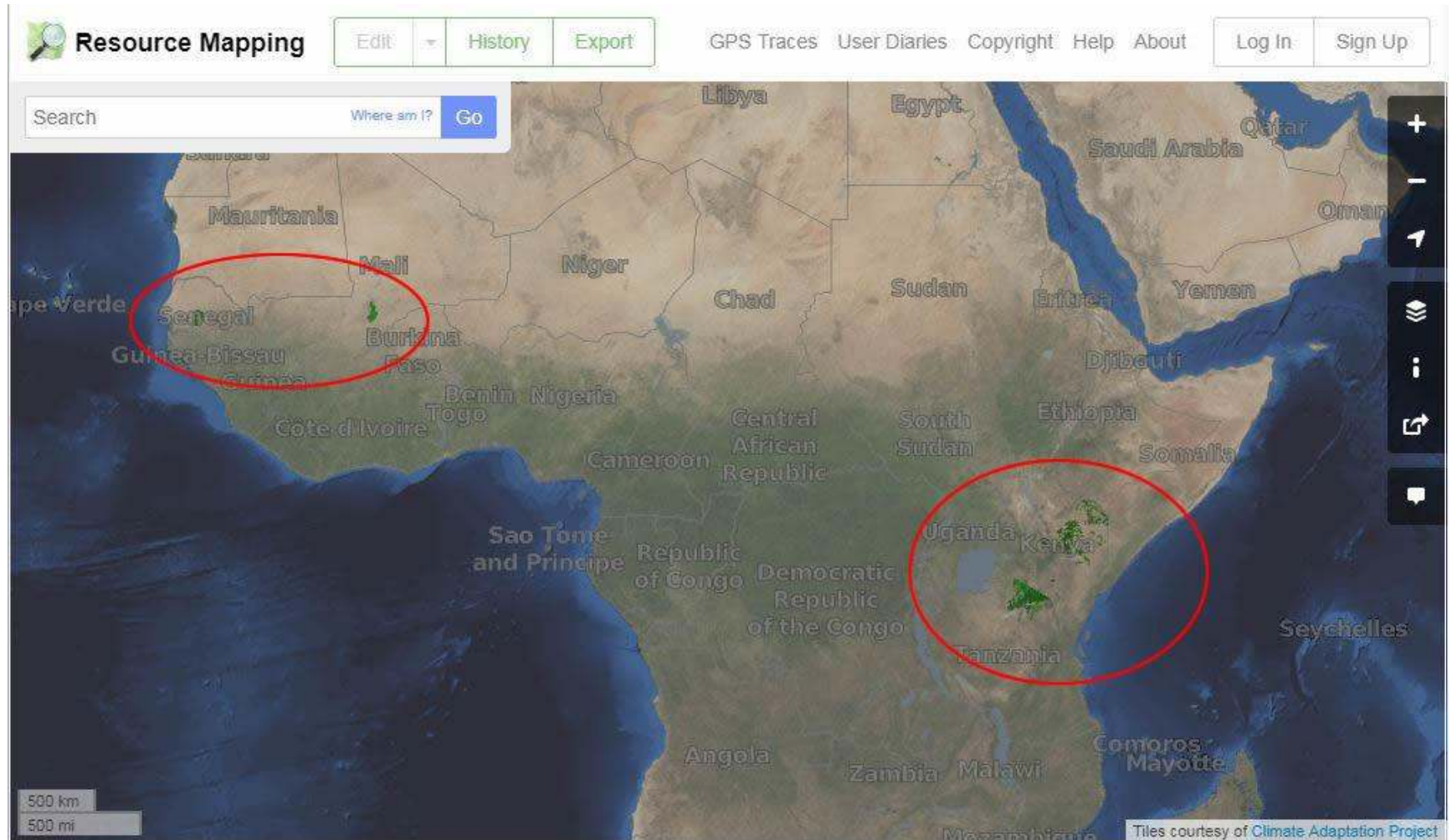
“protect and develop natural resources in a manner that aligns national and county governments policies”

“[Must provide] a spatial depiction of the social and economic development programme of the county”

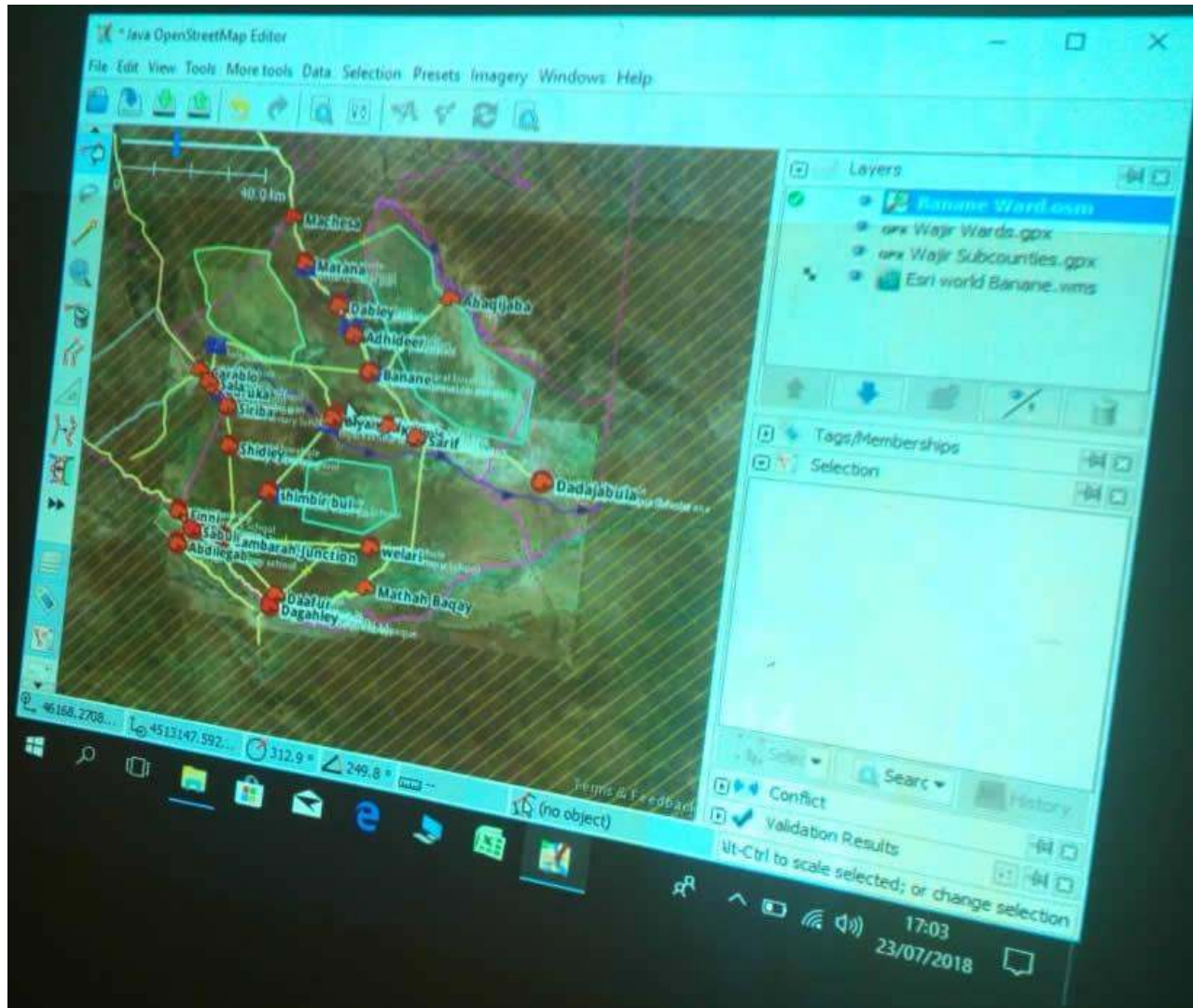
Source: Parliament of Kenya

<http://www.parliament.go.ke/statutory-documents?start=27>

Areas covered (so far)



Capturing local pastoralist knowledge...



Granularity of data – the availability of water

Resource Mapping Edit History Export GPS Traces User Diaries Copyright Help About Log In Sign Up

fenced	no
functional_status	poor
funded_by	NGO
generator_source	unknown
livestock_waiting_time	unknown
man_made	well
name	puits
operator	customary management
pump_method	unknown
pump_power	unknown
reliability_dry_season	poor
salt	no
seasonal	no
standpipe	yes
water_capacity_class	poor
water_quality	poor

1 km
1 mi

Tiles courtesy of Climate Adaptation Project

More granularity.....

Grass types and nutritional value -

pasture designation

pasture salt source

grassland type

leaf type, leaf cycle

conditions of access – free / paid / reciprocity

protected area

conflict

...many more!!

Challenges.....and current developments

Who can / should be able to edit the data?

How can adaptation measures be captured in a mapping framework?

Gaps in the data

Engaging local communities to 'own' the mapping process.

Summary

Growing need to capture the 'less visible' attributes of natural resources in Arid / Semi-Arid Lands (ASALs)

Recognition of the value of accurate mapped data exists and is a key element of future plans for ASALs in Sub-Saharan Africa

Challenges exist, but clearly uptake and momentum are key – The need for pastoralists to get mapping has (arguably!) never been greater.....

Thank you for listening!

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