

Presented at the FIG Working Week 2019,
April 22-26, 2019 in Hanoi, Vietnam

FIG WORKING WEEK 2019

Hanoi, Vietnam 22 - 26 April 2019

Geospatial information for a smarter life and environmental resilience



International
Federation of
Surveyors



Vietnam Association
of Geodesy, Cartography
and Remote Sensing (VAGRS)

FLEXIBLE LAND INFORMATION SYSTEM AS A DRIVER OF CHANGE, PEACE AND DEVELOPMENT: THE CASE OF POST CONFLICT DEMOCRATIC REPUBLIC OF CONGO

Danilo Antonio

Land and GLTN Unit, UN-Habitat, Nairobi

Summary from the Paper

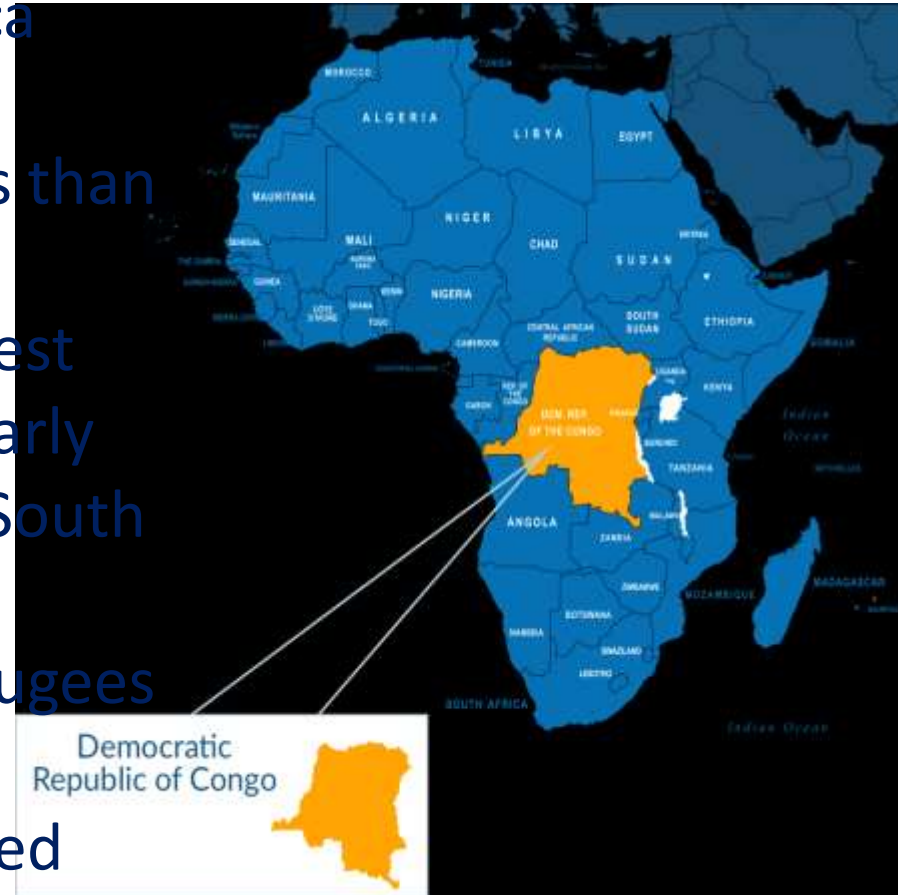
SUMMARY

In post-conflict situation such as Eastern DRC, where large numbers of internally displaced people and refugees are waiting to return to their places of origin riddled with disputes over scarcely available land, the testing of innovative systems for land administration ought to be championed. The current post-conflict situation increasingly recognizes land as a key driver and sustaining factor of conflict with the majority of the population facing evictions, tenure insecurity, and loss of life in the eastern region. Hence, access to land and related services especially for the poor, women and vulnerable are not guaranteed. As a result, flexible land information system may address such issues by catalyzing innovation in the land administration in order to address institutional gaps, promote tenure security and delivery of land services in a sustainable manner. Also, the process of building LIS (Land Information System) in DRC demonstrates real potential of mitigating conflicts through improved land governance, land use planning and transparency, thus creating a conducive environment to improve service delivery, accountability and foster investments in land and natural resources.

What challenges, How to get over, What lessons learnt

Democratic Republic of Congo (DRC)

- Second largest country in Africa with approx. 2.3M sq. Km
- Appox. 8.7M population & less than USD500 GNI per capita
- Since 1990s, one of the deadliest conflicts in the world (particularly the eastern provinces: North/South Kivu, Orientale)
- Large numbers of IDPs and refugees
- The leading target country in the global rush of Land-based investment for mineral resources



Post conflict situation in DRC



- Internally Displaced Peoples (IDPs) & refugees.
- Support from the Govt. and other organizations (UNHCR IDP resettlement) for improving peace, stability and unlocking the potential of land
- FOR 1. fair access to Land; 2. Public participation in Land Administration; and 3. improvement of Land use planning process

Post conflict situation in DRC

BUT... Some challenges have been witnessed that..

- Lack of Information
- Poor relationship between traditional and formal system
- Lack of transparency
- Complex procedures for land registration and its high-costed fees to the public



- Internally Displaced Peoples (IDPs) & refugees.
- Support from the Govt. and other organizations (UNHCR IDP resettlement) for improving peace, stability and unlocking the potential of land
- FOR 1. fare access to Land; 2. Public participation in Land Administration; and 3. improvement of Land use planning process



What situation on land they have faced

Lack of capacity:

- A small survey by land administrators
- 90% are casual employees vs. less than 5% of government staff
- 'EXORBITANT' fees required with informal/inaccurate procedures
- USD500 for land registration comparing to its GNI per capita
- Only 1% with technical skills



What situation on land they have faced



Customary System:

- Failure of the Law to recognize the customary system which manages over 70% of land
- A chief as a custodian of the land for community
- No official recognition for their roles and functions
- Lack of documentations and transactional records for allocation, transfer and lease
- Multiple ownership, evictions, threats and conflict on Land

How to handle these challenges

Community Participatory Land Use Planning Programme (CLUP)

- 4 years project funded by DFID
- Its objectives are: improve land governance; build innovative tools; and establish low-cost LIS
- 3 provinces (Ituri, North/South Kivu) where largest mineral deposits in the country all under informal economy, largest number of IDPs about 1M and vibrant informal land markets



GLTN's approach

Current situation on land registration

- Having or not having documentation in customary lands
- Various formats from one region to another
- No clear standards or guidelines for documentation process
- The documents in the formal system is complex and complicated and unsystematic for all regions

Flexible Land Information System

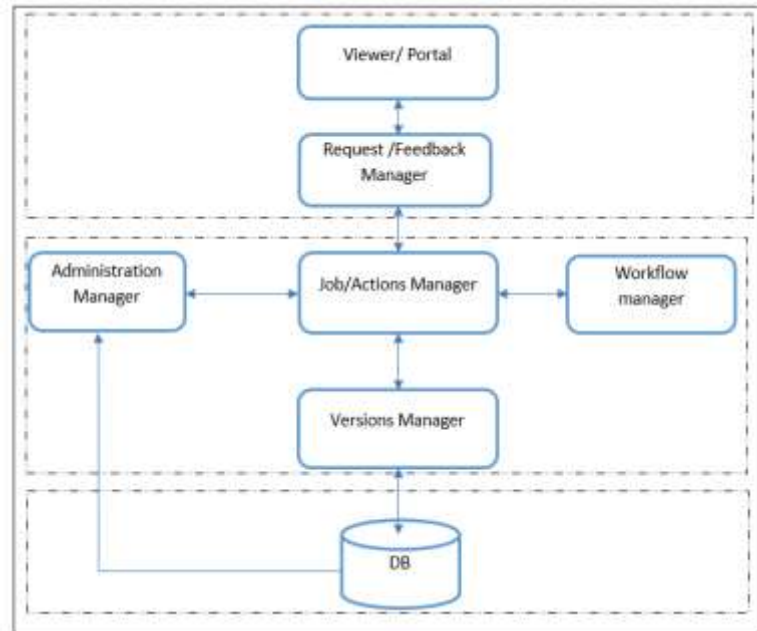
- Fit-for-Purpose Land Administration in Nepal
- STDM application in Kenya and Zambia to support establishment of Land Information for land tenure governance

How to implement...

Mobilization Process led by GLTN

- Consultation meetings/ workshops with pertinent stakeholders in Land and Community
- Training Community Persons to create awareness around their role in Gender issues

System design with 3 tier concepts



How to implement...

Data collection

- Local community with GPS + Smartphone

Land
administrator

: by GPS for collecting spatial data

Community
members

: Open Data Collection Kit (ODK)

for Social economic survey at household level

* Land owner, Land information, ownership, support doc., House, etc.

“The Chief supported the team in setting of disputes among neighbors especially regarding boundaries.”

How to implement...



Overlapping between land surveyed data and satellite imagery/Google maps for validation

Demarcation in the field
(over 500 parcels)

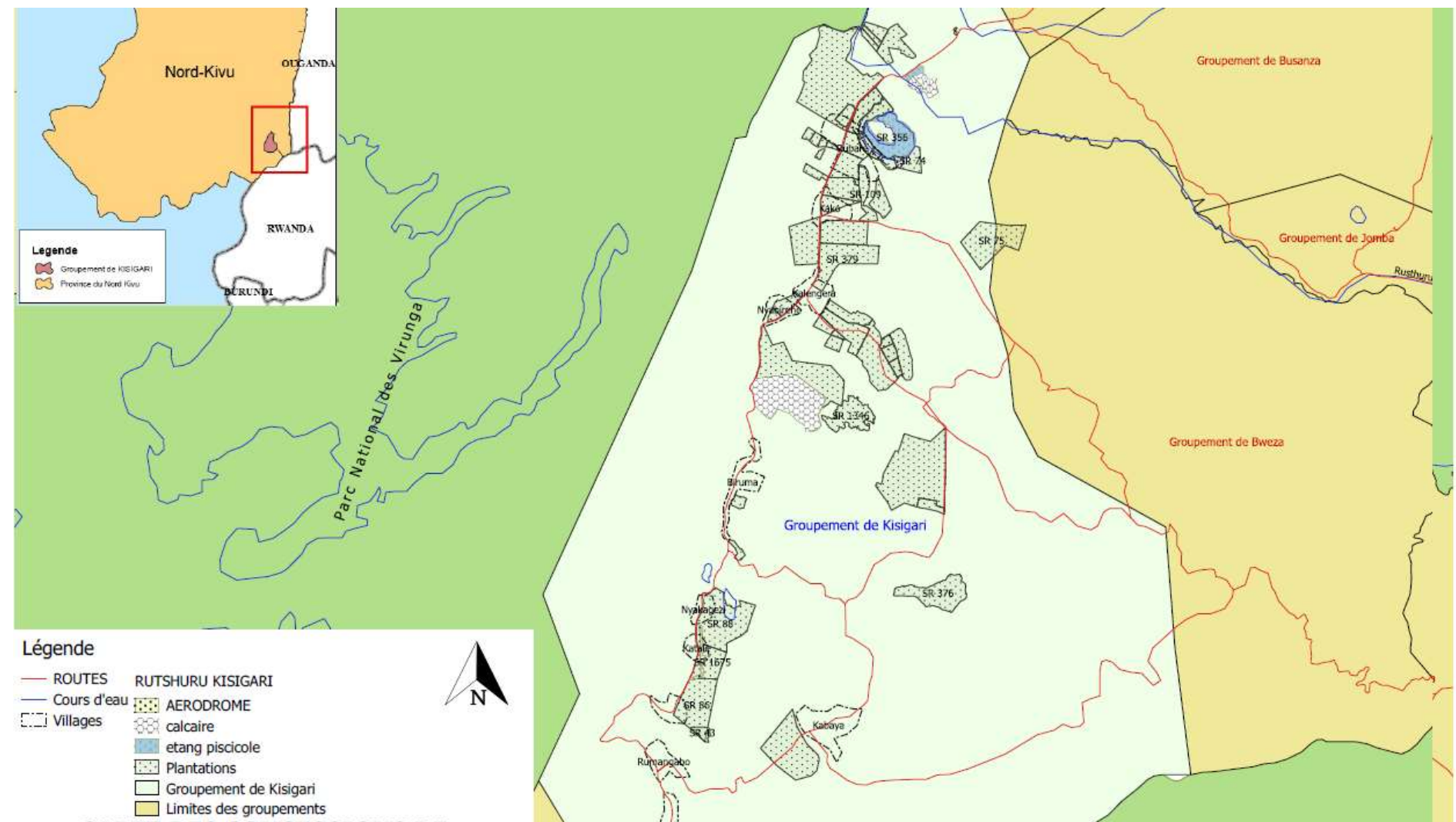
+

For collecting Land use data

Using Google maps &
Digitization from Satellite
Imagery

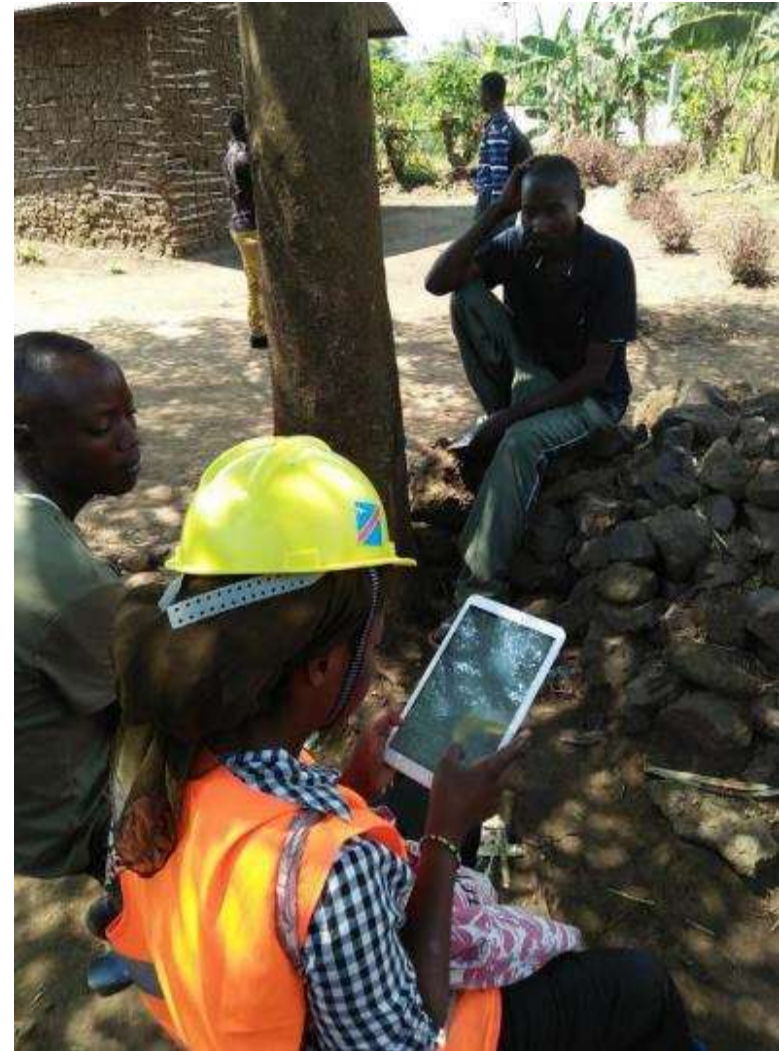


Final output from the Project

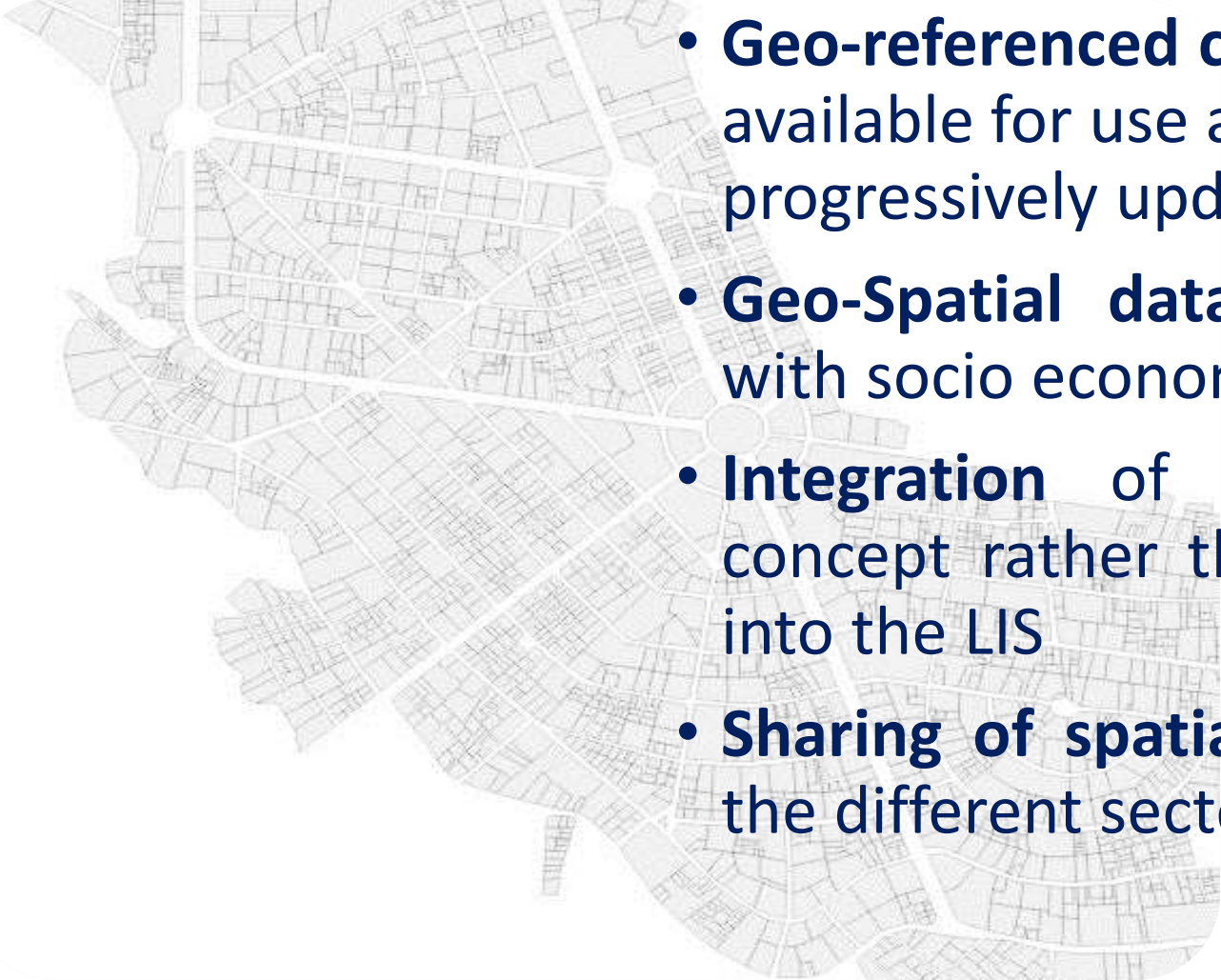


Remarkable achievement

- Traditional chiefs and land administration officers **working together** to improve land tenure for the communities.
- Improved **perceptions of land surveyors** by the communities
- Improved service delivery **as a result of technology use**
- **Quality of cadaster** as a digital greatly improved
- **Peaceful negotiation** of boundary conflicts and other disputes
- **Transparency of process** between customary and formal land administration



Application of Land Information System

- 
- **Geo-referenced cadastral maps** available for use and progressively updated
 - **Geo-Spatial database** coupled with socio economic data
 - **Integration** of Social tenure concept rather than ownership into the LIS
 - **Sharing of spatial data** among the different sectors

Outcomes and lessons learnt

- Fast track development of the national land policy.
- Development of manual and guides for securing community land tenure including indigenous groups
- Develop fit for purpose strategy that embraces appropriate and low cost technologies for land administration.
- Improve transparency in land administration through participatory process of land survey and use of GPS and tablets for data collection.
- Local land governance initiatives to improve the traditional and formal land administration processes through dialogue, sharing of information, joint resolution of disputes, land mediation and open door policy.



FACILITATED BY:
UN HABITAT
FOR A BETTER URBAN FUTURE

THANK YOU!

