

Post-disaster countries

Tsunami: Data lost, difficult to recover

- risk of paper registers: no back-up

However, standardized system **STDM** could help to get re-started



Land and the Habitat Global Campaign for Secure Tenure (started 2000)

Why does UN-Habitat 'believe' in land administration / STDM?

Insecure tenure:

- inhibits investment in housing
- hinders good governance
- undermines long term planning
- distorts prices of land and services
- reinforces poverty and social exclusion
- impacts most negatively on women and children

STDM - Requirements

- Formal and informal tenure systems: one environment
- Reversibility to paper based system
- Spatial information represented in existing geodetic networks and in new spatial frameworks
- Link spatial data to other systems
- Distributed and de-centralized environment
- Different source data with different accuracies
- Accommodation of overlap between different tenures
- Range of identifiers, geo-referenced parcels, un-referenced parcels, lines and points

- Conflict situations, womens access to land, participatory approaches

Conventional basic concepts of land administration are affected in three ways:

1. The person: group with non-defined membership
2. The rights: the recognition of types of non-formal and informal rights
3. The object: units other than accurate and established units.

The Social Tenure Domain Model

Person ↔ Social Tenure Relationship ↔ Spatial Unit



Person – ‘Continuum’

- group with non-defined membership
- Group
- Group of groups
- Natural Person
- Company
- Municipality
- Co-operation
- Married couple
- Ministry
- Etc. << can be extended

Social Tenure (Right) - Continuum

- Ownership
 - Apartment - Right
 - Co-operations
 - Occupation
 - Tenancy
 - Possession
 - Miri – Milk – Waqf
 - Restriction Types
 - State Property
 - Etc. << can be extended
- Non-formal and informal rights
 - Customary Types,
 - Indigenous Rights
 - Tenancy
 - Possession
 - (Certificate of) Comfort
 - Disagreement
 - Overlap
 - Uncontrolled Privatisation
 - Conflict situations
 - Etc. << can be extended

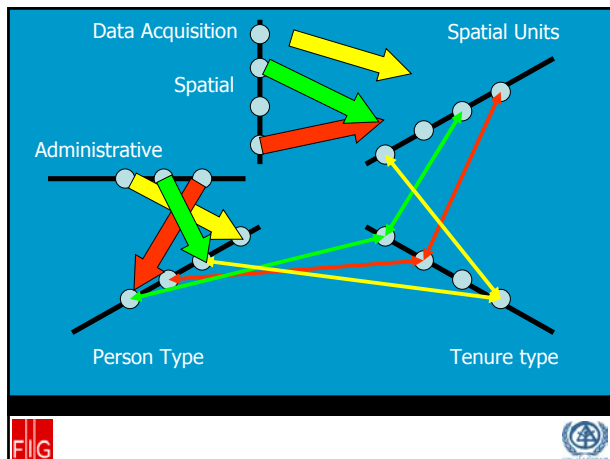
Spatio Temporal rights

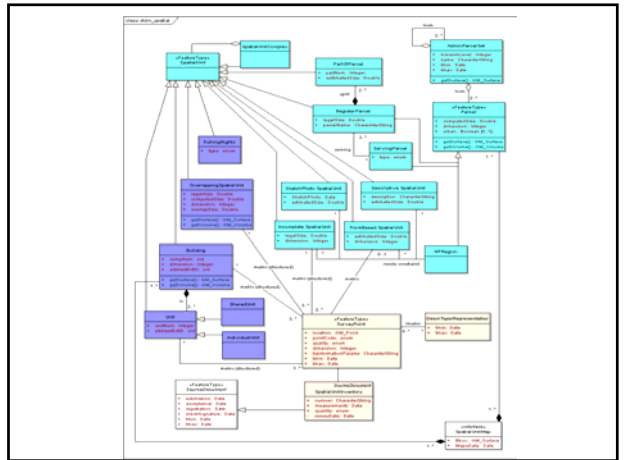
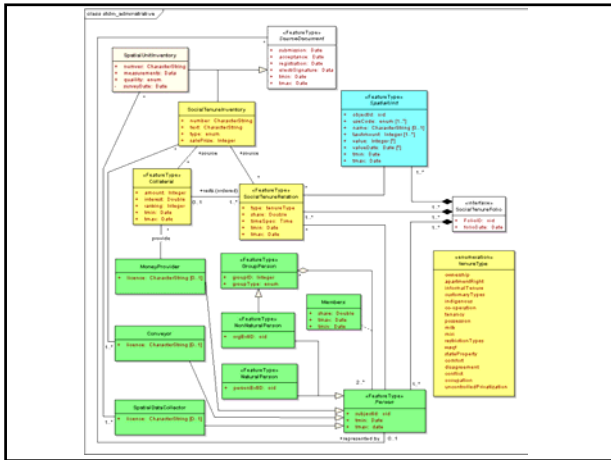
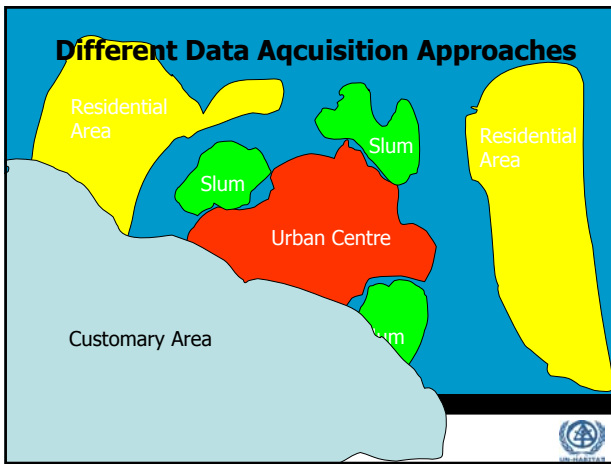
- Long lease (or ownership for limited time)
- **Nomadic behaviors**
- Time-sharing (June:X, July:Y)
- Fishing/hunting rights during certain season

Object (Spatial Unit) - Continuum

- Parcel
 - Apartment
 - Building
 - Etc. << can be extended
- One Point - inside polygon
 - One point - street axes
 - Set of Lines
 - Polygon (low accuracy)
 - Polygon (high accuracy)
 - 3D Volume
 - Etc. << can be extended

•Quality labels





Can STDM fulfill expectations?

- Cadastre/legal systems have bad reputation (sometimes related to colonial times and/or current bureaucracy)
- STDM has to support a range of 'rights': from informal (customary, indigenous) to formal
- The same for persons (variety of types: groups, organizations, natural persons) and register objects (range of parcel descriptions)
- Pro-poor land administration: good quality open source software (databases, web services,...), low cost surveying technology

FIG

UN-Habitat has asked FIG (ITC, Kadaster, TUD) to make prototype

- STDM is a concept, a model not yet an operational system
- Fine tuning of STDM
- Develop software
- Load STDM prototype with real data

FIG

Concluding remarks

- Do not make same the mistakes → apply standards, also in distributed and decentral environment
- Pro-poor land administration: good quality open source software (databases, web services,...), low cost surveying technology



Thank you