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### **HISTORICAL PERSPECTIVE**

- Approximately 15% of households in South Africa are represented on a cadastral diagram, produced in terms of the Land Survey Act.
- Most of the land parcels covering the commercial business and agricultural sectors have been surveyed and are registered in the Deeds Office. There properties are often used for bond finance collateral.
- The demarcation process requires for fairly rigorous procedures to be adhered to for the replacing and placing of new boundary beacons.
- The "formal" cadastral is represented to some extent in a digital cadastral database. There are however some serious problems with a lot of this data:
  - Currency and completeness : Data is over two years out of date in urban areas and even more than that in specific areas in KwaZulu-Natal.
  - Accuracy : Most of the rural areas have been digitised off compilations, hence there are huge inaccuracies especially where river boundaries form the boundaries of farms. Where urban and rural land parcels meet, there are consequently overlaps.
  - History : There is no spatial cadastral history stored with the data hence once a consolidation or subdivision is done there is no ability to recover the data once the update is performed in the SG database. This is hugely problematic when spatially enabling an old database. It is also a problem when joining the data to ownership data because the registration of these properties could take many years to effect in some cases. The 21 digit code does not cater for the parent property hence the remainder of a property and its parent have the same "unique" identifier.
  - Cleanliness : There are still numerous overlapping polygons which typically occur between the remainder of a property and its subdivisions. This is particularly prevalent in a township situation where the remainder comprises the road reserve and all land parcels are subdivisions of the parent.
  - Lack of servitudes : Virtually no servitudes have been captured in KZN.
  - Metadata : The SG cadastral data would be infinitely more usable if the extent of the inaccuracies are known. No metadata exists hence the user is never certain of the accuracy of the land parcel or whether it has been digitised or captured from co-ordinates. Metadata should ideally exist at beacon level with Official Co-ordinate Values (OCV's) being assigned to beacons of certain position.

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# FORCES IMPACTING ON FORMALISING LAND RIGHTS IN SOUTH AFRICA

#### Political

- Land reform policy and expectations
- ♦ Zimbabwe experience
- Opposition from traditional leaders
- "Wall-to-wall" local municipalities
- Co-operation between state and provincial departments
- Lack of shared vision and leadership

#### Economic

- Unemployment in "informal" areas could be more than 60%
- Family resources are very low
- Lack of Government resources
- High cost of surveying using traditional methods
- Lack of capacity in survey industry
- Shortage of skills (surveyors)
- Usefulness of boundary pegs and highly accurate surveys is questionable

### Legislative

- Legislative landscape of South Africa
  - Municipal Structures Act, No. 117 of 1998;
  - Interim Protection of Informal Land Rights Act, No. 31 of 1996;
  - Extension of Security of Tenure Act, No. 62 of 1997;
  - Restitution of Land Rights Act, No. 22 of 1994;
  - Land Reform (Labour Tenants) Act, No. 3 of 1996;
  - The Prevention of Illegal Eviction from and Unlawful Occupation of Land Act, No. 19 of 1998; and
- Community Land Rights Bill
  - The current Statutes referred to above do not require any form of definition of such rights on the ground, and therefore the environment for meaningful interaction between such right's-holders, and with third parties, is severely curtailed.
  - With the publishing for comment of the Communal Land Rights Bill, the State has attempted to give recognition to land tenure rights held by communities in order to give communities, and the members thereof, secure tenure rights, and to deal with the acquisition and transfer of communal land.
  - It is therefore, in the context of this Bill, that the initiative to demarcate the tenure rights should be founded.
  - The Bill provides for the recognition of a community as a jurisdic person. Obviously, such recognition will have several advantageous consequences for such a community.

In particular, until a community is recognised by the Department of Land Affairs as a jurisdic person, it cannot take transfer of the land it is occupying.

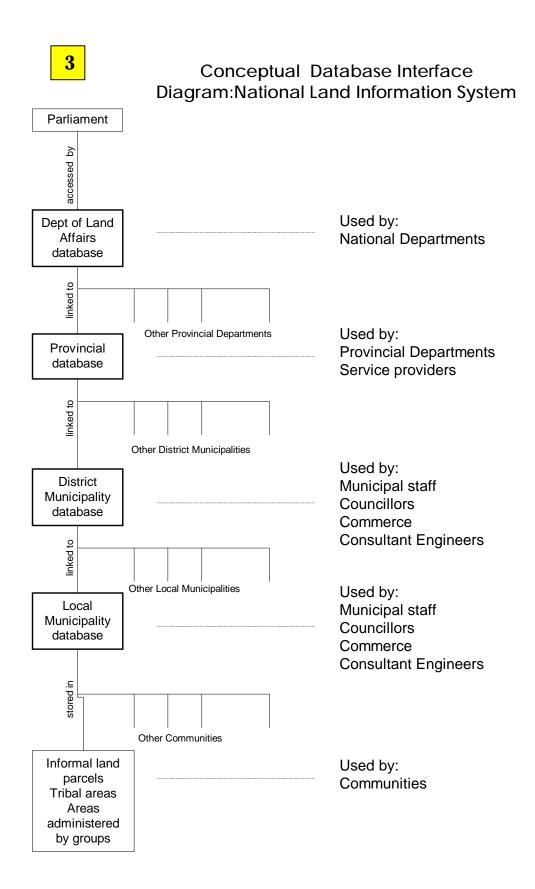
- The Bill provides for the formation of land right's boards which are advisory bodies and which also assist in dispute resolution.
- The Bill deals specifically with the eviction of persons whose land tenure rights have been lawfully terminated by a community. This would be the case where a person is in breach of the community rule. The person may not be evicted without an Order of Court.
- The main concerns lie in the fact that the Department of Land Affairs has serious capacity constraints. This is clearly evidenced by the slow progress in resolving tenure matters in the context of the above-named existing Statutes.

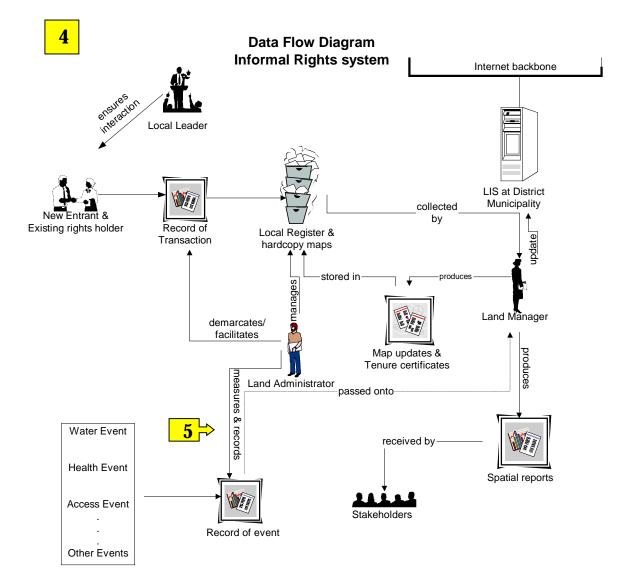
#### **Technology**

- ♦ Advances in IT technology, particularly GIS
- ♦ Advances in GPS and survey technology particularly in the "1m" accuracy field
- Communication technology (networks and the Internet)
- Availability of map data
- Relatively low cost of technology

#### Social

- ♦ HIV Aids
- Crime rate
- Informal settlements are complex structures. There are rules of belonging laid down by each community, individual land rights are subject to community overright. Newcomers must be sponsored.
- Conformance to formal legislative procedures is often not observed
- Rules laid down by community are not static but are manipulated by sub-groups as they compete with each other (Fourie and Davies 1998)
- Indigenous systems of land tenure within urban areas in Africa, adapt to urbanisation via a fluid social field, where land tenure rules are manipulated within a complex of social forces. Competition and negotiation for personal advantage around land rights involves coalition formation and entrepreneurship. (Fourie 1993)







## **DEMARCATION METHODOLOGY**

- Extensive use of trained administrators (members taken from community) who will capture many types of data including:
  - Land rights
  - Water services
  - Health data
  - Land use
  - New roads and tracks
- Use made of modern and cheap GPS equipment Real-time option. Accuracy proven to be within 1m. (new GeoExplorer 3)
- No beacons or monuments physical features used, supplemented by digital photographs
- Introduce new "Class D" category for these surveys to the Land Survey Regulations change in Land Survey Act required
- Land Surveyors take responsibility for accuracy, completeness, data management and dissemination of data
- Connection to existing beacons will not be required
- Diagrams can still be framed, with obvious changes to format and scale etc
- ♦ Vastly cheaper option
- Span of control can be large (land manager to land administrator)

## **STRATEGIC FRAMEWORK**

- Conceptual design
- Buy-in process (national, provincial and local). This needs to be facilitated by the leadership of DLA
- ♦ Design
  - Design of field processes
  - Design of IT processes
  - Design of new legislation that will be required to empower the process.
  - Design of communications and spatial procedures (community to local municipality, local municipality to DM, then DM to provincial, provincial to national)
- Build process
  - Secure funding
  - Procure services of survey industry
  - Implement
  - Training
  - Set-up participation process
  - Demarcate and register
  - Build databases
- Operational Phase
  - Maintain databases
  - Disseminate data

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- Identify the main stakeholders regarding land in the local system and their relationship to each other. Both historical and political relationships should be identified.
- Predict changes in the local tenure system based on the interaction between internal sub-groups and external factors. Special attention should be given to local authority and large development interventions.
- Identify the geographical and relational areas where transactional behaviour and entrepreneurship in land, resulting in changes to the local tenure system, could occur.
- Identify factors that could cause formal tenure to revert to an informal form of tenure over time.
- Monitor changes in settlement land allocation procedures over time.
- Ensure that local authority policies (rules) remain relevant and applicable in an informal settlement.
- ♦ Link the local tenure system to a multi-purpose land record