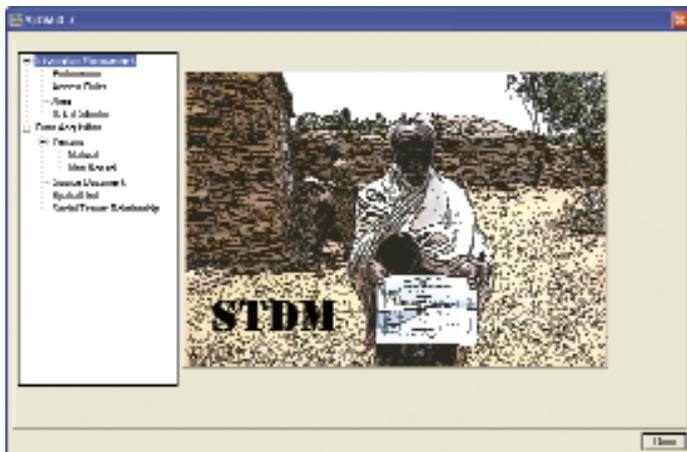# The Social Tenure Domain Model

A pro poor land rights recording system

The Social Tenure Domain Model (STDM) is a multi-partner software development initiative to support pro-poor land administration. The initiative is based on open source software development principles.

The STDM, as it stands, has the capacity to broaden the scope of land administration by providing a land information management framework that would integrate formal, informal, and customary land systems and administrative and spatial components. The STDM makes this possible through tools that facilitate recording all forms of land rights, all types of rights holders and all kinds land and property objects / spatial units regardless of the level of formality.

Not only in regard to formality, but the thinking behind the STDM also makes a departure in terms of going beyond some established conventions. Traditional or conventional land administration systems, for example, relate names or addresses of persons to land parcels via rights. An alternative option being provided by STDM, on the other hand, relates personal identifiers such as fingerprints to a coordinate point inside a plot of land through a social tenure relation such as tenancy. The STDM thus provides an extensible basis for efficient and effective system of land rights recording. The STDM is a specialisation of the Land Administration Domain Model (LADM), previously known as Core Cadastral Domain Model, which is a similar effort initiated by the International Federation of Surveyors (FIG).

People – land relationship

The Social Tenure Domain Model (STDM) describes relationships between people and land in unconventional manner in that it tackles land administration needs in hitherto neglected communities such as people in informal settlements and customary areas. It supports development and maintenance of records in areas where regular or formal registration of land rights is not the rule. It focuses on land and property rights, which are neither registered nor registerable, as well as overlapping claims, that may have to be adjudicated both in terms of the 'who', the 'where' and the 'what' right. In other words, the emphasis is on social tenure relationships as embedded in the continuum of land rights concept promoted by GLTN and UN-HABITAT. This means informal rights such as occupancy, adverse possession, tenancy, use rights (this can be formal as well), etc. or customary rights, indigenous tenure, etc as well

as the formal ones are recognised and supported (with regard to information management) in STDM enabled land administration system. Likewise, the STDM accommodates a range of spatial units ('where', e.g. a piece of land which can be represented as one point – inside a polygon, a set of lines, as a polygon with low/high accuracy coordinates, as a 3D volume, etc.). Similarly, the STDM records all types of right holders ('who', e.g., individuals, couples, groups with defined and non-defined membership, group of groups, company, municipality, government department, etc.).

In regard to evidence, STDM handles the impreciseness and possible ambiguities that may arise in the description of land rights. In a nutshell, the STDM addresses information related components of land administration in an innovative way.

Data acquisition

In STDM enabled land administration, data coming from diversified sources is supported based on local needs and capabilities. This pertains to both spatial and administrative (non-spatial) data. For example, it may be, in informal settlements, sufficient as a start to relate people-land relationships to a single point. Then attributes such as photographs and fingerprints can be attached to the records. In a central business district (CBD) of a city, a traditional cadastral map/register may be required while in a residential area, land administration needs may entail using a map derived from satellite images and combined with formal descriptions of rights and right holders. The STDM encourages and caters for all these variations.

High resolution satellite image is one of the emerging and a very promising source of spatial data for land administration. A large-scale plot of such images can be used to identify land over which certain rights are exercised by the people themselves, i.e., in a participatory manner. As a proof of the concept, World Bank, with GLTN funding, organised and led an exercise in Ethiopia in June 2008 which included doing preliminary test on the feasibility of high resolution

satellite images. The results that came out of this experiment are encouraging. Similar initiatives in other countries like Rwanda are also yielding comparable outcomes.

Prototype

The STDM development activity has thus far generated conceptual, functional, technical designs and prototyping. The next logical step is testing the prototype through a pilot project in a country which has slums, customary tenure, overlapping claims and non-polygon spatial units, etc. The prototype has been developed at the International Institute for Geo-Information Science and Earth Observation (ITC) in close co-operation with Global Land Tool Network / UN-HABITAT and the International Federation of Surveyors (FIG). A World Bank led pre-project (preparatory) activity in Ethiopia is creating opportunities to pilot test the prototype in the context of rural land administration.

Standardisation

FIG has submitted the Land Administration Domain Model (LADM) to the International Standardization Organization (ISO) Technical Committee 211 (geomatics group) with a view to making the model a descriptive global standard. The STDM, as a specialisation of the LADM, is integrated in this standardization exercise.

Acknowledgement

The financial support of Sweden and Norway, GLTN's donors, is gratefully acknowledged as a decisive input that has made possible the development of STDM.

For more information

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The screen shows two plots with field data. The plots have been scanned and geo-referenced. Then the boundary data of the plots (which have been drawn with pen in the field) have been digitised.

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