Land Information and Management Systems: Some Key Issues

Chair's Opening Remarks - D. R. Fraser Taylor Program on LIS for Regional Development Latin America Geospatial Forum

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Land information and management systems vary enormously across the world

Land information systems cannot be separated from the management systems they are designed to inform

 Land is a complex issue and whatever system is put in place to assist in its management must fit the political, cultura and socio-economic context of the country or region concerned. This includes the historical developments of land ownership and reform over time. This is especially the case in Latin America.

Any system which does not carefully consider these non-technical issues is doomed to failure regardless of its technical efficiency or sustainability.

 Land ownership and land use are at the heart of the "raison d'etre" of many societies, e.g. Africa "In Land we Trust"

Burial Custions — David Livingston

 In many traditional land systems there is a distinction between land ownership and land use. One person or group can own the land whereas others can use the land so multiple use of the same land parcel is not unusual.

 Individual land ownership is not the only model. Group ownership is also common and land information and management systems must take this into account. Land reform to give individual title can, in some instances, increase poverty and inequity. Many governments use land information and management systems as a basis to increase the efficiency of government to levy taxes. If people do not see concrete benefits from the introduction of a new system they will not support it and in some instances they will sabotage it either actively or passively.

 Given the context outlined above how should a land information and management system be developed? Location-based approaches are clearly central and there is a large volume of literature on how to go about this. There is value in looking at best practices and learning from those.

Good data and information is an important starting point but data collection and data update is a major challenge. Here in Mexico the experience of INEGI underlines the importance of this. What new methods of data collection are available and can these help?

 In professional terms we need to focus on where the mapping, cadaster and geospatial worlds meet. Many institutions other than the cadastral agencies collect information on land, each for their own purposes. These different datasets need to be linked so that their effectiveness is increased.

"Data silos" need to be broken down.

 Interoperability is key. Technical interoperability techniques have increased dramatically over the last five years, especially with the work of the Open Geospatial Consortium on standards and specifications. Good metadata is essential.

 "Human Interoperability" is equally important but much more problematic. Agencies must be prepared to share data in a meaningful and timely manner. Without a willingness to share effective interoperability is rarely possible.

 The need for transparency and openness
 The increasing move towards open government worldwide. Corruption and misuse of power are a reality worldwide. There are powerful forces which do not wish accurate information on land to be open and available.

 Land information and management systems are inextricably linked with the legal system and these two systems need to be compatible.

Supply-driven approaches are not adequate and must be replaced by demand-driven approaches. A key question here is whose demand? The different players will have different and often contradictory demands, for example governments want to improve tax collection whereas the population often wishes to avoid taxation.

 This list of issues is not comprehensive but hopefully will provide an overview of some of the key issues as a basis for discussion in the particular context of land information and management in Latin America.