

Urban Management Land Information System in Ghana

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Key words: GIS, revenue management, local government

SUMMARY

The Government of Ghana has signed a contract with the Swedish company Swedesurvey for the development of an Urban Management Land Information System (UMLIS) for a selected pilot area in Accra, Ghana. For the implementation of the project Swedesurvey's partner in Ghana, GEO-TECH Systems Ltd., will also be involved.

The main objective of the project is to develop a tool for local governments in Ghana which will contribute to a more efficient collection of land rents and other municipal fees.

The system to be developed should primarily serve urban management and should allow for a step-by-step implementation. The procedures for revenue management should have first priority in the development. However, the system will be designed to be scalable, replicable and allow for adding of functionality making it possible in the future to arrive at a more fully fledged UMLIS that can serve local governments in Ghana.

The pilot area chosen for the project is the area of Ayawaso, Accra. The project will include main components on data capture (geographical and alphanumeric data) and design, development and implementation of the system. In order to set up the database the required data must either be converted from other system's or if not existing it must be collected. The basic information to be handled in the system should be an up-dated digital base map of Ayawaso for identification of parcels, parcel numbers, street and house numbers, information on owners, values of properties, rates to be paid and form of tenure. In case information is not available additional collection of data must be made.

As a first step the design and development of the system will include the procedures for revenue management including billing; procedures for urban land information management (information on parcels and owners); procedures for data capture (database and spatial data storage) and procedures for data access. The system developed should make it possible to present mapping and alphanumeric data combined e.g. in a web-based application combining the spatial data from a map server with attribute data from a database server.

An important part of the project will be capacity building for local staff involved.

The project owner will be the Ministry of Local Government and Rural Development (MLGRD) in co-operation with Accra Metropolitan Assembly (AMA).

The project is financed by the Government of Ghana and the Swedish International Development Cooperation Agency (Sida).

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1. INTRODUCTION

During May 2004 a feasibility study for an Urban Management Land Information System in Ghana was carried out. The objective with the study was to prepare a project proposal for the design, development and implementation of such a system in a selected area.

In the end of 2005 a contract was signed between the Government of Ghana and the Swedish company Swedesurvey for the development of an Urban Management Land Information System (UMLIS) for a selected pilot area in Accra, Ghana. GEO-TECH Systems Ltd., Ghana, will also be taking part in the implementation of the project.

2. FEASIBILITY STUDY

The feasibility study included visits to stakeholders in the land information sector in Accra, Tema and Kumasi. The visits were carried out in order to identify existing problems and needs and to find out what possible contribution could be provided by them to the proposed system. Visits were also carried out in order to look into the situation in regard to land tenure in different areas.

The study was carried out in close co-operation with representatives of the Ministry of Local Government and Rural Development (MLGRD), representatives of the Assemblies in Accra, Tema and Kumasi and Geo-Tech Systems Ltd, Ghana.

3. PROJECT ON URBAN MANAGEMENT LAND INFORMATION SYSTEM

3.1 Objective

The main objective of the project is to develop a tool for local governments in Ghana which will contribute to a more efficient collection of land rents and other municipal fees.

The system to be developed will primarily serve urban management and should allow for a step-by-step implementation. The procedures for revenue management should have first priority in the development. The system will be designed to be scalable, replicable and allow for adding of functionality making it possible in the future to arrive at a more fully fledged UMLIS that can serve local governments in Ghana. Capacity building will be an important part of the project.

It is foreseen that the system will serve purposes that are not of immediate priority for the Land Administration Project (LAP) and that at the same time it will connect well with the structures that will be developed within LAP.

3.2 Pilot area

The pilot area chosen for the project is the area of Ayawaso, Accra.



The following criteria were used for the choice of pilot area:

- Urban area
- Well defined pilot area boundaries
- Mixture of planned and informal settlements
- Mixture of public- and customary land tenure
- Comparatively frequent changes in ownership
- Mixture of different land use

3.3 Purposes and beneficiaries of an Urban Management Land Information System

The assemblies have various processes and activities that require land information and produce land related information. It is therefore of importance to have up-dated and easily accessible information on land. The following table which was put together in the feasibility

study presents some of the process that such a system can serve. The table is however far from complete and other processes could be identified as well.

Purposes that the UMLIS may serve	Processes	Valuable information	Beneficiaries
Planning	Tracking recipients of land Providing advice on land use/rezoning Zoning Development Control Land Acquisition	Topography Information on owners of land Type of ownership/tenure Extent of land/boundaries Location of land Lease Period Zoning Historical background	The general public Lands Commission Assemblies Private entities Research institutions
Revenue mobilisation	Fee fixing Collection of - property rates - building permit fees - fees for parking lots - etc. Collection of ground rent	Location of property Value Owner Size Use	Assemblies - Treasury - Property rate dep. - Licence dep. - Budget dep. - Planning dep. Adm. of Stool Lands
Easy location of properties and people	Response to fire, burglary etc. Collection of utility charges Planning of utility maintenance Delivery of mail, etc	Location of tourist sites and other important facilities Street names House numbers Owners	General Public Security services Utility providers Postal services Etc.
Development control	Development control	Approved layouts of the area Certified site plans Street names House numbers	General Public Security services Utility providers Assemblies (works dep) Land owners
Co-ordination of utility services provision	Co-ordination	Overall development plans	Assemblies Service providers

4. COMPONENTS INCLUDED FOR REALISING THE PROJECT

The project includes components on development and design, data capture, pilot test and capacity building.

4.1 Development and design

The design and development will be carried-out in a step-by-step approach and the system implemented in the selected pilot area. It should be developed in such a way that it later will be possible to replicate to other municipal assemblies. The system will be developed as a GIS-system combining graphic and alphanumeric data.

As a first step the design and development of the system will include the procedures for revenue management including billing; procedures for urban land information management, procedures for data capture and procedures for data access.

4.2 Data capture

In order to set up the database the required data must either be converted from other system's or if not existing it must be collected. The basic information to be handled in the system should be an up-dated digital base map of Ayawaso for identification of parcels, parcel numbers, street and house numbers, information on owners, values of properties, rates to be paid and form of tenure. In case information is not available additional collection of data must be made. Modules for data capture and verification of data capture must be set up.

4.3 Pilot test

The pilot test will include the implementation and test of developed manual and computerised procedures and of the organisation set up to run the system. The pilot test period is planned to start during the second project year. The test will include a mid-term evaluation followed by necessary adjustments.

4.4 Capacity building

Capacity building will be an integrated part during the entire project.

REFERENCES

Feasibility Study Urban Management Land Information System – Project proposal for the development of an urban management land information system in a selected pilot area and implementation of the system in the area

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