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Geo-Property Tax Information System- A Case Study of the Tarkwa Nsuaem Municipality, Ghana

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Presentation Outline

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Problem Definition

- Property Tax has been identified as one of the most important sources of income for the Tarkwa Nsuaem Municipal Assembly (TNMA) and the country as a whole;
- Efficient Property Tax will generate enough revenues to sustain government's social programmes such as the School Feeding, Capitation Grant and the Livelihood Empowerment Against Poverty (LEAP).
- Property Tax revenue mobilization at the local and district assemblies still remains ineffective due to lack of Geo-Property Tax Information System

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Objectives

- To create an interactive and user-friendly Geo-Property Tax Information System (GPTIS) that enables spatial query, visualization, efficient updating and processing of property tax records.
- To ensure that the GPTI System incorporates all spatial and non-spatial details regarding built-up structures for effective maintenance, collection and update of property tax information.
- To provide a Tax Information System that will keep track of both defaulters and non-defaulters.

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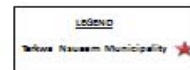
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Study Area

- The Municipality lies on latitude 5° N and longitude 2° W, about 89 km north of Takoradi, the Capital of the Western Region.
- Tarkwa and its surroundings are between two long ranges of hills considered the two limbs of a gold mountain with an average elevation of 300 meters above sea level (Akabzaa and Darimani, 2001).



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Data and Software Used

– Spatial and Non-Spatial Data

- These are geographic data of the area (Tarkwa Nsuaem Municipality) showing landed properties. The geographic data was obtained by digitizing a map of the study area and geo-referencing it in a GIS software.
- These are details not represented on the spatial data. They include specially designed database with information of every property on the spatial data such as type of building (i.e. residential, commercial, industrial etc.), owner's name, date registered, photo ID of owner, home and work address etc.

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Data and Software Used

- Visual Basic (Programming Environment)
- MapObjects - the mapping component software created by Environmental Systems Research Institute, Inc. (ESRI)

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Methodology

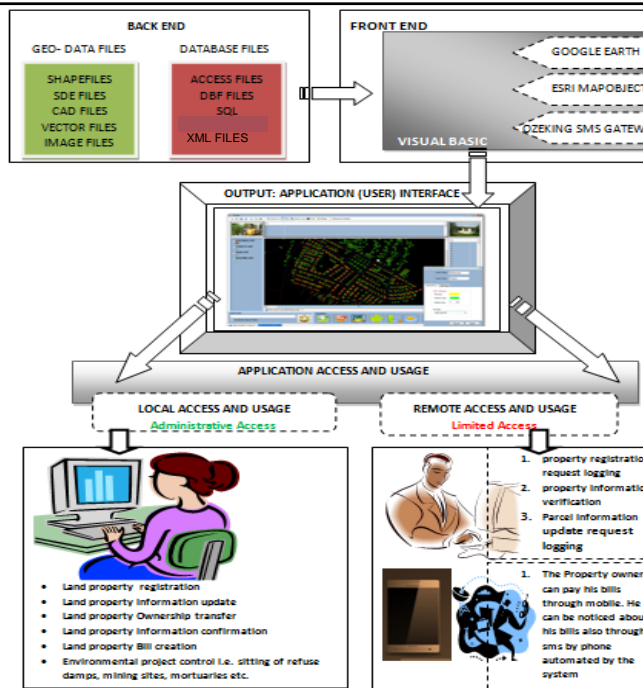


Fig. 1: Application Design/Architecture

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Results and Discussion

The GPTIS, has several functions including:

- Performing Spatial and Non-spatial queries
- Updating existing properties
- Adding newly registered properties by coordinates and by on-screen digitizing

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Conclusions

- This application seeks to bring to the attention of stakeholders of Property Taxation, the need to have a Geo-Property Tax Information System for efficient revenue mobilization.
- The GPTIS provides basic information about a property, including its location, size and owner details.
- The GPTIS will improve revenue collection and promote operations of businesses in general.

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Recommendation

- It is recommended that only authorized staff have access to the administrator password and be allowed to edit Property Tax Information in the System in order to make its records reliable.

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