SENEGALESE LAND REGISTER MODERNIZATION THROUGH OPENSOURCE SOFTWARE

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ABSTRACT

Since 2007, the ADB (African Development Bank) and the European Community financed a project called the "PAMOCA" (Support Project to Cadastre Modernization). This project's goal is calculating indices effectively which will be used by the Ministry of Finances to calculation of the taxes. Within this frameworks, investigations were made on a sample datatset of representative buildings, as these cards of investigations being handwritten, each calculation were carried out manually, lot of errors were often introduced.

GeoLabs have developed, with the support and the knowledge of the Senegalese of Real Estate experts at SADY & THIAM, a Web application which makes possible to simplify the filling of the sheets into database and automating the restitution of calculations.

This application uses an OpenOffice server to produce both HTML forms used to fill or correct data and the restitution of the sheet of calculations through the OOCMS software. The geolocation of the sheets using a piece is carried out using the MapJax application which use Free and Open Source Software such as PostgreSQL/PostGIS, Mapserver and tools provided by GDAL. The application runs on the GeoLive VServer-1.0 environment which was successfully integrated in the existing proprietary environment.

The base data of the GIS provided by the DGID (Direction General of the Taxes) and can be updated using this application. These updated data are then accessible using the OGC Web Services or directly downloadable as flat files using some proprietary format (in this case, ESRI Shape Files).