

Name of the Project	Coconut GIS
Technology	QGIS, C++, PostgreSQL

Business

A 100 acre agriculture farm with coconut plantations had an impending need of increasing the yield by regular tracking mechanism. There was an immediate need of technology to monitor the current yield of land per unit of land per tree.

The system needs to produce result through which the overall productivity, yield and effectiveness of the farm could be increased.

Client

The client owns the farm land and had a formal exposure to GIS systems and knows the advantage of the system that could be devised. Hence inputs needed to the system could easily be traced and obtained.

Challenge

Maintaining temporal data for each geographical feature was the biggest challenge of this project which required complex database design to handle the daily data pertained to geographic features.

Automated Spatial query Wizard was one of the key requirements of the client for which we had to do a complex design of the system to achieve the functionality.

Solution

We provided an open source desktop solution using QGIS. Application was developed as a plug-in on top of QGIS. Programming language used was C++ and PostgreSQL was used for data persistence.

The application has user friendly interfaces to capture data at geographic area or feature level. Following data sets were captured

1. Soil Data
2. Fertilization Data
3. Climatic Conditions Data
4. Productivity Data
5. Irrigation Data

The application has the following tools for production analysis:

1. Sophisticated Spatial Query Wizard
2. Attribute Query Wizard.
3. Report generating tools for generating reports in Microsoft Excel format.

Benefits

The development and implementation was completed on time, at budgeted cost, and yielded greater measured economic benefits than promised. The system is the heart of their farm land operations and by deploying this system the client is reaping a big ROI in terms of high yield in terms of both revenue and growth.

Snapshot of the Application

