A Report on
BHOOMI - Evolution & Revolution of Land Management in Karnataka

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Abstract

Among the various e-governance initiatives of the government of Karnataka, a digitized land records management system known as Bhoomi, implemented in the year 2001, has been a most successful project. Bhoomi has brought about transparency in maintenance and updating of land records. Bhoomi has provided farmers easy access to their land records as it provides printing of the 'Record of Rights, Tenancy and Crops (RTC) as and when required. RTC is maintained, updated by the Government and is needed by farmers for various purposes such as - for obtaining crop loans, hypothecation of land, getting electricity connection, subsidies, sale of land, creating partition deeds, etc.

Introduction

In Karnataka State, the land records were earlier maintained through a manual system, involving 9,000 village accountants, each serving a cluster of 3–4 villages. Nearly 2,500 bank branches in Karnataka loan approximately Rs. 40 billion to farmers as working capital every year. The concept of Computerized Land Records Management Process was first introduced in Karnataka through the BHOOMI initiative in 2001 to bring in overall transparency, effectiveness and ease in the management and maintenance of the Land Records through automation of various processes. The successful implementation of Computerisation of land records under the software Bhoomi has made the Government of India to replicate the same in other states, like Mee

Bhoomi in Andhra Pradesh, E-Dhar in Gujarat, Bhu-Abhilekh in Bihar, HALRIS (Haryana Land Records Information System and Property Registration) in Haryana, Him- Bhoomi in Himachal Pradesh etc.

Objectives of Bhoomi Project

The objectives of the Bhoomi project when implemented by the Govt. of Karnataka were :

- To facilitate easy maintenance and prompt updating of land records.
- Making land records tamper proof.
- To facilitate farmers to have easy access to their records. Construct a database combining all the information regarding land revenue, cropping pattern, land use, etc. To utilize the data for planning and for formulating development programmes.
- Integrating all the land related activities electronically with Bhoomi and to update all ROR with minimum or no human intervention.
- Enabling the usage of Bhoomi database by banks, private organizations and companies (Bhoomi Karnataka-Comprehensive system of Land Management).
- Utilising the data for planning and for formulating development programmes.

Electronic Integration of Bhoomi

Most significant achievement and the transformation of the BHOOMI project has come through the electronic integration with stakeholders like the Registration Department, land acquiring bodies and banks & financial institutions. These electronic integrations have resulted in reducing / removing human discretion and streamlined the various land records administration activities making Records of Right current with respect to various activities happening in the external environment pertaining to land records.

Electronic integration with Kaveri

Implemented solution involves the activities performed at three locations namely, Sub register's office, State Data Centre and Taluk BHOOMI back office to achieve the desired objective.

Sub register's office: For every transaction in a sub-register office with respect to agricultural land, KAVERI application consumes the web services published by BHOOMI in state data centre for entering the transaction details on real time basis. Further, it will submit two sets of data to web services after the transaction is complete. KAVERI software which manages

registration is developed using VB 6.0 and SQL SERVER 2000 as a backend database. Windows Services / Schedulers are used to poll the web service hosted at SDC for offline XML data transfer.

State Data Centre (SDC): hosts all the web services, Windows services / Schedulers required providing ownership details to KAVERI from BHOOMI database.

Taluk BHOOMI back office: A web service to receive XML with complete details of registration transaction from SDC to taluk server is published at Taluk offices.

Electronic Integration with Land acquiring system

- Web pages in the presentation layer for LAO/SLAO activities with web services in the middle tier for business logic and integration with databases. Prominent system features include:
- A combination of windows services and web services are being used for transferring requests to respective taluks for processing in BHOOMI and vice-versa. Electronic data exchange in the form of signed XML.
- Digitally signed and bar-coded notification for easy verification by accepting authority
- Automatic initiation of mutation application in BHOOMI on successful verification of XML notification.

Electronic Integration with Banks

- Solution includes a website, a scheduled job and few web methods
- Website – Website is for banks to raise requests for the charge creation or release of charge has been hosted in SDC (State Data Centre of GOK) and banks can connect through the internet to this web site.
- BHOOMI Monitoring Cell which has super administrator privileges would create administrators for individual banks.
- Application connects to BHOOMI database in SDC to give details of ownership to banks. After bank users create the transaction using BHOOMI data, software generates the XML of the transaction and prompts for digital signature. Once XML is digitally signed, it will be stored into the database at SDC for further processing.

Main Findings of the study

• Access to Records of Rights, Tenancy and Crop (RTC) : Farmers need a copy of RTC for various purpose, such as obtain a crop loan, bank loan, subsidy for manure, to construct drying yard for coffee, to dig bore well, to buy plants in coffee board, to obtain income certificate, and to receive numerous types of government benefits, compensation for elephant menace or for crop loss. Earlier in the manual system of record keeping Jamabandi was issued by village accountants, who were in charge of 3-4 villages.

• Awareness about land records available on the web portal- Though respondents were aware of the computerisation of land records, only few young respondents had accessed the land details through web portal. Those who had accessed the land details, had mainly done it to keep a track of their ownership, to check if crop details were updated in RTC, to purchase land and to check the mutation status.

• Accuracy- RTC is the primary evidence of ownership of property, it provides information on extent of land, survey number, type of crop grown, revenue rate determined on land, irrigation facilities, loans taken by the occupants on the land, etc. For any transaction on land, whether it is taking loan from banks or selling / purchasing of land, the land records need to be accurate. Agriculturists are of the opinion that RTCs are not all accurate. Wrong entries of name, acreage of land still persists. And a long cumbersome procedure to get the wrong entries corrected requires many visits to the taluk office.

• Manipulation of land records-Earlier to computerisation of land records, land titles were unclear and poor administration of land records, led to several legal disputes related to land ownership. Farmers could obtain falsified crop records from village accountants to claim various government benefits. Agriculturist was of the opinion that after computerisation of land records manipulation of land records has come down. As computerisation of land records has reduced the discretion of village accountants to issue the records of rights. It was reported that in manual records, it was easier for agriculturists to prepare wrong records by paying bribes to the village accountants. The common form of manipulation was increase in acreage of land to get loans. With the computerised land records crop data printed on the RTC which is the only document that can be used to obtain loan and claim benefits of various government schemes.

• Transparency of land records-Computerisation of land records has brought about transparency in land records. The respondents were of the opinion that computerisation of land records has led to transparency and clarity in land related information. Earlier in the manual records keeping system, issuance of Jamabandi was at the discretionary powers of village accountants and was not open for public scrutiny. In the manual Jamabandi, as the loan taken from banks on a land was not mentioned, there were chances of taking loans from different banks on the same land. With computerisation, every loan on a particular land is printed in the RTC, so agriculturists

cannot take loan more than once on the same piece of land. The online integration of Bhoomi and Kaveri ensures there is no fraudulent transaction. With computerisation, the RTCs are available for viewing on the web. The purchaser can be sure of the seller and extent of land in a particular survey number, thereby be sure of his safe investment.

• Encroachment of government land- Respondents were of the opinion that with the computerisation of land records the encroachment of forest land, land granted to Schedule caste, Schedule tribes has come down. This is because the agriculturists cannot manipulate the land records under the computerised system of land records keeping.

• Bribery- Field study reveals that the computerisation of land records has taken away the discretion village accountant to issue land records, as a result bribery at the grassroots level has come down. In the manual system of record keeping agriculturists had a chance to manipulate the land records by paying money to village accountants. With computerisation of land records, bribery has shifted to top brasses of the organisation.

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