# BEST PRACTICES OF ICT FOR DEVELOPMENT IN SOUTH ASIA: A STUDY ON KARNATAKA'S BHOOMI PROJECT IN LAND ADMINISTRATION

**Article Particulars:** Received: 08.12.2017 Accepted: 05.01.2018 Published: 20.01.2018

**Dr. D. PURUSHOTHAMAN**
*Assistant Professor, Centre for South Asian Studies*
*Pondicherry University, Puducherry, India*

**Abstract**

*South Asian Region is a pretty much entirely agrarian economy; nevertheless, the service sector flourished in India due to the Information Technology Revolution that coincided with 1991 reforms. Thus, Information Technology Development has been synonymous with good governance in India. This study cognizes the land dependency of the agrarian economy and its related disputes, thereby affirming the various e-governance initiatives for land administration. However, this study primarily deals with the Bhoomi Project and how it serves to be a best practice for fostering democratic principles in Land Administration at the South Asian Region and the Global Level, thus elevating India's Global Stature. Therefore, this study moots the concern of what are the lacunas concerned with the Bhoomi project in Karnataka's land administration? Thus, this paper argues that the Bhoomi project is a best practice stemming from South Asia, which serves for a vibrant and objective land administration, thus facilitating Ease of Doing business.*

***Keywords**: ICT, South Asia, Karnataka, Bhoomi Project, and E-Governance*

## Introduction

South Asia1is predominantly an agrarian economy, despite various obstacles it has made impressive achievements since the late nineties in the domain of agriculture. The productivity of agriculture largely depended on safe and secure land rights. Secure access to land and land-related information is widely considered to be a condition for poverty reduction and economic growth. Against such a context, South Asian countries have been making efforts to harvest the benefits of ICT2for development. South Asia is an agriculture-based economy;the land becomes a vital asset as it is not only a necessity for the existence of a state but also for residency and other human activities. The land is of undeniable importance as a static economic value and also in terms of its produce. (De et al., 2004) However, the issue of land and land administration is as old as civilization. The land is traditionally regarded as sacred,humanized, and socialized. It is not liable to be simply disposed of like other objects (Gbaguidi 2010). It is for these reasons that the role of land in the economy of each nation is not always obvious, but is of great significance. Socio-economically the land means right in or over land lent occupancy which includes the relation of the land owner and occupant and the collection of rents, transfer, and alienation of agricultural land (Sudhir Krishna 1997:17). However, the Indian story of land administration particularly in the sphere of land records is different. In India, land and its management fall within the purview of the States. According to the entries of 18 and 45 of the State List of the Seventh Schedule of the Indian Constitution, the States enjoy full power over the matter of land. However the maintenance of land related records did not predominantly make it to the priority list of the government in its five-year plans. (Chawla&Bhatnagar, 2004) In the words of Justice V. R. Krishna Iyer “Every working day of the court hundreds of thousands of persons, many with empty stomachs, wait in different courts of the country from morning till evening for seeking redressed of their land disputes. We have more lawyers than doctors in the country.” In a similar way, the Supreme Court of India stated that “Revenue records are not at all documents of the title because the millions of productive man-hours of the Court were lost in time-consuming litigation”.Even though the management of everyday land related records makes an important part of administrative functions it was majorly neglected.

This aspect came into the attention of both the central and state governments in the nineties. Because the administration of any land based function is facilitated by a well maintained documentation of the property across the country. As a result, the governments strived to maintain computerised land records of the country with the usage of Information and

Communication Technology (ICT). Bhoomi3is such an e-initiative scheme adopted by the government of Karnataka. Digital India Land Records Modernization Programme-MIS 2.0 which the Government of India acknowledges Bhoomi as a very significant application for digitization of land records.

The Information and Communication Technology (ICT) penetration has brought significance to good governance. South Asian Region is a club of developing economies that have been making efforts to harvest the benefits of ICT in every aspect of life. E-initiatives such as e-Kranti, Digital India have made an enormous impact on the lives of its Indian citizens by easing the interactions of Government - Government, Government - Business, Business - People, etc. Karnataka is one of the significant rural-agrarian economies of India. Its 61 percent population still lives in the rural area, and out of that, 55 percent engaged in agriculture. As the agricultural economy depends on land, issues centric on soil fertility, land records, and land administration are crucial. Considering the increasing number of land disputes followed by its litigations, there is precedence to the importance of land records.

The State has been making attempts to reap the ICT's potentialities to address the problems of land related administration. Thus, there would be a mechanism for Alternative Dispute Resolution and Smooth Disposal Land Related Grievances. Hence for an efficient administration of land records an e-governance4scheme named Bhoomi has been introduced by the state of Karnataka. It resulted in a digital update of 20 million data related to the ownership of land for 6.7 million farmers in the year 2001. However, merely the computerization of land records is not sufficient for the effective and efficient delivery of services. The State further has taken many e-initiatives such as Kaveri5, Mojini6, and Crop Updating, etc., to resolve the challenges that are hunting land governance and meeting the growing needs of farmers. These initiatives have brought remarkable changes in the State's land governance and the people's socio-economic lives. Despite this fact, many issues related to land administration remain unexplored. Thus, keeping the principles of a conclusive land titling system in mind, using secondary data and document analysis from the archives of the Government of Karnataka, this study moots a question of what are the lacunas concerned to the Bhoomi project in Karnataka's land administration? Thus, this paper argues that the Bhoomi project is a best practice emanating from South Asia, which serves for a harmonious and objective land administration, thus facilitating Ease of Doing business.

**Bhoomi Project Promotes E-democracy**

The agricultural land in Karnataka is largely managed in three ways i.e. through the Survey, Settlement and Land Records Department (SSLRD), Department of Stamps and Registration (DSR), and Tahsildar Offices (TO).These above mentioned departments fall under the administrative control and supervision of the Department of Revenue, Government of Karnataka.

Bhoomi is a comprehensive online land records management system. This database is designed and developed for accessing land records of Karnataka. The project was launched in 2001 with the ambitious goal of digitalization of twenty million handwritten land records of farmers of Karnataka. This project was taken as a part of Computerization of Land Records (CLR) and it was technically assisted by the National Information Centre (NIC) and funded by the Govt of India. An amendment was also brought to the Karnataka Land Revenue Act-1964 to recognize the computerized RTCs. Karnataka Land Revenue (Amendment) Rules, 2002 came into force from June 2002 and computer-generated RTCs got legal sanctity. The main purposes of the project include providing temper proof land records, combat corruption and effective maintenance of land records and thereby ensuring transparency in the land administration of the State.

Many studies reveal that the Bhoomi project of Karnataka successfully served to propose to a large extent. Prior to this project, there were never-ending land disputes and there were hardly error-free land records and land records were prone to manipulation. More importantly, farmers had to face a lot of difficulties in accessing land records. Most of the time they failed to proves ownership of land in the court and banks. From the administrative side, the land records were initially documented on paper by a substantial number of accountants. (approximately 9,000) They were keeping a track of 3 to 4 villages through maintaining a bunch of registers to document the following categories of information: 1) Details regarding the present exclusive rights over a

plot of land, its measurements, cropping pattern and if any quarrels on it 2) Village maps to chart out the exact dividing line of each patch of land. (Chawla&Bhatnagar,2004)

Over a period of time, these issues resulted in huge land scams, mafia, and unsolved land disputes. To put an end to these problems efforts were made to harvest the fruits of Information and Communication Technology (ICT). In fact, Bhoomi is the product of these efforts which eventually emerged as a panacea for all the problems. So far, Bhoomi has digitized the land ownership of 6.7 million farmers in the state. The Record of Rights Tenancy and Crops (RTC)7is considered to be an important computerized document of land being distributed at a single stop at a minimal rate of INR-15. Bhoomi has received positive reviews both at the domestic andinternational level and bagged several awards for its effective implementation. Some of the major features of the Bhoomi Project are: Remote Access (Citizen-Centric Service Delivery), Virtual Updation of Land Record, Aadhar enabled biometric verification, secured land record generation, and transparency in land titular change. The applicability of the Bhoomi project to the farmers and land-oriented occupations like real estate, grazing, cattle rearing, sericulture is as follows:

1. Farmers can obtain RTC on a real-timebasis
2. RTC acts as a socio-economic identity proof offarmers
3. It is easy to get a loan from the bank by producing RTC
4. It helps in settlement of cases in court
5. It is easy for maintenance forofficial
6. It enables quick and easy access to documents for various purposes
7. It helps in overseeing government land
8. It provides information to the bank and other financial institutions

The State has made a significant achievement by the digitization of 15,913,341 RTCs of 29,527 villages. Almost all the villages of thirty districts of the state were covered under the computerization of land records. The following table depicts the district-wise computerization of land records.

**Table 1 Computerization of Land Records (CLR)-Karnataka**

| S. No. | District | Total No. of ROR | Villages Total No. of Villages CLR | | | |
|---|---|---|---|---|---|---|
| | | | Completed | | Ongoing | Not Started |
| | | | No | % | | |
| (1) | (2) | (3) | (4) | (5a) | (5b) | (6) | (7) |
| 1 | Bagalkot* | 449,114 | 626 | 626 | 100.00% | 0 | 0 |
| 2 | Ballari* | 688,664 | 635 | 633 | 99.69% | 0 | 2 |
| 3 | Bangalore Rural* | 336,642 | 1,054 | 1,053 | 99.91% | 0 | 1 |
| 4 | Bangalore Urban* | 195,626 | 614 | 603 | 98.21% | 0 | 11 |
| 5 | Belagavi* | 1,082,878 | 1,301 | 1,288 | 99.00% | 0 | 13 |
| 6 | Bidar * | 285,699 | 623 | 623 | 100.00% | 0 | 0 |
| 7 | Chamarajanagar* | 346,614 | 509 | 509 | 100.00% | 0 | 0 |
| 8 | Chikkaballapura* | 461,403 | 1,515 | 1,513 | 99.87% | 0 | 2 |
| 9 | Chikmagalur * | 400,893 | 1,117 | 1,117 | 100.00% | 0 | 0 |
| 10 | Chitradurga * | 489,669 | 1,065 | 1,063 | 99.81% | 0 | 2 |
| 11 | Davanagere * | 368,378 | 846 | 844 | 99.76% | 0 | 2 |
| 12 | Dharwad* | 351,848 | 379 | 379 | 100.00% | 0 | 0 |
| 13 | Gadag * | 272,964 | 337 | 337 | 100.00% | 0 | 0 |
| 14 | Hassan * | 987,436 | 2,585 | 2,582 | 99.88% | 0 | 3 |
| 15 | Haveri * | 413,824 | 704 | 702 | 99.72% | 0 | 2 |
| 16 | Kalaburagi * | 470,785 | 922 | 921 | 99.89% | 0 | 1 |

| | | | | |
|---|---|---|---|---|
| 17 | Kodagu * | 206,868 | 297 296 99.66% 0 | 1 |
| 18 | Kolar * | 544,654 | 1,804 1,802 99.89% 0 | 2 |
| 19 | Koppal * | 331,536 | 631 631 100.00% 0 | 0 |
| 20 | Mandya* | 1,334,034 | 1,479 1,477 99.86% 0 368 345 93.75% 0 | 2 |
| 21 | Mangaluru * | 688,130 | 1,355 1,345 99.26% 0 886 884 99.77% 0 | 23 |
| 22 | Mysore * | 700,080 | 874 872 99.77% 0 1,530 1,530 100.00% 0 | 10 |
| 23 | Raichur * | 455,973 | 2,717 2,715 99.93% 0 257 239 93.00% 0 | 2 |
| 24 | Ramanagara * | 434,455 | | 2 |
| 25 | Shimoga* | 354,148 | | 0 |
| 26 | Tumkur * | 1,188,992 | | 2 |
| 27 | Udupi * | 762,002 | | 18 |
| 28 | Uttara Kannada* | 465,551 | 1,289 1,285 99.69% 0 | 4 |
| 29 | Vijayapur a * | 586,474 | 692 692 100.00% 0 516 513 99.42% 0 | 0 |
| 30 | Yadgir * | 258,007 | | 3 |
| | **Total** | **15,913,341** | **29,527 29,419 99.63% 0** | **108** |

* Data extracted in column no. 3(Total No. of ROR) is integrated with the State/UT Land Records database

Source:

https://dilrmp.gov.in/faces/rptdistrictwisephysical/rptComputerizationOfLandRecord.xhtml?statecode=29

However, the study attempts to analyze the success story of Bhoomi based on principles of Conclusive Land Titling System (CLTS)8along with a single window system. 1. Single Window System

2. The Mirror Principle
3. The Curtain Principle
4. The Title InsurancePrinciple

**Single Window System**

For effective and efficient management of land records, a single-window system is a prerequisite. The National Land Records Modernization Programme (NLRMP)-20089began a single-stop digital platform to maintain the documentation in an organised fashion. It is a single-window system that persistently approves land related details. Undoubtedly, Bhoomi meets all these conditions and serves as a single online platform for land records. To meet the needs of farmers, Karnataka has opened service centres at a different level including taluk, hobali, and panchayat level. There are also kiosk centres to issue RTCs at the taluk level. More than 900 Atalji Jana Snehi Kendra (AJSK)10are involved in the distribution of RTCs at hobali level along with six thousand Grama Panchayath Centres across the state. The online portal of Bhoomi provides not only RTC but also the details of mutation, revenue maps, disputes cases and public land and lakes. Services at the single window point avoid multiple visits which save time and money for farmers. More importantly, Bhoomi data has been linked to various agencies including bank and land acquisition authority. This helps them fetch the data from the mega source and meet the needs of citizens.

**The Mirror Principle**

As far as land records and administration is concerned the mirror principle plays a vital role. According to this principle, cadastral records must reflect the ground reality. In other words, the particulars about the rights and constraints faced by the owner of land or any other dependents must be accurately shown. This helps the purchasers to know the condition of the land before purchasing. Interestingly, The Bhoomi (Computerization of land records) is linked with Kaveri (Registration after verification) and Mojini (Measurement of properties). This integration reflects the actual picture of the land. Both buyers and purchasers can cross-check the status of the details of the land. In fact, the RTC has elaborate details of landowner details of the type of land, area of measurement, water rate, soil type, agricultural, commercial, non-agricultural residential flood area, and nature of possession of land, liabilities, tenancy, and crops grownintheland.Itiscurioustoknowthatmorethan25croresRTCshavebeenissuedeversince it was launched. An average of 12 lakhs mutations has been approved annually. Though the minimum charge has been fixed for collecting records, it is a good source of income for the government. Nearly 25 crores have been collected in the form of user charges every year. If any discrepancies arise in the documents there is a provision for correction through the mechanism. Kandaya Adalat11is one such initiative initiated by Karnataka to resolve issues related to land. It ensures farmers of villages find solutions to sixteen types of issues related to their land records at gram panchayats level without traveling to offices at the taluk and district level. Mismatch in the measurement of land, correction in names of title deed owners, correcting errors in survey numbers, mutation numbers, rectifying cultivation details, disposing of heirship cases and other cases will be disposed of in the Adalat. The Assistant Commissioner of the subdivision is the competent authority to conduct this Adalat. He will be assisted by revenue officials including Village Accountants12and Village Assistants of the respective villages. The correction order will be issued at the spot to the concerned farmer. Thus, it can be said that the digitization of land records of Karnataka matches with the principle of the mirror to a large extent.

**The Curtain Principle**

This principle states that the title in record must show an appropriate picture of the land's ownership.There must not be any ambiguity during the mutation and registration of the property. Very importantly, the purchaser should not depend on previous or records for validation or reference. Interestingly, the RTC issued by Bhoomi has a separate column that indicates the past and present ownership of land. Since Bhoomi software is linked with Kaveri (Registration after verification) and Mojini (Measurement of properties) it is easy to trace any fraud and hidden transaction of land. Bhoomi- Kaveri integration ensures that certain land is free from selling and also verifies court order and mortgage. Once this process is completed the mutations are initiated automatically.

This history of land transaction not only helps in automated mutation and registration but also saves time of reference. This interlink reduces manual mistakes and ensures an error-freedocument. If any problems occur in the process of mutation, one can rely on the '11E'13sketch

which describes the boundaries of an existing survey number. Because this sketch is also knownas a pre-mutation sketch and assures availability of land for alteration and makes it possible to update the records after the transaction is confirmed. Similarly, there is a provision for Phodi14Sketch. This sketch gives a picture of the dividing lines of each plot that are proposed during a survey. Another important record called 'Hadbust15' sketch depicts the exact boundaries of individual holdings. An updated version of Mojini II was launched on 1 November 2013which allows the users to obtain 'hadbust' and 'phodi' sketches too.To ensure that legitimate sketches are used during registration a merger between Kaveri and Mojini is significant. More importantly, these sketches are system generated by using Bhoomi software, and manual sketches are not allowed. This protects not only the interest of the buyer but also minimizes the issues related to land boundary and extent. Therefore, the specifics of the registration show the legitimacy of the entitlement which is similar to the curtain principle. An individual can apply for land with bare minimum reference of records by solely depending on RTC generated by a database provided

online. Another interesting feature of the Bhoomi is its data has been linked with banks. As a result, farmers need not produce even a hard copy of RTC for availing of the loan. Banks can easily access data from Bhoomi online platform and confirm the details of ownership and default and disburse loans according to the actual details of the land and crops.

**Title Insurance Principle**

Title Insurance principle is about the guarantee provided by the State. It safeguards stakeholders against monetary loss caused by any errors in the title of the property. When it comes to the Bhoomi project, it is very difficult to manipulate data as it has adopted an advanced biometrics login system that prevents such attempts. There is a unique provision called first come first serve. This avoids unnecessary delays in service delivery and favoritism. Another interesting feature of Bhoomi is its data has been linked to various agencies including banks and land acquisition authority. For illustration, the land acquisition process happens online. All the details of RTC will be entered once the land acquisition process begins. Thereafter, transaction or alienation of land cannot be possible.

Integration of Bhoomi-Kaveri-Mojini16ensures accuracy and accessibility of land title records at a finger point as the data of the land is linked with three agencies that deal with land. Thus, the application of ICT in the land administration of the State has enhanced transparency, accountability & speed in delivery of services. However, the e-initiative taken by Karnataka is not free from errors. There are some serious issues that need to be addressed for further advancement. Bhoomi's golden success must not be mistaken to be absent of any fallacies as it also flows with the already existing mechanisms of the government. (De &Sen, 2004). Thus, the limitations of Bhoomi are as follows:

**Violation of Privacy**

There is no doubt that Bhoomi has made considerable changes in the land administration of the state particularly in the domain of secured and reliable land records. However, it is not free from flaws. It is said that it compromises with the policy of privacy of an individual. Though the land administration of state claims open access to information in the name of transparency, there are possibilities of misuse of personal and land details. There is no restriction in accessing land records and information related to somebody. Anyone can retrieve any land information even if it does not belong to them just by entering a survey number.

**Increasing Importance of Village Accountant**

The village accountants are the primary source of information to be fed in the computerized systems. Therefore, they still hold a slight upper edge in the process. If the difference of opinion occurs in establishing the ownership of land, it is the village accountant who plays a major role in deciding the case. Thus, there are more chances for manipulations of land records which are against the mirror principle of land. As aresult,

**Inbuilt Errors**

One of the major defects of Bhoomi is mass errors that are committed at the time of digitization of land records. These wrong entries have complicated the issue rather than solving it.Thus,inordertoestablishtheveracityofthedocuments,onehasdependedonsomeotherdocuments and this will lead to pillar to post running. This systematic error has become a big headache for both officials and citizens.

**Absence of Digital Map**

The project contains merely an identity slip of land information and fails to provide a digital map of farming land. The preparation and management of maps of land parcels still remain a manual process. This is against the principle of curtain and title insurance. One has to depend on various documents to prove ownership or claim loss occurred due to wrong land records.

**Conclusion**

In an economically accelerating society, a well-developed computerised land management system contributes towards its progress. The ICT initiative of Karnataka is not merely computerization, updating, and maintenance of land records. Rather it provides a comprehensive and reliable database for various agencies of the government for different purposes. Real-time-based land records for its citizens are a milestone in the land administration of the State. Hassle-free access to digital land records saves citizens from harassment of government functionaries. Interconnectivity between land records and land registration system paves way for automatic mutation which reduces the scope of fraudulent property deals and property disputes. In a nutshell, Karnataka has been making relentless efforts to realize the concept of Integrated Land Information Management System which fulfills the criteria of absolute land title deeds. If the State successfully completes the integration of textual records with spatial records with the help of advanced information and communication technology, it is a revolution in the land administration of the State. In brief, the success story of Bhoomi of Karnataka is the best lesson for other agrarian societies and economies of South Asia.

**References**

1. Chawla, R., &Bhatnagar, S. (2004). Online delivery of land titles to rural farmers in Karnataka, India. Reducing Poverty, Sustaining Growth—What Works,What Doesn't,and Why A Global Exchange for Scaling Up Success, 1–27.
2. De, R., & Sen, C. (2004). The complex nature of e-government projects: A case study ofbhoomi, an initiative in Karnataka, India. Lecture Notes in Computer Science(Including
3. Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 3183, 556–557. https://doi.org/10.1007/978-3-540-30078-6_99
4. De, R., Sen, C., Centre, N. I., Centre, N. I., C, W. D., Chawla, R., … C, W. D. (2004).
5. Guaranteeing Title to Land - A Preliminary Study.Economic and Political Weekly, 24(Oct. 14), 1–27. https://doi.org/10.1007/978-3-540-30078-6_99
6. (n.d.). Retrieved from Digital India Land Records Modernization Programme : https://dilrmp.gov.in/# (n.d.). Retrieved from Government of Karnataka: https://rtc.karnataka.gov.in/Service78/ (n.d.).
7. Retrieved from Kaveri Online Services: https://kaverionline.karnataka.gov.in/ (n.d.). Retrieved from
8. http://bhoomojini.karnataka.gov.in/
9. (n.d.). Retrieved from https://landrecords.karnataka.gov.in/
10. Etzioni, A. (2015). Privacy in a Cyber Age: Policy and Practice. New York: Palgrave Macmillan. Lynn, W. J. (2010). Defending a New Domain: The Pentagon's Cyberstrategy. Retrieved from Foreign
11. Affairs: https://www.foreignaffairs.com/articles/united-states/2010-09-01/defending-new-domain
12. Mittal, P., & Kaur, A. (2013). E-Governance - A challenge for India. Journal of International Affairs, 1196-1199. Available at:http://egovstandards.gov.in/sites/default/files/IJARCET-VOL-2-ISSUE-3-1196-1199_1.pdf
13. Smythe, E., & Smith, P. J. (2002).New Technologies and Networks of Resistance. In E. H. Potter, Cyber-Diplomacy : Managing Foreign Policy in the Twenty-First Century (pp. 48-82). Québec: McGill-Queen's University Press.

**Endnotes**

1. South Asia includes the countries of Bangladesh, Bhutan, India, Pakistan, Nepal, and Sri Lanka Afghanistan and the Maldives.
2. CT includes wireless networks, cell phones, internet and other information communication mediums.
3. Bhoomi is a flagship project of Karnataka State Government and is a land records management system which received worldwide attention. Under this project, all the manual

RTCs which prevailed at the time of data entry were digitized and made accessible to the citizen.

4. e-Governance means electronic governance. It is the application of information and communication technology (ICT) for providing government services to the citizens in a hassle-free manner.
5. KAVERI means Karnataka Valuation and e-Registration. It aims at providing a one-stop online solution for all registration related services after verification and making quick delivery of citizen-centric services.
6. Mojini literally means measurement of properties. It is a web-based application software which processes the entire issuing permutation sketch, hadbust and phodi is made transparent, automated and works on First In First Out (FIFO)basis
7. RTC means Records of Rights, Tenancy & Crops also referred to as Pahani. It is an important land document issued to the actual land owner. It consists of sixteen pieces of information related to land such as information about the land owner, type of land and soil, crops grown on the land, area of the land, nature of possession, liabilities such as bank loans on the land and tenancy
8. Conclusive land titling system is a type of land titling method followed in many countries. Under this method the State will provide a guarantee on land titles, take the responsibility for accuracy and and records designate actual ownership. If any dispute arises claimants will have to settle disputes with the government, not the title holder.
9. National Land Record Modernization Programme (NLRMP), was launched in 2008 with the aim of digitization and modernization of land records and developing a centralised land record management system. Presently, it is known as Digital India Land Record Modernization Programme(DILRMP).
10. Atalji Jana SnehiKendras (AJSKs) were established in 2012 at the hobli level with the purpose of transparent, reliable and afordable service delivery to citizen services. The Commissioner Survey Settlement and Land Records will monitor, facilitate and of er technical guidance down the line for the effective project implementation across the state.
11. KandayaAdalat is an on-spot and one-time solution programme for farmers who are facing mistakes in the RTC documents. It will be conducted at the Assistant Commissioners' level and Taluk level to solve the problems related to land.
12. Village Accountant is a village level functionary of the revenue department who plays a key role in maintaining and updating land records. He was aided by Village Assistant in executing revenue services.
13. 11E sketch shows boundaries of an existing survey number (plot number) within which the part to be conveyed etc. is marked out. This sketch assures availability of land for mutation and enables updating the land records on confirmation of the transaction.
14. Phodi Sketch depicts the proposed boundaries of individual holdings with in an existing survey number. As per RTC, specific extents within a survey number are held by different parties, but individual boundaries are not demarcated, it is a multiple owner RTC
15. Hadbust shows boundaries of individual holdings.
16. Integration of Bhoomi-Kaveri-Mojini involves sharing of data between the respective application systems manually or through interfaces between the same. The basic unit of reference for all transactions is the survey number. Transactions of land require the coordinated efforts of the three entities namely Tahsildar Of ices (TO), Department of Stamps and Registration (DSR) and Survey, Settlement and Land Records Department (SSLRD.