e-Service Delivery of Authenticated RoR by Integrating Jamabandi and Cadastral Maps - Haryana Perspective

Any citizen can't be more concerned about anything other than land because it is his source of income, valuable immoveable property or a place of dwelling. What to talk about citizens, even institutions, corporate bodies or societies are equally concerned about land. The fact that this concern affects citizens very deeply and almost universally increases the importance of land administration. Moreover, manipulation of revenue records hurts both rich and poor alike. In reality, the image of governance is created by the performance of land administration, which is facilitated by state revenue department through maintenance of land records, registration of property transactions & updating of records through mutations and Cadastral maps.

The Department of Revenue and Disaster Management, Government of Haryana deals with maintaining and updating of revenue records, transaction by way of sale, mortgage, collection of revenue, consolidation of holdings, etc. The functionaries of Revenue department come into close contact with general public in connection with various activities/ transactions dealing with immoveable property. The department also operates a large number of Acts and Rules, which have a direct bearing with the public. The department plays a crucial role in matters fundamentals to the existence of the citizen. The perception of the general public, especially rural masses, about image of the state government is, to a large extent, determined by the performance of Revenue department and the way the revenue functionaries' deal with the citizen.

To improve accessibility, stop manipulation and enhance efficiency of the land record system. Govt of India has launched NLRMP (National Land Record Modernization Programme) with a primary objective of end-to-end computerization of land records.

The Registration offices were computerized in the year 2003 by using the HARIS (Haryana Registration information System) software, developed by NIC, HRSC. Further, for the Computerization of Land Records the HALRIS (Haryana Land Records Information System) software is being used. Out of 7081 villages, RoR data of around 6918 villages has been entered, validated and made on-line. Remaining villages being under consolidation are to be taken up progressively for computerization, in line with completion of consolidation work. RoRs of more than 6000 villages of most of Tehsils/sub-Tehsils have been made available on web site http://jambandi.nic.in.

In Haryana, the workflow based Property Registration Information System (HARIS) and Land Records Information system (HALRIS), developed by NIC-Haryana State centre, have been standardized, stabilized and dynamically

integrated under a single unified database to dynamically reflect the impact of registration of Land on Jamabandi and to provide authenticated and secure ROR (Nakal of Record Of Right) services to the citizens. The HARIS & HALRIS are being implemented across the state at all Tehsils & sub-tehsils. The details of terminologies of Revenue records can be accessed on http://jamabandi.nic.in website. Some of the main benefits of making Land Records online are as follows:-

✓ Delivery of Land Records documents from the Tehsil/Sub-Tehsil office made redundant.
✓ Acceptance of Mutation request at HALRIS centre for all type of mutations including the mutations written on the basis of Roznamcha entries.
✓ Reduce the dependency of public on the Patwari.
✓ Automatic generation of new jamabandi at the time of consignment.
✓ Integration with HARIS to check the frauds instantly at the time of registration.
✓ HARIS will pick the details of sellers from the Jamabandi database due to which without doing the mutation new owner cannot sell the land.
✓ Will reduce the work load & improve the overall efficiency of the Revenue officials.
✓ Creation of updated instantaneous ROR.

Haryana is the first state in establishing dynamic linkage between Land Records (HALRIS), Mutations & Property Registration (HARIS). This Product has been declared as best practice and a national roll model under NLRMP by DoLR, Ministry of Rural Development, GOI. The product has also received Quality Certification from STQC, Department of IT, Govt of India.

Some of the benefits Accrued to the Society due to implementation of HARIS & HALRIS in Haryana include:-

✓ The system has improved the quality of service in Tehsils by reducing the total time taken by the Tehsils staff for registration. Now documents are returned same day to the public in earlier manual system it used to take weeks/months to get a registered deed.

✓ The system uses the Collector rates as reference rates for computing the stamp duty. So in any case the registration of Land is not allowed below the COLLECTOR rates. This feature of the system made the requirements of Pre-Registration audit redundant. So Govt. has stopped the pre-registration audit of documents, which has saved the both public & officials from the harassment at the hands of auditors.

✓ The photographs of witnesses are also taken along with the sellers and buyers during registration. This has reduced the incidents of wrong

witnesses and involvement of middle men, which was very prevalent before the implementation of this system.

✓ District Red Cross Societies are using a part of the service charges for running social welfare programs for the weaker sections of the society. On-line availability of Updated Nakal of ROR (Record of Right) to the public helps in reduction of litigations and frauds, as now it is not possible to sell a same piece of land to multiple parties/peoples nor it is possible to sell. The system has enforced low manual intervention & data capturing at source. This reduced errors in the records. Web enabling of the Land Records has helped in bringing transparency in making available access to the ROR on anytime, anywhere basis. The system has also helped in generation of around 500 jobs for the local Haryana boys and girls, as all the operators have been appointed from the local areas. The middlemen, who were the main source of corruption has been eliminated from the process.

The Economic Benefits also Accrued to Organization/ Individuals, due to the implementation of HARIS & HALRIS, which include:-

✓ After the implementation of the system there is straight way upto 40% increase in the stamp duty collection. The increase was observed even recorded during the period when the state government reduced the stamp duty. This increase has been possible due to the reasons that the manipulation of location of property by anybody was made impossible through incorporating khasra numbers in the software.

✓ It was also not possible to register below the base line rates (collector rates) feed in computer.

✓ In this system, it is possible to fix a separate rate for different parts of the same locality by dividing it into number of segments. So this has reduced the practice of concealing the exact location of property for saving the stamp duty.

✓ Further, now it is not possible to register a property below the Collector rate. This has stopped the revenue leakage caused by the registration of under valued deeds.

✓ The system has also reduced the adjudication by collector after impounding of documents (47-A) cases to a considerable extent. It was a common practice to register an under valued deed then the parties were getting it impounded by the Tehsildar. Later on people were able to get the deed document back by paying bribe or small amount of fine.

✓ The project has been generating more than Rs. 6 Crore per annum from registrations as service charges. Till date a significant amount has been collected as service charges, which is utilized for executing the other e-Governance projects related with Revenue Department.

✓ The District Red Cross Societies and IT Societies are using a part of this fund for the welfare of poor people in their districts.

✓ The citizens know before hand, what charges they are required to pay.

✓ The system has helped in significant reduction of fraudulent practices and corruption at the hands of private deed writers, local advocates, Patwaries and other middlemen.

STRATEGY ADOPTED

a) **Process of Involvement of Stakeholders**: Financial Commissioner Revenue constituted state level standardization & Monitoring Committee. NIC-HrSC constituted a dedicated team of professionals for the project. The workshops were organized at Division Commissioner level, where all stakeholders were called and various re-engineered processes were discovered and discussed. At the field level also, detailed discussions were held at Patwari level, Private deeds writers, Panchayats, retired revenue officials and at the level of District Revenue officers, Tehsildars, Kanoongos etc. Each type of cases of writing the Jamabandi and incorporating the mutations were studied and standardized across the state.

b) **Process Standardization and Simplification**: (a) All applicable deed types were studied and standardized 22 types of deed registration Templates. These templates were converted into XML documents and made available to all HARIS implementation centres in the state. (b) All type of reported cases related to writing of Jamabandi (ROR) and Mutations were studied and standardized and simplified so as to handle under HALRIS uniformly across the state. The cases, which could not be simplified, were incorporated in HALRIS through suitable customization and enhancement of HALRIS. (c) HARIS & HALRIS were dynamically integrated in a workflow environment to facilitate online availability of Record-Of-Right (ROR) on Anytime, Anywhere basis with security & transparency.

c) **Operational Flow in Online Scenario**: In case of online villages HARIS immediately post the remarks in col. 12 of the Jamabandi of the khewats transacted in the registry. This remark shows the name of the seller and date of registry. This is done to alert the perspective buyer from the multiple times sale of land. As for every registry seller has to take a fresh

nakal of ROR from the Tehsils Centre and after registration ROR of affected khewats clearly show that some transaction has already been initiated on this khewat. Documents after the signatures of sub registrar come to mutation window for mutation entry. Request for Mutation not generated from registration process like Inheritance etc directly come to mutation entry window. Patwari sitting at the window examine the papers and help the data entry operator for mutation entry. Registration remarks automatically disappear after mutation entry and Pencil remarks as written by Patwari in the manual process, come automatically. Print of the mutations is given to the office kanungo for verification and he records his verification report in the mutation verification module. If verification report is ok mutation can go for attestation. CRO take the computer-generated hard copies of mutation to Jalsa-ai-Aam. All mutations decided by the Tehsildar come to the Tehsil centre. CRO uses the mutation sanctioning module to sanction or reject the mutations. Remarks in the col. 12 change to Red for khewats of sanctioned mutations. Tehsil centre Patwari then execute the incorporate mutation module to implement the sanctioned mutations. This turns the mutation remarks from Red to **Black** in the online Jamabandi where as in **Parat Patwar** they will remain in red color.

d) **Delegation of Authority**: The Collectors has been authorized to declare any Tehsil on-line. Since the project is being implemented through District Red Cross Societies / District IT Societies, Collectors has been empowered at local level to appoint operators, out-sourcing of data entry & verification, procurement of requisite H/W. The Collector can spend the funds collected as service charges as per local requirements. The Patwari posted at HALRIS Centre can issue a signed copy of ROR. Standard Deed templates have been provided in the system. Now another option is available with the citizens to get the deed written directly at HALRIS Centre without paying any extra cost.

Integration of HALRIS Textutal data of Records-of-Rights with spatial cadastral maps (Mussavies)

The digitization of Cadastral maps of Sirsa and Ambala district were taken-up through HARSAC (Haryana Space Application Centre), Hisar. The HARSAC digitized available cadastral maps of Sirsa and Ambala. It was emerged that unless the textual data of Records-of-Rights and spatial cadastral maps (Mussavies) are integrated, the real benefits from ICT interventions will be limited to the citizens.

To integrate the digitized maps with the mutation process of HALRIS so that maps can be updated automatically as a result of mutations, the software with name Bhu-Naksha, which was developed by NIC in Chhattisgarh was studied for

its replication and customization as per Haryana requirements. The primary objective was to create the database of cadastral maps in digitized form and linking the same into the existing HARLIS software through Bhu-Naksha, with the aim to streamline the land revenue administration. The customization of Bhu-Naksha software, which is based on open source GeoTools to display and edit the cadastral maps, so as to reflect the updations / mutations, was taken up as per the Haryana requirements. The Bhu-Naksha Software, provide following functionalities:

a) The system imports the digitized and verified cadastral vector data in industry standard spatial data format to the spatial database. The system has the provision of importing geo-referenced spatial data.

b) The software displays the complete cadastral map or single plot /multiple plots along with appropriate scale and North direction. The system displays the linear dimensions of plot boundaries. There is a provision of overlay of other layers like canal layer, road layer etc.

c) The standard symbols (alamaths) can be attached wherever required.

d) The software allows the user to split the plots in to multiple parts as per the mutation process. It further assigns new plot numbers to divided parcels. The system also has the provision to merge plots.

e) On selection of the Khasra no, system shows the cadastral map along with the neighboring plots. It will also show the names of the owners of the plot. The system converts the output to print friendly version / pdf for citizen services.

f) Software can provide spatial outputs based on queries on plots, ownership, Government land, forest areas, and crop type as per the textual data availability.

The mutation process of HALRIS was customized for integrating with Bhu-Naksha. In case of mutations involving the Tatima (division of plots) of khasras, mutation entry component of HALRIS was enhanced to display the map of the selected khasra and division of the plot on the basis of rough map prepared by the patwari. After dividing and assigning the plots to the new owners' mutation was saved in the databases of HALRIS and Bhu-Naksha. Mutation incorporation process of HALRIS was enhanced to update the cadastral map in case of mutations involving division of plots. The Mutation incorporation effect was reflected simultaneously in Jamabandi and the cadastral map database.

Therefore, a complete integrated end-to-end solution has been developed for delivery of e-services to the citizens, which includes issuing of computerized RORs alongwith digitized map of the land, Registration of documents, Mutations, calculation of stamp duty, on-line photo capturing of buyers, sellers, witnesses etc, with greater transparency, authenticity and ease of e-service delivery.

There are about 70,000 village maps (known as Mussavies / Cadastral Maps) in the State. The programme of digitization of cadastral maps of all districts has

been outsourced through open tenders with the technical support of HARSAC and NIC Haryana State Centre to four companies

The pictorial Workflow of Integrated Property Registration, Jamabandi, Mutations, Cadastral Maps and RoR e-Service Delivery is given in figure-I.

The Integrated land registration, record-of-right, mutations and cadastral maps is one of the very prestigious e-Governance project and complex in nature. The project is a trendsetter in the State and expected to ensure delivery of e-services with efficiency, effectiveness and transparency. The management of such a project is definitely a stupendous task and involved coordination of all the stakeholders. The synergy and convergence of efforts of all the stakeholders is necessary for smooth working of the HALRIS Centres. Once the project is implemented in totality, the citizens will enjoy a fast and convenient 'service', whilst government not only will become more integrated into the community itself, but will also be able to focus its resources where they are needed most. **This kind of integration is also a significant and very important step for migrating from existing presumptive land titling system to conclusive titling system, as envisioned under NLRMP.**

FIGURE-I: INTEGRATED WORKFLOW OF PROPERTY REGISTRATION, JAMABANDI, MUTATIONS, CADASTRAL MAPS AND ROR E-SERVICE DELIVERY