

COMPUTERISATION OF LAND RECORDS

CLR

Streamlining the Land Records

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Govt of India

3/17/2006

Land Records Division, NIC

1



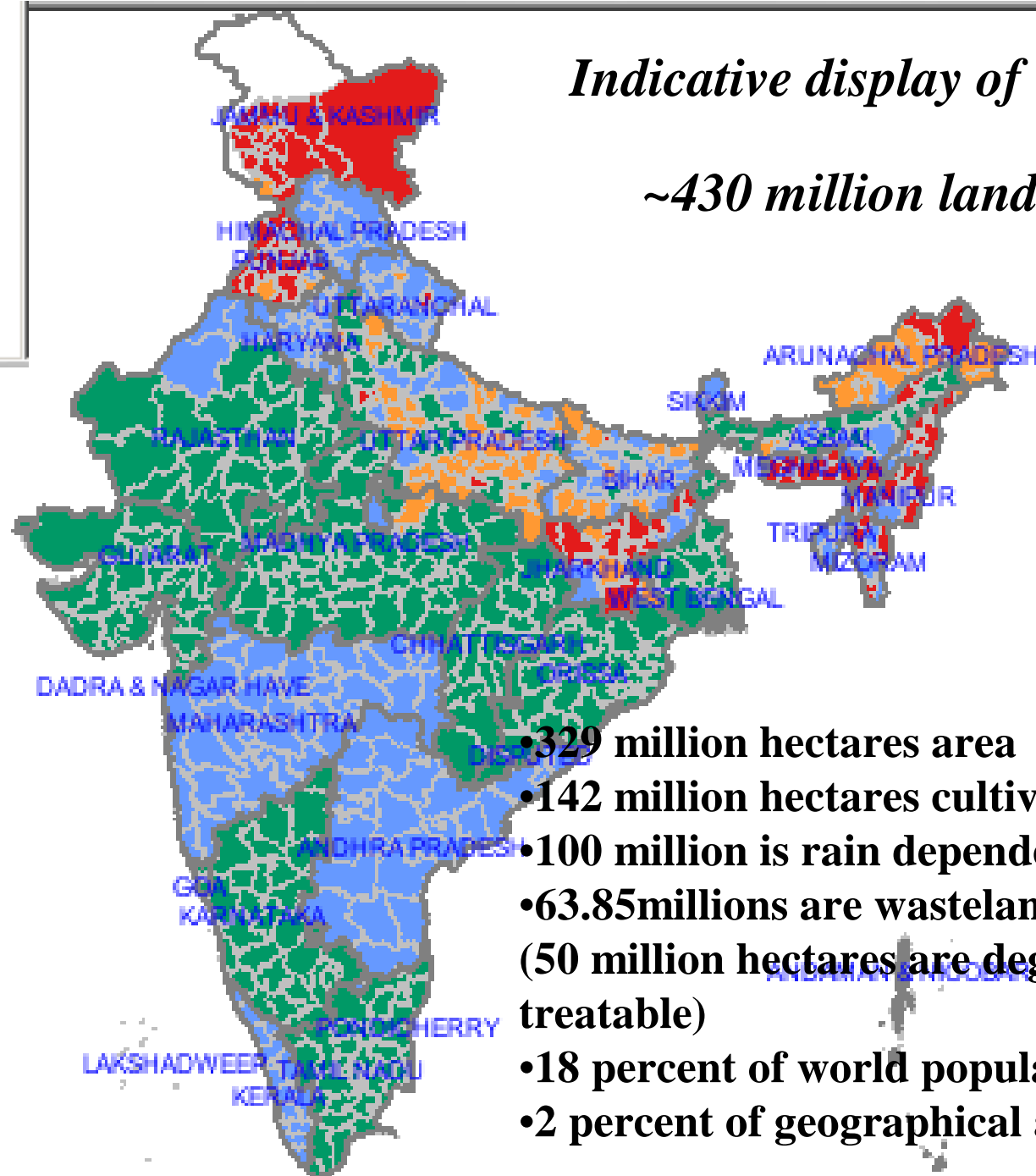
Legend
Land Records

- Fully Operational
- Ongoing
- Initialized
- Not started

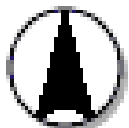
Legend

Indicative display of CLR profi

~430 million land records



- 329 million hectares area
- 142 million hectares cultivated area
- 100 million is rain dependent
- 63.85millions are wastelands (50 million hectares are degraded but treatable)
- 18 percent of world population
- 2 percent of geographical area



CLR

Joint Venture NIC & MRD

- In more than 582 Districts & in approx. 3400 Revenue Circles
- Distribution of ROR in 2668 Circles
- Expenditure approx. Rs. 370 cr.
- Started in 1988-89
- Land Records Application S/W –ISO 9126 Certified

States & UTs

Karnataka, TN, Andhra ,
Kerala Pondyicherry,
Andmans

Rajasthan, UP, Uttaranchal,
West Bengal, Goa, Orissa,
MP, Gujarat,

Maharashtra, HP,
Sikkim, Tripura, Haryana,
Chattisgarh, Assam etc.

Deliverables

Computerized
Record Of Rights
(ROR), Tenancy &
Crop Details

- LR Services to Citizens
- Automated workflow up to Circle level

Objective

- **Digital Land Record Maintenance system**
 - **Preservation , Maintenance and Updation of Records of Rights**
- **Value addition to delivery of services to common citizens**
 - **Speed; Moral; Efficient ; Transparent**
- **Efficient management of Land and administration**
{ **Land distribution ; Ceiling Surplus etc.; Registration**}
- **Social engineering**
(**Abolition of tenancy; Support to marginal farmer; Ownership to tribal and poorer section of society)**)
- **Knowledgebase for Financial institutions; Judicial process, City planners and various other users**





Product Perspective

A comprehensive solution for Land Records domain comprises of

- Attribute data for Owners , Details of share holding,
- Characteristics of land and plot : Soil , land use ,Irrigation
- Automation for workflow regarding change in Ownership
- Cadastral Maps
- Integration with deed registration
- Security : Confidentiality ; Authentication and Integrity
- Knowledge base for multipurpose information
- Service oriented Architecture
- Quality Assurance to users

MULTIPURPOSE CADASTRAL DATA BASE

Owner Rights & Liabilities :: Land Use :: Land Revenue :: Tenancy Violations :: Encroachments :: Sources of Irrigation :: Maps :: Mutations

Reports & Queries

FARMERS
use land information &
Record of Rights
(ROR)

FINANCIAL INSTITUTIONS
use ROR as credible
evidence to provide loans

LAND PLANNERS
use information on land usage,
classification and cultivation towards
sustainable development

REVENUE ADMINISTRATORS
maintains information like revenue,
land under encroachment for
development programs

JUDICIARY
uses ROR to decide ownership and
other land disputes

ACCOMODATING REGIONAL VARIATIONS

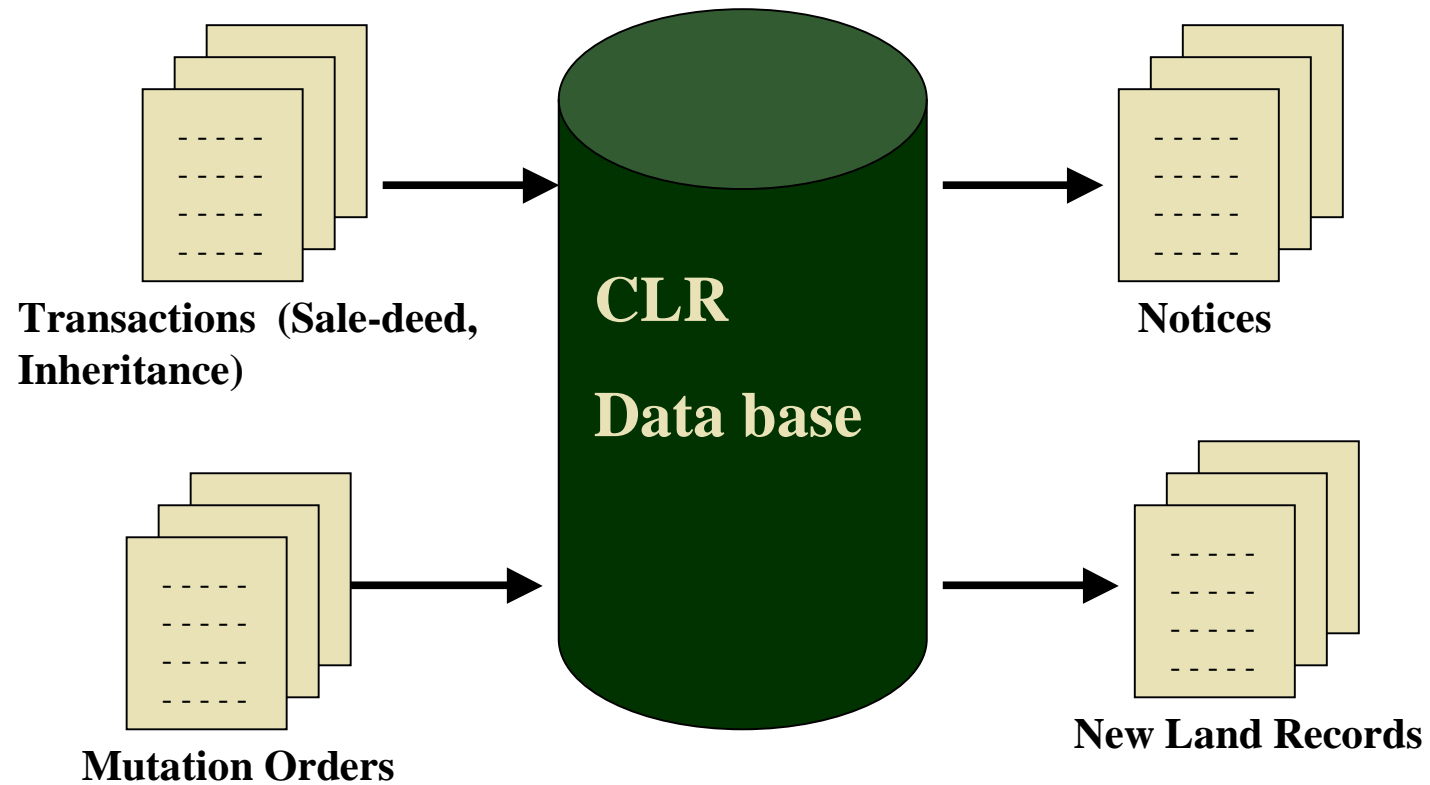
Land Act & Reforms :: Native
Language :: Available means of
network access
Categories & no. of ownership
rights :: Output formats ::
Workflow styles
Categories of Land



- :: TRANSACTIONS ENTRY & MODIFICATION**
- :: AUTOMATED TASKS & WORKFLOW**
- :: VERIFICATION & AUTHENTICATION OF EVERY TASK**
- :: USER AUTHENTICATION & ACCESS**
- :: SIMPLE & USER FRIENDLY INTERFACE**
- :: DATA BACKUP & SECURITY**
- :: DATA IN REGIONAL LANGUAGE**
- :: SECURITY USING BIO-METRIC DEVICES**
- :: STANDARD CODES DIRECTORY**
- :: INTERACTIVE PORTING UTILITY**
- :: ON-LINE MUTATION UPDATES**

1.

Salient features of Land Record database





(Documents) output of computerized system

- W Land Records Document**
- W Mutation Extract**
- W Mutation/Inheritance Register**
- W Khata Register**
- W Notices**
- W J-slip/Alienation/Survey /... Register**
- W Various Analysis Reports (in tabular & graphical form)**
- W Pendency Reports**



Format for Land Record Document RTC -Karnataka

Name of Revenue Circle			Village	
Survey & Share No.	Total Extents details	Land Revenue details	Owners names, Extents, Khatha No., Acquisition, Rights & Liabilities details	
Soil type	Tree details	Irrigation details		
Year Season	Cultivators details	Land Utilization details	Crops details	Mixed crops details

प्रदेशीय धर्म रेकर्ड कंप्यूटरीकरण

जिला	53	हजारा	100000
तहसील	53	सुपौडा	000000
रा. नं.	53	100000	000000
डायल	00000	53	000000
ग्राम	100	सुपौडा	000000

नकासा जल निकासा निकासा

National Informatics Center
(HQ), New Delhi

पृष्ठ संख्या 3/4

Map Menu Print Full Extent Report Back Exit

पिन	देश	राज्य	जिला	तहसील
110001	भारत	हरियाणा	फरीदाबाद	सुपौडा

Year: 14011

Scale: 4000

माला सं. 10 Area: 50.103574434007=sq.meter



Distance	Distance
1 to 2	2364
2 to 3	1172
3 to 4	1538
4 to 5	507
5 to 6	180

Assign Plot Number

Enter the Plot Number of Highlighted Plot :

116

OK

CANCEL

Split Polygon

Split Edit Export Svrce Mutation Exit

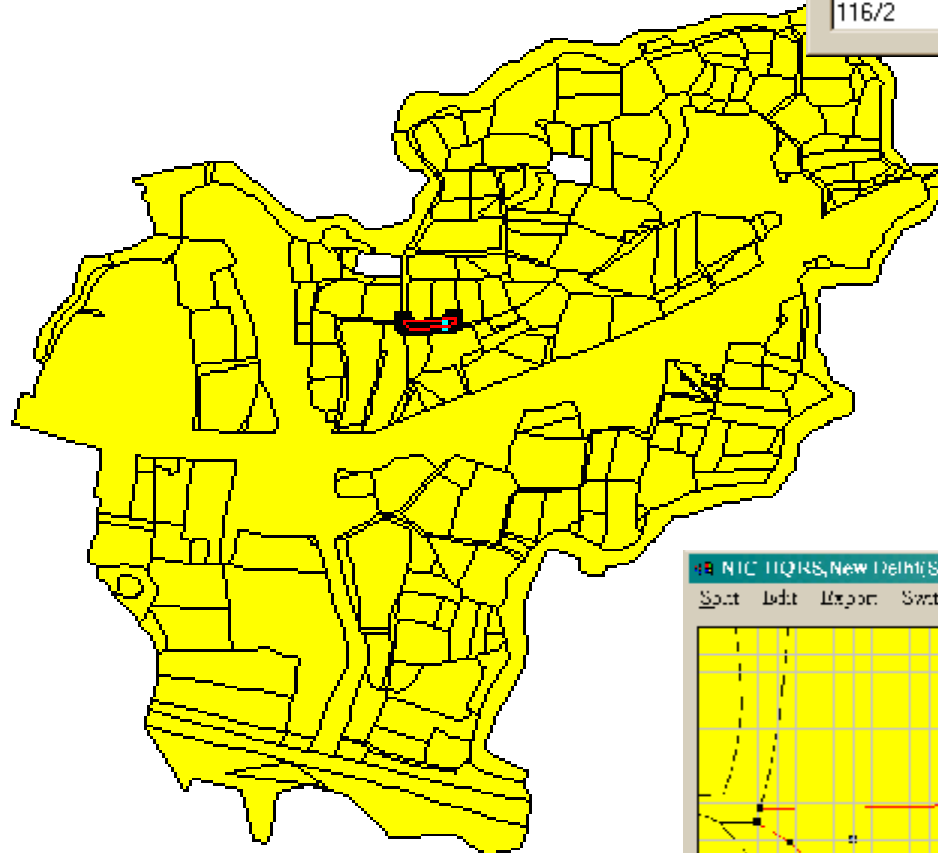
2nd Plot

Enter SECOND plot number to be merged

OK

Cancel

116/2



X -615474.718193031

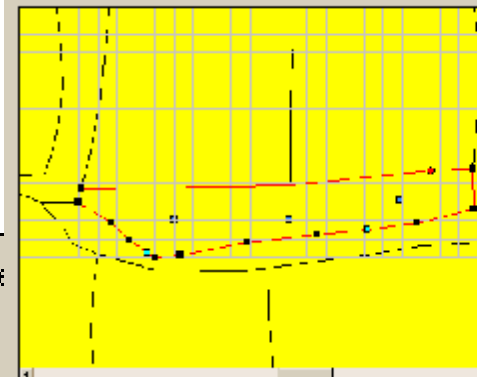
Y 1017869.98895768

Enter the

** Red Point No is 2. Blue Points are 6,11,16,21....

NIC HQRS, New Delhi(Split Polygon)

Split Edit Export Svrce Mutation Exit



Coordinates

1	172088.5667188	1018023.66662
2	159706.0466791	118 777.03
3	-100682.0273909	101150.507300
4	148446.5769969	101987.333371
5	1101154.825	80164.953391
6	-151029.0007100	10053.402000
7	177581.4466188	13754.000000
8	-101110.0720000	376.1576485
9	1753407.628654	100886.066700
10	77644.5378325	85782.710100
11	-135125.750742.0	30211.201050
12	146724.6566428	106606.663000
13	-1364835.6378325	80188.953391
14	-177529.0000075	104203.900000
15	1770795.664489	101623.66662

Date

158748542.8626 13.01.24.2024

File Path: H:\2_2024\work\2024\116\2...

PROPERTY REGISTRATION INFORMATION SYSTEM PROJECT

- Home
- IR Acts, 1908
- Operational Projects
- Pipelined Projects

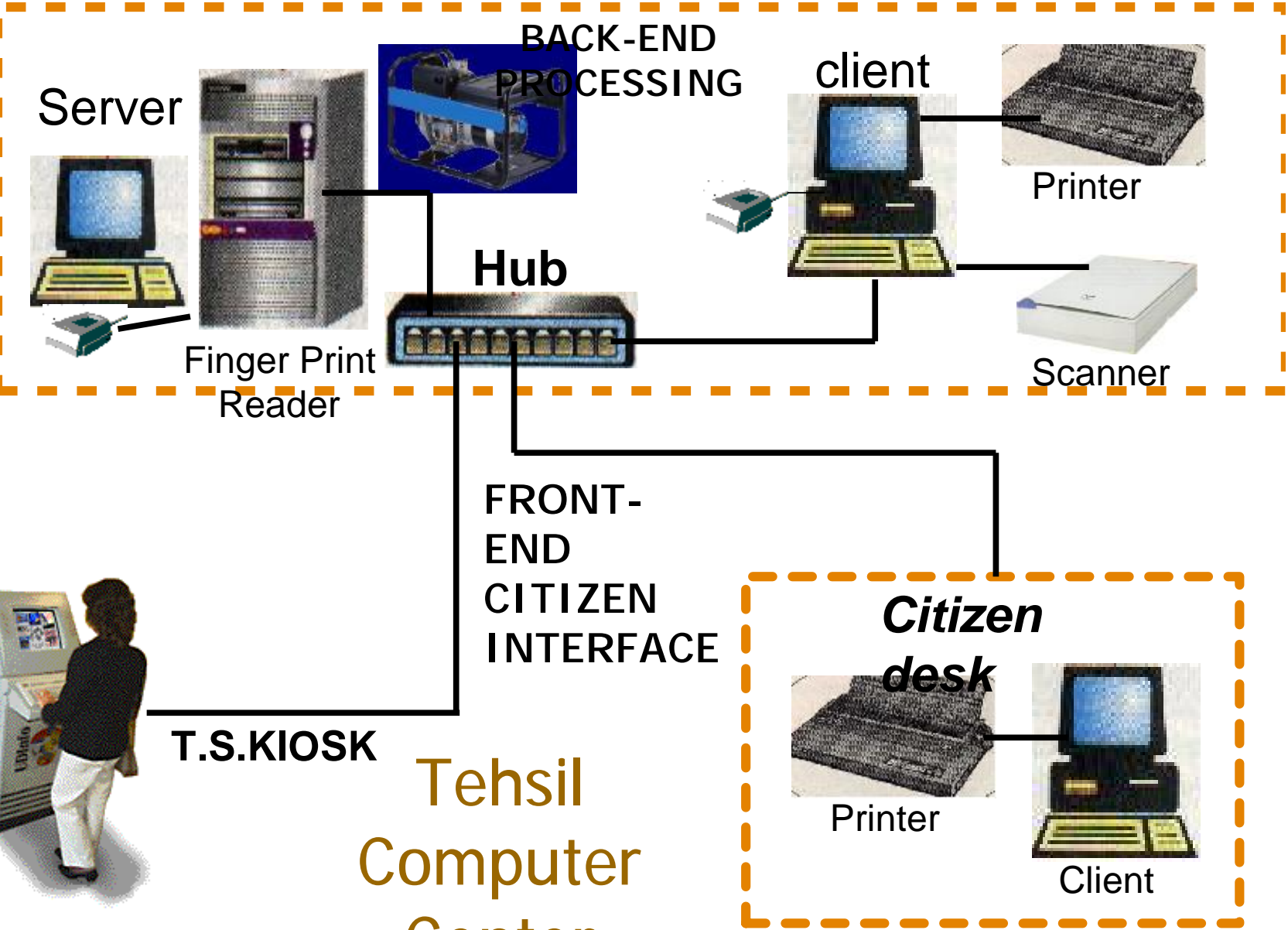
Property Registration System (PRS)

calls for radical reforms so that rigid & complex system valuation of properties and calculations of stamp duty & registration can be simplified to bring transparency and on demand one-stop service to the common man. Its' further linking with Land Records mutations & transactions related with the agricultural property, will provide a complete solution for Land Records Maintenance and Public delivery.

What is Registration?

Registration means recording of contents of a document with a Registering Officer & preservation of copies of the original document. The documents are compulsorily registered for the purpose of conservation of evidence, assurance of title, publicity of documents & prevention of fraud. Every document, which is to be registered, should be presented at the proper registration office by the concerned person himself/herself, or the representative or the agent of such a person duly authorized along with witness & appropriate registration fee. The payment of proper Stamp duty on instruments bestows legality on them. Such instruments get evidentiary value & are admitted as evidence in Court.

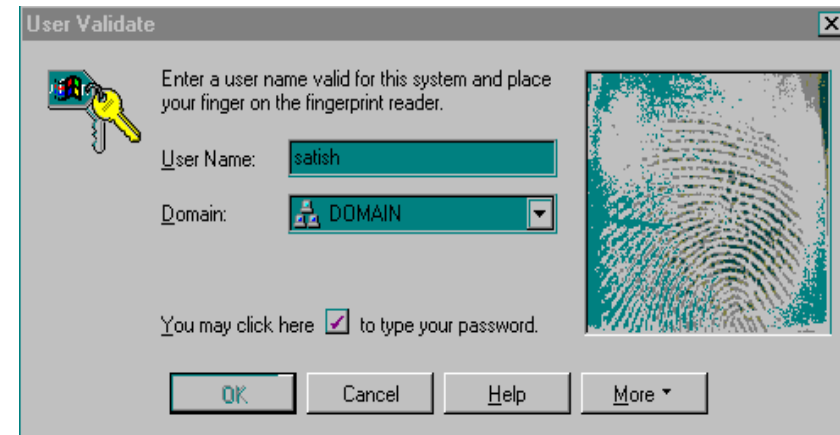
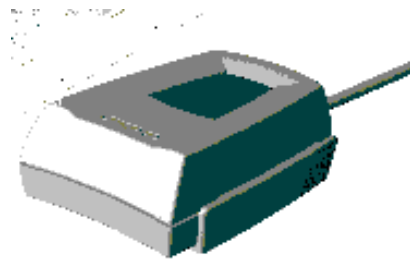




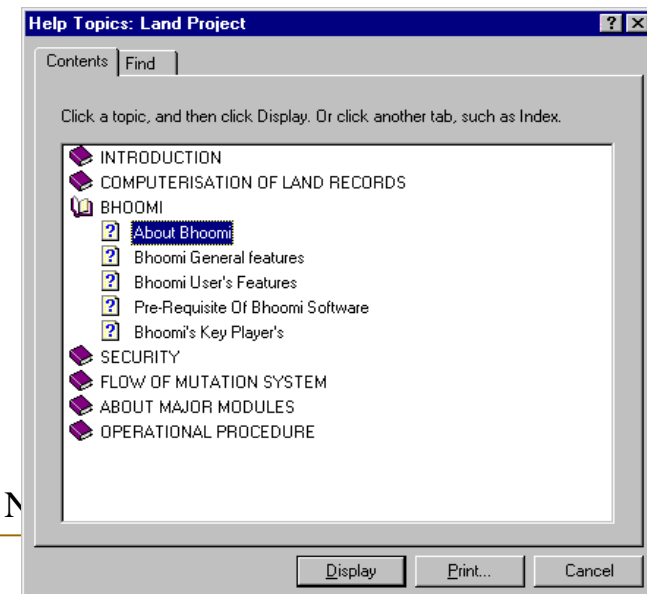
Tehsil Computer Center

Salient features of CLR

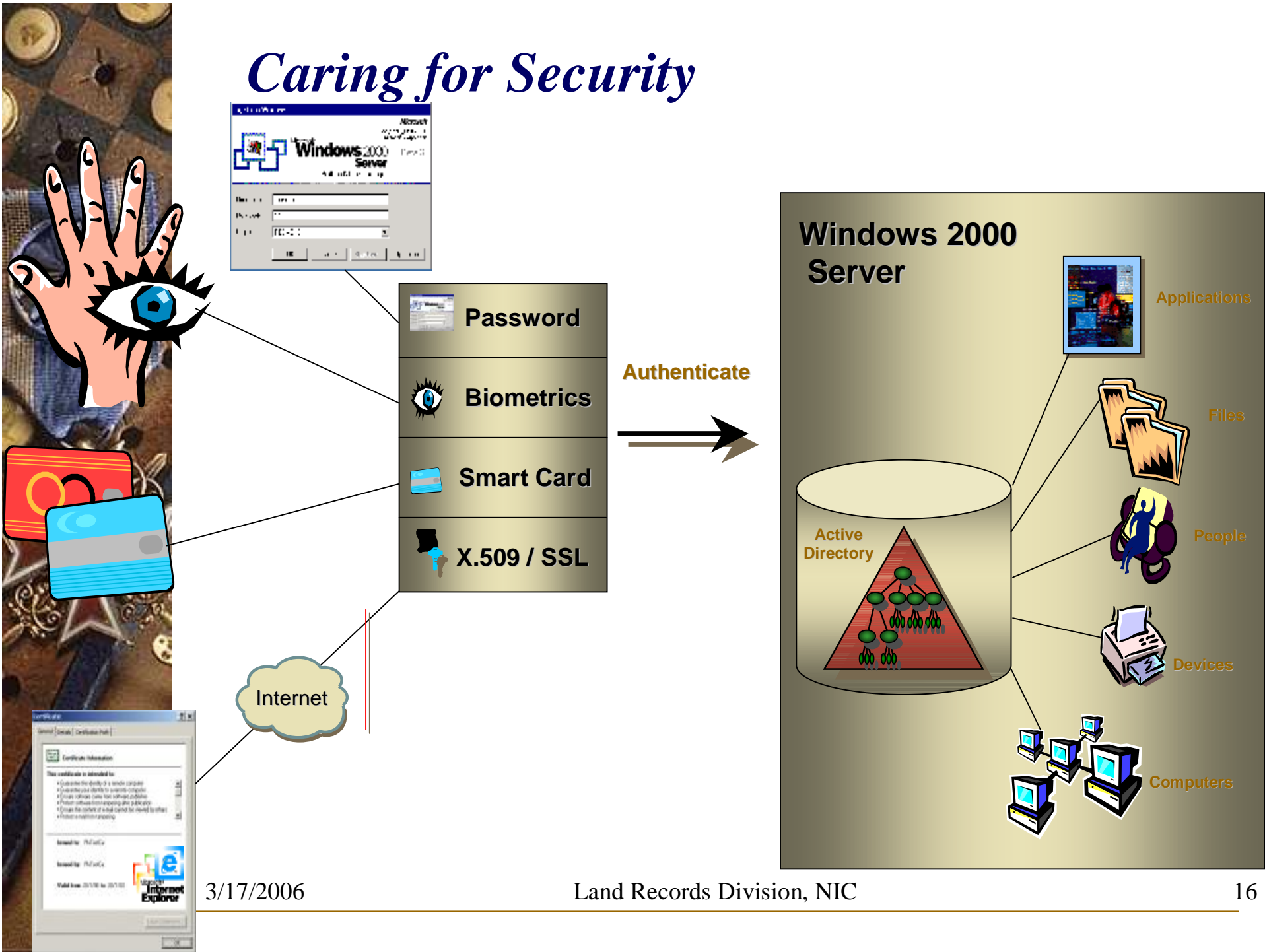
- Security of data, Bio-metrics (finger print) authentication is used instead of password authentication



- Online Help will assist users, while operating system



Caring for Security



3/17/2006

Land Records Division, NIC

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Golden Nuggets

GOA	Concurrent Mutation & Distribution of attribute & Map
KARNATAKA	Won CAPAM International award
GUJARAT	Implemented across state over state wide area
RAJASTHAN	Network ROR at doorstep using PPP model
WEST BENGAL	Individual ownership of Land, One man and one Khativan
TAMIL NADU	Coin based Kiosk without human interaction or intervention.
CHATTISGARH	ROR available on through Indira Suchana Kendra setup at Schools
ANDHRA PRADESH	Land Records Integrated with Citizen Database : Introducing
HARYANA	Band Registration integrated with Land Records
HIMACHAL PRADESH	Land Records integrated with MIS
ORISSA	Secured Transaction & Mutation Workflow





Government of Tamil Nadu

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Feedback

Banning of Manual Certificates Tamilnadu ;Karnataka ; Chattisgarh; UP etc



Abstract

TAMIL NILAM - Computerisation of Land Records and other services - Delivery of on-line service - Validity of Computerised Land Records Extract issued in printout/hardcopy - Ban on issue of Manual extract of land records and use of hand written land records in rural areas - Orders - Issued.

REVENUE DEPARTMENT

G.O.(MS.) No.382
DT: 3.9.2003

Read:

- 1) G.O.(Ms)No.396, Revenue(SS.II(2))Department, dated 19.10.2001.
- 2) G.O.(Ms)No.142, Revenue(SS.II(2))Department, dated 27.3.2002.
- 3) From the Special Commissioner and Director of Survey and Settlement Lr.Rc.S2/40970/2001 (Sy), dated 3.6.2003.

ORDER:

On-line service under the Centrally Sponsored Scheme of Computerisation of Land Records Programme (CLR) Christened as TAMIL NILAM is in a very advanced stage in Tamil Nadu. TAMIL NILAM project envisages on-line issue of Computerised extract (ROR) of land records. Initially 29 Model Taluks in the State were brought on-line. Besides issue of computerised extracts of land records, the Public can access information on details of Old Age Pension/Destitute Pension, details of guideline values and obtain birth and death certificates, etc., All the remaining Taluks are expected to be brought on-line with effect from 1.10.2003 onwards.

2) The implementation of the scheme envisages concept of on-line mutation in rural areas initially. It means that various types of mutations have to be carried out through the 'TAMIL NILAM' software. The mutations are to be initiated on Tamil Nilam by generating notices and then serving the same on interested parties. The only way to carry out changes on any details in computerised Land Records is to do the same through appropriate mutation. Any mutation carried out by-passing Tamil Nilam will not be recognised by Tamil Nilam and computerised land records in printouts/hard copy issued without carrying out mutation on-line will show only old and obsolete details which is not contemplated under the TAMIL NILAM project for issue of computerised extract of land records to the public. If the Revenue officials at Village and Taluk levels keep on issuing hand written land records and do mutation in the age old conventional way by-passing Tamil Nilam, then the Computerised land Records data will become redundant and no purpose will be served. It will also provide room for tampering of records. Issue of Record of Rights to the land owners in a fool proof manner through updation process shall be ensured by the Revenue officials at all levels so that updated Land Records can be issued to the land owners on-line in printout/hard copy.

3) The Government have, therefore, decided to ban issue of manual extract of land records and the use of hand written land records in all the Taluks in the State as and when the Taluks are brought on-line.



CERTIFICATE OF APPROVAL

This is to certify that Software Product
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of
National Informatics Centre, New Delhi

fulfills the requirements of Software Product Evaluation and Certification
Scheme of STQC Directorate Department of Information Technology

The scope of this Certificate of Approval covers

Standard	<ul style="list-style-type: none"> • ISO 12119: 1994 Information technology - Software packages- Quality requirements and testing • ISO/IEC 9126-1:2001 Software engineering - Product quality - Part 1: Quality model • ISO/IEC TR 9126-2:2003 Software engineering – Product quality - Part 2: External metrics
Quality Characteristics	<ul style="list-style-type: none"> • Functionality • Reliability • Usability • Efficiency • Maintainability • Portability
Product Developing Organization & Address	National Informatics Centre (Rajasthan State Unit), Government of India, Department of Information Technology, Ministry of Communications and Information Technology, 318, North- West Block, Secretariat, Jaipur.
Evaluation Report Reference	: STQCIT-Jaipur/NIC
Registration Number	: STQC IT/SPEC/02

This certificate is valid up to 04.01.2007.

Date 05.01.2004



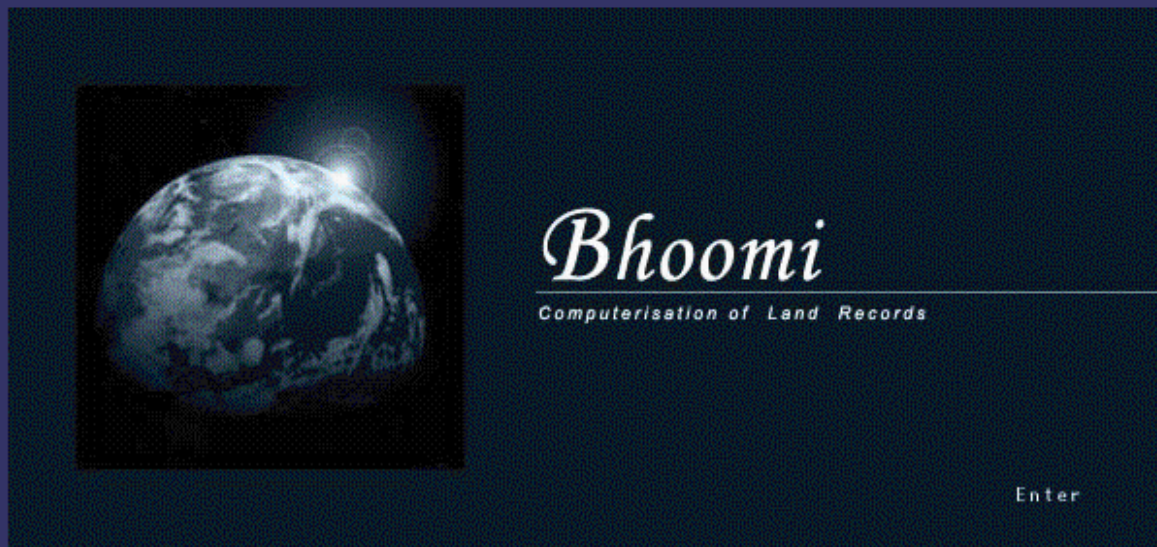
STQC Certification Services
Department of Information Tech
Government of India
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Lodi Road, New Delhi - 110 003

• Assurance of
Quality of
Products





Results

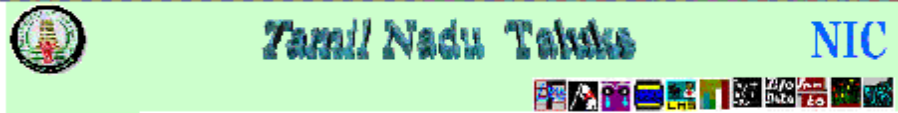


Home Page of IT Support to Taluk - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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Tamil Nadu Taluka NIC

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Titular Computerisation in Tamil Nadu State covers the following application systems.

Land Records Information System	Payroll Information System
Old Age Pension	Personnel Information System
Grievances Monitoring System	Tappal Monitoring System
Certificate Monitoring System	CRDP Information System
License Monitoring System	Rainfall Information System
Urban Land records Information System	

Land Records Data Centre

புதுயியா
(மூ-அபிவிசை கம்ப்யூட்டரிசா: ஊர்ரிசா)

1. ஊர்
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16. ஊர்

Districts

View Taluka


(State Land Records Data show is 55148 of all 98 Taluka of 16 District)

Administrator

http://104.100.12.22/tnmismain.asp - Microsoft Internet Explorer

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Address http://104.100.12.22/tnmismain.asp



புதுயியா கம்ப்்யூட்டரிசா: ஊர்ரிசா
அபிவிசை கம்ப்்யூட்டரிசா

national informatics centre

Help / If display is not proper in Reports click this and follow the steps indicated
 If display is not proper on the screen click on Help and follow the steps indicated

தலைப்பு

அபிவிசை கம்ப்்யூட்டரிசா

தலைப்பு தேர்வு

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Select District

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Select Manila

தலைப்பு

Select Village

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GOVT OF RAJASTHAN

APNA KHATA

LAND RECORDS



राजस्थान नर कार

अपना खाता

(मू-अभिविसे कम्प्यूटरिसे)

अपना खाता

Click Here For Nakal

This Web Site provide Records of Rights (HAKML) or Land Records of Rajasthan State. Authorized copy of Records of Rights (HAKML) can be obtained from selected kiosks.

इस वेब साइट के द्वारा राजस्थान के राज

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Achievements & Road ahead

- **Banning of hand written Records/ RTCs**
KARNATAKA , TAMILNADU , CHATTISGARH, M.P, ORISSA, UP
- **Access over Internet**
 - ANDHRA PRADESH** <http://ccla.ap.gov.in> (G2C)
 - RAJASTHAN** <http://apnakhata.raj.nic.in> (G2C)
 - TAMILNADU** http://taluk.tn.nic.in/land_records.htm (G2G)
 - CHATTISGRAH** <http://cglrc.nic.in>
 - KARNATAKA** <http://www.bhoomi.kar.nic.in> (G2G)
 - MP** <http://www.mpbhuabhilekh.nic.in>(G2C)
- **ISO Certification for Application software (121199 {TQM 9126 model}**
APANA KHATA ; TAMIL NILAM ; BHUMI 2000; INDRAPRASTHA
- **Bio authentication**
- **Creating Security Framework based upon ISMS 7799 with legal security**
- **Uniform Coding standards**
- **Cadastral maps**
- **Central Data centers for BASE**

Streamlining the existing land records..I.

Computerisation of Land Records have improvised maintenance of records as well as delivery of services to citizens. There are several states where textual data for Record of Rights is available over WEB. Further, in order to enhance the value of records and content, Govt. of India has recommended for

- Simplification of format of Records**
- Incorporation of Cadastral maps along with Record of Rights**
- Uniformity of data and coding scheme**
- Creating Security framework for Land Records domain.**
- Integration of Land Registration with Land Records.**



Streamlining the existing land records..I: **Features of existing manual system**

- **Currently, “Record of Rights” consist record of owners; enjoyers without clearly defining boundaries for each shareholder due to ambiguous Cadastral boundary system. Emphasis is given to maintain records of people than to maintain plot details.**
- **The system of keeping the plot-id and account id varies from state to state.**
- **In several states , Ownership is updated only after stipulated period after passing the mutation order.**
- **Land Registration; Land Records & Survey departments are not in sync in terms of information as well as process.**
- **Existing records may need to be regularly updated. The recordings on the record could be very much different from that of ground reality.**



Streamlining the existing land records..I:

Issues with existing IT-infrastructure

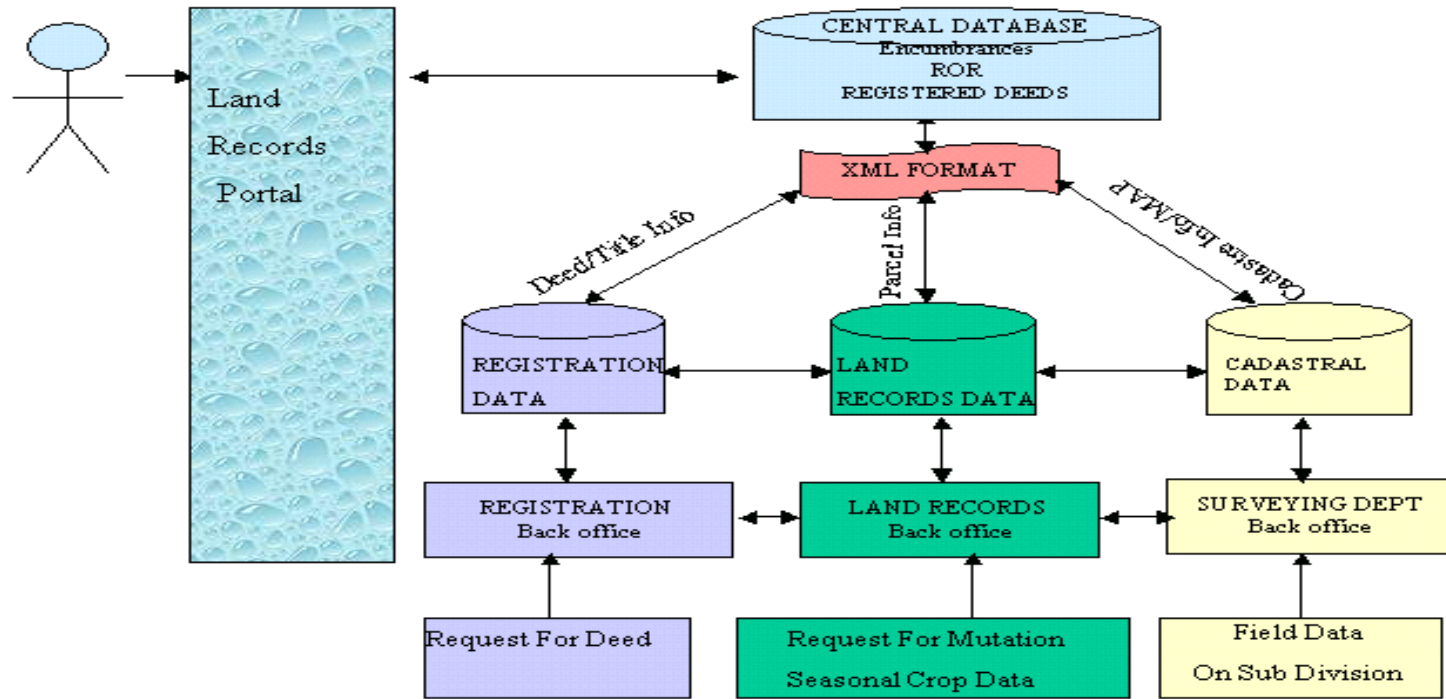
- **Mostly located at Circle level. Village accountant who is primarily responsible for field enquiries have to come to Circle level for Computerized operations.**
- **Poor Power ; Network and HR-support.**
- **Lack of adequate security.**
- **Non-availability of modern equipments like ETS & GPS.**
- **Administrative manuals and procedures are not revised for digital scenarios.**
- **Lack of maintenance support of facility at delivery level.**



Need for Integration of Registration ; Survey and Land Records.

- To match the plot details on the records with its field boundaries.
 - Creating a system of plot-id and accurate determination of field boundaries after sub-division for part parcel takes is affected.
 - This will require that for every plot-id , there is a set of boundary and enjoyer.
 - Valuation of property/land is based upon verification of support document presented at the time of registration. There is a need to take care of
 - Encumbrances (Presently with Registration Department)**
 - Physical measurements of land/property (With Survey)**
 - Rights and Ownership/ Present Enjoyer/Occupancy (With Revenue)**
- Due to considerable autonomy in functioning of these departments as well as Procedural delay and legal aspects , problem in records continues.
- There is need to bring an systemic integration among the three departments.





Towards clear titles

Role We

As a Coordinator

- ..we help MRD to formulate guidelines
- ..we define suitable H/W & S/W configuration
- ..we advise on technology up-gradations

As a Monitoring group

- ..we keep track of project progress in states
- ..we conduct video conferencing between ministry and state revenue department for feedback on delays and performance
- ..we host a site “dolr.nic.in” that displays up to date information related to all aspects of this project

As a Developer/ Technical experts

- ..we conduct SRS/ Design/ Workflows
- PMP/TQM/SCM
- ..we LRIS Design and Customization
- ..we conduct Unit and System Testing of applications ready for implementation

As an Enabler

- ..we provide technical guidance on LR specific software requirements
- ..we conduct workshops and technical symposium for LR state teams to enable incorporation of new technologies into LR s/w
- ..we provide training to end users on computer awareness and LR Technologies





*Thanks for your
kind attention and valuable
time.....*

.....Irisd