

# CENSUS OF INDIA

Lessons learnt and the way ahead



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# Setting the Context

- History
- Challenges
- Process
- Objectives
- Strategy adopted
- Lessons Learnt
- Way Ahead



# HISTORY

- Rig Vedas
- Kautilya
- Ain e Akbari
- East India Company
- 1872- The years 1867-72 were spent in taking a census by the actual counting of heads through a uniform schedule. This series, commonly known as the Census of 1872, was not synchronous
- 1881 –The first synchronous Census in India

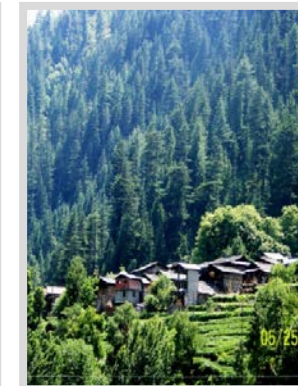
# Challenges



- 1.2 bn population
- 2<sup>nd</sup> largest in the world

- 2.4% of worlds surface area
- Geographical area of 320 million Sq Kms.
- 0.6 million Villages/7935 Towns

- 4,635 ethnic groups
- 80,000 Segments, Synonyms and Titles



# Challenges



- 655 religions and persuasions
- 18 languages (training); 16 languages (canvassing); 6661 mother tongues



- Nomads, Homeless, Forest/Island dwellers
- Infants, Elderly women, Disabled

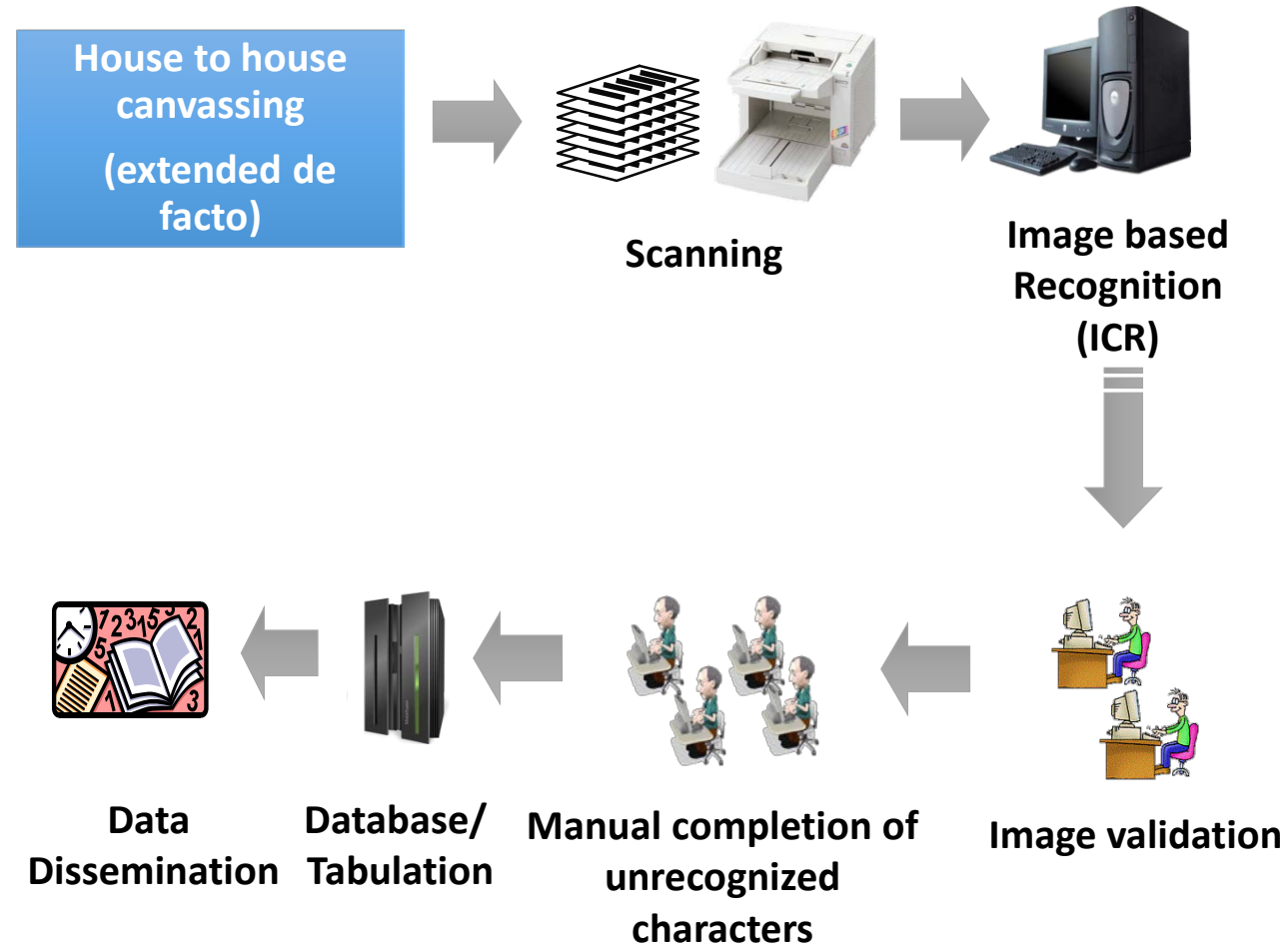


- Disturbed civil conditions
- Inaccessible terrain

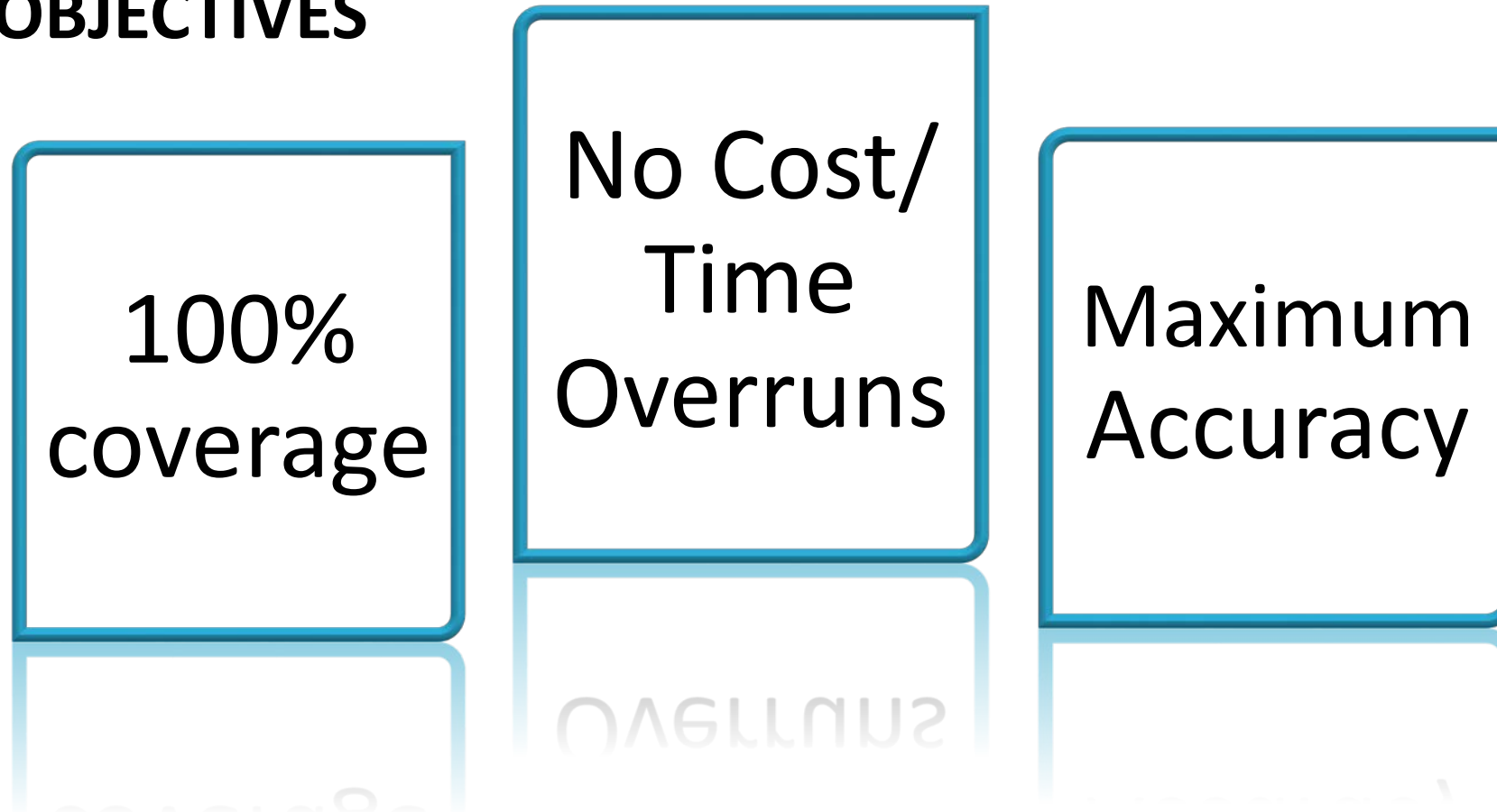
Decorative text in various Indian scripts and numbers:

1 ७ 3  
0 व  
क 0 0  
र 0 3  
क 2 2  
0 2 ४  
1 0 2  
७ 2 ८  
1 सा 0 2  
० ० ०  
० ३ ०  
० ३ ०  
० ३ ०

# CENSUS 2011 PROCESS

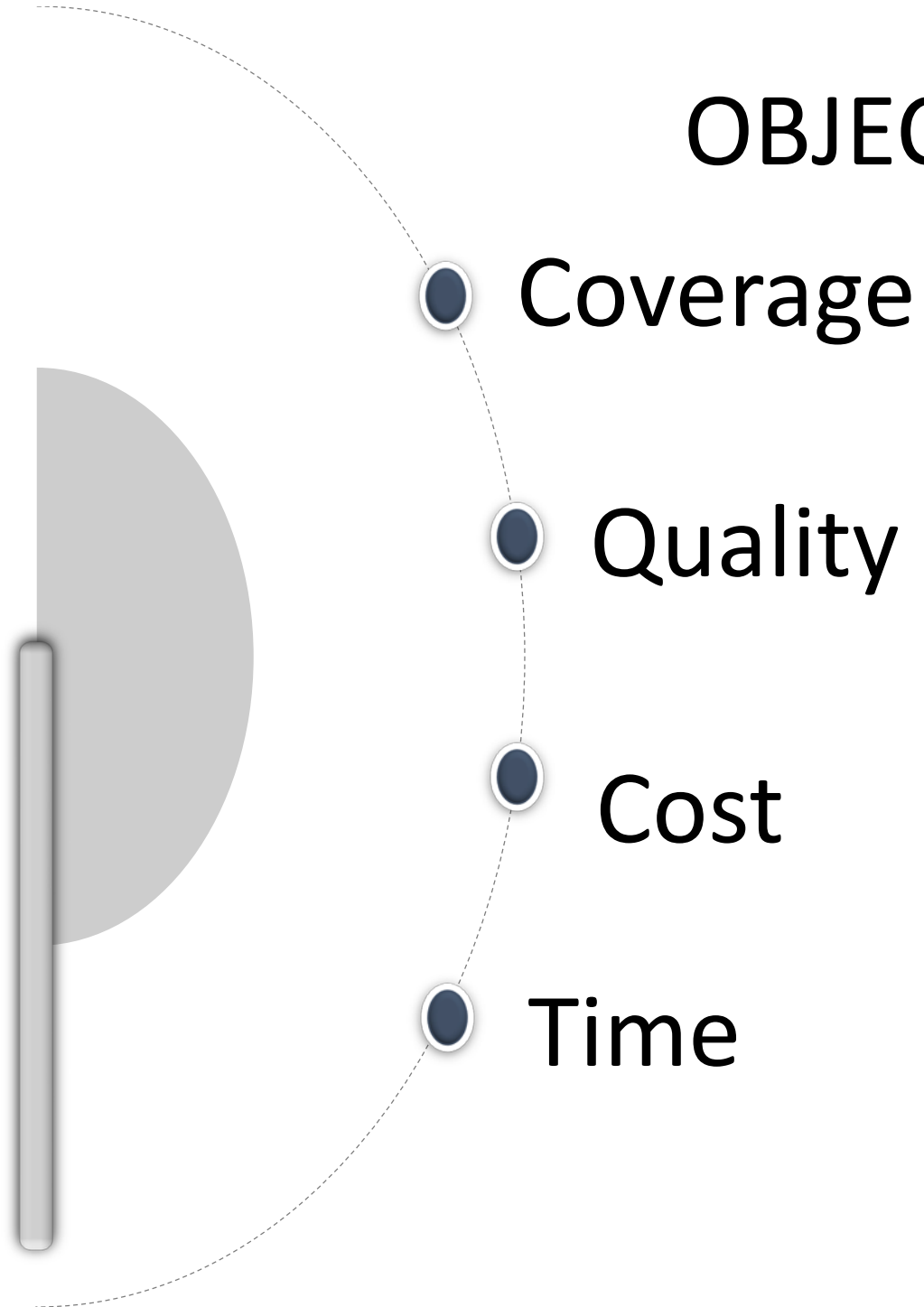


## OBJECTIVES



**GET IT RIGHT THE FIRST TIME!**

# OBJECTIVES

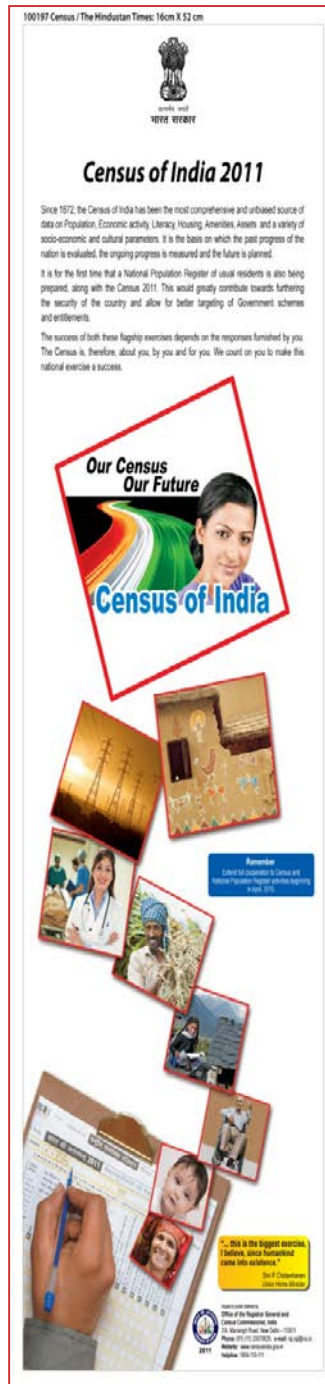




# Coverage - Branding



# Coverage - Advocacy



- Campaigns using:
  - Mass Media
  - Public Outreach
  - Digital Media
  - Print Ads in 16 languages
  - TVCs and Radio Spots in 12 languages
  - Mascot
  - Commemorative Stamp
  - Local Art Forms





# Coverage - DIGITAL MEDIA

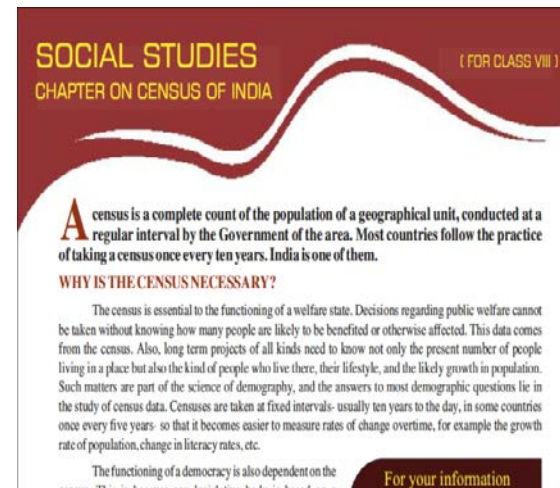


- Facebook
- Twitter
- Advertisements on websites
- SMS
- TV Soaps and Sitcoms



# COVERAGE - CENSUS IN SCHOOLS

School Kit  
Lessons  
Assembly Messages  
Group Activity  
Map Exercises  
Quiz Cards





# COVERAGE - VULNERABLE GROUPS

- Nomads
- Houseless
- Elderly
- Disabled
- Women
- Infants



**Inclusion – fundamental in Census**

# COVERAGE - MODES OF FEEDBACK

- Help Desks
- Toll free helpline number
- Email
- Facebook
- Twitter
- Real time grievance redressal



# QUALITY - QUESTIONNAIRE DESIGN & PRINTING

- High quality paper: Standards evolved for Census
- Clear and simple to read & write
- Standard A3 size for scanning
- Colour dropout for ICR
- Unique form number & bar code
- Minimum number of templates
- Left top corner cut for stacking

The image shows a sample of a Census of India 2011 Household Schedule form. The form is titled "Census of India 2011 Household Schedule" and includes a bar code and form number "NCT OF DELHI 7 0100". The form is designed for data entry and is divided into several columns for different categories of information. The columns include:
 

- Serial number
- Name of the person (age with head of household)
- Relationship to head
- Sex
- Date of birth and Age
- Current marital status
- Age at marriage
- Religion
- Scheduled Caste (SC) / Scheduled Tribe (ST)
- Disability
- Mother tongue
- Other languages known
- Literacy status
- Status of attendance
- Highest educational level obtained

 The form is printed on a grid background, and the data entry fields are highlighted in green. The form is designed to be easy to read and write, with clear instructions and a simple layout. The form is also designed to be easy to scan, with a standard A3 size and a unique form number and bar code. The form is also designed to be easy to stack, with a left top corner cut.

**State of the art techniques-greatly enhanced data processing**

# QUALITY - LOGISTICS

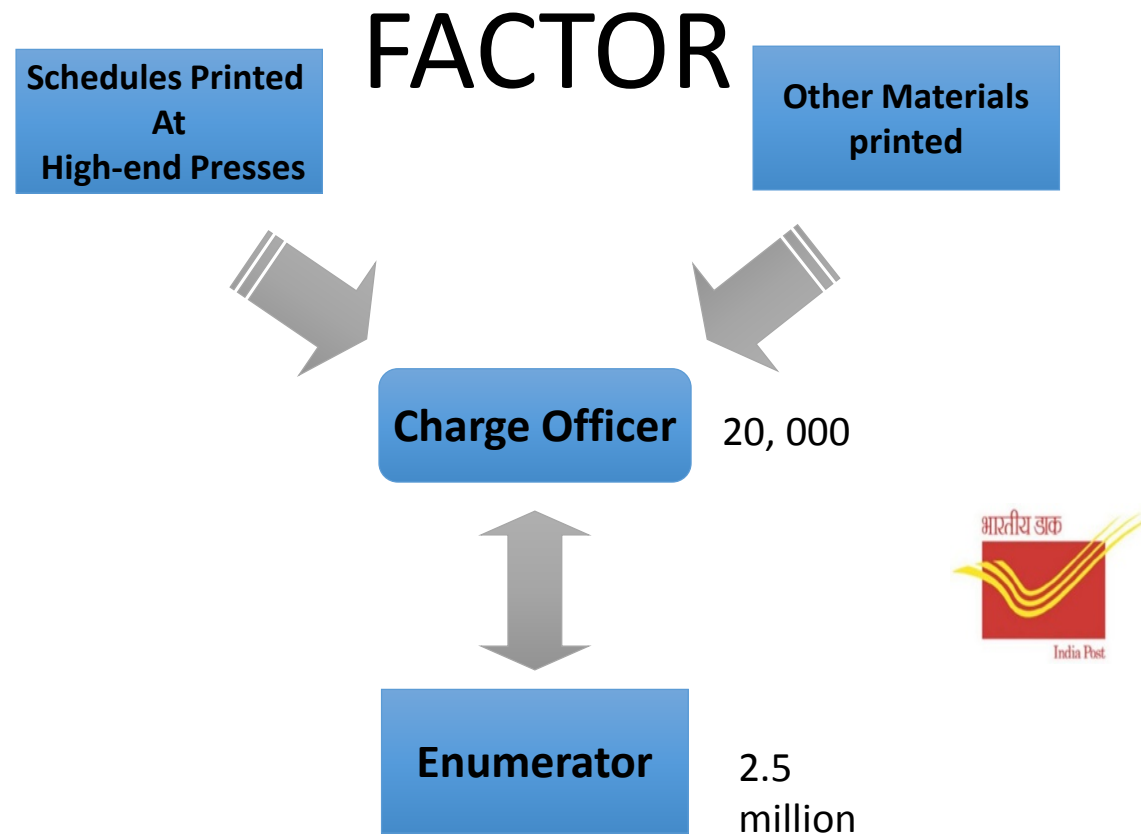
- 20,000 Charge Locations
- Estimating quantities including language mix
- Delivery of material
- Timely and secure return



**Outsourcing non core activities- a deliberate strategy**

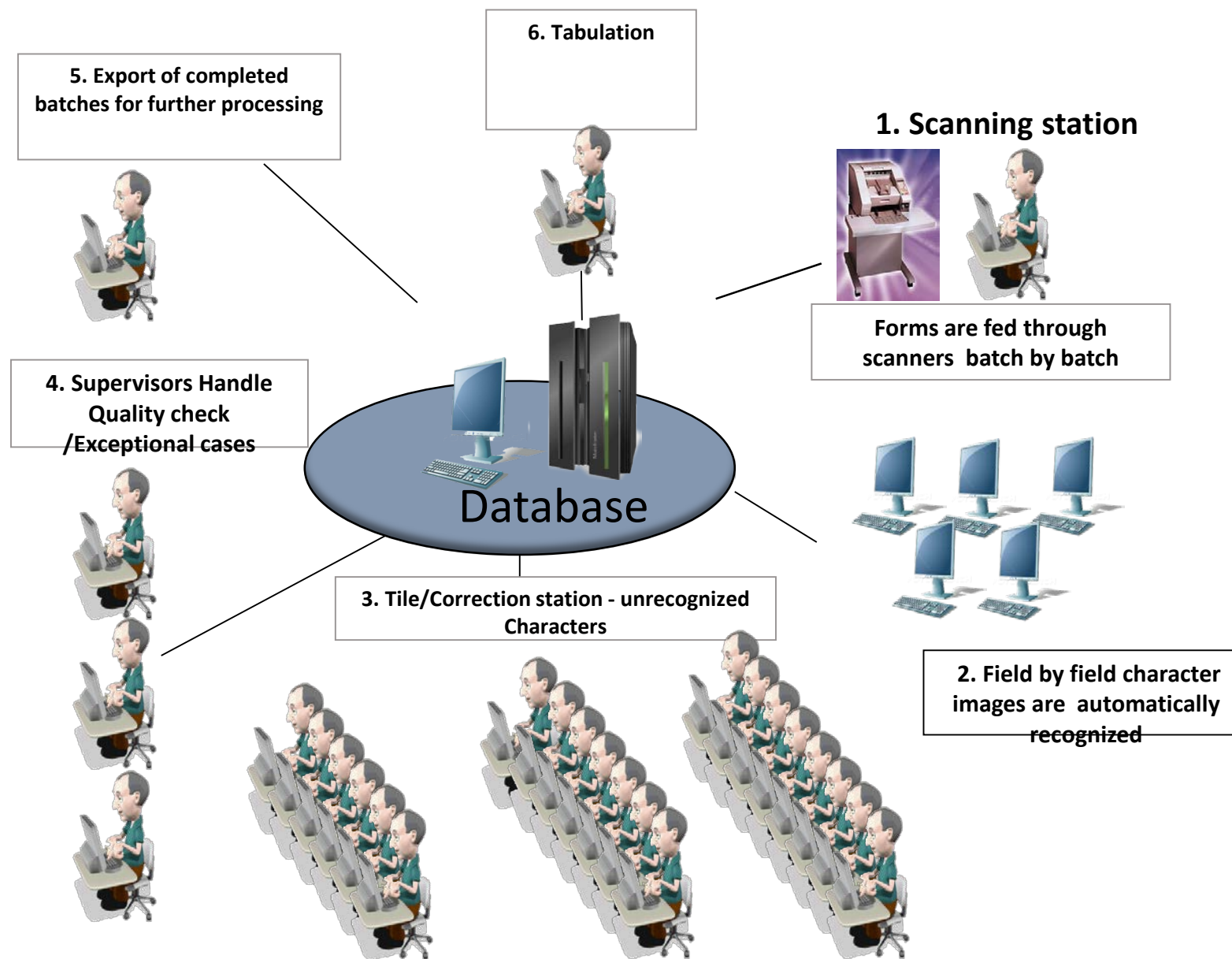


# LOGISTICS - A KEY SUCCESS



**Tracking and Tracing through a customised MIS**

# QUALITY - DATA PROCESSING



# QUALITY - SCANNING

- High speed scanning-1 lakh/day
- Barcode based scan control
- Full archive
- Colour dropout for ICR processing
- De-duplication of images

**SCAN CONTROL STATION**

02/0028

Check Co

District Name: 11-NORTH GOA  
Sub-Dist. Name: 001-PERNEM

Change Needed  
 Location  
 Rescan (count ma

001-Pernem (MCL) | Ward: 0001 | EB No.: 0001

No.	PSCount	Scan Count	Re-Scan	Loc. Char
2			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

1203390100000020

Form Number 0000 0020

**Census**

Goa 3 0 District North Goa 0 1

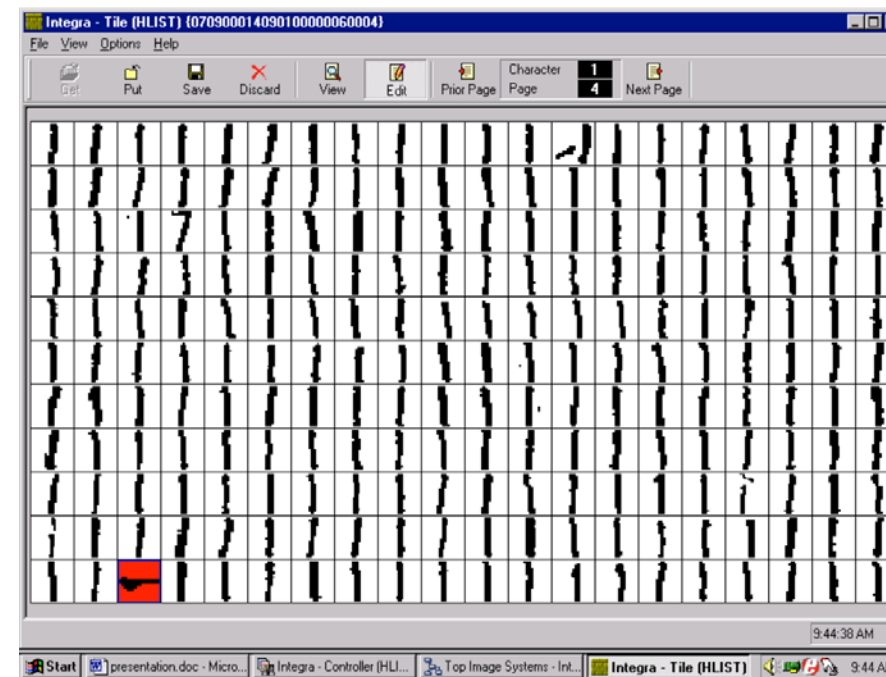
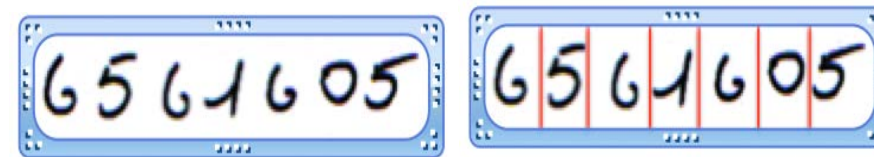
Fill if the census house is

is Predominant material of Ascertain use of Census house

Household number Total num of persons

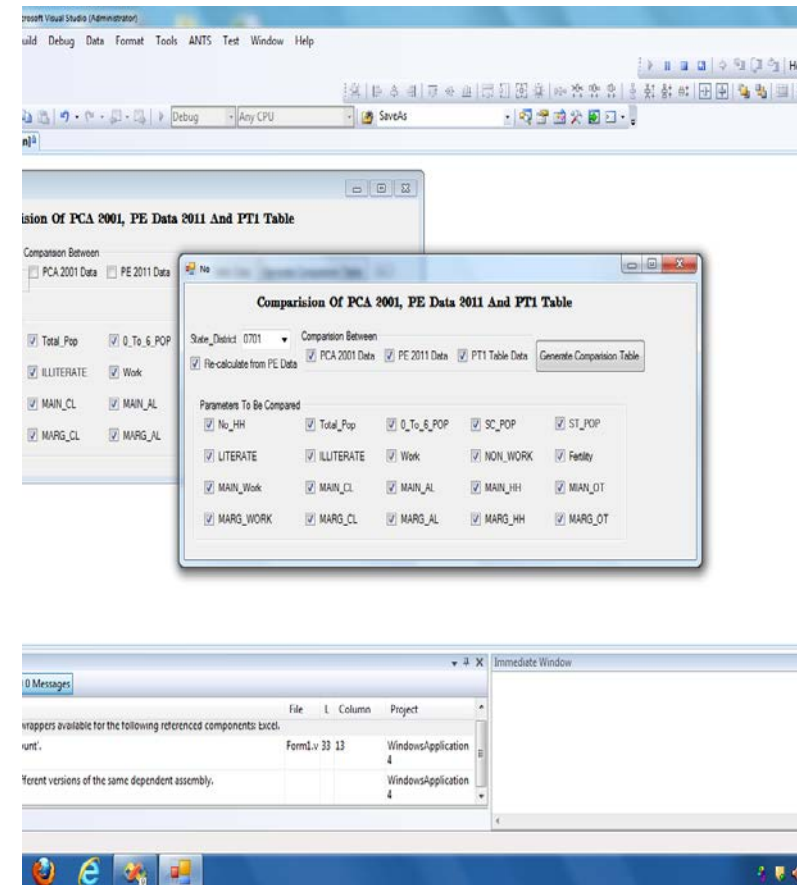
# QUALITY - INTELLIGENT CHARACTER RECOGNITION

- Eflow Software
- Template matching
- Digit separation
- Software recognition
- Tiling for operator check
- Clearing exceptions

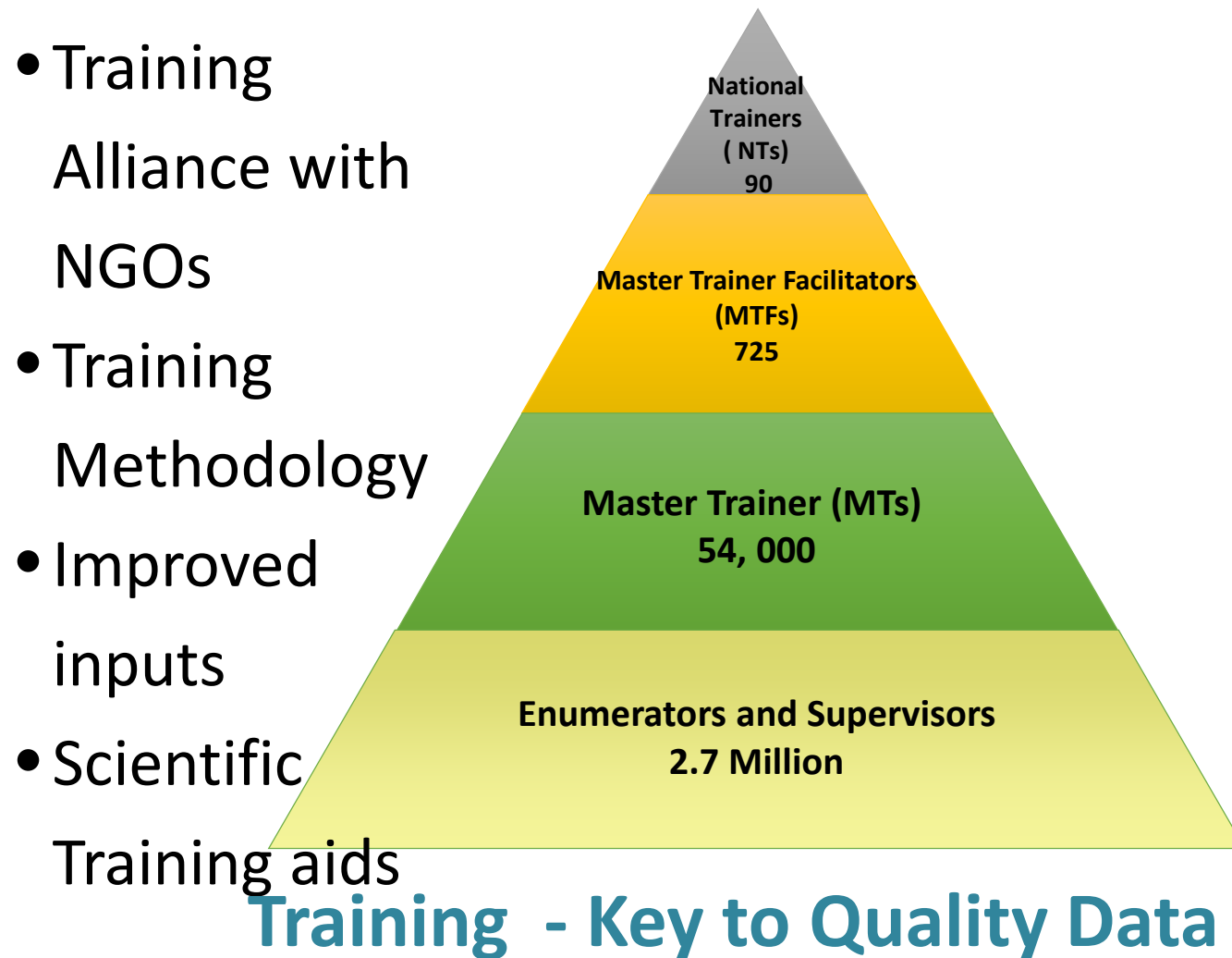


# QUALITY - DATA EDITING

- IMPS/ CPro software
- Coverage checks
- Consistency checks
- Edit rules
- Hot deck/ Cold deck item imputation

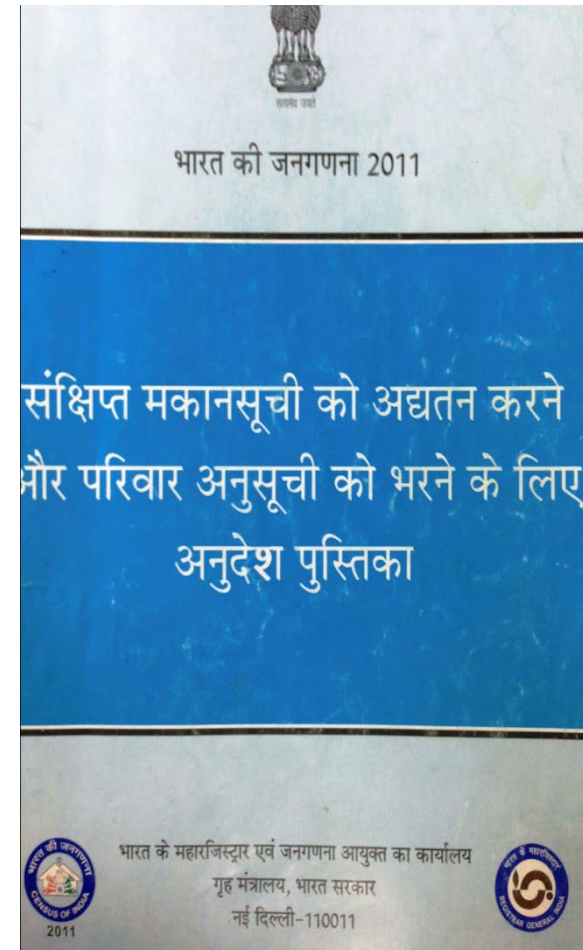


# QUALITY - TRAINING



# QUALITY - TRAINING CONTENT

- Comprehensive, clear manual in local language
- Online/ CD e-learning module
- Hard & soft skills
- Training aids including charts, flash cards etc
- Energizers & mood changers





# QUALITY - ICT IN TRAINING

- Instruction Manuals
- Training Guides
- PowerPoint presentations
- e-Learning Modules
- Internet
- Training CDs
- Community Radio
- SMS/Email

Line number	Building number (Municipal or local authority or census number)	Census house number	Predominant material of floor, wall and roof of the census house (Give code number from the respective lists below)			Ascertain use of Census house (Write the actual use and then choose the appropriate code from the list below and record the same in the box at the left hand side of the column)	If Code '1' or '2' in column 7, condition of this census house: Good-1 / Livable-2 / Dilapidated-3
			Floor	Wall	Roof		
1	2	3	4	5	6	7	8

Count the number of entries and give total



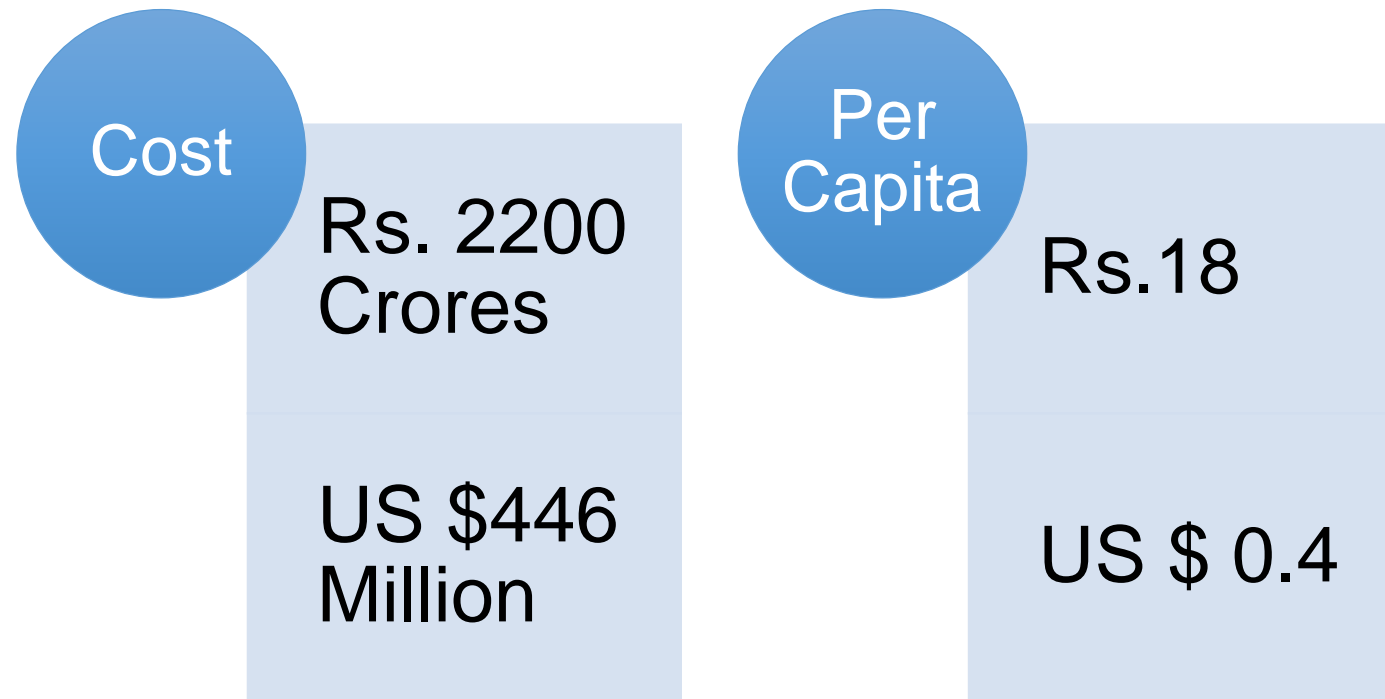


# COST - CENSUS 2011

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- R rationalising the costs of Manpower
- A appropriate Technology
- T raining Costs
- I CT in Supervision/Publicity/Training
- O optimization of material requirements
- N on-core activities outsourced

# COST - CENSUS 2011



# TIME

- Provisional result in one month
- Housing Census results within one year
- Final Population Census results in 18 months
- All major results within 2 years of Census

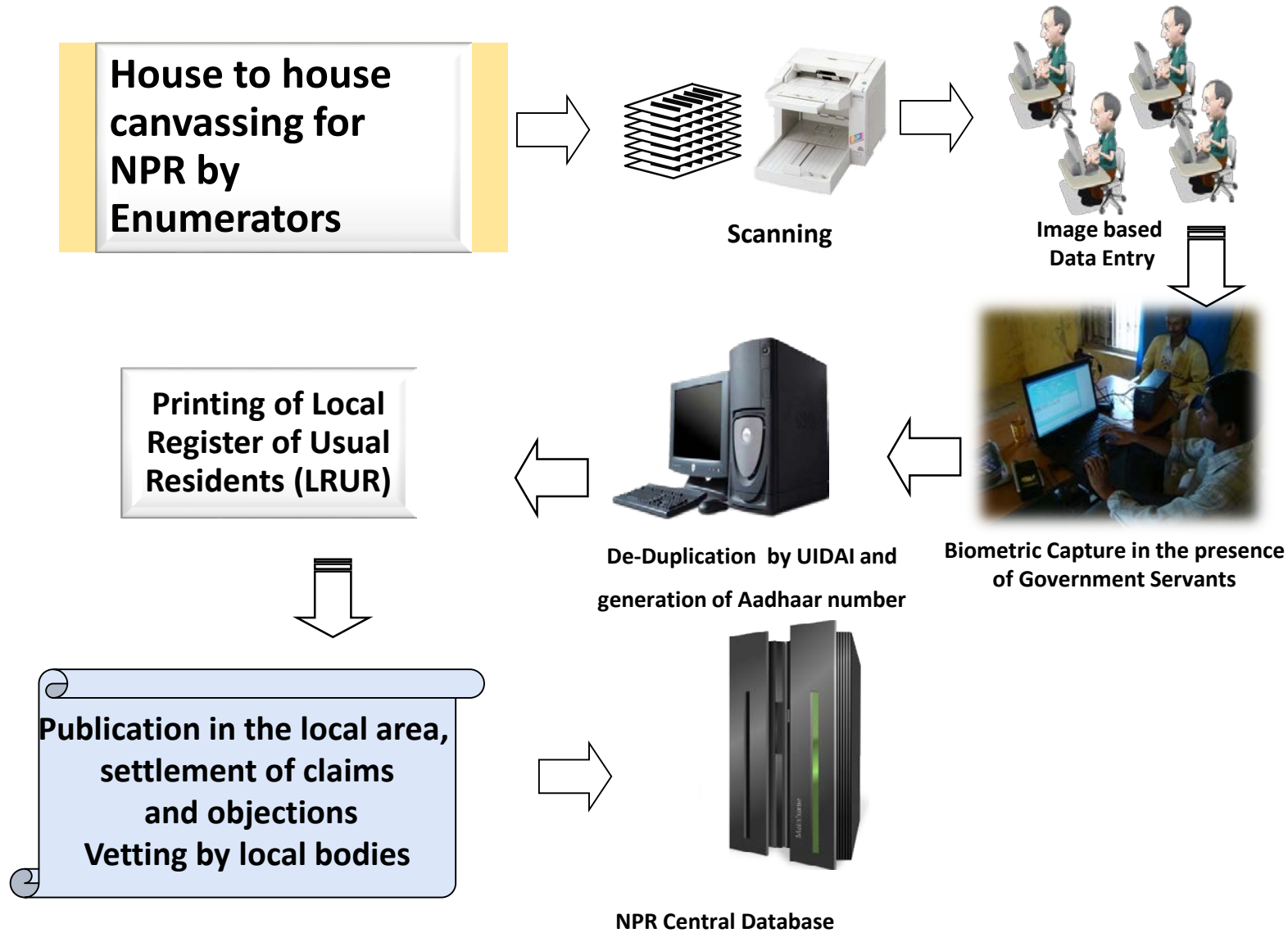
# LEARNINGS

- Manpower –Availability and Costs
- Paper and printing/Delivery- a logistical nightmare
- Data Processing -Growing complexities
- Complete coverage – Increasingly difficult
- Rising aspirations – Sub-Regionalism
- Language, Religious Minorities and Ethnic Groups – Growing intolerance
- Difficult and Isolated areas
- Widespread apathy -Non-cooperation by Respondents
- Inadequate capacity building

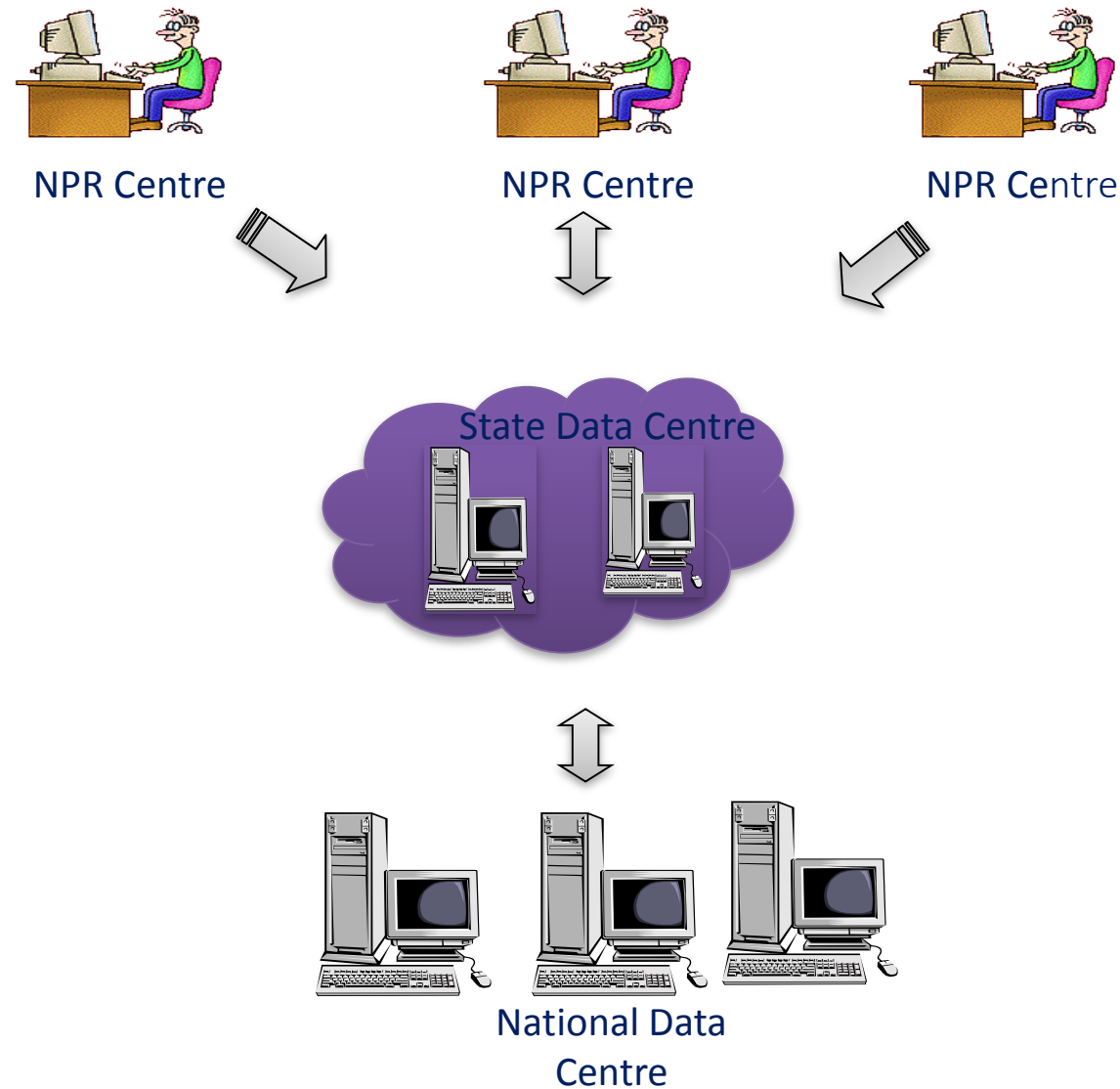
# WAY FORWARD...

- Register Based Census-  
National Population Register (NPR)
- Electronic Census (Paperless)

# NATIONAL POPULATION REGISTER



# DYNAMIC UPDATING



**Continuous updating through the CRVS- basis for a register based  
Census**

# Electronic Data Collection

- Socio Economic and Caste Census successfully completed using handheld Tablets
- Direct Data Entry
- Electronic data directly uploaded from the field
- Dynamic monitoring
- Field Correction
- Instantaneous results
- Completely Paperless

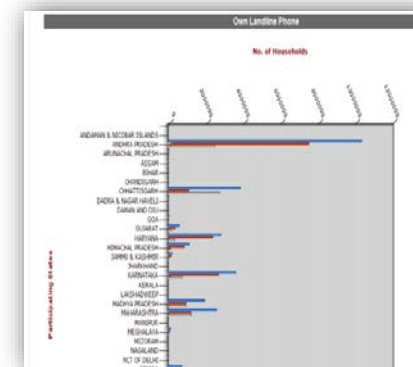
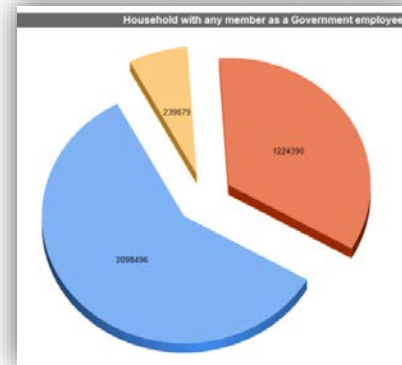
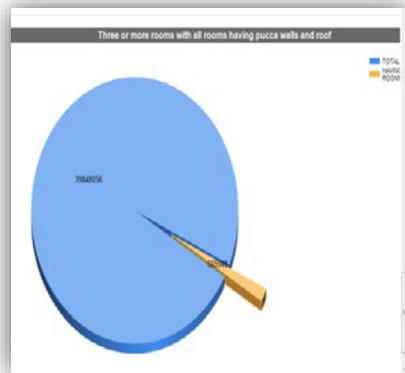


- Weighs 280 grams/7 inch LCD Color Display
- Touch screen/keyboard
- Internet connectivity
- Solar battery chargers
- Price: Less than US \$ 80 per piece

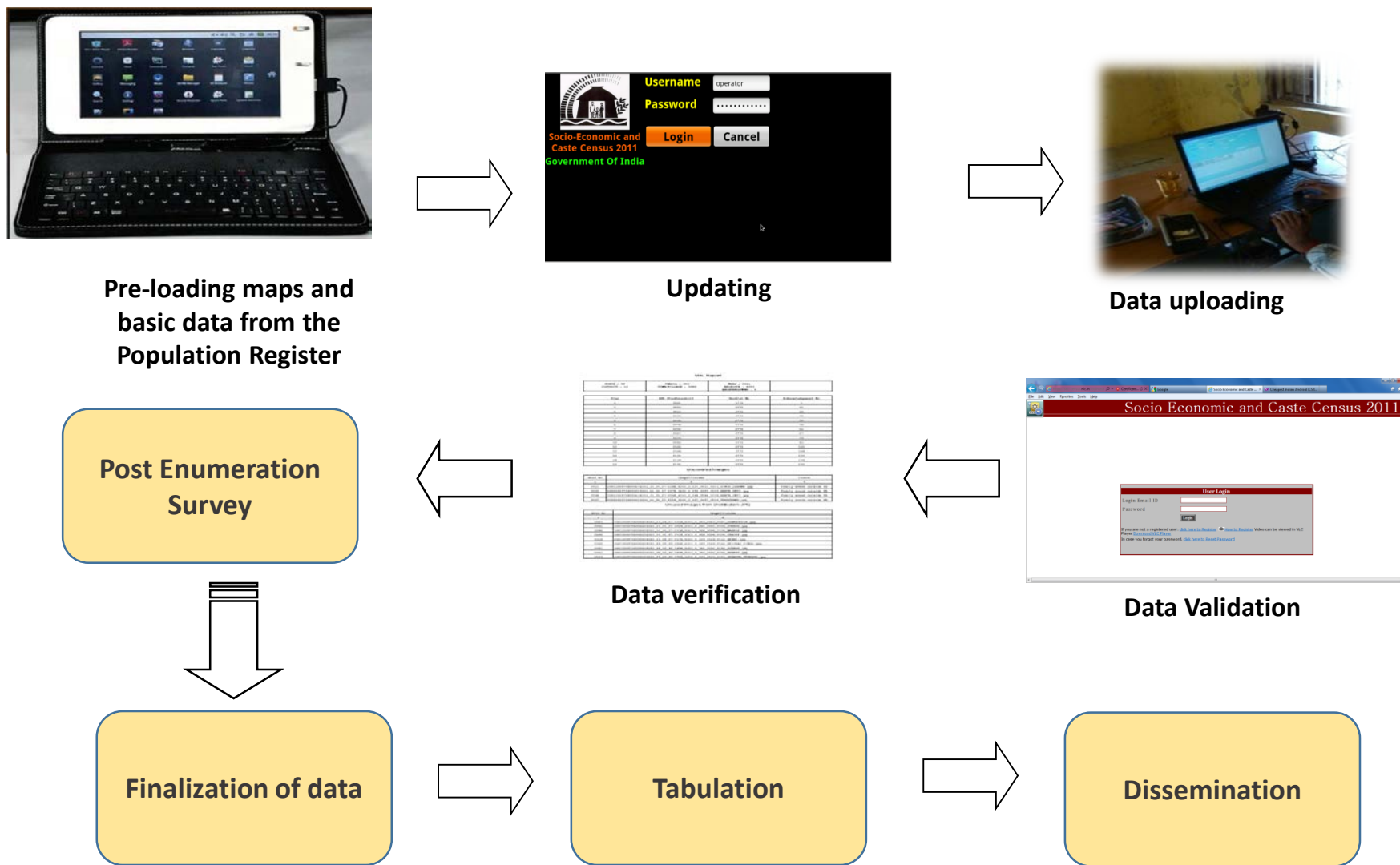


# ELECTRONIC CENSUS- A PIONEERING ATTEMPT

Village Name	Total No of Block	Village List								File Upload Status				Blocks List											
		Survey Status								E-Enumeration				S-Supervisor											
		P-In Progress								C-Completed				F-Final											
		N-Not Started								F-Survey Completed				F-Final											
		N	Enumeration		Supervision		Claims & Objections		F	E	S	F													
Krishnapur (part)-0001	33	24	0	2	0	0	0	0	0	2	0	0	0138, 0137, 0135, 0139, 0142, 0145, 0146, 0147, 0148, 014, 0154, 0155, 0156, 0157, 015, 0163, 0164, 0165, 0166, 016, 0172, 0173, 0174, 0175, 017, 0181, 0182, 0183, 0184, 018, 0190,												
Moharchhara-0002	18	10	0	8	0	0	0	0	0	8	0	0	0001, 0002, 0003, 0004, 000, 0010, 0011, 0012, 0013, 001, 0019, 0020, 0021, 0022, 002, 0028, 0029, 0030, 0031, 003, 0037, 0038, 0039, 0040, 004, 0046, 0047, 0048, 0049, 005, 0055, 0056, 0057, 0058, 005, 0064, 0065, 0066, 0067, 006, 0073, 0074, 0075, 0076, 007, 0082, 0083, 0084, 0085, 008, 0091, 0092, 0093, 0094, 009, 0100, 0101, 0102, 0103, 010, 0109, 0110, 0111, 0112, 011, 0118, 0119, 0120, 0121, 012, 0127, 0128, 0129, 0130, 013, 0136, 0137, 0138, 0139, 014, 0145, 0146, 0147, 0148, 014, 0154, 0155, 0156, 0157, 015, 0163, 0164, 0165, 0166, 016, 0172, 017, 0001, 0002, 0003, 0004, 000, 0010, 0011, 0012, 0013, 001, 0019, 0020, 0021, 0022, 002, 0028, 0029, 0030, 0031, 003												
Uttar Pulinpur-0003	12	6	0	6	0	0	0	0	0	6	0	0													
Laxmipur(Part)-0004	17	8	0	8	0	0	0	0	0	8	0	0													
Dakshin Pulinpur-0005	12	9	0	3	0	0	0	0	0	3	0	0													
Tuichindrai-0006	10	4	0	6	0	0	0	0	0	6	0	0	0030 154 / 174 05/08/2011 11:51:37 teliamarad..												
Hawaibari-0007	11	6	0	5	0	0	0	0	0	5	0	0													
Sardu Karkari-0008	10	5	0	5	0	0	0	0	0	5	0	0													
Teliamura R.F. (part)-0009	15	6	0	6	0	0	0	0	0	6	0	0													
Brahmachhara-0010	6	3	0	3	0	0	0	0	0	3	0	0													
Dakshin Gakulnagar (Part)-0012	1	0	0	1	0	0	0	0	0	1	0	0													
Teliamura (Part)-0013	11	5	0	6	0	0	0	0	0	6	0	0													



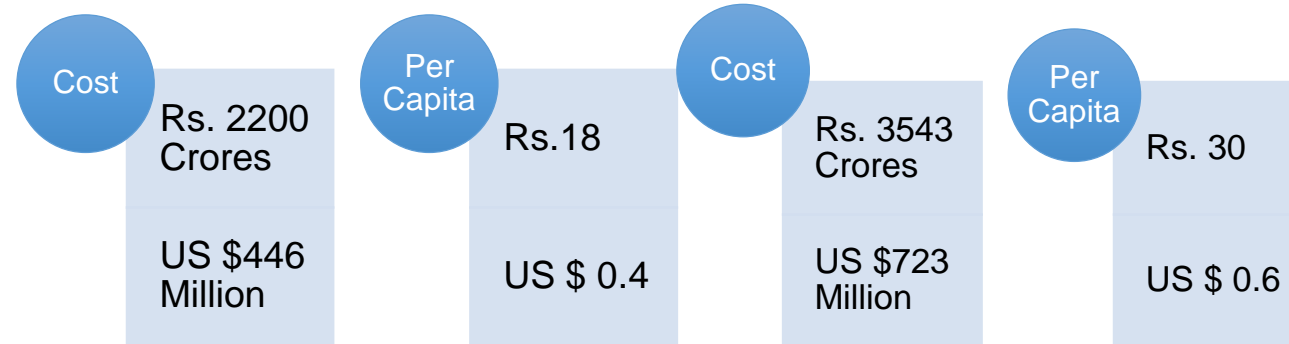
Triumph of Technology!!



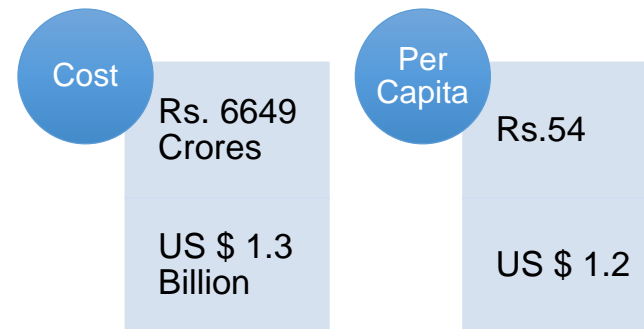
# COMPARATIVE COST

Census 2011

SECC 2012



## National Population Register



# Features of the Proposed Method

- Improved coverage
- Enhanced Quality
- Optimized cost
- Savings in Time
- Quicker Dissemination

# Thank You