Socio- Economic Caste Census
for
Electronics Corporation of India Limited (ECIL), India

By implementing Socio-Economic Caste Census (SECC), Vayam assisted ECIL in data collection on door to door basis for four Districts namely Purba Champaran, Kaimur, Rohtas and Buxor of Bihar. The survey will empower the State Government to rank households based on their socio-economic status, so that it can objectively prepare a list of families living below the poverty line in rural and urban areas.

CLIENT: Electronics Corporation of India Limited

LOCATION: Purba Champaran, Kaimur, Rohtas and Buxor, Bihar, India

CLIENT DESCRIPTION

ECIL was setup under the Department of Atomic Energy on 11th April, 1967 with a view to generate a strong indigenous capability in the field of professional grade electronics. The initial accent was on total self-reliance and ECIL was engaged in the Design, Development, Manufacture and Marketing of several products with emphasis on three technology lines viz. Computers, Control Systems and Communications. Over the years, ECIL pioneered the development of various complex electronic products without any external technological help and scored several 'firsts' in these fields.

Consortium of Public Sector Undertakings (CPSUs) consisting of Bharat Electronics Limited (BEL), Electronics Corporation of India Limited (ECIL) and ITI Limited (ITI) is implementing Socio Economic & Caste Census-2011 covering entire population across the country for the Ministry of Rural Development (MoRD), Ministry of Housing & Urban Poverty Alleviation (HUPA) & Office of Registrar General, India (ORGI), Ministry of Home Affairs, Govt. of India.

OVERVIEW

The Socio Economic and Caste Census (SECC), 2011 is being carried out by the Ministry of Rural Development (MoRD), Ministry of Housing & Urban Poverty Alleviation (HUPA) & Office of Registrar General, India (ORGI). Ministry of Home Affairs, Govt. of India., Government of India to generate information on a large number of social and economic indicators relating to households across the country through a comprehensive door to door enumeration across the country.

The SECC, 2011 is being conducted simultaneously for rural and urban areas by Consortium of Public Sector Undertakings (CPSUs) consisting of M/s Bharat Electronics Limited (BEL), M/s Electronics Corporation of India Limited (ECIL) and M/s ITI Limited (ITI), by the help of respective State Government and Union Territory Administration.

CPSU has appoint vendors for carrying out all the jobs related to Socio Economic & caste census including Bilingual Door to Door Data entry, managing the Data Collection Centers established at Tehsil level across the country and facilitating printing of the enumerated data.
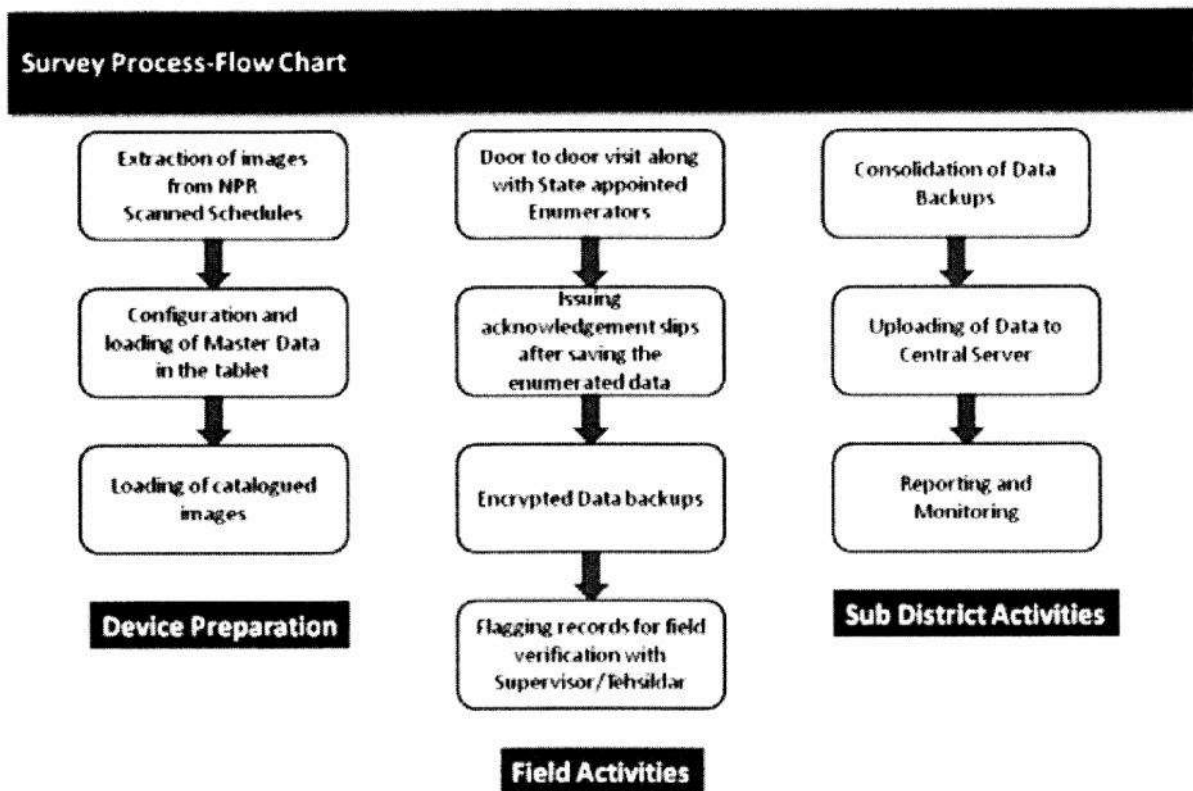
This is the first time such a comprehensive exercise is being carried out for both rural and urban India. It was launched on 29th June 2011 in Sankhola village in West Tripura.

OBJECTIVES

- To enable households to be ranked based on their socio-economic status. State Governments can then prepare a list of families living below the poverty line

- To make available authentic information that will enable caste wise population enumeration of the country

- To make available authentic information regarding the socioeconomic condition, and education status (together can be called as socio-economic profile) of various castes and sections of the population

SCOPE

Process flow

Survey Process-Flow Chart

Device Preparation
- Extraction of images from NPR Scanned Schedules
- Configuration and loading of Master Data in the tablet
- Loading of catalogued images

Field Activities
- Door to door visit along with State appointed Enumerators
- Issuing acknowledgement slips after saving the enumerated data
- Encrypted Data backups
- Flagging records for field verification with Supervisor/Tehsildar

Sub District Activities
- Consolidation of Data Backups
- Uploading of Data to Central Server
- Reporting and Monitoring

A. Collection of Input Data:

- CPSUs will Collect of NPR Scanned images in encrypted form from respective DCO. ORGI will instruct DCO offices to issue the encrypted images in Charge office level segregation.
- ORGI/MoRD will provide Masters, as followed in NPR, up to Village codes for entire country

- Respective DCOs will provide AHL (Abridged House List) hard copies to CPSUs. The hard copies are also provided in charge wise arrangement. ORGI will instruct DCOs to issue the AHLs.
- State Administration will also provide EB Maps etc to the enumerator to enable clarity in the work area among enumerators in a village.
- CPSUs will Collect Grampanchayat Masters at District / Tehsil level. MoRD will instruct State administration to ensure issuance of the data.

B. Setting up of Charge level center for Field data processing:

- MoRD will instruct and ensure that State administration will provide infrastructure to CPSUs to establish data processing centers at Charge office / Tehsil level.

C. Preparation of Handheld devices - Charge office level:

- The PCs have to be installed with Linux OS (Cent OS version 5.2/5.3/5.5) and Mysql database. Once the PCs are made ready, the database with required tables will be created using a script provided by CPSU. These tables have to be populated with the master data made available at each of the charge centers. After importing data for master tables, entries for Grampanchayat masters, using the hard copies of the data received at district/Tehsil offices, have to be completed using the application. NPR Scanned encrypted Images have to be copied to the PCs. After copying to the PCs the Application will decrypt the images and convert them to JPEG format. Using the application and the hard copies of Abridged House lists made available the AHL entries and NPR Scanned Images are linked. After completion of AHL entries for an enumeration block, images have to be catalogued using the application. This activity should be carried out EB wise and after completion of the images for the EB, all the catalogued JPEG image files will be stored in a folder with a proper filename. These images are fed into a hand held device along with respective master tables for field deployment. These Devices after successful completion of data transfer have to be verified for the correctness of data loaded with respect to deployment site and labeled accordingly after confirming the same. Instructions will be provided to carry out the installations.

D. Deployment in field:

- The Field Operators after proper Training will start Door to Door Visit along with Enumerator in the designated Enumeration Block to carry out the entries. After completion of gathering information and before saving the record entered, team will read out data entered and confirm. The Enumerator will also provide acknowledgement slips duly signed. The signature of the respondent will be taken on counter foil confirming the entries made in the hand held device. Enumerator, in case not agreeing to the data provided by respondent, can record his disagreement while saving the record. The disagreement can also be added within six hours after saving of data. Operators on field will not be allowed to edit the data collected once saved. Provision for editing the saved data will be done for

Supervisors at Charge center level. Data entry activity will be repeated for all the households within the EB in coordination with the Enumerator Data dump will be exported in encrypted format on daily basis and Transfer the data to External Storage (as intermediate Backup data)

E. Data Consolidation, Uploading and Generation of draft list – Charge Office level:

- After completion of data entry for an EB, the operator will export the data and submit the backup at charge office level. The application will accept the backup, purge all the data from the hand held device after successful transfer of all the data from the device.

QUALITY CHECKS FOR DATA ENTRY

The data quality checking is the prime responsibility of the Vendor. One Supervisor should be appointed by the vendor for every 15 Data Entry Operators to carry out quality checks on line. Supervisors will have to take corrective actions to avoid recurrence of the errors and report the activity to CPSU representative at Site.

METHODOLOGY

The Census 2011 would be divided into four phase
1. Enumeration phase,
2. Draft publication phase,
3. Claim and objections phase and
4. Final list publication phase

1. Enumeration phase

- Enumeration block as identified by the RGI will be the unit for Census
- NPR data would be used as the base for obtaining basic information on households. To the extent feasible preloaded information on households available from the NPR would be used.
- Name of Panchayat would be captured by the enumerator during the survey, if possible a drop down menu list.
- One team consisting of one enumerator provided by the State / UT and one Data entry operator provided by the vendor will conduct the survey in four enumeration blocks, one at a time. Data entry would be done on a hand – held device (Tablet PC) in two languages - English and local language.
- The enumerators and trainers would be provided by the state governments. The data entry operators would be provided by the vendor.
- There will be one supervisor from Govt. handling 6 enumerators.
- The total enumeration process would be carried out during a period of 5 week. One team would visit a total of 15 – 20 household per day.

- The last training of the enumerators and supervisors would be jointly conducted with the data entry operators to ensure that the enumerators - data entry operator teams get trained together.

2. **Advance preparation for the Socio Economic & Caste Census**
- Vendor shall obtain the census map from the Block / District office. Each team will cover one or more enumeration blocks taking the NPR data as base.
- District administrations will finalize the work assignment of each enumerator and supervisor and intimate the officers of CPSU/Vendor. In addition, Tehsil wise list of Panchayat have to be obtained by the concerned officers of the vendor/CPSU.
- Supervisors and enumerators will be familiar with the local context and dialect but will not be from the same block as the survey block.
- Each team will be given (a) one "hand – held device" (b) instruction manuals for supervisor/s; (c) instruction manual for enumerator; (d) the census village map; and the village master list; (e) requisite number of acknowledgement slips.
- Tehsil office (charge centre identified for population Census in rural area) will act as the co-ordination centre for the enumeration team. The following infrastructure will be provided at each centre – space, furniture, computers and other hardware.
- The enumerator along with the data entry operator would make door – to – door visits on each day.
- After the survey, the respondent would be read over the information given by him and would be given a preprinted slip as token of his visit and would be asked to sign an acknowledgment slip.

- At the end of the interview session, data entry operator will save the data capture. Once saved, this data would not be amenable to any editing by the team.
- In case the enumerator feels that the response is incorrect, he will record the same in the space provided below the questionnaires in the device within 6 hours of completion of interview and save it.
- The process will be repeated for each household in the enumeration block.
- At the end of each day's survey, the enumeration team will assemble at the tehsil office and upload all the filled questionnaires onto the server present at the block office. The team will also keep their enumeration devices at the office for recharging overnight. Detailed instructions for enumeration and supervision will be provided to the members of the team.
- In inaccessible areas, where daily visit to charge office is not possible, the enumerators will visit the office periodically but not exceeding weekly. He would necessarily visit the charge office (Tehsil) once enumeration of an EB is completed.
- At Tehsil office, data in – charge will collect the tablet PCs from all enumerators who have come to the centre, unload the data to the server and take back up in two removable devices. One device will be sent to district office on daily basis and another one will be kept by the tehsildar in his custody. Tablet PCs will be purged of data which has been taken out and fresh data, if required, will be uploaded on it and handed over to the team for further enumeration.
- On return, the data collected by the supervisor team also is processed in similar manner.

- In Tehsil, where internet connectivity is robust, it will be immediately uploaded to central server, maintained by NIC
- Some questionnaires collected on a random basis along with all questionnaires containing comments by the enumerators disagreeing with the response of the respondent, would be uploaded onto supervisor's machine
- Supervisors along with a data entry operator would visit all households uploaded on his machine and record his observation / comments. At the end of each day, supervisor will upload questionnaires with comments onto the block office
- A tehsildar or an officers appointed by the state government will be over – all in – charge
- The system will throw up cases where there are differences in observation of enumerators and supervisors. Such cases will be examined immediately by the Tehsildar
- At the district level, back up received from Tehsil offices will be carefully stored for the Tehsil not having robust connection; data received will be uploaded to central server on daily basis

3. **Draft Publication Phase**
- After 5 weeks all information would be collected and a draft publication / list will be prepared with all information in the survey questionnaire transposed to a single row item for each household.
- The list would be published and placed at the following places
    o Panchayat office
    o Another Prominent location in the panchayat
    o Office of the BDO
- The draft list along with the information regarding placement of this lists will be sent to the District collectors.
- A notice regarding the draft publication will be printed in the local media/newspaper.
- Within a week of publication of the draft list, the list will be read out in the Gram Sabha.

4. **Claim and Objections Phase**

- Claims and objections will be limited to the facts displayed in the list only.
- Claimant or objector may also support claims with documentary evidence.
- Forms meant for filling objection to the inclusion of names (s) of person(s) in the published draft list and for correction /modification of entries in the draft list and for filing claims for inclusion, in case of omission, will be made available to the applicants free of charge on demand at the centre (i.e. office of the Block Development Officer).
- The responsibility of receiving claims and objections will be with the Panchayat office and with the office of the BDO. An acknowledgement slip, which is available at the bottom of the respective forms, shall be given to all applicants along with details of date, time and place of the hearing of these claims and objections. This date should not 7 days from the date of receipt of forms.
- For this purpose the state Government will notify officers who will be competent to take a decision on claims and objections. A summary hearing will be conducted by officer

appointed by the state government. Record of the summary hearing will be uploaded into the database through a system provided by CPSU. A copy of the order would be given to the person concerned.

- Persons not satisfied with their decision have a right to appeal at the district level.The state government will appoint officers at the District level competent to take decision at the level. An acknowledgement slip should be given to the applicant with details of date, time and place of the hearing of these claims and objections. This date should not exceed 7 days of receipt of forms.
- Period for filing claims and objections would be 21 days from the day of publication of the draft list.

5. **Final List Publication Phase**
- At the end of 31st day from the publishing of the draft report, the final list will be published.
- The Final List will be sent to
    - All Panchayats
    - All Block offices
    - Other offices of the state Government that are considered appropriate
- The Final List will be generated from the MIS only

TECHNOLOGY

Hardware
- Portable Handheld Device (Tablet PC) developed by Bharat Electronics Ltd. The database created during the National Population Register (NPR) would be utilized. This will be loaded to the handheld devices.

- The necessary hardware is being procured by the Ministry of Rural Development through the Public Sector Undertaking M/s BEL

Software
- Management of Information System (MIS) for the census is developed by the National Informatics Centre (NIC).

- The data collected is uploaded on NIC Website: www.sec-census.nic.in and www.secc.gov.in

BENEFITS

- A National Database is created: Socio Economic Caste Census (SECC) 2011 ranks the households based on their socio-economic status
- State Governments can use this database to prepare the list of families living below poverty line (BPL)

- Combined with UID: This database can be utilized for identification of beneficiaries for various socio-economic welfare schemes
- Transparency: Once data collection is complete, it'll be given to Gram Sabha and put on public display which will ensure that there is no misreporting. At the higher stage, data will be cross verified at block and district level officers
- Paperless: Survey is carried by 2 men team (Enumerator + Data entry operator).Data entry operator is given a tablet PC
- Reduce Data Entry Errors - When Data entry operator is entering data in the table PC, he'll also see the scanned form of National Population register (NPR)= it means he can cross check the information provided by given household drastically reducing data entry errors and enumerator discretion