

Challenges of 2001 Census in India and future issues

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Introduction

At the 2001 Census India counted 1028 million persons in 193 million households

The enumeration covered over 6 hundred thousand villages and 5 thousand towns in diverse geographical expanse of the country

The task was accomplished by an army of 2 million field workers (enumerators) in three weeks times (9-28th Feb 2001)

The multi-ethnic, multi-linguistic and multi-cultural fabric of Indian population adds to the complexities

The census of this size and complexities obviously poses huge organizational and logistics challenges

The Challenges – how are they overcome

Administrative, technical and technological innovations

A well evolved decentralized census hierarchy right up to the lowest geographical unit

Close coordination between the union and state governments are the key to the success of the exercise.

The Census Act provides for setting up of census hierarchy and binds them with specific duties and responsibilities

The Census Commissioner's Office does the strategic planning, finalization of data items, stream lining processes and procedures, preparation of uniform instruction manual and overall coordination

Directorates of Census Operations in each state are responsible for overall execution through state census hierarchy

Preparation of geographical frame

Until 1991 Census, a hierarchical coding system was followed and frequent changes in the geographical jurisdiction render it unusable in the next census.

In 2001 Census Permanent Location Code Number(PLCN) was given to each village within the state thus resolving the problem in rural frame arising out of the hierarchical system.

PLCN is an eight digit code in which the last two digits are kept for accommodating future changes that arising due to creation of new village

The new code structure ensures comparability of data at the village and other administrative levels in time series

Formation of slum enumeration block

Slum EB were identified and formed in municipal towns having 50,000 and above population in 1991 census.

This has helped in count of slum population under the ambit of one definition

This will also help in providing insight into various other characteristics of the slum population

Appointment of enumerators

Hiring 2 million enumerators was a challenging task

The enumerators who are mainly government employees mainly schoolteachers have to perform duties in addition to part-time duties

Annual examinations come in the way

Resistance from teachers as well as the government departments

Litigations

Training

A very detailed Manual of Instructions prepared explaining the concepts, definitions and rationale of each item included in the form

Manual prepared in 18 languages

Eliciting correct information is the responsibility of the enumerator especially in Indian scenario of generally low levels of literacy among the respondents

Three rounds of training in batches of 70 to 80 participants per training class

Standard training module developed – blackboard to power point used

A well equipped team of Master Trainers mainly drawn from Lecturers, Principals of school and other government officials with good oratory and training skills deployed

Census Help Lines

Census Help Lines/ Telephone Help Line set up just prior to the start of the enumeration to provide technical assistance to enumerators

Public complaints of non-enumeration was registered in these centres

Sincere and honest efforts were made to follow up each of the complaints

This helped in improve the coverage

Publicity

Intensive and extensive publicity campaign undertaken to increase awareness, seek cooperation and allay fears that the information provided will not be kept confidential

Publicity through various media such as newspaper, radio, television, cable network, postal stationer

Publicity through posters, pamphlets, banner, participation in fairs, exhibition, children rallies, street plays

Celebrities made appeals on TV

Enumeration of dignitaries such as President, Vice-President, Prime Minister on the first day was carried by as headlines in the media

Census Quiz held for six months

Census Logo gave a face and identity to Indian Census



Engendering the Census

A major criticism against the Indian Census was that it did not fully capture women's economic activity

An aggressive and pragmatic gender sensitization strategy was adopted

Definition of 'work' expanded to milk production for domestic consumption

A special chapter highlighting women's work included in the manual with 32 sketches depicting paid and unpaid work for better comprehension

Critical districts with low female work participation and literacy identified for special efforts in improving the situation

Census advisors engaged for focused training

Design and printing of forms

Forms designed and printed in 16 languages

A fixed and single template for all the languages - a prerequisite for scanning of forms

Nearly 7000 metric tones of paper procured and moved to different presses across the country

Distribution of forms to 2 million enumerators to 6 hundred thousand villages and 5161 towns ensured through meticulous planning

Inventory control

Rigorous inventory control maintained at each stage for distribution of blank forms and receipt of filled in forms

Forms flowed from 2 million enumerators to 15 data centres

Forms for each EB physically counted before acceptance to ensure that not even a single filled in form is missed/lost

EB wise forms were put in plastic packets and placed in cardboard boxes for safe transportation

Processing of data

A state of art technology of scanning and recognition through high speed scanners and Intelligent Character Recognition (ICR) software used for electronic capture of hand written data

A calculated risk taken as not many countries have attempted this technology in the past

About 200 million forms (A-3 size both sides) were scanned and processed within ten months in 15 data centres

A strong monitoring mechanism at the national level ensured minimum down time in the data centres

Desired quality and quantity of output achieved by tying up with a front end Integrator – single point responsibility

Payment linked to 90 % recognition and less than 2% false positive

Gains in use of ICR technology

Saving of 6000 million INR – equivalent 150 million USD

Possible to produce all tables on hundred percent basis

Scanned images of all forms available for future methodological studies

Scanned images can be preserved for a longer period of time even after paper forms are destroyed

Data dissemination and utilization of census data

Aggressive and pro-active data dissemination strategy adopted

Quick release of data in user friendly electronic format

Data at country and state levels made available on census website

Release of data followed up by sensitization programmes through workshops, seminars, press release etc

Census made visible through participation in book fair, exhibitions etc.

Dissemination not confined to the national or state level but taken down to district and sub-district level

A National Census Data Users Survey commissioned to elicit views of census data users to improve data dissemination activities

Data dissemination and utilization of census data (contd.)

Census data used for policy formulation and planning at central and state level

Private sector emerging as important data user

Demand for customized tabulations on the increase

Delimitation of electoral constituencies being done based on 2001 census data

Future issues

Census mapping for field operations

No pre-drawn map available result in omission or duplication especially in urban areas

Mapping of EBs (with a population of 600 to 800 population) with permanent boundaries not feasible

Mapping exercise begun on experimental basis to demarcate larger geographical area of 5000 to 6000 population in a few larger towns – these can be used as supervisory circles in the urban areas in the next census

Future issues (contd.)

Preparation of rural urban frame prior to each census is a painstaking task action initiated to update the 2001 Census frame at specified intervals for intermediate jurisdictional changes

Increasing resistance from the government employees and schoolteachers in taking up census work

Use of technology in collection of data in the field through handheld equipment will have to be explored

Feasibility of canvassing of long and short form will be examined through methodological studies

The Electronic Identity Card (EID) project contemplated by the government which envisages creation and continuous updating of National Population Register will have a direct bearing on 2001 Census

Thank you