Modernization of BBS as NSO through Digitalization

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Background

- Collecting, processing and publishing data through various censuses and surveys ।
- Previously, censuses and surveys were conducted using the Paper and Pencil Interviewing (PAPI) method. ।
- From 2022, using the latest ICT technology, to collect, process and analyze accurate data through real-time monitoring using the Computer Assisted Personal Interviewing (CAPI) method and provide reliable statistics in the shortest possible time.

Conducting Surveys and Censuses through Paper and Pencil Interviewing(PAPI)

PAPI

Computer Assisted Personal Interviewing (CAPI) Architecture

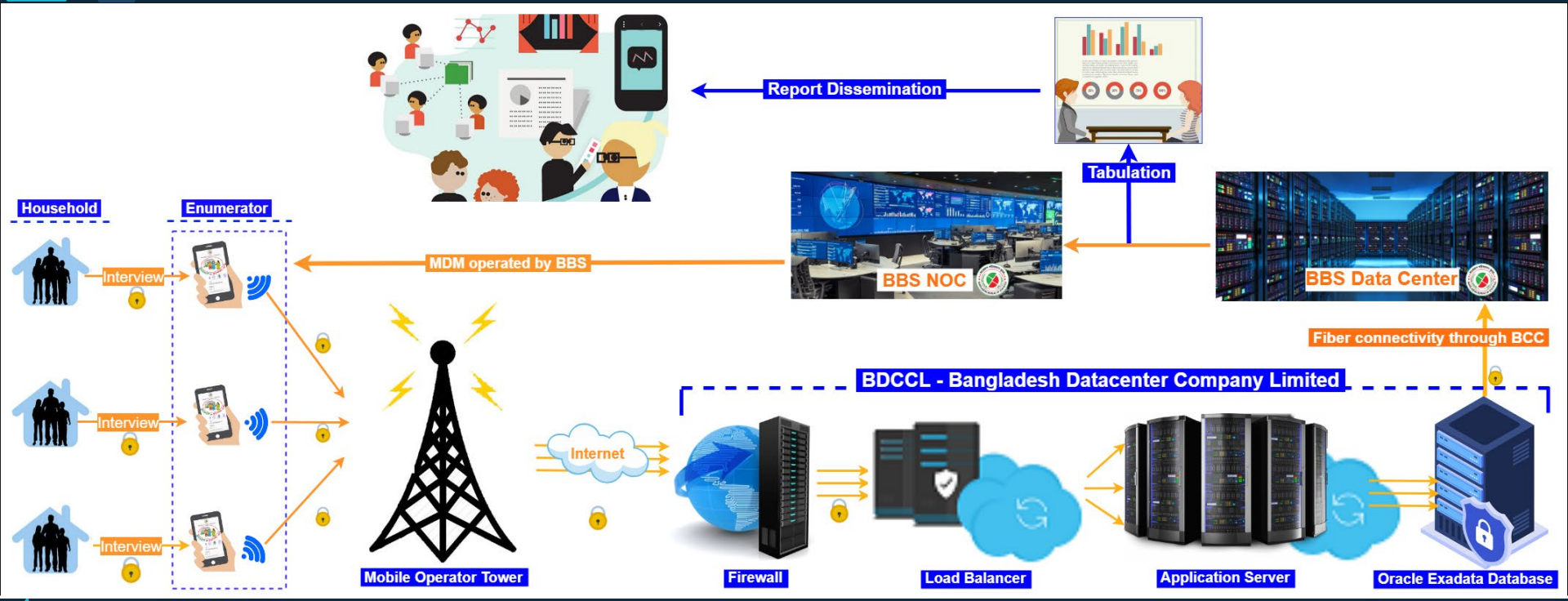


Diagram of conducting Automated Surveys and Censuses

CAPI

Satellite Image

GIS

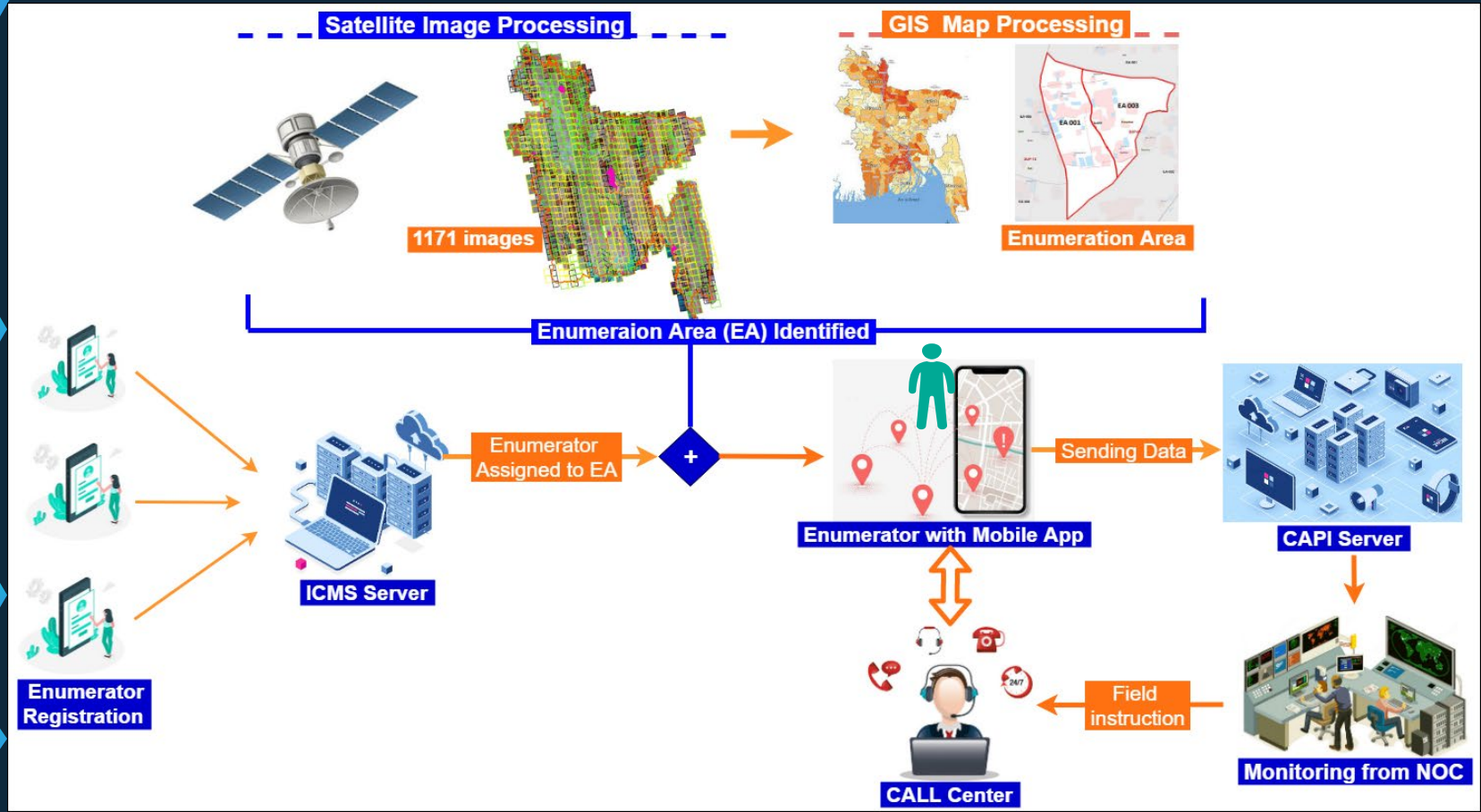
ICMS

Mobile App

NOC

Call Center

Monitoring App



Satellite Image & GIS Map Processing

CAPI

Satellite Image

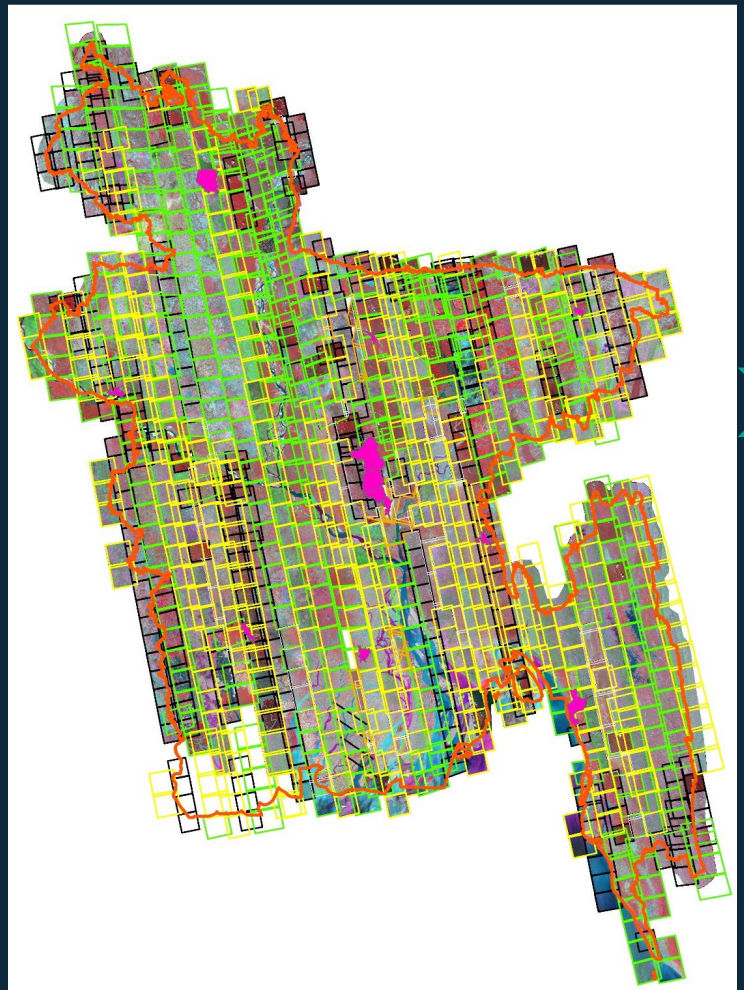
GIS

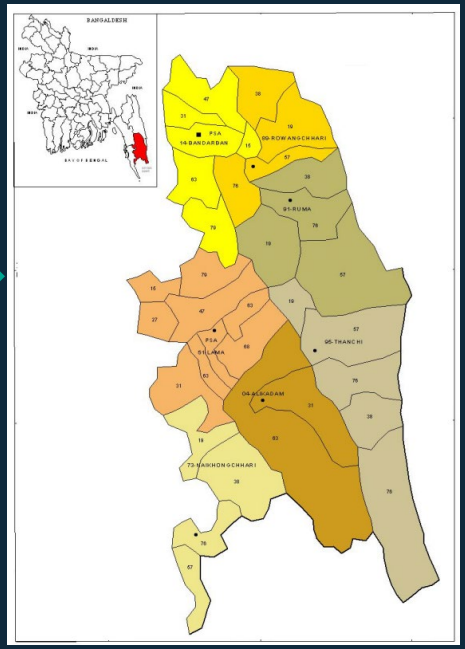
City Corporation
International Boundary

Satellite Sensor Name

Gaofen-2
Triplesat
KOMPSAT-2/ MSC
KOMPSAT-3
KOMPSAT-3A

Satellite Name	No. of Images
Gaofen-2	23
Triplesat	69
KOMPSAT-2	405
KOMPSAT-3	390
KOMPSAT-3A	284
Total Scene	1,171





Integrated Census Management System (ICMS)

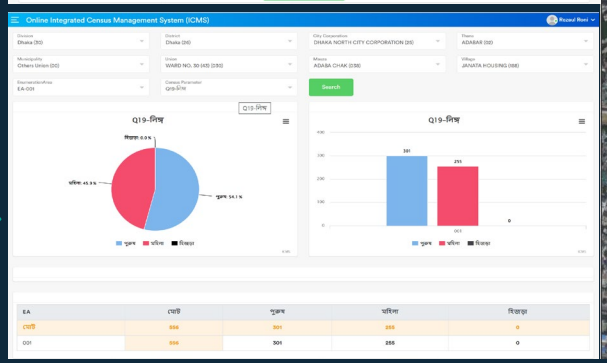
CAPI

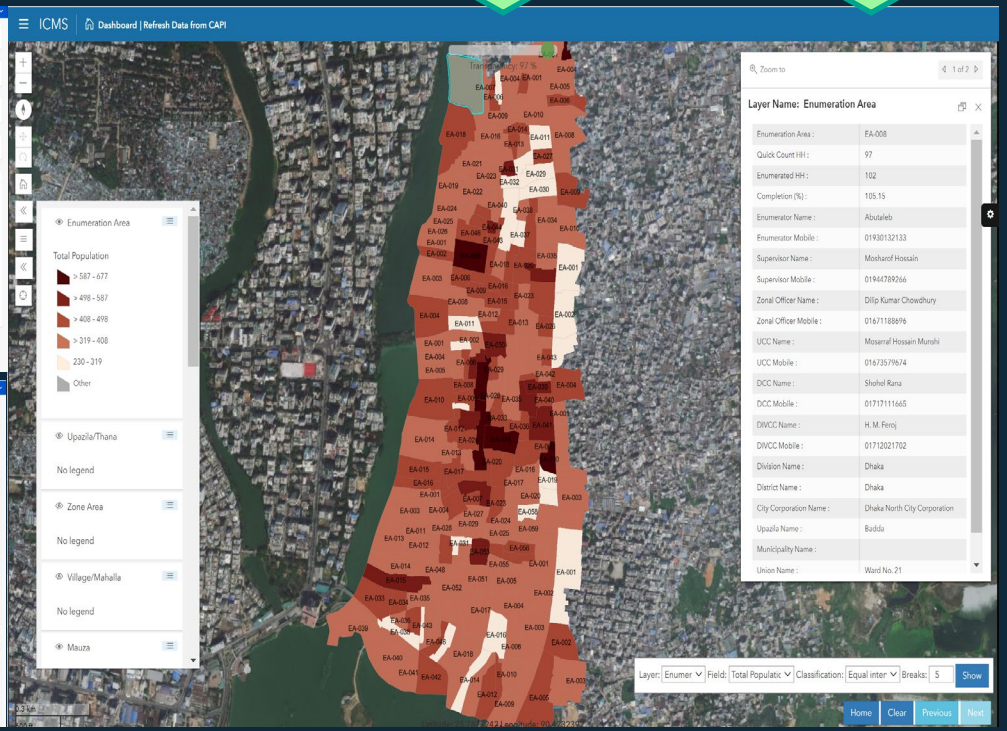
Digital Mapping

Human Resource Tracking

Aggregated Statistics

Graph





BBS Automation- Achievement

- Collect, process and publish census and survey data as quickly as possible;
- Ensuring the quality of information through real-time monitoring;
- Determining accurate and precise census areas through satellite technology;
- Counted unit/installation tracking via GPS technology;
- Efficient management of human resources;
- Online data collector training evaluation;
- Ensuring uninterrupted communication with census workers working in the field through call centers and WhatsApp;
- Payment of allowances and honorariums to census workers online in the fastest time

BBS Automation: Steps taken

- ICT infrastructure development at BBS Data Center (**KOICA** Project);
- **BigData** Platform installation (**KOICA & GoB**);
- Network Operation Center (NOC) setup at BBS for real-time monitoring;
- Establishing a call center for round-the-clock communication;
- Collection of latest satellite images to include all areas of the country in the census;
- Purchase of ArcGIS software to review GIS Map based data;
- Purchase of Oracle Exadata, Stata software for nationally important big data processing and tabulation ।

BBS Automation: Mentionable Activities

- Population and Housing Census 2022 & Economic Census 2023
- Public Opinion Survey on Constitutional Reforms
- Public Opinion Survey on Electoral System Reforms
- Public Opinion Survey on Health Sector Reforms
- Public Opinion Survey on Local Government Reforms
- Public Opinion Survey on Media Reforms

BBS Automation: Way forward

- Fastest Poverty Estimation: Implementing Artificial Intelligence-based Activities through Geospatial Technology (AI Based Poverty Estimation Using Geospatial Technology);
- Estimation of tourism statistics using Bigdata analysis;
- Establishment of Statistical Data warehouse in BBS (KOICA);
- Estimation of crop production forecasting using remote sensing & satellite image;
- Production of official statistics using administrative data;
- National Population Register (NPR);
- National High-Skilled Talent Register (NHSTR)

Thanks

www.bbs.gov.bd