National Statistical Office (NSO)
Ministry of Statistics and Programme Implementation (MoSPI)
Government of India

Country initiatives for the integration of data sources for SDG Monitoring
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SDG National Indicator Framework

- India has developed SDG-NIF in sync with GIF

  ➢ Developed by NSO, MoSPI, India in consultation with various stakeholders

  ➢ To facilitate monitoring of the SDGs at national and sub-national level

  ➢ NSO, India regularly reviews and refines the SDG-NIF

  ➢ Baseline Report and Annual Progress Reports have been released based on the indicators in the SDG-NIF

Recent SDG-NIF Releases of NSO, India
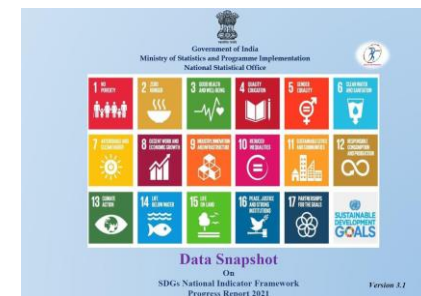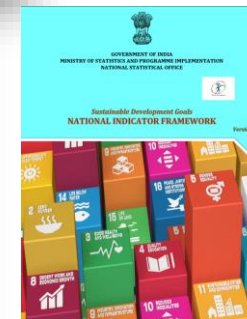
SDG NIF: Indicators in NIF (version 3.1)

SDGs	National Indicator
SDG 1 : No Poverty	17
SDG 2 : Zero Hunger	18
SDG 3 : Good Health & Well Being	41
SDG 4 : Quality Education	19
SDG 5 : Gender Equality	29
SDG 6 : Clean Water and Sanitation	16
SDG 7 : Affordable and Clean Energy	5
SDG 8 : Decent Work and Economic Growth	26
SDG 9 : Industry, Innovation and Infrastructure	17
SDG 10 : Reduced Inequalities	11
SDG 11 : Sustainable Cities and Communities	14
SDG 12 : Sustainable Consumption and Production	15
SDG 13 : Climate Action	6
SDG 14 : Life below water	11
SDG 15 : Life on Land	16
SDG 16 : Peace, Justice and Strong Institutions	21
SDG 17 : Partnerships for the Goals	13
Total indicators	**295**

Total Indicators in NIF-295

Data Availaibility-266

78% from Administrative Records

21% from Survey Data

1% from Census Data

Exploring use of unconventional/alternate data sources/methodologies in India

- One of the major challenges in reporting of SDGs
  - ➤ Data non-availability for certain indicators in general and
  - ➤ Non-availability of disaggregated data for a number of indicators
- Efforts are being sincerely made in India to bridge the data gaps on SDGs especially the disaggregated data.
- In this direction, we are aligning our existing survey or conducting new surveys as per SDG data requirements.
- Efforts are being made to explore unconventional/ non-traditional methodologies or data sources (including that for SDG reporting)
- Data integration is one of the efforts

Use of Data Integration:
Few Experiences of India

- Few examples regarding use of data integration
  - ➢ **NSO India has practiced to integrate different administrative data sources for building "list based" sampling frame for its**
    - ▪ Enterprise surveys, such as Surveys of Service Sector Enterprises conducted during July, 2016-June 2017, and
    - ▪ Annual Survey of Industries (ASI) surveys
  - ➢ **Use of data integration in assessment of Forest and Tree Cover**

Case 1: Use of data integration in developing sampling frame for Service Sector Enterprise Survey

- NSO, India's NSS 74th round (July, 2016 – June, 2017) was devoted to survey the service sector enterprises for generating estimates on operational and economic characteristics of the service sector.

- Three types of frames were used for NSS 74th round sampling frame :

  ➢ Business Registrar of Enterprises (BRE), prepared and maintained by State Governments

  ➢ 6th Economic Census (EC), conducted by Ministry of Statistics and Programme Implementation

  ➢ The list of enterprises registered under Companies Act, maintained by Ministry of Corporate Affairs (MCA).

Case 1: Use of data integration in developing sampling frame for Service Sector Enterprise Survey...

- Initial exercise was carried out for preparing the frame from 6th EC and BRE units by verifying the details like status, activity, etc. and most importantly updating the addresses, wherever necessary.

- Further, the addresses and other details of the enterprises from MCA frame were taken directly from MCA.

- The verified and updated list of units for 6th EC and BRE and the eligible units from MCA frame were then used to draw samples using suitable sampling design.

- **The detailed schedule** about the enterprise were then canvassed from these sampled units

Case 2: Use of data integration in developing sampling frame for Annual Survey of Industries

- ASI is flagship survey conducted by NSO, India for the registered manufacturing sector since the 1960's.

- Traditionally, the factories registered under Section 2m(i) and 2m(ii) of Factories Act, 1948 with Chief Inspector of Factories (CIF) of the respective State Governemnts and those registered under Bidi and Cigar Workers (Conditions of Employment) Act 1966. have been the prime source of sampling frame of ASI.

- It was observed that there may be some big manufacturing units which are not registered in CIF but are registered elsewhere. These units should, actully, have been registered under the CIF. Hence, these units are not in ASI frame.

- To capture such units, a decision was taken to move beyond CIF lists and consult the Business Register of Enterprises (BRE) which was compiled by the a number of State Governments.

Case 2: Use of data integration in developing sampling frame for Annual Survey of Industries...

- Exercises were carried out in respect of certain States during ASI 2015-16 and ASI 2017-18 to capture manufacturing units that :

  - Not exist in ASI Frame.

  - Exist in BRE by virtue of registration under any of the seven Acts / Board / Authority viz., Companies Act. 1956, Factories Act. 1948 , Shops and Commercial Establishment Act, Societies Registration Act, Cooperative Societies Act, Khadi and Village Industries Board, Directorate of Industries (District Industries Center) .

  - Have employee size more than or equal to 100 in order to capture the bigger units without fail.

- Such units were identified and then put on for verification about their existences, activities etc. and only the eligible units were taken the final sampling frame.

Case 3: Use of data integration in assessment of Forest and Tree Cover

- The National Forest Policy 1988 aims at bringing 33% of the geographical area of the country under forest and tree cover.

- Forest Survey of India (FSI) under Ministry of Environment, Forests and Climate Change, Government of India assesses forest and tree cover of the country in biennial cycle.

- Forest and Tree Cover assessment involves integration of geospatial data and survey of data.

- This integration aims to improve the value of the statistical information that is being produced.

Case 3: Use of data integration in assessment of Forest and Tree Cover...

- Forest cover assessment includes
  - all areas more than 1 hectare in extent and having tree canopy density of 10% and more irrespective of land use, legal status and ownership, is done using satellite data

- **Forest Cover is assessed through nation-wide wall-to-wall forest cover mapping of satellite images (Census Operation).**

- Tree cover assessment includes
  - small patches of trees which are less than 1 ha in extent and which are not included in the forest cover due to technological limitations of spatial resolution of satellite data

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Case 3: Use of data integration in assessment of Forest and Tree Cover...

- **Tree cover is assessed using a methodology based on stratified random sampling using high-resolution remote sensing data and field measurements on sample plots.**

- Information on **tree cover** along with **forest cover** gives a complete extent of tree resources of the country which is often termed as **'Forest & Tree Cover'**

- The extent of both provides a complete picture of forest and tree cover in the country.

THANK YOU