

Invitation for Research Proposal

Ministry of Statistics and Programme Implementation invites research proposals from reputed academic institutions. Eligible institutions may submit their research proposals under the **Grant-in-Aid** component of the Ministry's **Capacity Development Scheme**, at the earliest. Kindly refer to the link provided in the Annexure for further details. The application/research proposal may be submitted to Additional Director General, **Training Division**, Central Statistical Organisation, M/o Statistics and Programme Implementation (email: training-mospi@nic.in), with copy to the Ministry's **Research and Analysis Unit** (email: ra.unit@mospi.gov.in).

2. Ideas on which research proposals are invited as on 04.10.24 are outlined below:

<i>Sl. no.</i>	<i>Suggested Research Ideas</i>
	Purpose: Digital modernization of MoSPI
1.	The study may cover the following indicative areas: <ul style="list-style-type: none">• The study may suggest an appropriate Information Management Model for MoSPI, considering all aspects like Collection, Processing, Dissemination etc. The study may suggest a data architecture to manage data across its lifecycle through establishing a management architecture and compliance, distributed cloud storage, specifying the type of cloud storage, operating sharing mechanisms, managing historical data.• The study may cover issues related to data security and confidentiality and suggest measure to mitigate them.• The study may help in identifying the appropriate hardware/software requirement needed to establish the points indicated above.
2.	The study may explore the possibility to develop India Stats Stack to evolve Statistics-as-a-Service (StaaS). The study may have the following component: - <ul style="list-style-type: none">○ A status of various other stack in digital ecosystem;○ Necessary elements of a stack;○ Data availability and integration needed;○ Policy and legal aspects;○ Any other point essential to analyze feasibility of such stack
3.	Possible Use of alternate/emerging source of data in official statistics along with roadmap.
4.	How to enable Statistical System to leverage AI/ML for use of traditional and Big Data.
	Purpose: Improvement in IIP
5.	Assessing the Feasibility of use of Goods and Services Tax (GST) Data in Index of Industrial Production (IIP) compilation, factory selection, item basket selection for IIP and to enhance the data coverage of Annual Survey of Industries (ASI), which in turn will help augment the data frame for IIP.

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6.	Finding concordance between Indian Trade Classification (Harmonized System) (ITCHS) and National Product Classification for Manufacturing Sector (NPCMS) codes.
	Purpose: Expanding the coverage of the existing Environment Accounts being compiled by MoSPI.
7.	<p>To estimate the soil erosion prevention service provided by the Forest Ecosystem for two states of India. The selection of the States may be done on the basis of the forest availability in the state and the topography of the state.</p> <p>Brief: Since 2018, MoSPI is compiling environment accounts following the internationally agreed framework for the compilation of the Environment Accounts known as System of Environmental Economic Accounts (SEEA). There is requirement of lot of granular level data which is presently not available with the concerned Ministries or State/UT government for compiling various environment accounts. If timely statistically sound data are available at a granular level, environment accounts on new areas can be attempted and scope of current accounts being compiled by MoSPI can be broadened. There are a lot of areas where focused research studies can be useful in testing the methodologies, making the desired data available etc.</p>
8.	<p>Compilation of Ocean Ecosystem Accounts for a specified region.</p> <p>The main objective of the study is to pilot the ocean accounts for a particular region which may be selected to include at least two coastal ecosystems.</p> <p>The study would be able to show an ocean ecosystem accounts (Extent and Condition) for a particular region considering few limited condition parameters.</p>
9.	<p>Strengthening of National Indicator Framework (NIF) for SDGs by:</p> <ol style="list-style-type: none"> a. Identification of the SDG national indicators for the unaddressed targets b. Adaptation of SDG global indicators in Indian Context <ul style="list-style-type: none"> • Evaluation of the existing SDGs National Indicator Framework (NIF) for SDGs. • Identify the national indicator(s) for SDGs for the 28 SDGs global targets aligning it with the GIF, in order to integrate indicators in the NIF along with the identified data source Departments/Ministries to establish the quantifying measures, periodicity of the data availability, methods of data collection, suggesting the robust monitoring mechanism, timelines and milestones for implementation. • Refinement of existing NIF to enhance relevance to targets and align with data availability; and adopt/adapt global indicators for 141 SDG global targets in Indian context, ensuring consonance consistency with the global methodology. • Formulation of monitoring mechanism based on categorization of the

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- schemes/plans/initiatives and evaluation criteria.
- Conduct stakeholder consultations to align the framework with Ministry/Departments requirements.
- Provide actionable insights and strategic recommendations.
- Facilitate the integration of the new framework with existing systems.
- Deliver a comprehensive report with findings and recommendations.

Brief: (i) The Sustainable Development Goals (SDGs) are the blueprint for achieving a better and sustainable future for all. The United Nations (UN) General Assembly in its 70th Session held on 25th September 2015, with the aim of taking forward the success of Millennium Development Goals, adopted the document titled "Transforming our World: The 2030 Agenda for Sustainable Development" consisting of 17 Sustainable Development Goals and associated 169 targets.

(ii) Countries are primarily responsible for following up and reviewing the progress made in implementing the goals and targets at the national level till 2030. The 2030 Agenda also underscored the fact that quality, reliable and disaggregated data would be needed for measurement of progress on the targets and for ensuring that "No One is Left Behind".

(iii) To monitor the progress of SDGs at global level, at present, the Global Indicator Framework consists of 248 indicators, with 231 distinct indicators covering 168 targets.

(iv) India is also committed to implementing the SDGs based on the nationally defined indicators responding to national priorities and needs. In this endeavour, MoSPI has developed a National Indicator Framework (NIF) for SDGs to track the progress of SDGs at national level. The SDGs NIF has been developed, in sync with GIF, following a detailed consultation process with all the stakeholders including Central Government Ministries, State Governments, International Organisations. The NIF is being periodically reviewed by the High-Level Steering Committee (HLSC) on SDGs constituted by the Government under the Chairpersonship of Chief Statistician of India-cum-Secretary, MoSPI. At present, the NIF consists of 290 national indicators with periodicity and data source for each of the existing indicator.

(v) In this regard, it is to mention that for 28 SDG global targets (out of 169 global targets), there are no indicator in the NIF making these targets as 'unaddressed'. However, out of these 28 targets, SDG global indicators are available in GIF for 27 targets. Presently, there is no indicator against target 11.c at global level also. For the remaining 141 SDG global targets, there are SDG indicators both in GIF and NIF, though the indicators may differ at national and global level. It may be seen that 141 SDG national indicators are either exactly mapped (79 indicators) or are partially mapped (62 indicators) with the SDG global indicators. As NIF is evolving in nature, these indicators may be refined further considering the relevancy with the targets and the availability of data.

10.	Use of Mobile data for Tourism statistics
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11.	Use of Remote Sensing for estimation of cattle population
	Purpose: Improvement in National Accounts
12	<p>The measurement of depletion of natural sources and hence adjustment of Gross Domestic Product (GDP) to arrive at Net domestic Product (NDP).</p> <p>Brief: As per the recommendation of United Nations Statistical Commission (UNSC), emphasis will be given on usage of NDP to measure the economic growth alongside the GDP. The gross domestic product will be adjusted for both consumption of fixed capital and depletion of natural sources.</p>
13	Preparation of distribution accounts in terms of distribution of households over income and wealth using the existing survey results of NSSO and National Accounts Statistics.
14	Time series analysis of the Data on National Income estimates since 1950-51.
	Purpose: Improvements in compilation of Housing Index
15	<p>Scope of Study:-</p> <ul style="list-style-type: none"> i. Analysis of Housing Index Methodology across countries:- To deep dive the housing index compilation procedure adopted by the BRICS nations, United States of America, United Kingdom etc. their current methodologies for compilation of the Housing Index may be studied and alternative approaches may be explored. ii. Impact of COVID-19 on Housing Inflation:- The long-term effects of the pandemic on housing inflation may be studied, particularly examining whether the index sufficiently captures post-pandemic market fluctuations. iii. Alternate Methods for Compiling the Housing Index: Since base revision exercise of CPI is in process, it would be the apt time to explore new approaches for compilation of housing index to address the concerns of the users and to ensure the robustness and effectiveness of the Index.
16	<p>Purpose: Price collection from e-commerce platforms for International Comparison Programme</p> <p>Use of online source/e-commerce platforms for price collection for such items may be explored and a price collection methodology may be also be suggested.</p> <p>Brief: The International Comparison Program(ICP) is the biggest global statistical initiative that supports inter-country comparisons of Gross Domestic Product (GDP) and its components, using Purchasing Power parity. India is participating in ICP since its inception in 1970 (except 1993) and MoSPI is the nodal agency for implementation of this programme in India.</p>

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Household Consumption is one of the sectors in ICP which has around 991 items in ICP 2021 cycle. The detailed specification of each of the items are provided by the Regional Implementing Agency and is attached herewith.

For items without specified brands, conducting field surveys is essential, as the most popular brand/variety of the item can be priced only after visiting the market. However, for items which have been cleared identified through detailed specifications, field surveys may result in huge price variations due to misinterpretation of the actual product or pricing of not exact same but a similar product. Some examples are, "Cornflakes, Kellogg's, Cornflakes, Nestle, big pack", 'Oats, Quaker', 'Red bull, can', 'Coffee whitener, jar Nestle,' 'Steam iron, Philips'.

Ever since its launch, the ICP programme has laid under greater emphasis on the collection of prices for standardized baskets for commodities and services than on improving the scope of GDP estimates. Elaborate specifications of the goods and services to be priced have been developed by World Bank to support the data collection efforts, to ensure that the prices are representative and are comparable across countries. Therefore, for collection of prices for ICP, special price surveys are usually required due to its detailed specifications.

17 Use of Scanner data for CPI and HCES

18. Developing a Hedonic Price Index (HPI) for two products- mobiles and laptops for a period of one year.

Brief: HPI is a method used to measure changes in the prices of goods and services by considering variations in product quality and characteristics. This approach is particularly relevant for markets where rapid innovation and changes in product features are common, such as electronics, automobiles, and real estate. The hedonic methods identified the major price determining characteristics of the products, and segregate the quality changes to capture the pure price changes of the products. According to CPI Manual Concepts and Methods (2020) by Multilateral Institutions, *Hedonic methods should be applied only where they add significantly to the statistical integrity of the index. This is most likely to be the case with hi-tech high-turnover goods (p.18) Hedonic price indices are measures of quality-adjusted price changes. Hedonic price indices are suitable when the pace and scale of replacements of varieties are substantial because, first, an extensive use of these overlap quality adjustments may lead to bias and, second, the sampling will be from a static matched/replacement universe likely to be biased (p.150).* According to Handbook on Hedonic Price Indexes and Quality Adjustments in Price Indexes published by OECD (2004/09) "A hedonic price index is any price index that makes use of a hedonic function. A hedonic function is a relation between the prices of different varieties of a product, such as the various models of personal computers, and the quantities of characteristics in them (p.41). In India, the hedonic methods are not used in price indices (CPI-C, WPI, CPI-IW) due to the

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	large data requirement. Under the Hedonic Pricing, the prices are adjusted for changes in the quality of products (to capture the pure price changes), which is especially relevant for information technology (IT) products where rapid innovation can lead to significant quality improvements over time. The purpose is to provide a more accurate measure of price changes over time by isolating the pure price effect from the quality improvements.
19	Exploring alternative criteria for stratification used in sampling designs of the surveys of NSSO
20	Use of night light data for estimating economic development/infrastructure development/ impact on job creation.
21	Exploring feasibility of use of data base created by researchers for evidence based decision making in government.
22	Study on the divergence in population estimates arising from the Census and NSS Survey.

3. This issues with approval of the Secretary (MoSPI).

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Annexure

1. The guidelines about the Grant-in-Aid component of the Capacity Development Scheme is available at <https://www.mospi.gov.in/grant-aid> .