NITI Aayog

DMEO
DEVELOPMENT MONITORING AND EVALUATION OFFICE

ACCOUNTABILITY AND TRANSPARENCY IN GOVERNANCE

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NITI Aayog

THEMATIC REPORT

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PREFACE

The Government of India (GoI) spends close to Rs. 14 lakh crores annually on development activities, through nearly 750 schemes implemented by Union Ministries. In 2019, the Development Monitoring and Evaluation Office (DMEO), NITI Aayog was assigned the task of evaluating 28 Umbrella Centrally Sponsored Schemes, which are schemes/programmes funded jointly by the Centre and the States and implemented by the States. This historic exercise, undertaken between April 2019 and February 2021, evaluated 125 Centrally Sponsored Schemes, under 10 Sectors, together covering close to 30% of the GoI's development expenditure, amounting to approximately Rs. 3 lakh crores per annum.

As a part of the evaluation studies, the Centrally Sponsored Schemes were also assessed based on various cross-sectional themes such as accountability and transparency mechanisms, use of technology, convergence, gender, social inclusion, regulatory framework, climate change, behaviour change, Research and Development and private sector participation. These evaluation studies adopted a mixed method approach and underwent a review process involving consultations with NITI Aayog subject matter divisions, concerned Ministries and Departments, and external sector experts. For the cross-sectional analysis across sectors, additional secondary research was undertaken by DMEO, and the findings were reviewed by experts in the respective domain in order to optimize the robustness of the evidence generated across the sectors.

The present report is an outcome of the thematic assessment of Accountability & Transparency across all the Centrally Sponsored Schemes. In this report, we seek to review examples of global accountability and transparency mechanisms. The report also develops a theoretical framework based on existing literature for assessing the performance of schemes, Sectors and Ministries/Departments against measures of accountability and transparency exhibited in the design and implementation of schemes. The report highlights the need for granular information on key projects in the public domain through Management Information Systems as well as significance of utilizing mechanisms like Direct Benefit Transfer, Public Financial Management Systems, Geographical Information System, social audits etc.

We hope that this report will help in strengthening elements of Accountability & Transparency in the design and implementation of central and state government programs. Building and adopting systems for enhancing transparency and accountability in government will greatly contribute to the achievement of national priorities and to the well-being of all aspects of society of India.

ACKNOWLEDGEMENTS

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1. EXECUTIVE SUMMARY

The Department of Expenditure, Government of India had assigned the Development Monitoring and Evaluation Office (DMEO), an attached office of NITI Aayog, the responsibility of conducting third party evaluation studies of 126 Centrally Sponsored Schemes across 9 sectors. One of the key themes covered during the analysis of all schemes was Accountability and Transparency. The analysis in this report is based on reports of these evaluation studies conducted by DMEO in close collaboration with concerned Ministries/Departments, scheme beneficiaries, Panchayati Raj representatives, Urban Local Bodies, civil society organizations and external subject matter experts, along with an analysis of secondary data available in the public domain.

Building on the findings of the evaluation studies to assess the performance of schemes at a sectoral and Ministry/Department level, this paper undertakes a brief review of global accountability and transparency mechanisms, their history in India and along with the institutional frameworks that govern them across the world.

It goes on to develop a theoretical framework of accountability and transparency based on existing literature and measures gaps in scheme design and interventions to propose a path forward for policy making in India. Accountability and Transparency measures assessed are divided into tenets of Voice, Answerability and Responsiveness.

In the analysis of gaps in design and delivery, the report builds on the findings of the evaluation studies to assess the performance of schemes, Sectors and Ministries/Departments against measures of accountability and transparency exhibited in the design and implementation of schemes. In the domain of Answerability, it comprises of an assessment of the availability of scheme and beneficiary related data in the public domain and measures of financial accountability through the use of Public Financial Management System (PFMS) for fund disbursements and Direct Benefit Transfer (DBT) for beneficiary entitlement transfers. In the domain of Responsiveness, it assesses the availability of citizens' charters and grievance redressal mechanisms. In the domain of Voice, it embarks on a quest to look deeper at the provision and implementation of Social Audits across Ministries and Departments.

A major finding of this study that all tenets of Transparency and Accountability, namely Voice, Answerability and Responsiveness need strengthening. The interface between citizens and the state via social audits, citizen charters and grievance redressal mechanisms need improvement. Management Information Systems (MIS) need to be made more granular, with information about beneficiaries and projects, being publicly available at the district and lower levels for all citizens. It is also observed that despite a clear push towards Digital India, Geographical Information System (GIS), DBT and PFMS are not used in all relevant schemes. The performance of certain Ministries, such as the Department of Rural Development continues to remain high compared to others, while Ministry of Social Justice and Empowerment, Minority Affairs and Tribal Affairs need to improve.

This paper concludes by suggesting a pathway towards ensuring evidence-based policymaking that enables systems for Transparency and Accountability in Government functioning right at the scheme inception stage, and thereafter.

State Governments play the most important role in implementing CSS schemes. Therefore, as a means of enhancing cross-learnings and ensuring dissemination of best practices, this paper also provides a compilation of State level best practices in broadening accountability and transparency in their interventions.

2. SUMMARY OF FINDINGS

1. In the domain of Answerability, wherein open data access is assessed, it can be seen that MIS availability is not uniform in the public domain across Ministries and Departments. Further, beneficiary level or project level data is either unavailable or unavailable in the public domain, reducing scope for ensuring transparency in scheme implementation.

2. It is observed that only 63% of schemes which are amenable to the use of GIS as per scheme guidelines, are presently using the same. Only one scheme in Health Sector is using GIS, which is especially relevant in the context of the COVID-19 scenario.

3. In the domain of Answerability, wherein financial accountability is assessed, usage of PFMS has yet to cover all schemes, despite it being mandatory. For instance, Special Central Assistance to Scheduled Caste Sub-Plan was found to not be using PFMS as per UCSS evaluation reports. Another gap observed in data available regarding PFMS is that details are not available for transfer of funds by States/UTs to districts and/or implementing agencies in the public domain.

4. Only 4 out of 60 schemes amenable to use of DBT are not using the same. Hence, it may be inferred that uptake of DBT has been a significant achievement.

5. In the domain of Responsiveness, wherein citizen charters and grievance redressal mechanisms are assessed, it is found that out of 18 Ministries/Departments covered under the evaluation, citizen charters for most Ministries/Departments, are either not available on the websites or are not updated periodically.

6. The Ministry of Labour and Employment is a beacon of good practice, as it is the only Ministry updating their charter on a quarterly basis.

7. Grievance redressal mechanisms are available only for 58% of schemes covered under the evaluation and need significant improvement at the Ministry level.

8. In the domain of Voice, the conduct of social audits is limited to schemes of certain Ministries/ Departments and some geographies. The conduct of social audits by the Department of Rural Development is good. There is much to be done going forward to strengthen the interface of bottom up social accountability, especially for schemes which cater to essential social protection.

3. BACKGROUND

3.1. ACCOUNTABILITY AND TRANSPARENCY: DEFINITIONS AND CONTEXT

Accountability is the cornerstone of good public governance. In recent years, the principles of accountability, transparency, participation, and inclusion have become recurring features of policy statements and programs of international development organizations. (Carothers and Brechenmacher, 2014). These principles are based on reciprocally supporting concepts of voice, answerability and enforceability. Establishing accountable institutions is a priority on the international development agenda and is singled out under Goal 16 under the Sustainable Development Goals (SDGs).

In academic circles, the term accountability is made in reference to three main elements; the need to be able to voice your preferences or demands; answerability or a justification of actions; and enforcement, which is the sanction that could be imposed if the action or justification of actions is found to be unsatisfactory (Schedler, 1999, Baez-Camargo 2013). In recent years there is a recognition that strengthening voice is not sufficient and a fourth element is critical in any accountability relationship - namely responsiveness; the ability of power holders to respond to demands made by citizens or pressure groups through formal and informal mechanisms (Posani and Aiyar, 2009).

Definitions of accountability have also evolved in terms of the spatial direction of relationships. Accountability can be vertical, wherein the relationship between voting citizens and political incumbents determines the quality of public goods and elections serve as a mechanism to induce responsiveness based on the incentives for leaders who want to win and retain power. Accountability can also be horizontal, and within state institutions in a political system based on the idea of the 'separation of powers' and checks and balances. Checks between institutions can prevent the excessive centralisation and abuse of power. In addition, it can also be diagonal, wherein elements of horizontal and vertical accountability combine. Thus, civil society organisations, NGOs, citizens, judiciary and media all engage directly with the state to enable better service delivery, such as media exposure, social media campaigns, protests etc. (Mechkova et al, 2017)

In formal settings which are more application based, such as the United Nations, Accountability is defined as the obligation to (i) demonstrate that work has been conducted in accordance with agreed rules and standards and (ii) report fairly and accurately on performance results vis-à-vis mandated roles and/or plans. (UNDP Accountability Framework, 2021). According to DFID, accountability is an institutionalised (regular, established, accepted) relationship between different actors, one set of people/organisations are held to account (accountees) and another set do the holding (accounters) (Transparency and Accountability Initiative, 2021).

Accountability is also used in tandem with the depth of democracy. In democratic regimes, public governance is characterised by the relationship between institutions and civil society, pertaining especially to responsibility and accountability for the management and control of public resources and the delivery of public services. It is therefore within the mandate of good public governance to

effectively manage public resources at high levels of accountability and transparency. This includes a free flow of information, control of corruption, citizen participation and equity, as the quintessential principles of democratic institutions. (Oberoi 2013).

One critical way of enabling accountability is through greater transparency. Transparency as a concept focuses on resolving information asymmetries. It is the dissemination of regular and accurate information, and widely recognized as a core principle of good governance. (Mitchell 1998) The information must be freely accessed, however, in addition to the same, it must also be timely, relevant, accurate and complete for it to be used effectively. Simply put, a transparent regime is one that provides accurate information about itself, its operations, and the country as a whole, or permits that information to be collected and made available in a manner that is relevant to evaluation.

In several instances, the government or state can be the sole producer and repository of data, with complete discretion on the manner, quality and timing of dissemination. (Stiglitz 2002) Hence, the release of information alone is not in itself enough to assess the transparency of a regime. Regulation to enable transparency is critical. The flow of information is regulated by laws, regulations and procedures, such as administrative reviews such as Freedom of Information Acts (Right to Information in the case of India), Protections of media and speech freedoms, or more generally protections of the public's right to know.

Greater transparency may also contribute to lower rates of corruption by facilitating legal, administrative or electoral mechanisms of punishment. Transparency serves two other important functions: protection of individual rights and facilitation of the individual's involvement in governance. Also, transparent governance may create greater public trust and legitimacy in government actions. While the public values transparency, it is also an end in itself. (Oberoi 2013)

Accountability and Transparency in Government are mutually reinforcing. However, actual implementation of accountability and transparency-related reforms on the ground, while not devoid of stellar examples and progress in some countries, remains chequered globally.

3.2. GLOBAL PERSPECTIVES IN THE MEASUREMENT OF ACCOUNTABILITY AND TRANSPARENCY

Broadly defined, transparency concerns the full flow of information within a polity. In much of the theoretical literature on political accountability, policy outcomes drive the decisions of citizens to support or oppose incumbent governments. One might expect scholars therefore to employ a measure of data dissemination that captures the transparency of policy outcomes in their empirical research. So far, however, this has not been the case. While several measures of institutional transparency and media freedom are commonly used in empirical studies, few projects employ measures of data dissemination with some notable exceptions. Perhaps scholars have ignored this facet of transparency in their empirical work because a thorough and theoretically rigorous measure of data disclosure has not been available. (Hollyer et al 2018)

In 1990, 13 countries had 'right to information' laws in place. Today this number stands at over 100. Since the 1990s, "transparency" has become a maxim for national governments, international institutions, and civil society groups around the world. Research that brought to light the importance of information provision in the functioning of the markets have won Nobel Prizes. Amartya Sen won the 1998 Nobel Prize for highlighting the role of entitlement and information provision in market functioning. George Akerlof, Michael Spence and Joseph Stiglitz received the Nobel Prize in 2001 for their analysis of how imperfect information can lead to market failures. The towering conceptual

contributions of the Nobel-laureates in putting forth a framework linking the citizen's right to know and to access information with development are indisputable and have already had a significant influence in various fields. (Ana Bellver and Daniel Kaufmann, World Bank, 2006).

Globally, accountability and transparency are measured using these key frameworks or indices to measure progress over time.

1. **Corruption Perception Index (CPI)** by Transparency International: One way of measuring transparency and accountability, is by ascertaining levels of corruption. The CPI measures perceived levels of public sector corruption according to experts and businesspeople using a scale of 0-100 where zero is highly corrupt and 100 is very clean. In 2020, average scores of 180 countries (amounting to 43) indicate that despite some progress, countries still fail to tackle corruption effectively. It puts emphasis on strong oversight institutions, open and transparent contracting, measures of civic space and democracy, and relevant open access data. In 2020, India ranked 86 out of 179 countries, indicating a need for improvement in measures taken to reduce corruption.

2. **Open Budget Index (OBI)** by the International Budget Partnership: It assesses the public's access to information on how the central government raises and spends public resources. This index is published with the intention of providing people access to relevant information on how public resources are raised and spent, opportunities to contribute to policy decisions that may influence jobs and security, and robustness of budget oversight by independent well-informed legislatures and audit institutions. A transparency score of 61 (out of 100) or higher indicates a country is likely publishing sufficient material to support informed public debate on the budget. In OBS 2019, the global average transparency score is only 45 out of 100. Nearly 75% of the surveyed countries score at insufficient levels. It measures progress on three key themes. In 2020, India ranked 53 out of 117 countries, with a score of 49 indicating limited information is available and hence, needs improvement in publishing budgetary information. The three key parameters considered by this index are:

   ❖ Transparency: Comprehensive budget information from the central government available to the public in a useful time frame

   ❖ Participation: Presence of formal and meaningful opportunities for the public - including the most disadvantaged - to engage in the national budget process

   ❖ Oversight: Presence of oversight institutions - the legislature, the national audit office, independent fiscal institution(s) - in place and enabled to function properly

3. **HRV Index (Hollyer et al, 2018)**- This is an index of transparency that attempts to measure the state's tendency to disclose data using the missingness/non-missingness of data on 240 variables from the World Development Indicators (WDI) data series. The index has a consistent meaning over time and covers 125 countries from 1980 to 2010.

4. Other relevant indices and include the World Press Freedom Index, Voice and Accountability Index and the World Bank CIPA Indicators. While a repository of indicators, frameworks and normative literature on Accountability and Transparency emanate from the West, there is a dearth of indigenous theoretical approaches towards the same which warrants further exploration through deeper research.

3.3. INSTITUTIONAL FRAMEWORKS PROMOTING ACCOUNTABILITY AND TRANSPARENCY

As mentioned in Section 1, Accountability and Transparency as terms, are used in tandem with the depth of democracy. Therefore, it is necessary to delve into the institutional frameworks which promote them normatively and in practice.

Institutional frameworks can be seen as intervening variables between citizens' capacity to exercise voice and demand accountability. However, while political legal systems which are constitutionally designed to be open and responsive may create the space for making claims for accountability, accountability of service delivery systems is ensured when certain basic elements are in place (World Bank, 2006).

According to some, historical patterns of institutional accountability building display an overwhelming trend, that substantive time is taken for de-jure mechanisms of accountability to evolve after de-facto mechanisms have been strengthened and start working efficiently in practice. This usually takes place after vertical mechanisms such as free and fair elections and horizontal mechanisms such as institutional oversight and balance of powers develop, after which diagonal mechanisms such as media, and civil society interactions are strengthened over time. (Lindberg et al, 2017)

Institutional frameworks within the domain of government which facilitate accountability and transparency include three important areas of focus (Zazumer 2011)

- Right to information laws – this establishes the constitutional/legal right for a citizen to access the information that they want.

- Proactive transparency – this commits governments to publishing as much information as possible in an accessible form.

- Open data approach – this enables us to reconfigure government data into forms that provide usable and accessible information.

India has several Constitutional and legal mechanisms which aim to ensure transparency and accountability in Governance; a brief of some these mechanisms is as below:

1. **Comptroller and Auditor General of India (C&AG)**: The Comptroller and Auditor General (CAG) of India is an authority instituted vide Article 148 of the Constitution of India. The prime responsibility of this authority is to audit the receipts and expenditures of the state governments and the union government in India including those of the entities and corporations financed by the government. The reports generated by the CAG are crucially important for the Public Accounts Committees (PACs) and Committees on Public Undertakings (COPUs), which are part of the state and central governments.

2. **Central Vigilance Commission (CVC):** The Central Vigilance Commission was set up by the Government in February, 1964 on the recommendations of the Committee on Prevention of Corruption, headed by Shri K. Santhanam, to advise and guide Central Government agencies in the field of vigilance. CVC are conceived to be the apex vigilance institution, free of control from any executive authority, monitoring all vigilance activity under the Central Government and advising various authorities in Central Government organizations in planning, executing, reviewing, and reforming their vigilant work. Consequent upon promulgation of an Ordinance by the President, the Central Vigilance Commission has been made a multi member Commission with "statutory status" with effect from 25th August, 1998.

3. **Right to Information Act, 2015 (RTI):** The Right to Information Act is an Act of the Parliament of India which sets out the rules and procedures regarding citizens' right to information. It replaced the former Freedom of Information Act, 2002. Under the provisions of RTI Act, any citizen of India may request information from a "public authority" (a body of Government or "instrumentality of State") which is required to reply expeditiously or within thirty days. In case of matter involving a petitioner's life and liberty, the information has to be provided within 48 hours. The Act also requires every public authority to computerize their records for wide dissemination and to proactively publish certain categories of information so that the citizens need minimum recourse to request for information formally, Section 4 of the Act also focuses on proactive disclosure. The RTI Bill was passed by Parliament of India on 15 June 2005 and came into force with effect from 12 October 2005.

4. **E-Governance initiatives across schemes:** E-Governance in India has steadily evolved from computerization of government departments to the finer points of citizen centric service orientation and transparency. Lessons from previous E-Governance initiatives have played an important role in shaping the progressive E-Governance strategy of the country. Due cognizance given to the notion that to speed up e-Governance implementation across the various arms of Government at National, State, and Local levels, a programme approach needs to be adopted, guided by common vision and strategy. This approach has the potential of enabling huge savings in costs through sharing of core and support infrastructure, enabling interoperability through standards, and of presenting a seamless view of Government to citizens. The National e-Governance Plan (NeGP), takes a holistic view of e-Governance initiatives across the country, integrating them into a collective vision, a shared cause. Around this idea, a massive countrywide infrastructure reaching down to the remotest of villages is evolving, and large-scale digitization of records is taking place to enable easy, reliable access over the internet. The ultimate objective is to bring public services closer home to citizens, as articulated in the Vision Statement of NeGP. "Make all Government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realise the basic needs of the common man"

5. **Social audits within schemes such as the National Rural Employment Guarantee Act, 2005 (MGNREGA):** As per the act, the first step is to gather all the records regarding the scheme such as muster rolls, maintained by the administration. Based on these readings, surveys are prepared and social auditors administer the surveys across the geographical area of the audit and also conduct spot inspections. During the survey, awareness about the scheme is also generated, letting the recipients themselves bridge the gap between what the scheme offered and what they actually got (which might throw up glaring disparities in service delivery). The participants in the survey are then called for a 'jan sunwai' (public hearing) which is attended by Gram Sabha members, local administrative officers, the point person for the scheme and sometimes even local politicians. Based on the findings from the survey and their newly realised grievances, citizens are in a position to question lacunae in fund and work allocation, completion reports on status of work and distribution of benefits. An attempt is then made to reconcile issues on the spot and where relevant, future administrative action is promised, with scope for follow-up on such actions.

6. In the context of the COVID-19 pandemic, institutional response to a rapidly evolving global health crisis can also imbibe the principles of accountability and transparency by adopting a

risk based prioritization framework which determines which governance, transparency and accountability mechanisms are to be subsumed within the planning and design of response policies not just in the avenue of public health, but also essential social protection such as food security, education, skill building, and insurance. This could involve the adoption of an oversight body with multiple stakeholders across government, civil society, academia, audit and oversight institutions to raise awareness. Certain practices such as Ukraine's anti-corruption reforms which mandate that all emergency contracts are published as open data including terms of payment, delivery and value, Colombia's e-procurement platform which complies with the open data contracting standard which also discloses technical comments from potential suppliers during emergency times. (UNDP, 2021)

7. In addition to governments' institutional frameworks for transparency and accountability, community frameworks also exist to strengthen responsiveness. This may involve community led monitoring through bottom-up social accountability, improved transparency of data and decision making, channels for grievance reporting and redressal. Other community driven frameworks of accountability include citizen report cards, participatory budgeting, and public expenditure tracking surveys.

3.4. SECTORAL EVALUATION PERSPECTIVE

The Government of India (GoI) spends close to Rs. 10 lakh crores annually on development activities, through nearly 750 schemes implemented by Union Ministries. Of these 750, 126 are Centrally Sponsored Schemes (CSS), implying that they are funded jointly by the Centre and the States, and implemented by the States. Over the years, federalism and the expectations of government service delivery in India have evolved, and this vast proliferation of schemes is in sore need of rationalization. The rationalisation of schemes is expected to improve Centre-State relations, the effectiveness and efficiency of public finance, and the quality-of-service delivery to Citizens. To this end, all schemes were mandated to undergo third party evaluations, and provided supplementary evidence to the 15th Finance Commission for scheme continuation from 2021-22 to 2025-26. The task of conducting these CSS evaluations was granted to NITI Aayog, specifically to the Development Monitoring and Evaluation Office (DMEO). This report is thus a part of a historic exercise undertaken by DMEO between April 2019 and August 2020, to evaluate 126 CSS, under 28 Umbrella CSS, under 10 Packages or Sectors.

The studies together cover close to 30% of the GoI's development expenditure, amounting to approximately Rs. 3 lakh crores (USD 43 billion) per annum. To fulfil this mandate to the highest standard possible, to optimize both the robustness and the uptake of the evidence generated, DMEO adopted a nationally representative mixed-methods evaluation methodology and a consultative review process for the reports. Altogether, the project incorporates the direct input of approximately 33,000 individuals, through 17,500 household interviews, 7,100 key informant interviews, and 1,400 focus group discussions. The views of Central, State, district, block, ward, and village administrations, as well as non-governmental experts and civil society organizations were elicited. Through qualitative and quantitative analysis of secondary literature, validated by this primary data collection, the analysis was done at three levels: the sector, the umbrella CSS, and the scheme itself. The key parameters for analysis, including relevance, effectiveness, efficiency, sustainability, impact, and equity (REESI+E), have been selected based on international best practices in evaluation. Besides, across 10 packages, certain cross-cutting themes have been identified for analysis, including transparency, sustainability, gender, technology, role of private sector, etc. The reports thus produced underwent a consultative

review process involving NITI Aayog subject matter divisions, concerned Ministries and Departments, and external experts.

As per the CSS sectoral evaluations conducted by the Development Monitoring and Evaluation Office, the following is the summary of schemes analysed as part of this paper.

Table 1: Package wise schemes covered in CSS Evaluations

Package Name	Number of schemes covered (where information is available)
Agriculture, Animal Husbandry and Fisheries	28
Women and Child Development	15
Human Resource Development	7
Urban Transformation	5
Rural Development	6
Health	5
Jobs and Skills sector	5
Water resources, Environment Forest & Climate Change	15
Social Inclusion	31

4. METHODOLOGY

This paper places the broader discourse on Accountability & Transparency through the findings of evaluation studies. To gauge package-wise trends on overall performance, a descriptive summary analysis has been compiled based on three categories of performance listed in the CSS Evaluation reports.

- Good Performance
- Poor Performance
- Needs Improvement

The methodology is primarily focussed on the absence or presence of the parameters under evaluation such as data transparency, PFMS, DBT, social audits, citizen charters and grievance mechanism. The scope of this paper does not allow for an assessment of the quality of the parameters under examination, such as the quality and effectiveness of citizens' charters, quality of social audits conducted etc. However, these may be examined in detail during a future study.

Similarly, the usage of PFMS and DBT by the schemes is taken as a proxy for financial transparency in scheme functioning. A limitation here is that PFMS data is not available as per geographical granularity; similarly, usage of PFMS or similar mechanisms by State Governments/UT Administrations and/or District Administrations for onward transfer of funds to implementing agencies has not been examined as part of this paper.

Accountability and Transparency mechanisms in schemes are measured within the domains of **Voice**, **Answerability** and **Responsiveness**, as per the framework indicated in Table 2.

Table 2: Framework for Transparency and Accountability in India

Aspect of T&A	Theme	Key Questions	Method
Answerability	Open Data/ Publicly Available Data and Relevance	Is data available for the scheme in the public domain?	Gap Analysis to Check availability of Monitoring Information System (MIS), check the availability of Geographic Information System (GIS) across all sectors subject to the applicability in a particular scheme. Assess the granularity at levels of implementation and data availability
		Which data records are available in the public domain?	
		What level of data is available in public domain - National/State/ District-level/Beneficiary level?	
		Is beneficiary-level data available? At what level?	
	Tracking Public Finances/ Financial Accountability	Which funding mechanisms are being used?	To assess the usage and coverage of the public coverage Public Finance Management System (PFMS) across all sectors.
		Is DBT being used?	To assess the usability and coverage of Direct Benefit Transfers (DBT) across all sectors

Aspect of T&A	Theme	Key Questions	Method
Voice	Monitoring mechanisms for schemes	Does the scheme have provisions for social audits? Are they being conducted?	Gap Analysis to assess the extent to which provisions for social audits are made in scheme guidelines against the applicability of Social Audits in a particular scheme. Assess if the social audits have been done or not in the past years
Responsiveness	Citizen Accountability	Has a citizen charter been carefully drafted, adopted, and publicized?	Gap Analysis to assess the availability of citizen charter in public domain and grievance redressal mechanisms within schemes
		Are there functional grievance redressal mechanisms that successfully incorporate beneficiaries' and non-beneficiaries' concerns?	

Building on the thematic assessment of the evaluation studies, a gap analysis has been undertaken based on 6 parameters and further points of inquiry are as follows:

Table 3: Transparency and Accountability Parameters covered in UCSS evaluations

S No.	Parameter	Points of Enquiry	Means of Verification
1	Availability of Monitoring Information System (MIS) and its granularity	To assess the granularity of the MIS against its desirability and further, availability of the data in public domain	Triangulation of findings of evaluation reports, scheme guidelines, MIS and other publicly available information
2	GIS coverage	To check the availability of Geographic Information System (GIS) across all sectors subject to the applicability in a particular scheme	
3	Social Audits	To check the applicability of Social Audits in a particular scheme and whether the social audits have been done or not	
4	PFMS usage	To assess the usage and coverage of the Public coverage Public Finance Management System (PFMS) across all sectors.	PFMS portal as maintained by Ministry of Finance
5	DBT usage	To assess the usability and coverage of Direct coverage Direct Benefit Transfers (DBT) across all sectors	DBT Mission portal as maintained by the Cabinet Secretariat
6	Citizen Accountability	To assess the availability of citizen charter and grievance redressal mechanism for checking the functionality	Based on information available on website and in the evaluation reports

The monitoring systems of all the schemes in Umbrella Centrally Sponsored Scheme (UCSS) evaluation has been examined in the context of granularity and the desirability of Monitoring Information System (MIS). As the monitoring system varies with scheme and it depends on the nature of the scheme, the desirability of the monitoring system has been checked against its availability. This is a particularly

relevant consideration at the scheme design level – desirability of availability and granularity of monitoring system has been examined based on the scheme guidelines and scope for beneficiary facing activities under the scheme.

The availability of monitoring systems was inferred from evaluation reports, and further verified through data published by nodal Ministries/Departments in the public domain; the same process was used to find availability and desirability of granularity of data in MIS – for instance, for some schemes, only project or cluster level information could be provided, while for others beneficiary level data (with personal details hidden) are necessary for ensuring transparency in delivery of benefits or entitlements. These kinds of systems should be kept in mind right from the inception of the scheme in order to have effective implementation of the scheme as well as generating more insights for feeding future policy-making related to the sector in general and that scheme in particular.

5. LIMITATIONS OF THE STUDY

1. The analysis presented focusses only on Centrally Sponsored Schemes under implementation during the reference period for the evaluation (2015-20) and does not consider non-schematic interventions (including Other Central Sector Expenditure).

2. The analysis presented is based on availability of information and the assessment of quality of information is not in scope of this analysis.

3. Availability and usage of grievance redressal mechanism is based solely on information received by DMEO during UCSS evaluation and has not been corroborated with any other source.

4. For citizen charter, the information available on the website of the concerned ministry/department is used. Therefore, it is applicable to all the schemes implemented by a particular ministry/department. The information available in the evaluation report is used for checking the functionality of grievance redressal mechanism. Quality of citizen charters has not been considered while preparing this report.

5. Some CSS schemes have been discontinued or merged with other schemes post the reference period for the evaluation. This study does not differentiate between these and other schemes

6. This does study has not considered quality and frequency of social audits

7. Only availability of scheme level on Ministry/Department has been considered for this analysis. This report has not analysed information on other Ministry/Department databases.

8. The term "desirability" in reference to MIS data for schemes pertains to the geographical granularity for MIS data as specified in scheme guidelines. Going forward, a deeper analysis may be conducted to assess the desirability and applicability of geographical granularity specified in scheme guidelines themselves.

9. Availability and functionality of Grievance Redressal Mechanisms has been examined on the basis of scheme guidelines and UCSS evaluation reports; quality and access have not been examined as part of this report.

6. FINDINGS

OVERALL FINDINGS BASED ON PERFORMANCE CRITERIA IN UCSS REPORTS

Consistency: Given that schemes of each Ministry operate within the institutional mandate of a nodal Ministry/Department, it may be fair to assume that there would be consistency in measures taken to keep implementation transparent and accountable for all schemes within a sector or purview of a Ministry/Department. And that is true for most cases- out of all Ministry/Departments or sector packages, most are relatively consistent in Transparency and Accountability measures wherein they are all of the same category of performance, or are close to the same[1]. They range from those that perform well, and those that need improvement. (Details in Table 1 in Annexure)

a. However, 29% have stark differences in measures across schemes within the same package. These are Human Resources and Development, Law and Social Justice, Tribal Affairs and Urban Transformation.

b. Agriculture is the best performing sector with 11 schemes out of 17 that perform well, and 5 that need improvement[2] (Note: One scheme has been removed from calculations as it has no data, this is the integrated scheme on agriculture census and statistics)
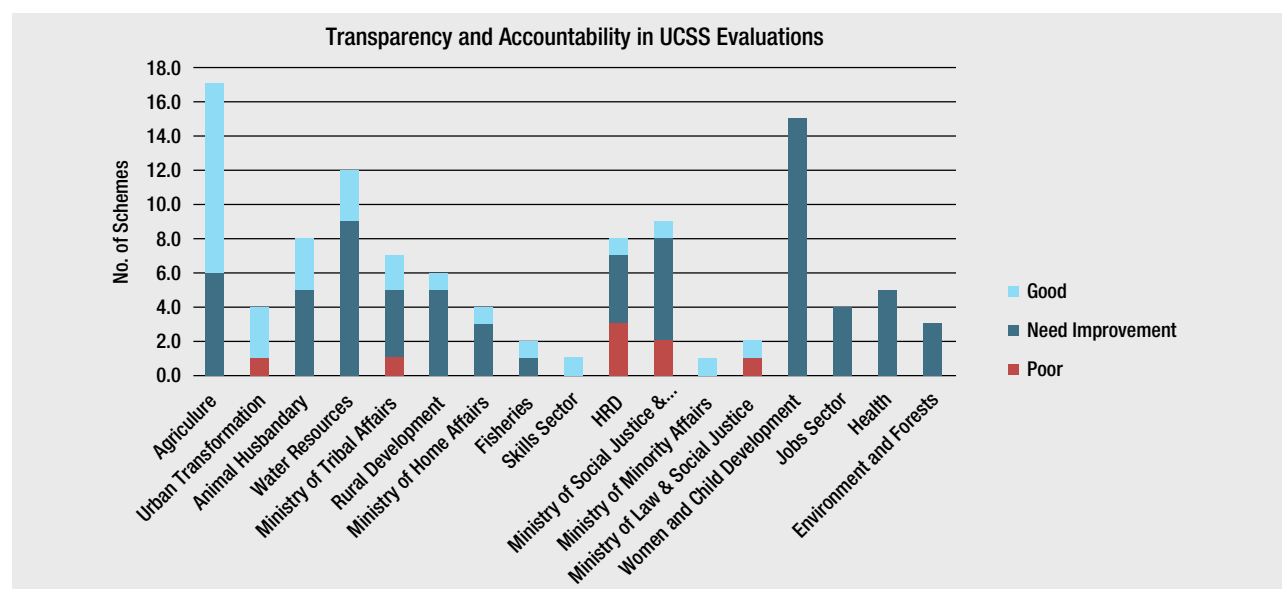
Figure 1: *Transparency and Accountability in UCSS Evaluations*

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1   Close to the same in this instance means that a package may have schemes that have either good or poor performance coupled with other schemes that are in need of improvement within the same package. Stark differences are defined as those packages that have schemes that are good, poor and in need of improvement or packages which have both good and poor performing schemes. E.g.: The Ministry of Law and Social Justice has both poor and good performing schemes, whereas all schemes in WCD are in need of improvement.

2   The integrated scheme on agriculture census and statistics has not been considered as a part of this analysis due to non-availability of information in the public domain

FINDINGS FROM GAP ANALYSIS

Answerability: Open Data Systems

1. **Monitoring Information System (Granularity and Desirability)**

   a. UCSS sector wise: It may be inferred that the greatest digitization, that is, greater availability of scheme MIS is available for schemes under the Ministries of Agriculture and Farmers' Welfare, the Department of Animal Husbandry and Dairying and the Department of Rural Development. The Department of Rural Development continues to remain the gold standard for MIS availability, including for 'core of the core' schemes, Mahatma Gandhi National Rural Employment Guarantee Scheme (Mahatma Gandhi NREGS)
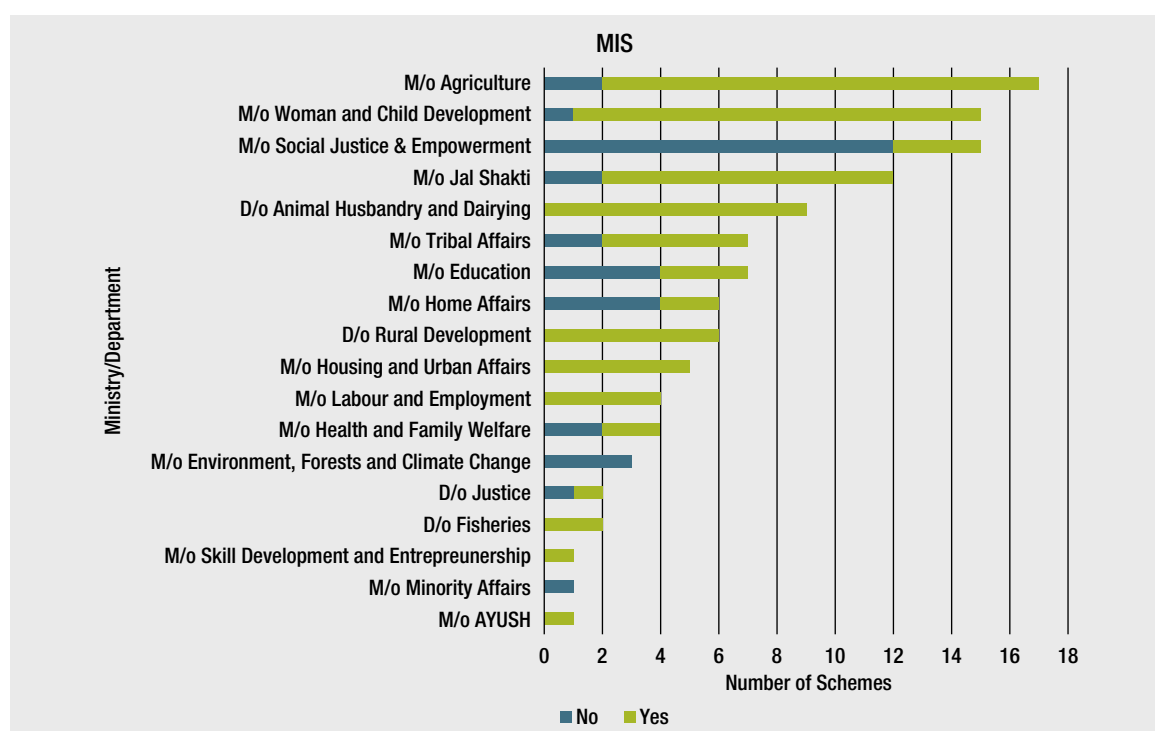
Figure 2: Ministry/Department wise availability of scheme level MIS

There are schemes in which MIS exists, but it is not publicly available. Considering the need for publicly available information as a foundational step towards Transparency and Accountability, an assessment is done for the schemes having MIS and whether or not it is available publicly. Therefore, the insights are illustrated in the graph below:

b. UCSS sector-wise MIS availability: In the table below, the lowest level of granularity available in the MIS is captured against the desirability of the MIS system in the scheme. The following legend may be used for the table,
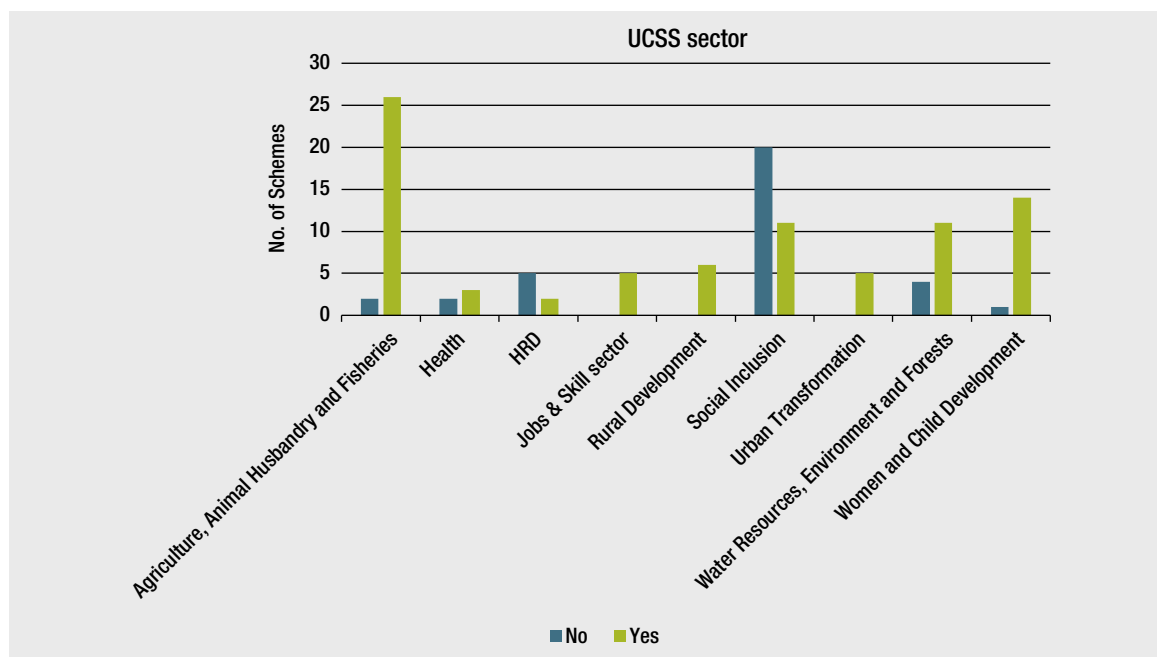
Figure 3: *Sector wise availability of scheme MIS*

❖ Wherever the granularity of information is desired and also available, the corresponding cells are highlighted as green.

❖ Wherever the granularity of information is desired but not available, the corresponding cells are highlighted as red.

❖ Wherever the granularity of information is neither desired nor available, the cells are highlighted as grey.

If there is no MIS system for a particular scheme, but scheme related information is available on the website of the respective ministry/department. Such information is captured in the footnotes.

c.   Ministry/Department wise availability of MIS:

M/D wise
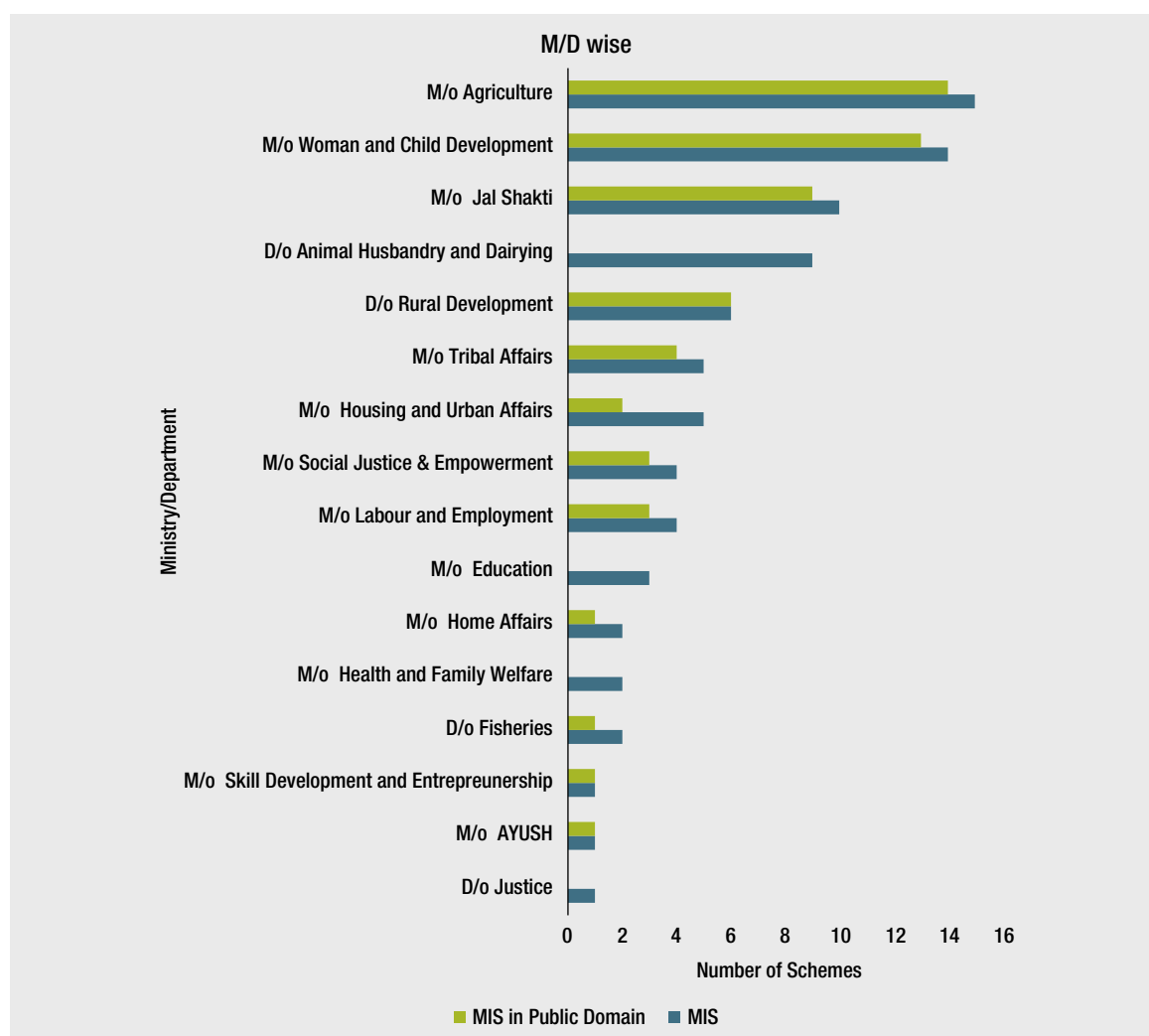
Figure 4: Ministry/Department wise availability of scheme wise MIS and MIS in public domain

Detailed results of sector wise desirability of MIS as per scheme guidelines and availability is in Table 5, Annexure 1.

2.   **Geographic Information System**

Geographic Information System (GIS) is integral to Planning, Decision Making & Electronic Delivery of Services. It enables e-Governance to facilitate location-based information on service delivery. Thus, implementation of GIS based Decision Support Systems (DSS) is essential for ushering 'Good Governance' as it facilitates transparency, responsiveness, efficiency & effectiveness, accountability and participation across Government. In this section, the status of Geographic Information System (GIS) has been examined across all the 9 sectors. Schemes under UCSS evaluation are divided into 3 broad categories (i) Infrastructure (ii) Infrastructure and services i.e. those that have both an infrastructure and service component (iii) Services . Out of 117 schemes, 21 schemes are specifically focusing on Infrastructure creation and development, 50 schemes are having the component of both infrastructure as well as services and 46 schemes are specifically focusing on services. Therefore, the functionality of GIS is assessed across all schemes for which it is applicable, in this case only to the infrastructure related schemes.

Although, some schemes do not have direct infrastructure components, they may require geo-tagging as part of their implementation. For instance, under the Mid-Day Meal scheme, schools which provide meals can be geo-tagged.

a. Overall: Only 49% of schemes out of all infrastructure related schemes are using GIS.
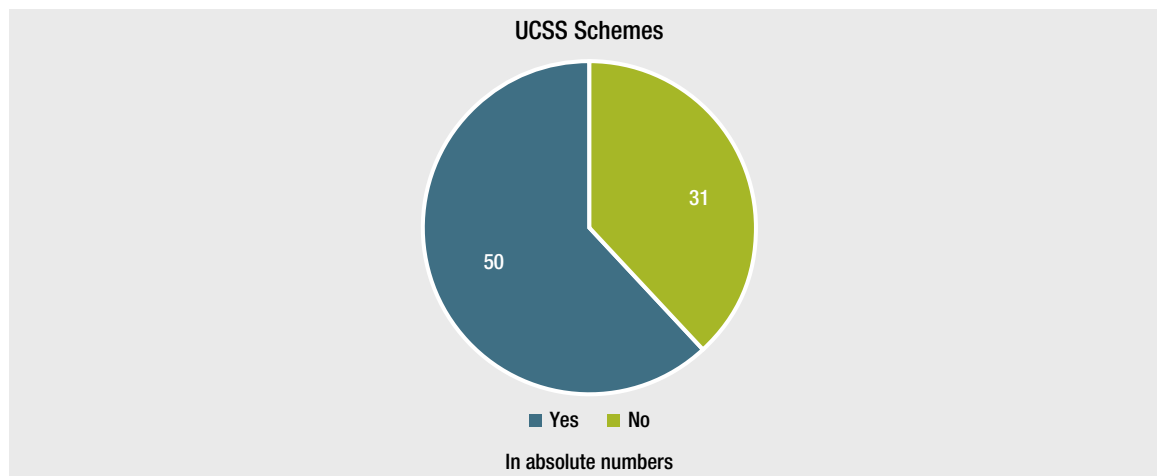
Figure 5: *Scheme wise availability of GIS under UCSS sector*

b. UCSS sector wise GIS coverage: All infrastructure-related schemes under the Urban transformation and Rural Development sector are using GIS in monitoring systems.
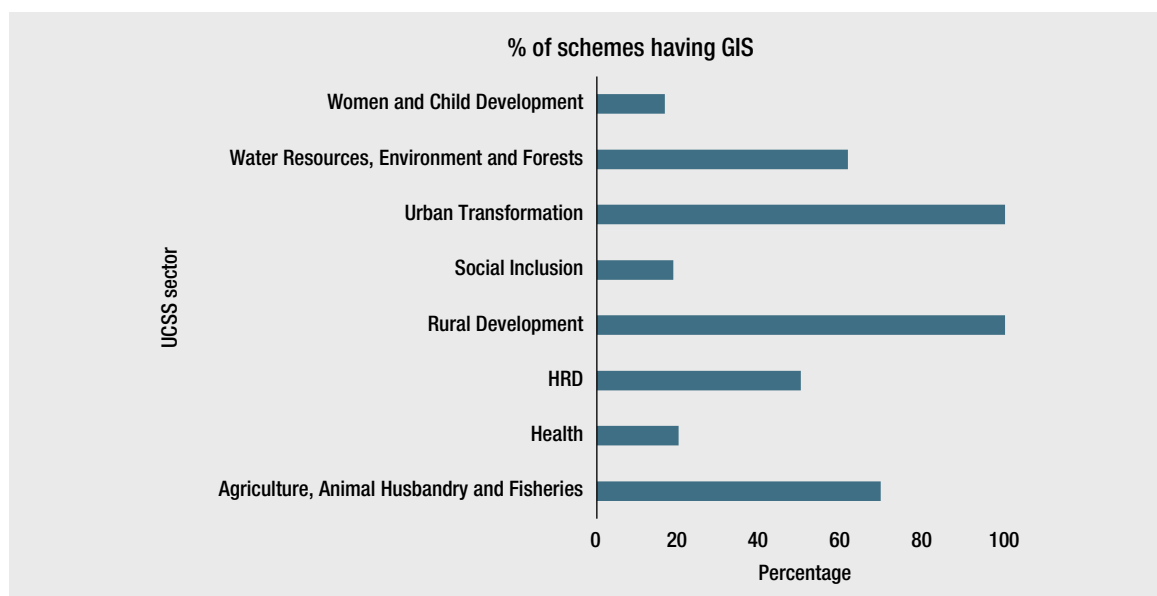
Figure 6: *UCSS sector: Percentage of schemes having GIS*

c. Ministry/Department wise illustration for the schemes where GIS is applicable: For 4 Ministries/Departments covered under evaluation studies, no infrastructure related schemes are using GIS. These are the Ministry of Tribal Affairs, Ministry of Social Justice and Empowerment, Ministry of AYUSH and Department of Fisheries. This issue may also be separately explored in future, as part of a separate study.
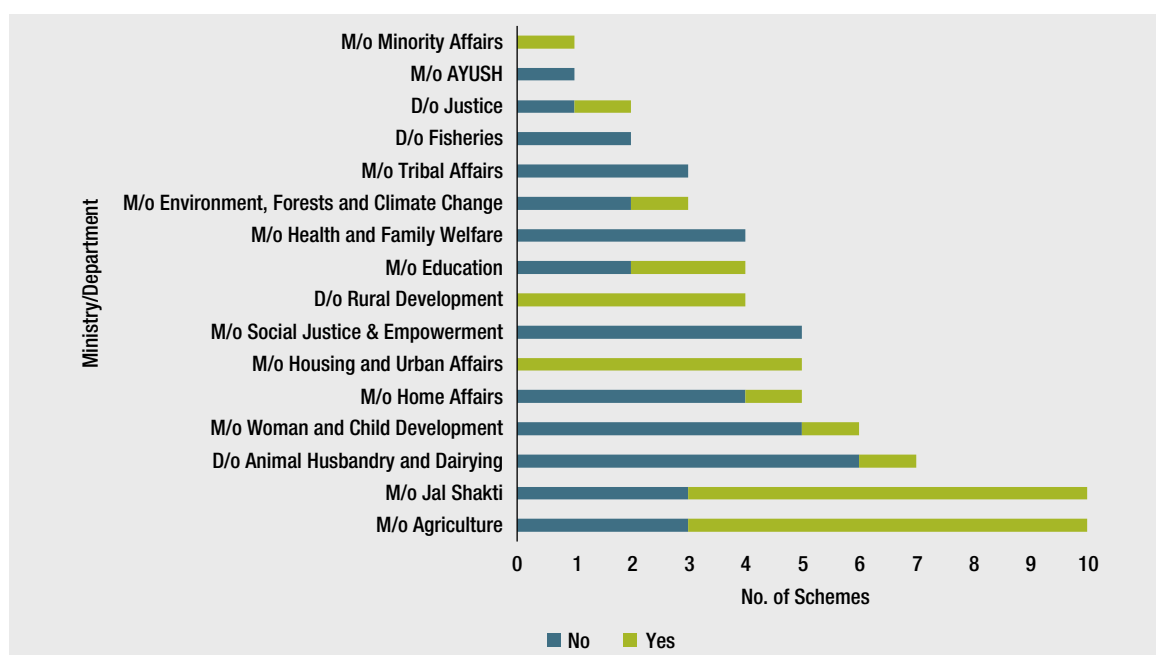
Figure 7: *Ministry/Department wise: Number of schemes having GIS*

Answerability: Measures of Financial Accountability

1. PFMS usage

    The primary function of PFMS today is to facilitate a sound Public Financial Management System for the Government of India by establishing an efficient and transparent fund flow system as well as a payments and accounting network. PFMS provides various stakeholders with a real time, reliable and meaningful management information system and an effective decision support system, as part of the Digital India initiative of Government of India. This section covers the PFMS usage across all the schemes. It has been found that PFMS is used in almost all schemes except few schemes of social inclusion sector, jobs and skills sector, water resources and environment & forests sector and human resource and development. This covers only the transfer from Centre Government to State government and there is no information in respect of payment which is made to the implementing agencies. Currently, the PFMS portal does not have information related to implementing agencies. Therefore, there is a need for enhancing the capacity of the PFMS portal in order to capture the transaction details till the level of implementing agencies. Further, the PFMS portal may also be expanded to include details of scheme-wise fund transfers for CSS schemes by States' as part of their contribution.

    a. Overall UCSS schemes: More than 85% of schemes covered under evaluations studies have been using PFMS for fund transfer and accounting.
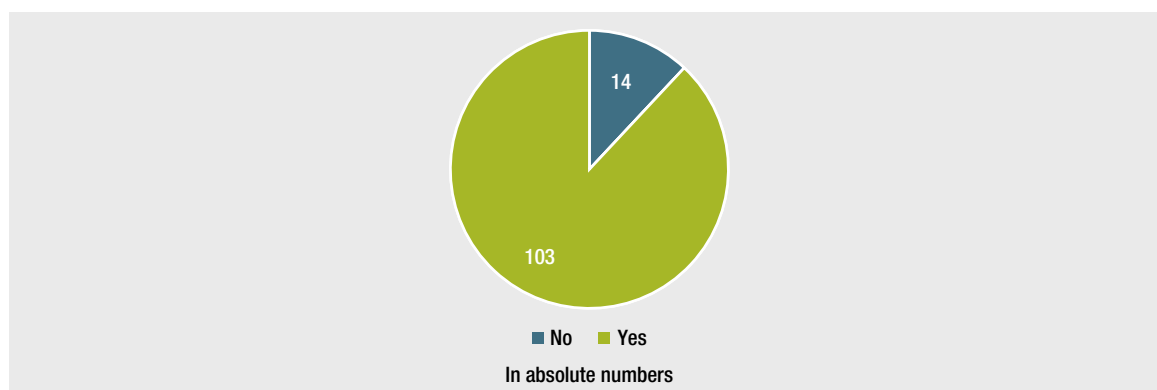
Figure 8: *Schemes with PFMS for Umbrella Centrally Sponsored Schemes*

b.   UCSS sector wise: Sector wise, it may be noted that more than 60% of schemes are registered under PFMS across sectors. Additionally, 100% of schemes under Women and Child Development, Urban Transformation, Rural Development, Health and Agriculture, Animal Husbandry and Fisheries are covered under PFMS.

c.   Ministry/Department wise coverage of PFMS under Centrally Sponsored Schemes (CSS): Only 4 Ministry/Departments account for all the schemes that are not using PFMS, viz. Ministry of Social Justice & Empowerment, Ministry of Skill Development and Entrepreneurship, Ministry of Jal Shakti and Ministry of Education.
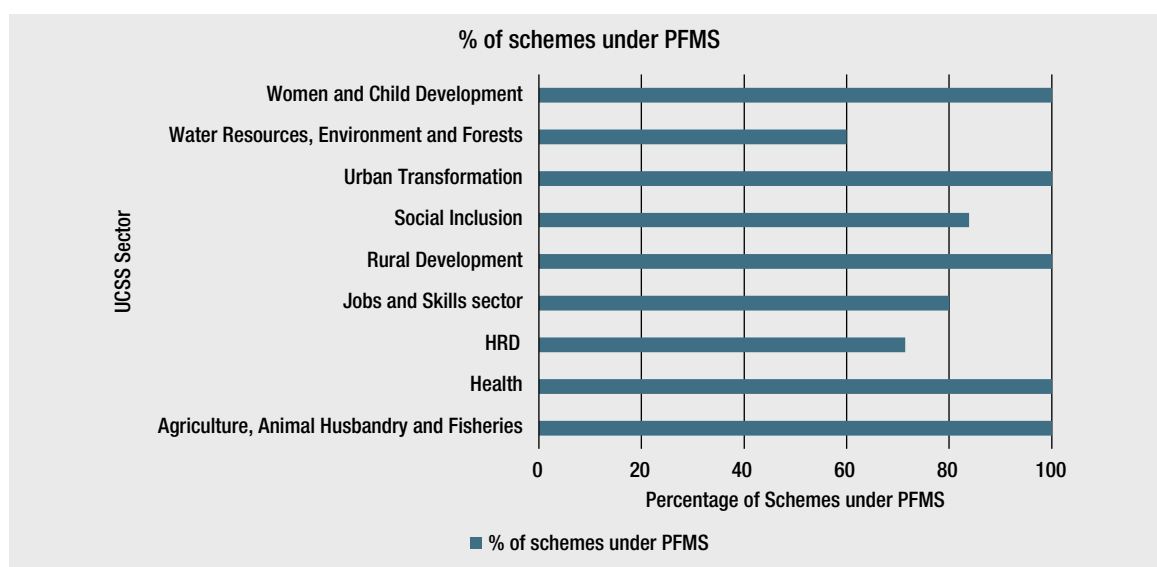
Figure 9: *UCSS sector wise: Percentage of schemes under PFMS*
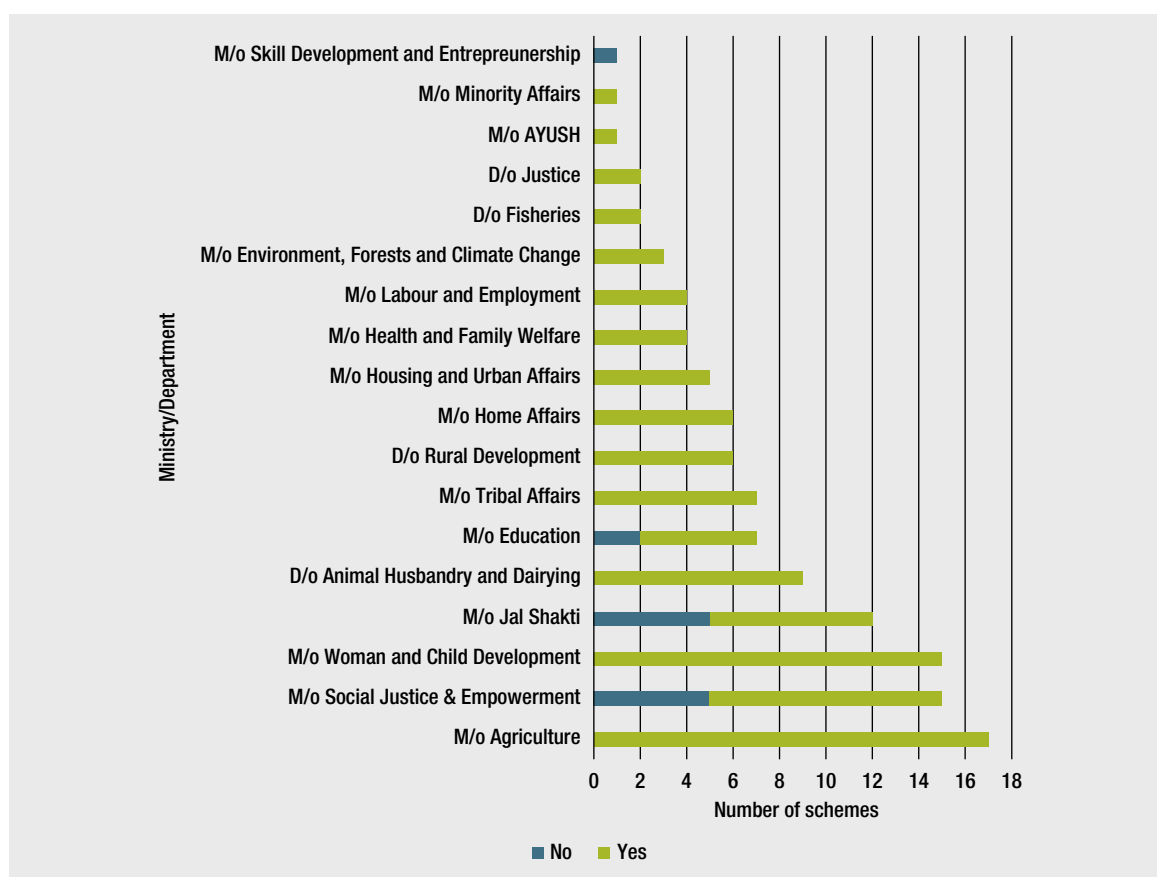
Figure 10: *Ministry/Department wise: Number of schemes under PFMS*

2. Direct Benefit Transfers (DBT):

In this section, the coverage of Direct Benefit transfers (DBT) has been examined across all 9 sectors. The applicability test is done for all schemes and all the schemes which have the provisions for transfers to the beneficiary as well as the interest subsidy are covered under this test[3]. There are a total 61 schemes on which DBT can be applicable. Out of 60, 57 schemes are using DBT for transferring benefits whereas 4 schemes are not using DBT.

a. UCSS Sector wise:
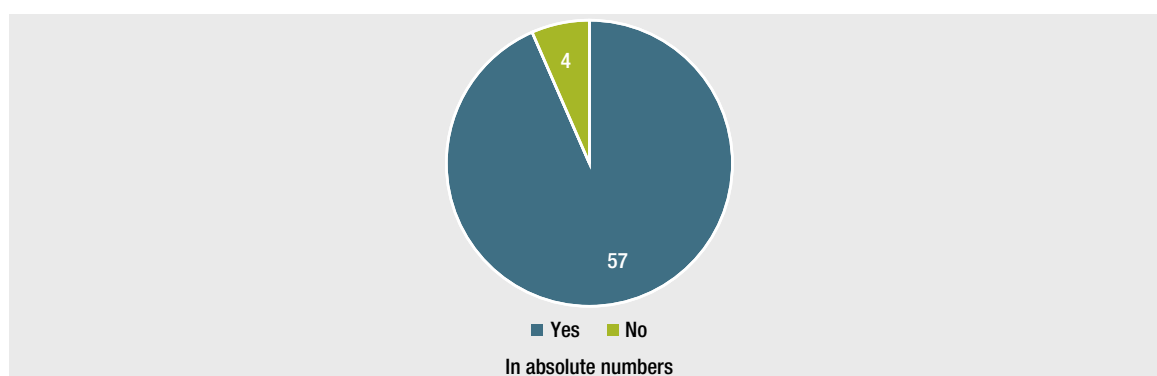
Figure 11: *UCSS Schemes using DBT*

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3   Interest subvention is not included in the DBT applicability test.

b.   Ministry/Department wise:

Percentage of Schemes covered under DBT
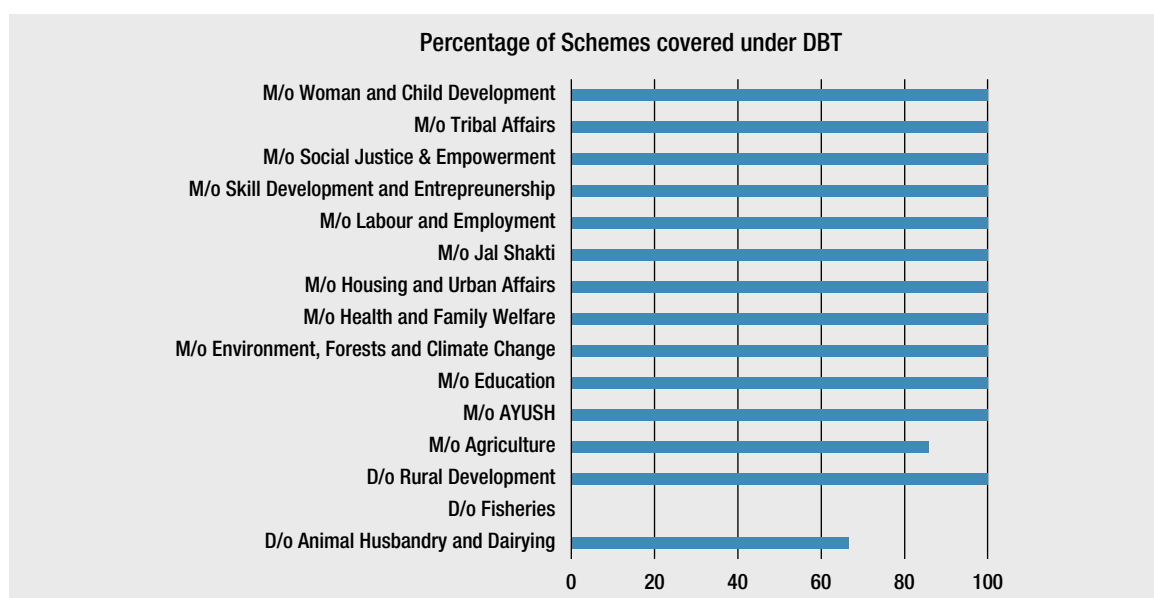
Figure 12: Ministry/Department wise: Percentage of schemes using DBT

Responsiveness

1.   Citizen Accountability:

In this section, the functionality of citizen accountability is assessed based on two parameters which are citizen charter and grievance redressal mechanism. For citizen charter, the information available on the website of the concerned ministry/department is used. Therefore, it is applicable to all the schemes implemented by a particular ministry/ department. The information available in the evaluation report is used for checking the functionality of grievance redressal mechanism. The insights from citizen charter and grievance redressal mechanism is given in the table below:

a.   Citizen Charter: As per the available evidence, three Ministries/Departments do not have any citizen charter available on their website, viz. Department of Fisheries, Ministry of Minority Affairs and Ministry of Home Affairs. In certain cases, it is also noted that although the information is available, it is not recent, for e.g. citizen charter for Ministry of Housing & Urban Affairs was updated in 2011-12, or it is not available in prominent location on the website, for e.g. for Ministry of Jal Shakti and Ministry of Tribal Affairs. There are also exemplary cases like the Ministry of Labour and Employment where the last updated version is that of June 2021 and is revised every quarter.

Table 4: Availability of Ministry/Department wise Citizen Charters

Citizen charter available on website and recently updated	Citizen charter not updated recently	Citizen charter not available on website

S No.	Ministry/Department	Whether citizen charter is available on website	Last updated during	Remarks
1	Department of Agriculture and Farmer's Welfare	Yes	2017	-
2	Department of Animal Husbandry and Dairying	Yes	2020-21	-
3	Department of Fisheries	No		-
4	Department of Rural Development	Yes	2013-14	-
5	Ministry of Skill Development and Entrepreneurship	Yes	2021-22	-
6	Ministry of Social Justice and Empowerment	Yes		D/o ePWD: 2019-20, D/o SJE: 2016-17
7	Ministry of Jal Shakti	Yes		Not in prominent location on website
8	Ministry of Tribal Affairs	Yes	Date not available	Not in prominent location on website
9	Ministry of Minority Affairs	No		Under development
10	Department of Justice	Yes	2020-21	-
11	Ministry of Health and Family Welfare	Yes	Date not available	-
12	Ministry of AYUSH	Yes	2019-20	-
13	Ministry of Labour and Employment	June 2021		Revised every month
14	Ministry of Environment, Forests and Climate Change	Yes	2020-21	-
15	Ministry of Home Affairs	No		-
16	Ministry of Women and Child Development	Yes	2018-19	Charters only for 2011-12, 2013-14 available on website
17	Ministry of Education	Yes		D/o SEL – 2020, D/o HE – 2019
18	Ministry of Housing Affairs	Yes	2011-12	-

b. Grievance Redressal Mechanism (Ministry/Department wise): Overall UCSS sector schemes: It has been noted that 41% of schemes covered under UCSS evaluation studies did not have a functional grievance redressal mechanism.

■ Yes ■ No
In absolute numbers
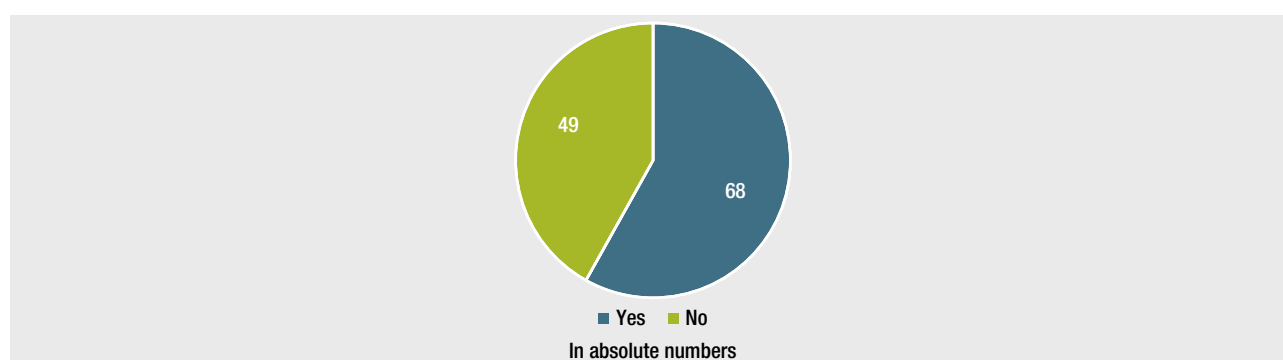
Figure 13: Functionality of grievance redressal mechanism in schemes under UCSS

c.   Ministry/Department wise:
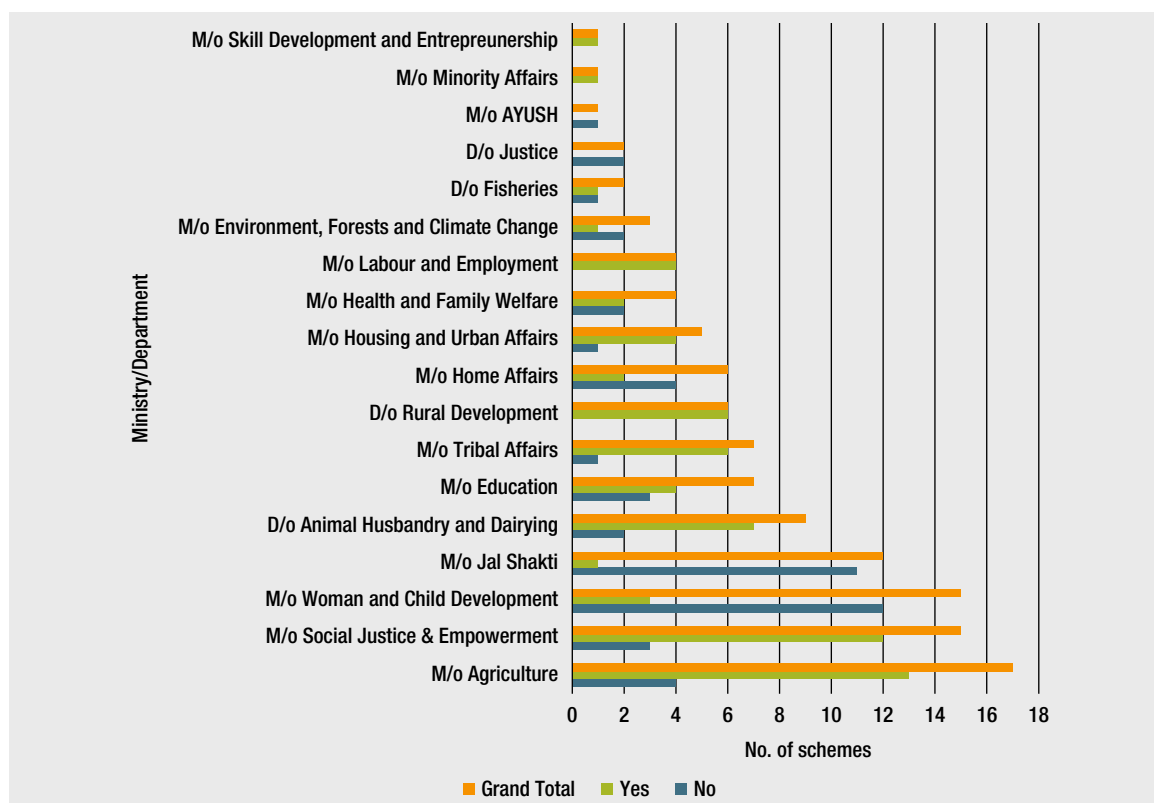
Figure 14: *Ministry/Department wise: Functionality of grievance redressal mechanism in schemes*

Voice

1.   Social Audits:

In this section, the prevalence of social audits has been examined across all the 9 sectors based on the nature of the scheme and applicability of social audits in the scheme. Desirability of a social audit is inferred from scheme guidelines within the scope of analysis. Whether or not the social audit was conducted is assessed on the basis of the findings from UCSS evaluation reports which employed key informant interviews and objective data collection, and through secondary sources- such as publicly available information on websites.

The coverage of social audits is very low. A handful of schemes have done social audits so far. The social audits required in the schemes where the community level benefits within the specified physical boundaries need to be assessed for checking the performance and relevance of a particular scheme. The applicability test is done for whether the scheme requires the social audits or not for assessing the impact and outcomes of the scheme.

The UCSS sector wise and ministry/department wise prevalence of social audits has been illustrated in the graphs below:

a.   UCSS sector wise: It has been noted that high percentage of schematic coverage under social audits is noted only under two sectors i.e. Rural Development and Urban Transformation.
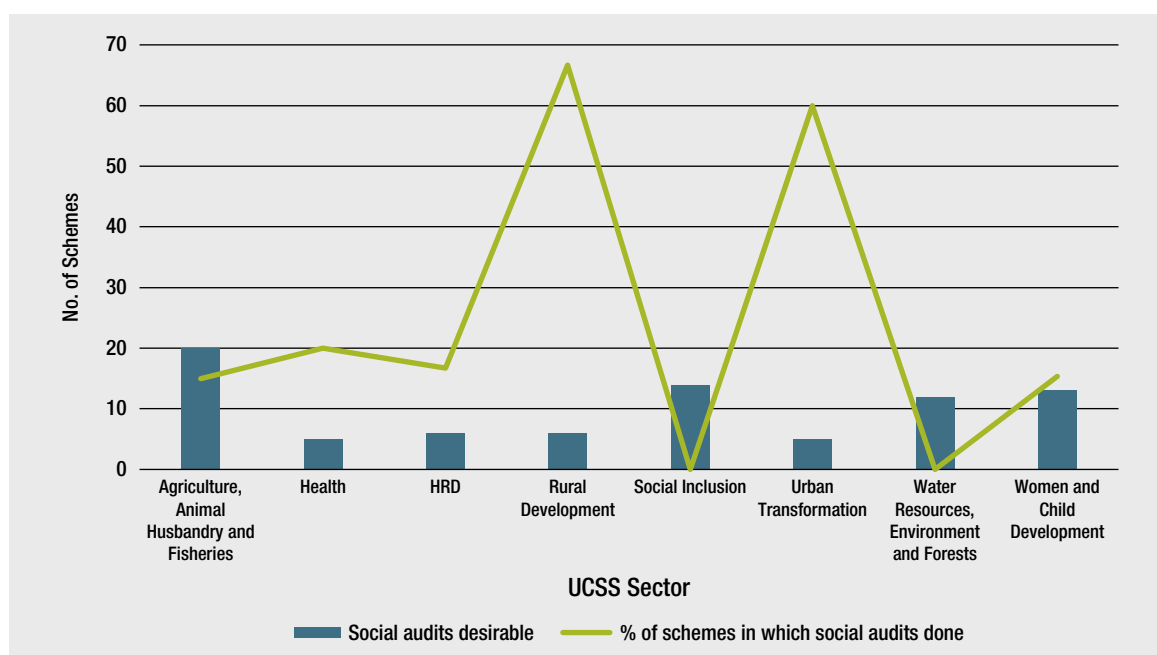
Figure 15: *Social audits desirability Vs Social audits conducted under UCSS sector*

b.   Ministry/Department wise: Only 6 Ministries/Departments have undertaken some social audits so far.
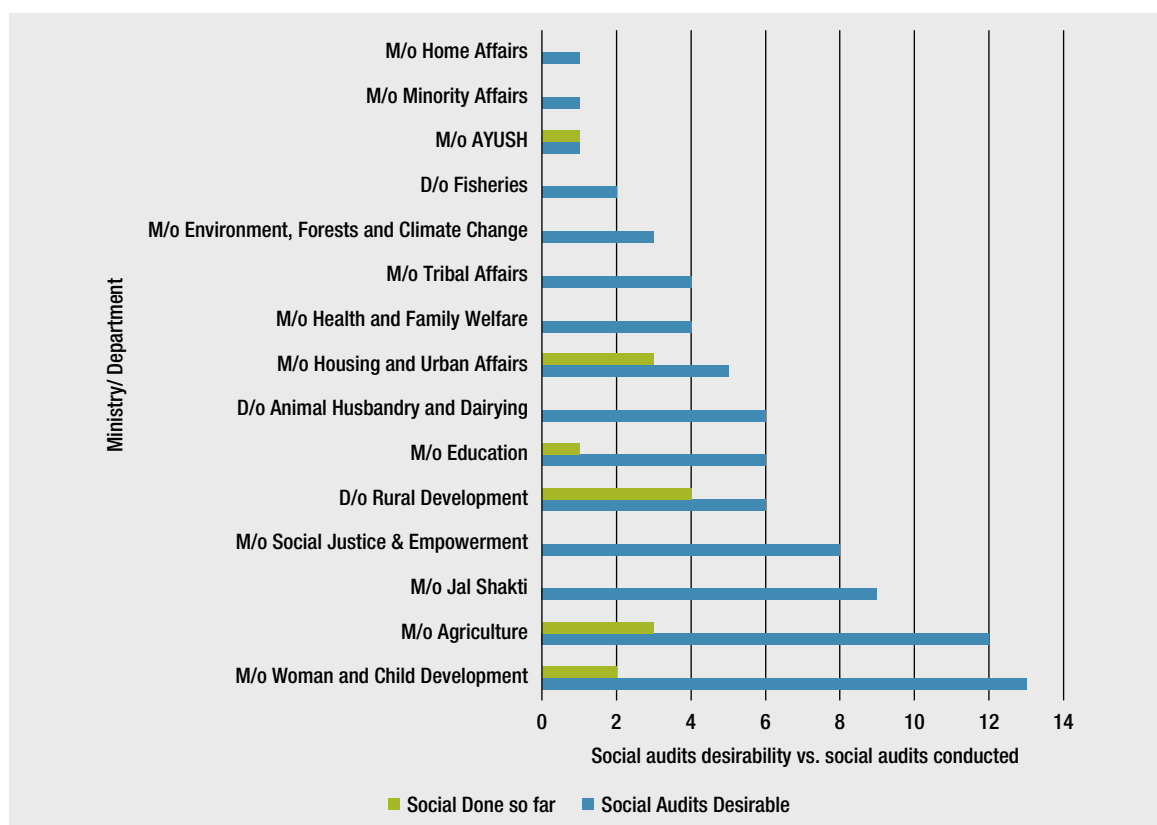
Figure 16: *Ministry/Department wise: Social audits desirability Vs Social audits conducted*

7. CONCLUSIONS AND WAY FORWARD

This paper has been an overarching inquiry into the state of accountability and transparency in delivery of government programs across ministries and sectoral points of intervention. This exploration has brought to light unprecedented diversity of attempts at ensuring transparency as well as varied need and manifestation of accountability in different sectors. Above all, it has helped us in laying down a pathway within the public system of governance to do this better.

Leveraging good practices across studies, a view of holistic accountability & transparency system may be understood as encompassing, strengthening of citizen's voice, promoting answerability and responsiveness from public institutions and ensuring enforcement through decision makers.

1. **Strengthening Citizens' Voice**

    Looking at it in a step-by-step manner, the foremost step is to ensure that citizens are aware of the contexts within which they have a voice i.e. knowing what the mandate of a public institution is and what are the benefits enshrined in its programs. It is also integral for the state to enable spaces within which this voice may be exercised.

    Spaces of interaction between the citizen and state through formal and informal mechanisms, and the interaction of social-cultural norms with formal norms pose as the new frontiers of greater research and empirical evidence. In the domain of bottom-up social accountability, we find that schemes need significant strengthening on priority mode in this regard. Social audits are limited in guidelines and in practice. Learnings from the Ministry of Rural Development in institutionalising social audits in guidelines and operationalising them in practice, especially around Andhra Pradesh's dedicated social audit cadre can be imbibed and scaled up in the future.

2. **Promoting Answerability in Public Institutions**

    The act of being accountable and transparent is to be undertaken by public institutions both proactively and reactively. A fundamental component of answerability is the disclosure of relevant information in the public domain.

    One such constituent of information disclosure is open data and the data pertaining to implementation of programs may be made publicly available. Throughout the lifecycle of a program, availability of decision-making details like Project appraisal board meeting minutes, the sanctioned orders for physical and financial targets, financial releases, the latest updates, the minutes of the review meetings, status update presentations, environmental and social impact assessments, stakeholder consultations, audit reports etc. may be ensured. Even ensuring that accurate, timely and consolidated data is made available is an accountability & transparency mandate of the implementing agency.

    From the findings in the analysis, we see that MIS availability is not uniform in the public domain across Ministries and Departments. Additionally, beneficiary level data or project

level data is often not available in the public domain. Only 57% of schemes amenable to the use of GIS are presently using the same. This needs improvement in mission mode across Ministries and Departments.

Another constituent of information disclosure is for the public to be able to witness fund flows and the cycle of public expenditure. This domain is called Financial Accountability. We note that PFMS fund flows by States/UTs to districts and implementing agencies are a gap to be plugged, in terms of information availability and disclosure in the public domain. DBT usage is very high, and serves as a good proxy for financial accountability.

3. **Strengthening Responsiveness in Public Institutions**

Responsiveness is an integral aspect of Accountability and Transparency, and we find that citizen charters and grievance redressal mechanisms among Ministries and Departments need to be updated and augmented on priority. Most Ministries and Departments have not updated their websites with citizen charters and grievance redressal information. The Ministry of Labour and Employment, serves as a beacon among others as it is the only Ministry to update its citizen charter quarterly, amongst those assessed. Only 58% of schemes covered under the evaluation currently have grievance redressal mechanisms.

While being responsive to citizens' complaints through a Grievance Redressal Mechanism is essential, proactively setting up at the Ministry as well as scheme level as applicable may be mandated. These redressal mechanisms need to be inherently designed to be accessible, in both digital and non-digital formats, to ensure inclusivity and integration of both may be clearly laid out.

4. To facilitate an approach towards strengthening systems to enable all facets of Accountability and Transparency, namely Voice, Answerability, Responsiveness and Enforcement in the government context, the following may be considered in addition to the points proposed above:

   a. **Start with good data**

   For any government scheme, it is pertinent to identify data that is needed for its design, implementation, monitoring and evaluation. This data may encompass its inputs (such as finances, human resources etc.), activities (such as training programs, construction, procurement, application stages etc.), outputs (such as buildings, scholarships, research papers etc.), as well as its outcomes (such as daily ridership in public transport, gross enrolment ratio in schools, improved income levels of farmers etc.). The identification of data should be undertaken at the design stage itself, i.e. at the starting point and its completeness with respect to scheme's objectives, sectoral goals, demographic coverage, geographical coverage, cross-sectional data on gender and minorities has to be explored early on. The institutionalization of Output Outcome Monitoring Framework (OOMF) in the government of India has been a step towards pushing for good data throughout the project lifecycle.

   b. **Build systems for better data**

   The data has to be approached via lifecycle approach to not just enhance its utility for implementation, but also facilitating accountability measures. This involves data collection and tracking mechanisms such as child tracking systems, beneficiary tracking for employability and employment metrics etc. to better understand the

long-term impacts of the programs. The interoperability of datasets, enabled by a consistent metadata, from most granular level to aggregations at block, district, state and national level can form the backbone of vertical as well as citizen accountability. The consistency in frequency of data updates is a key driver for trust in data. The guidelines w.r.t data collection, management and monitoring should be established in the scheme guidelines itself. For beneficiary-led schemes, the digital workflow tools for beneficiaries to track the status of their applications, made online and offline, and its processing may be considered. The update through the workflow may be mandated to be issued through SMS. This also leads to real-time monitoring and data capture and eliminates the need for manual data entry.

c. **Data Quality, Convergence and efficiency**

Instead of recollecting and restoring similar data across schemes, there is an opportunity to converge data sources and systems at schematic as well as sectoral level. Wherever data is available from multiple sources, the uniformity of data records across sources might be leveraged as a data validation mechanism. The development of automated data controls at data entry and processing level can further ensure data quality and lead to efficient utilization of data.

d. **Data policies for improved engagement**

With the digital integration of government systems and processes, we are transforming from data constraint to data rich environments. This transformation necessitates explicit data policies at the level of government programs, with a constant encouragement to push for more and relevant data to be made publicly available. Similarly, clear guidelines on provisioning of on-demand data to stakeholders, beneficiaries as well as third parties may be outlined as part of scheme guidelines and adhered during the program lifecycle. It may also encapsulate clear data archival guidelines and policies to ensure continuity of data availability for an out-of-operations scheme from a sectoral learning point of view. While detailing data policies, the possibility of availability of granular as well as localized data in the public domain over and above aggregated data sets makes a remarkable shift in accountability. Moreover, de-identified data sets give access to academicians, researchers, and civil society at large to actively engage in achievement of goals with the public sector.

e. **Public disclosure of data**

Having a separate website is the first step to digital data disclosure, and these could be at national, state and district level and more often than not maybe interconnected. However, the provisioning of detailed information and regular updation of the dashboard also needs to be ensured

f. **Financial Accountability**

The Public Finance Management System (PFMS), along with Direct Beneficiary Transfer (DBT), has emerged as a mechanism for financial transparency and accountability and hence, may be strengthened. However, the DBT is applicable only when funds are required to be transferred to end beneficiaries and may not be applicable in certain cases for e.g. in case of education for transfer of funds to schools or urban development for transfer of funds to Urban Local Bodies. In such cases, alternative and contextual financial accountability structures based on parameters like type of

expenditure, size of expenditure etc. may be explored. In addition, compliance with General Financial Rules (GFRs) in letter and spirit may be considered as a benchmark for financial accountability and transparency.

5. **Ensuring Enforcement through Decision Makers**

The collection and disclosure of data can be transcended into action through robust monitoring mechanisms at all levels of program delivery so that variance and opportunities at all levels are clearly understood. Management Information Systems (MIS) to track a government scheme/program's progress and performance is the go-to monitoring mechanism to ensure visualization and visibility. These digital interfaces on their own might not be sufficient and may supplement the review and monitoring mechanisms such as review meetings, field visits etc. In engagement and collaboration with active citizenry, social audits may be mandated and facilitated as an effective on-ground monitoring mechanism. The development of a citizen charter at Ministry level or mission level as applicable may be mandated.

The implementation of monitoring mechanisms at a large scale encounters variability in the constitution of monitoring structures across geographies and entities. It needs to be ensured that the quality of implementation of monitoring mechanisms is maintained with any contextual variabilities. One of the ways of encouraging consistency in monitoring mechanisms is through convergence across schemes as well as entities within schemes, for e.g. sharing of resources and systems between elementary and secondary education systems. An explicit allocation of funds for Monitoring & Evaluation in the financial proposal of the scheme and annual budgeting to be ensured.

6. These kinds of systems should be kept in mind right from the inception of the scheme in order to have effective implementation of the scheme as well as generating more insights for feeding future policy-making related to the sector in general and that scheme in particular.

ANNEXURE I:
SCHEME WISE DETAILS

Table 5: Sector-wise Desirability[4] of MIS and Availability of MIS

Desirable and Available	Desirable but not available	Neither available nor desirable

S. No.	Scheme Name	National	State	District	Block/ City	Gram Panchayat	Project[5]	Beneficiary
	Social Inclusion							
1	Crime and criminal network tracking system (CCTNS)[6]	🟥	🟥	⬜	⬜	⬜	🟥	⬜
2	Assistance to states for Modernization of Police	🟥	🟥	🟥	⬜	⬜	⬜	⬜
3	Assistance to States for Special projects for upgrading police infrastructure	🟥	🟥	⬜	⬜	⬜	🟥	⬜
4	Special Central Assistance for 30 most LWE affected Districts	🟥	🟥	🟥	🟥	⬜	⬜	⬜
5	Special Infrastructure (SIS) including the construction of 250 fortified police stations	🟥	🟥	🟥	🟥	⬜	⬜	⬜
6	Border Area Development Programme	🟩	🟩	⬜	⬜	⬜	⬜	⬜
7	Development of Infrastructure facilities for the Judiciary	🟩	🟩	⬜	⬜	⬜	🟩	⬜
8	Central Assistance to states for the establishing and operationalization of Gram Nayalayas[7]	🟥	🟥	🟥	⬜	⬜	⬜	⬜
9	Pradhan Mantri Jan Vikas Karyakarm[8]	🟥	🟥	🟥	🟥	🟥	⬜	⬜
10	Pradhan Mantri Adarsh Gram Yojana	🟩	🟩	🟩	🟩	🟩	⬜	⬜
11	Post-Matric Scholarship for SC	🟥	🟥	🟥	🟥	🟥	⬜	🟥

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4   Desirability herein refers to the lowest geographical level where scheme data can be captured as per scheme guidelines; the assumption here is that data may be agglomerated at higher levels. A deeper analysis into desirability as an ideal may be flushed out through further research going forward.

5   Project level information refers to clusters/individual projects created under the particular scheme, as applicable

6   State-wise information is available on the website of National Crime Records Bureau

7   Information pertaining to the scheme is available on the website of Department of Justice

8   Information pertaining to the scheme is available on the website of Ministry of Minority Affairs

S. No.	Scheme Name	National	State	District	Block/City	Gram Panchayat	Project[5]	Beneficiary
12	Pre-Matric Scholarship for SC	Red	Red	Red	Red	Red	Grey	Red
13	SCA to SCSP	Red	Red	Red	Red	Red	Grey	Grey
14	PCR and PoA	Red	Red	Red	Grey	Grey	Grey	Grey
15	Babu Jag Jivanram Chattrawas Yojana	Red	Red	Red	Red	Grey	Red	Grey
16	Pre-Matric Scholarship to Children of those engaged in unclean occupation and prone to health hazards	Red	Red	Red	Red	Red	Grey	Red
17	Assistance to Scheduled Castes Development Cooperations	Red	Red	Red	Red	Red	Grey	Red
18	Upgradation of Merit for SC students	Green	Red	Red	Red	Red	Grey	Red
19	Post-Matric Scholarship Scheme for OBC Students	Red	Red	Red	Red	Red	Grey	Red
20	Pre-Matric Scholarship Scheme for OBC Students	Red	Red	Red	Red	Red	Grey	Red
21	Construction of Hostels for OBC Boys and Girls	Red	Red	Red	Red	Grey	Red	Grey
22	Dr. Ambedkar Post-Matric Scholarship Scheme for EBC Students	Red	Red	Red	Red	Red	Grey	Red
23	Dr. Ambedkar Pre and Post-Matric Scholarship for DNTs	Red	Red	Red	Red	Red	Grey	Red
24	Scheme for Assistance for Prevention of Alcoholism and Substance (Drugs) Abuse	Green	Red	Red	Grey	Grey	Grey	Red
25	Post-Matric Scholarship for STs	Green	Green	Green	Green	Green	Grey	Green
26	Pre-Matric Scholarship for STs	Green	Green	Green	Green	Green	Grey	Green
27	Support to Tribal Research Institute	Red	Red	Grey	Grey	Grey	Grey	Grey
28	MSP for MFP	Red	Red	Red	Red	Red	Grey	Red
29	SCA to TSS	Green	Red	Red	Red	Red	Grey	Grey
30	Scheme for development of PVTGs	Red	Red	Red	Red	Red	Grey	Grey
31	Tribal, Festival, Research, Information and Mass Education	Red	Red	Red	Grey	Grey	Red	Grey
Women and Child Development								
32	Anganwadi Services Scheme[9]	Red	Red	Red	Red	Red	Grey	Red
33	POSHAN Abhiyaan	Green	Green	Green	Green	Green	Grey	Grey
34	Pradhan Mantri Matru Vandana Yojana (PMMVY)	Green	Green	Red	Red	Red	Grey	Red
35	Scheme for Adolescent Girls (SAG)	Green	Green	Red	Red	Red	Grey	Red

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9   Information pertaining to the scheme is available on the website of Ministry of Women and Child Development

S. No.	Scheme Name	National	State	District	Block/City	Gram Panchayat	Project[5]	Beneficiary
36	National Crèche Scheme (NCS)[10]	Green	Green	Red	Red	Grey	Grey	Grey
37	Child Protection Scheme (ICPS)[11]	Green	Green	Red	Red	Red	Grey	Red
38	Beti Bachao Beti Padhao (BBBP)	Green	Green	Green	Red	Grey	Grey	Grey
39	Swadhar Greh Scheme[12]	Green	Green	Red	Red	Grey	Grey	Grey
40	Ujjawala Scheme	Green	Green	Green	Grey	Grey	Grey	Red
41	Working Women's Hostel Scheme	Green	Red	Red	Grey	Grey	Red	Grey
42	Mahila Shakti Kendra (MSK) Scheme	Green	Red	Red	Red	Grey	Grey	Red
43	Gender Budgeting, Research, Publication and Monitoring	Red	Grey	Grey	Grey	Grey	Grey	Grey
44	One-Stop Centre (OSC) Scheme	Green	Green	Green	Red	Grey	Grey	Grey
45	Mahila Police Volunteers (MPV) Scheme	Green	Green	Green	Red	Grey	Grey	Red
46	Universalisation of Women Helpline	Green	Green	Green	Green	Grey	Grey	Grey
Urban Transformation								
47	Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	Red	Red	Red	Red	Grey	Red	Grey
48	Pradhan Mantri Awas Yojana (PMAY)	Green	Green	Green	Green	Grey	Grey	Green
49	National Urban Livelihood Mission (NULM)[13]	Green	Green	Grey	Grey	Grey	Red	Red
50	Swachh Bharat Mission (SBM)	Green	Green	Green	Green	Green	Grey	Green
51	Smart Cities Mission (SCM)	Green	Green	Green	Grey	Grey	Green	Grey
Health								
52	National Rural Health Mission (NRHM)	Green	Green	Green	Green	Grey	Grey	Grey
53	National Urban Health Mission (NUHM)	Green	Green	Green	Green	Grey	Grey	Grey
54	Tertiary Care Programs	Red	Red	Red	Grey	Grey	Grey	Grey
55	Human Resource for Health and Medical Education	Red	Red	Red	Grey	Grey	Grey	Grey
56	National AYUSH Mission	Green	Red	Red	Red	Grey	Red	Grey
Water Resources, Environment and Forest								
57	Accelerated Irrigation Benefits Program (AIBP)	Green	Green	Green	Green	Grey	Green	Grey
58	Watershed Development Component (WDC)	Green	Green	Red	Red	Grey	Red	Red

10 Information pertaining to wise scheme is available on the website of Ministry of Women and Child Development

11 Information pertaining to the scheme is available on the website of Ministry of Women and Child Development

12 Information pertaining to the scheme is available on the website of Ministry of Women and Child Development

13 Information pertaining to the scheme is available on the website of Ministry of Housing and Urban Affairs

S. No.	Scheme Name	National	State	District	Block/City	Gram Panchayat	Project[5]	Beneficiary
59	Irrigation Census[14]	Green	Green	Red	Red	Red	Grey	Grey
60	Command Area Development and Water Management (CADWM)	Green	Green	Green	Green	Grey	Green	Grey
61	Repair, Renovation and Restoration (RRR)	Green	Green	Red	Grey	Grey	Red	Grey
62	Surface Minor Irrigation (SMI)	Green	Green	Red	Grey	Grey	Red	Grey
63	Ground Water Irrigation (GWI)	Green	Green	Red	Grey	Grey	Red	Grey
64	Special Package for Maharashtra (SPFM)	Green	Green	Green	Grey	Grey	Green	Grey
65	Per Drop More Crop (PDMC)	Green	Green	Red	Red	Grey	Grey	Red
66	Servicing of Loans from NABARD under PMKSY[15]	Red	Red	Red	Red	Grey	Red	Grey
67	National River Conservation Program (NRCP)[16]	Red	Red	Red	Grey	Grey	Red	Grey
68	Flood Management and Border Area Programme (FMBAP)[17]	Green	Green	Red	Red	Grey	Red	Grey
69	National Mission for Green India (NMGI)	Red	Red	Red	Red	Grey	Grey	Grey
70	Integrated Development of Wildlife Habitats (IDWH)	Red	Red	Grey	Grey	Grey	Red	Grey
71	Conservation of Natural Resources and Ecosystems (CNRE)[18]	Red	Red	Red	Grey	Grey	Grey	Red
Jobs and Skills Sector								
72	Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	Green	Green	Green	Grey	Grey	Grey	Red
73	Pradhan Mantri Rojgar Protsahan Yojana (PMRPY)	Red	Red	Red	Grey	Grey	Grey	Red
74	National Career Service (NCS)	Green	Green	Red	Grey	Grey	Grey	Red
75	National Career Service for SC/STs (NCS-SC/ST)	Green	Green	Red	Grey	Grey	Grey	Red
76	National Career Service for DA (NCS-DA)	Green	Green	Red	Grey	Grey	Grey	Red
Rural Development								
77	Pradhan Mantri Awas Yoyana-Gramin	Green	Green	Green	Green	Grey	Grey	Green
78	MNREGA	Green	Green	Green	Green	Grey	Grey	Green
79	Pradhan Mantri Gram Sadak Yojana (PMGSY)	Green	Green	Green	Grey	Grey	Green	Grey
80	DAY-National Rural Livelihood Mission	Green	Green	Green	Green	Grey	Grey	Green

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14 Information pertaining to the scheme is available on the website of Ministry of Jal Shakti

15 Information pertaining to the scheme is available on the website of National Bank for Agriculture and Rural Development

16 Information pertaining to the scheme is available on the website of Ministry of Jal Shakti

17 Information pertaining to the scheme is available on the website of Ministry of Environment, Forest and Climate Change

18 Information pertaining to the scheme is available on the website of Ministry of Environment, Forest and Climate Change

S. No.	Scheme Name	National	State	District	Block/ City	Gram Panchayat	Project[5]	Beneficiary
81	National Social Assistance Programme	Green	Green	Green	Green	Grey	Grey	Green
82	SPMRM	Green	Green	Green	Green	Grey	Green	Grey
Human Resource Development								
83	Mid-Day Meal[19]	Red	Red	Red	Red	Grey	Grey	Red
84	Scheme for Providing Education to Madrasas and Minorities (SPEMM)[20]	Red	Red	Red	Red	Grey	Grey	Red
85	Sarva Shiksha Abhiyan (SSA)	Grey	Grey	Grey	Grey	Grey	Grey	Grey
86	Rashritya Madhyamik Shiksha Abhiyan (RMSA)	Red	Red	Red	Red	Grey	Grey	Red
87	CSS on Teacher Education (CSSTE)	Red	Red	Red	Red	Grey	Grey	Red
88	Saakshar Bharat	Red	Red	Red	Red	Grey	Grey	Red
89	Rashtriya Uchchatar Shiksha Abhiyan (RUSA)	Red	Red	Red	Red	Grey	Grey	Red
Agriculture, Animal Husbandry and Fisheries								
90	Pradhan Mantri Krishi Sinchayi Yojana (PMKSY)	Green	Green	Green	Red	Red	Grey	Grey
91	Rashtriya Krishi Vikas Yojana	Green	Red	Red	Red	Grey	Red	Grey
92	Mission for Integrated Development of Horticulture	Green	Green	Green	Red	Grey	Grey	Red
93	National Food Security Mission	Green	Green	Red	Red	Grey	Grey	Grey
94	Sub-Mission on agriculture mechanization	Green	Grey	Red	Red	Grey	Grey	Red
95	Integrated Scheme for Agriculture Marketing	Green	Green	Green	Green	Grey	Grey	Green
96	Soil Health Management	Green	Green	Green	Green	Grey	Grey	Green
97	Mission Organic Value Chain Development for North Eastern Region	Green	Green	Green	Red	Grey	Grey	Red
98	Rainfed Area development	Green	Green	Green	Red	Grey	Grey	Red
99	Paramparaghat Krishi Vikas Yojana	Red	Red	Red	Red	Grey	Grey	Red
100	Integrated Scheme on Agriculture cooperation	Red	Red	Red	Grey	Grey	Red	Grey
101	Sub-Mission on agriculture extension	Red	Red	Red	Red	Grey	Grey	Red
102	Sub-mission on seed and planting material	Green	Green	Red	Red	Red	Grey	Grey
103	Sub-mission on plant protection and plant quarantine	Green	Red	Red	Red	Grey	Grey	Grey
104	Sub-mission on agroforestry	Green	Green	Green	Red	Grey	Grey	Red

19 Information pertaining to the scheme is available on the website of Ministry of Education

20 Information pertaining to the scheme is available on the website of Department of School Education & Literacy

S. No.	Scheme Name	National	State	District	Block/ City	Gram Panchayat	Project[5]	Beneficiary
105	National Bamboo Mission	🟩	🟩	🟩	🟥	⬜	⬜	🟥
106	Integrated scheme on agriculture census and statistics	🟩	🟩	🟩	🟩	🟥	⬜	⬜
107	National Dairy Plan-I	🟥	🟥	🟥	🟥	⬜	⬜	🟥
108	Dairy Entrepreneurship Development Scheme	🟥	🟥	🟥	🟥	⬜	⬜	🟥
109	National Programme for Diary Development	🟥	🟥	🟥	🟥	⬜	⬜	🟥
110	National Livestock Mission	🟥	🟥	🟥	🟥	⬜	⬜	🟥
111	Livestock Health and Disease Control	🟥	🟥	🟥	🟥	⬜	⬜	🟥
112	Rashtriya Gokul Mission	🟥	🟥	🟥	🟥	⬜	⬜	🟥
113	Dairy Processing & Infrastructure Development Fund	🟥	🟥	🟥	🟥	⬜	⬜	🟥
114	Livestock Census and Integrated Sample Survey	🟥	🟥	🟥	🟥	⬜	⬜	⬜
115	Supporting State Cooperatives Dairy Federations	🟥	🟥	🟥	🟥	⬜	⬜	⬜
116	Integrated Development and Management of Fisheries	🟥	🟥	🟥	🟥	⬜	🟥	⬜
117	Fisheries and Aquaculture Development Fund	🟩	🟩	🟥	🟥	⬜	🟥	⬜

Table 6: Scheme-wise details of monitoring parameters

Desirable and Available	Desirable but not available	Neither available nor desirable

S. No.	Scheme Name	Type of Scheme	PFMS	DBT	Desirability of Social Audits	Social Audits Done so far	GIS	MIS	MIS in public domain	Grievance Redressal Mechanism
Ministry of Home Affairs										
1	Crime and criminal network tracking system (CCTNS)	Services	Green	Grey	Grey	Grey	Grey	Red	Grey	Green
2	Assistance to States for Modernization of Police	Infrastructure and services	Green	Grey	Grey	Grey	Red	Red	Grey	Red
3	Assistance to States for Special projects for upgrading police infrastructure	Infrastructure	Green	Grey	Grey	Grey	Red	Red	Grey	Red
4	Special Central Assistance for 30 most LWE affected Districts	Infrastructure and services	Green	Grey	Grey	Grey	Red	Green	Red	Green
5	Special Infrastructure (SIS) including the construction of 250 fortified police stations	Infrastructure	Green	Grey	Grey	Grey	Red	Red	Grey	Red
6	Border Area Development Programme	Infrastructure and services	Green	Grey	Green	Red	Green	Green	Green	Red
Department of Justice										
7	Development of Infrastructure facilities for the Judiciary	Infrastructure	Green	Grey	Grey	Grey	Green	Red	Red	Red
8	Central Assistance to states for the establishing and operationalization of Gram Nayalayas	Infrastructure	Green	Grey	Grey	Grey	Red	Red	Grey	Red
Ministry of Minority Affairs										
9	Pradhan Mantri Jan Vikas Karyakarm	Infrastructure	Green	Red	Green	Red	Green	Red	Grey	Green
Ministry of Social Empowerment and Justice										
10	Pradhan Mantri Adarsh Gram Yojana	Infrastructure and services	Green	Grey	Green	Red	Green	Green	Green	Green
11	Post-Matric Scholarship for SC	Services	Green	Green	Grey	Grey	Grey	Red	Grey	Green
12	Pre-Matric Scholarship for SC	Services	Green	Green	Grey	Grey	Grey	Red	Grey	Green
13	SCA to SCSP	Infrastructure and services	Red	Grey	Green	Red	Red	Green	Grey	Green
14	PCR and PoA	Services	Red	Grey	Green	Red	Grey	Red	Grey	Red

S. No.	Scheme Name	Type of Scheme	PFMS	DBT	Desirability of Social Audits	Social Audits Done so far	GIS	MIS	MIS in public domain	Grievance Redressal Mechanism
15	Babu Jag Jivanram Chattrawas Yojana	Infrastructure	Red	Grey	Green	Red	Red	Red	Grey	Green
16	Pre-Matric Scholarship to Children of those engaged in unclean occupation and prone to health hazards	Services	Green	Green	Grey	Grey	Grey	Red	Grey	Green
17	Assistance to Scheduled Castes Development Cooperations	Infrastructure and services	Red	Green	Green	Red	Red	Red	Grey	Red
18	Upgradation of Merit for SC students	Services	Red	Green	Green	Red	Grey	Green	Green	Red
19	Post-Matric Scholarship Scheme for OBC Students	Services	Green	Green	Grey	Grey	Grey	Red	Grey	Green
20	Pre-Matric Scholarship Scheme for OBC Students	Services	Green	Green	Grey	Grey	Grey	Grey	Grey	Green
21	Construction of Hostels for OBC Boys and Girls	Infrastructure	Green	Grey	Green	Red	Red	Grey	Grey	Green
22	Dr. Ambedkar Post-Matric Scholarship Scheme for EBC Students	Services	Green	Green	Grey	Grey	Grey	Red	Grey	Green
23	Dr. Ambedkar Pre and Post-Matric Scholarship for DNTs	Services	Green	Green	Grey	Grey	Grey	Red	Grey	Green
24	Scheme for Assistance for Prevention of Alcoholism and Substance (Drugs) Abuse	Services	Green	Green	Green	Red	Grey	Green	Green	Green
Ministry of Tribal Affairs										
25	Post-Matric Scholarship for STs	Services	Green	Green	Grey	Grey	Grey	Green	Green	Green
26	Pre-Matric Scholarship for STs	Services	Green	Green	Grey	Grey	Grey	Green	Green	Green
27	Support to Tribal Research Institute	Infrastructure and services	Green	Grey	Green	Red	Red	Green	Red	Green
28	MSP for MFP	Services	Green	Grey	Green	Red	Grey	Red	Grey	Green
29	SCA to TSS	Infrastructure and services	Green	Grey	Green	Red	Red	Green	Green	Green
30	Scheme for development of PVTGs	Infrastructure and services	Green	Green	Green	Red	Red	Red	Grey	Green
31	Tribal, Festival, Research, Information and Mass Education	Services	Green	Grey	Grey	Grey	Grey	Green	Green	Red

S. No.	Scheme Name	Type of Scheme	PFMS	DBT	Desirability of Social Audits	Social Audits Done so far	GIS	MIS	MIS in public domain	Grievance Redressal Mechanism
Ministry of Women and Child Development										
32	Anganwadi Services Scheme	Infrastructure and services	🟢	🟢	🟢	🟢	🟢	🟢	🔴	🟢
33	POSHAN Abhiyaan	Services	🟢	⬜	🟢	🟢	⬜	🟢	🟢	🟢
34	Pradhan Mantri Matru Vandana Yojana (PMMVY)	Services	🟢	🟢	🟢	🔴	⬜	🟢	🟢	🔴
35	Scheme for Adolescent Girls (SAG)	Services	🟢	🟢	🟢	🔴	⬜	🟢	🟢	🔴
36	National Crèche Scheme (NCS)	Infrastructure and services	🟢	🟢	🟢	🔴	🔴	🟢	🟢	🔴
37	Child Protection Scheme (ICPS)	Services	🟢	🟢	🟢	🔴	⬜	🟢	🟢	🔴
38	Beti Bachao Beti Padhao (BBBP)	Services	🟢	⬜	⬜	⬜	⬜	🟢	🟢	🔴
39	Swadhar Greh Scheme	Infrastructure and services	🟢	🟢	🟢	🔴	⬜	🟢	🟢	🔴
40	Ujjawala Scheme	Services	🟢	🟢	🟢	🔴	⬜	🟢	🟢	🔴
41	Working Women's Hostel Scheme	Infrastructure and services	🟢	⬜	🟢	🔴	🔴	🟢	🟢	🔴
42	Mahila Shakti Kendra (MSK) Scheme	Infrastructure and services	🟢	🟢	🟢	🔴	⬜	🟢	🟢	🟢
43	Gender Budgeting, Research, Publication and Monitoring	Services	🟢	⬜	⬜	⬜	⬜	🔴	⬜	🔴
44	One-Stop Centre (OSC) Scheme	Infrastructure and services	🟢	🟢	🟢	🔴	🔴	🟢	🟢	🟢
45	Mahila Police Volunteers (MPV) Scheme	Services	🟢	⬜	🟢	🔴	⬜	🟢	🟢	🔴
46	Universalisation of Women Helpline	Services	🟢	⬜	🟢	🔴	⬜	🟢	🟢	🟢
Ministry of Housing and Urban Affairs										
47	Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	Infrastructure and services	🟢	🟢	🟢	🔴	🟢	🟢	🔴	🟢
48	Pradhan Mantri Awas Yojana (PMAY)	Infrastructure	🟢	🟢	🟢	🟢	🟢	🟢	🔴	🟢
49	National Urban Livelihood Mission (NULM)	Infrastructure and services	🟢	⬜	🟢	🟢	🟢	🟢	🔴	🔴
50	Swachh Bharat Mission (SBM)	Infrastructure and services	🟢	⬜	🟢	🔴	🟢	🟢	🟢	🟢
51	Smart Cities Mission (SCM)	Infrastructure and services	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢

S. No.	Scheme Name	Type of Scheme	PFMS	DBT	Desirability of Social Audits	Social Audits Done so far	GIS	MIS	MIS in public domain	Grievance Redressal Mechanism
Health										
52	National Rural Health Mission (NRHM)	Infrastructure and services	Green	Green	Green	Red	Green	Green	Red	Green
53	National Urban Health Mission (NUHM)	Infrastructure and services	Green	Green	Green	Red	Red	Green	Red	Green
54	Tertiary Care Programs	Infrastructure and services	Green	Grey	Green	Red	Red	Red	Grey	Red
55	Human Resource for Health and Medical Education	Infrastructure and services	Green	Grey	Green	Red	Red	Red	Grey	Red
56	National AYUSH Mission	Infrastructure and services	Green	Green	Green	Green	Red	Green	Green	Red
Water Resources, Environment Forest and Climate Change										
57	Accelerated Irrigation Benefits Program (AIBP)	Infrastructure	Red	Grey	Green	Red	Green	Green	Green	Green
58	Watershed Development Component (WDC)	Infrastructure	Green	Grey	Green	Red	Green	Green	Green	Red
59	Irrigation Census	Services	Green	Grey	Grey	Grey	Grey	Green	Green	Green
60	Command Area Development and Water Management (CADWM)	Infrastructure	Red	Grey	Green	Red	Green	Green	Green	Red
61	Repair, Renovation and Restoration (RRR)	Infrastructure	Red	Grey	Green	Green	Green	Green	Green	Red
62	Surface Minor Irrigation (SMI)	Infrastructure	Red	Grey	Green	Red	Green	Green	Green	Red
63	Ground Water Irrigation (GWI)	Infrastructure	Red	Grey	Green	Green	Green	Green	Green	Red
64	Special Package for Maharashtra (SPFM)	Infrastructure	Green	Grey	Green	Red	Red	Green	Green	Red
65	Per Drop More Crop (PDMC)	Infrastructure	Green	Green	Green	Red	Green	Green	Green	Red
66	Servicing of Loans from NABARD under PMKSY	Services	Green	Grey	Grey	Grey	Grey	Red	Grey	Red
67	National River Conservation Program (NRCP)	Infrastructure	Green	Grey	Grey	Grey	Green	Green	Red	Red
68	Flood Management and Border Area Programme (FMBAP)	Infrastructure	Green	Grey	Green	Red	Red	Green	Green	Red
69	National Mission for Green India (NMGI)	Infrastructure and services	Green	Green	Green	Red	Green	Red	Grey	Red
70	Integrated Development of Wildlife Habitats (IDWH)	Infrastructure and services	Green	Green	Green	Red	Red	Green	Grey	Red

S. No.	Scheme Name	Type of Scheme	PFMS	DBT	Desirability of Social Audits	Social Audits Done so far	GIS	MIS	MIS in public domain	Grievance Redressal Mechanism
71	Conservation of Natural Resources and Ecosystems (CNRE)	Infrastructure and services	Red	Grey	Green	Red	Green	Red	Grey	Green
Jobs and Skills										
72	Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	Services	Green	Green	Grey	Grey	Grey	Green	Green	Green
73	Pradhan Mantri Rojgar Protsahan Yojana (PMRPY)	Services	Green	Green	Grey	Grey	Grey	Green	Red	Green
74	National Career Service (NCS)	Services	Green	Grey	Grey	Grey	Green	Green	Green	Green
75	National Career Service for SC/STs (NCS-SC/ST)	Services	Green	Grey	Grey	Grey	Green	Green	Green	Green
76	National Career Service for DA (NCS-DA)	Services	Green	Grey	Grey	Grey	Grey	Green	Green	Green
Rural Development										
77	Pradhan Mantri Awas Yoyana-Gramin	Infrastructure and services	Green	Green	Green	Green	Green	Green	Green	Green
78	MNREGA	Infrastructure and services	Green	Green	Green	Green	Green	Green	Green	Green
79	Pradhan Mantri Gram Sadak Yojana (PMGSY)	Infrastructure	Green	Grey	Green	Green	Green	Green	Green	Green
80	DAY-National Rural Livelihood Mission	Services	Green	Green	Green	Red	Grey	Green	Green	Green
81	National Social Assistance Programme	Services	Green	Green	Green	Green	Grey	Green	Green	Green
82	SPMRM	Infrastructure and services	Green	Grey	Green	Red	Green	Green	Green	Green
Human Resource Development										
83	Mid-Day Meal	Services	Green	Green	Green	Green	Green	Green	Red	Green
84	Scheme for Providing Education to Madrasas and Minorities (SPEMM)	Infrastructure and services	Green	Green	Green	Red	Red	Red	Grey	Green
85	Sarva Shiksha Abhiyan (SSA)	Services	Green	Green	Green	Red	Green	Green	Red	Green
86	Rashritya Madhyamik Shiksha Abhiyan (RMSA)	Infrastructure and services	Green	Green	Green	Red	Red	Red	Grey	Red
87	CSS on Teacher Education (CSSTE)	Services	Red	Green	Red	Grey	Green	Red	Grey	Green
88	Saakshar Bharat	Services	Red	Green	Green	Green	Grey	Green	Grey	Green
89	Rashtriya Uchchatar Shiksha Abhiyan (RUSA)	Infrastructure and services	Green	Grey	Green	Red	Green	Green	Red	Green

S. No.	Scheme Name	Type of Scheme	PFMS	DBT	Desirability of Social Audits	Social Audits Done so far	GIS	MIS	MIS in public domain	Grievance Redressal Mechanism
Agriculture, Animal Husbandry and Fisheries										
90	Pradhan Mantri Krishi Sinchayi Yojana (PMKSY)	Infrastructure	green	green	green	red	green	green	green	green
91	Rashtriya Krishi Vikas Yojana	Infrastructure	green	green	green	green	green	green	green	green
92	Mission for Integrated Development of Horticulture	Infrastructure and services	green	green	green	red	green	green	green	red
93	National Food Security Mission	Infrastructure and services	green	green	green	red	green	green	green	green
94	Sub-Mission on agriculture mechanization	Services	green	green	green	green	green	green	green	green
95	Integrated Scheme for Agriculture Marketing	Infrastructure and services	green	red	green	red	red	green	green	green
96	Soil Health Management	Services	green	grey	green	green	green	green	green	green
97	Mission Organic Value Chain Development for North Eastern Region	Infrastructure and services	green	green	green	red	red	green	green	red
98	Rainfed Area development	Services	green	green	green	green	green	green	green	green
99	Paramparaghat Krishi Vikas Yojana	Infrastructure and services	green	green	green	red	green	green	red	green
100	Integrated Scheme on Agriculture cooperation	Services	green	green	green	red	grey	red	grey	green
101	Sub-Mission on agriculture extension	Infrastructure and services	green	green	grey	grey	green	red	grey	green
102	Sub-mission on seed and planting material	Services	green	green	grey	grey	green	green	green	green
103	Sub-mission on plant protection and plant quarantine	Services	green	grey	grey	grey	green	green	green	red
104	Sub-mission on agroforestry	Infrastructure and services	green	green	grey	grey	green	green	green	green
105	National Bamboo Mission	Infrastructure and services	green	red	green	red	green	green	green	green
106	Integrated scheme on agriculture census and statistics	Services	green	grey	grey	grey	grey	green	green	red
107	National Dairy Plan-I	Infrastructure and services	green	grey	green	red	green	green	red	green
108	Dairy Entrepreneurship Development Scheme	Infrastructure and services	green	green	green	red	green	green	red	green

S. No.	Scheme Name	Type of Scheme	PFMS	DBT	Desirability of Social Audits	Social Audits Done so far	GIS	MIS	MIS in public domain	Grievance Redressal Mechanism
109	National Programme for Diary Development	Infrastructure and services	Green	Red	Green	Red	Green	Green	Red	Green
110	National Livestock Mission	Infrastructure and services	Green	Grey	Green	Red	Green	Green	Red	Green
111	Livestock Health and Disease Control	Infrastructure and services	Green	Green	Red	Grey	Green	Green	Red	Green
112	Rashtriya Gokul Mission	Infrastructure and services	Green	Grey	Green	Red	Red	Green	Red	Green
113	Dairy Processing & Infrastructure Development Fund	Infrastructure and services	Green	Grey	Green	Red	Green	Green	Red	Green
114	Livestock Census and Integrated Sample Survey	Services	Green	Grey	Red	Grey	Grey	Green	Red	Red
115	Supporting State Cooperatives Dairy Federations	Services	Green	Grey	Red	Grey	Grey	Green	Red	Red
116	Integrated Development and Management of Fisheries	Infrastructure and services	Green	Red	Red	Grey	Red	Green	Red	Green
117	Fisheries and Aquaculture Development Fund	Infrastructure and services	Green	Grey	Red	Grey	Red	Green	Green	Red

ANNEXURE II: CASE STUDIES-INDIAN AND INTERNATIONAL CONTEXT

This section aims to provide brief details about some Indian best practices aiming at improving Accountability and Transparency in Government functioning. These practices are mostly implemented in States/UTs and are based on data shared by States/UTs with DMEO during the recently concluded UCSS scheme evaluations.

I. COMBATING FLOOD WITH INFORMATION DRIVEN ACTIONS, BIHAR

a. Scheme Name: Flood Management Information System (FMIS)

b. Target Area: Bihar

c. Total Project Cost: Bihar – Rs. 10.86 Cr. funded by World Bank

d. Scheme Scope

❖ Development of technical and institutional capacity of the State for flood management

❖ Improved flood forecasting in terms of lead time and accuracy

❖ Prediction of expected inundation

❖ Development of updated flood control manuals

❖ Upgrading hydrologic measurements

❖ Use of Online Analytical Processing (OLAP) and data mining tools for planning of schemes using forecasted data

❖ Implementing Agency: Flood Management Information System Cell (FMISC), Government of Bihar

e. Areas covered

❖ Phase – I: Flood prone area in North Bihar, from Burhi Gandak river in the west to Kosi River in the east, including the districts of East Champaran, Muzaffarpur, Begusarai, Samastipur, Dharbanga, Sitamarhi, Sheohar, Madhubani, Supaul, Saharsa, and Khagaria covering about 26,000 sq. km. in area.

❖ Phase – II: Entire North Bihar together with Patna, Bhagalpur and Munger district have been targeted to be developed.

f. Solution offered

Flood Management Information System, Bihar finds its genesis in the brainstorming meeting on Jan 18, 2006, in which the Government of Bihar (GoB) and the World Bank agreed on

a water sector partnership matrix and action plan in three-time horizons. In the short term, it was proposed to improve the technical and institutional capacity of the State of Bihar for flood management, introduce extensive use of modern information technologies, and develop and implement a comprehensive Flood Management Information System (FMIS) in priority areas. Flood Management Information System Cell (FMISC) was created under the overall supervision of Chief Engineer (CE), Monitoring and Planning, in Water Resources Department (WRD), GoB, and under Superintending Engineer (SE), Flood Monitoring Circle, to develop and operate the Flood Management Information System (FMIS) with technical assistance from the World Bank. Currently, one Executive Engineer as In-Charge, and six Assistant Engineers (and one peon) have been deputed to FMISC.

Major functions of FMISC are:

❖ To ensure operational readiness of FMIS prior to each flood season.

❖ To operate and disseminate information products as per plan and schedule.

❖ To respond to emergency data requirements using FMIS.

❖ To follow-up on dissemination to enable effective utilization.

❖ To analyse feedback and experience of every flood season for improving FMIS.

The FMIS in the first stage covered the focus area from Burhi Gandak River in the west to Kosi River in the east in North Bihar which is the most flood prone area in the State. This included 11 districts i.e., East Champaran, Sheohar, Sitamarhi, Muzaffarpur, Madhubani, Dharbanga, Samastipur, Supaul, Saharsa, Khagaria, and Begusarai covering 26,000 sq. km.

The FMIS Phase I was initiated in August 2006 and was scheduled to be completed by October 2007. Further extension to the project till June 2008 was granted by the World Bank and the project was eventually completed on this date. The project components included development of FMIS, improvement of flood forecasting, update of Bihar Flood Information Website, preparation of updated flood control manual, conducting training and upgradation of hydrologic measurements and telemetry.

FMIS Phase-II started on May 2010. In the meantime, the FMIS sustained itself on the internal resources of the Water Resources Department during 2008 to 2010. The FMIS Phase II was scheduled to be completed by 31 December 2012, which was extended till 30 November 2014.

g. Impact

As a result of FMIS in Bihar, following achievements have been realized:

❖ Flood modelling: Real-time Flood Forecasts are made using statistical and deterministic model. FMISC is releasing monthly E-Bulletin since May-2007. This is an in-house production and gives a brief account of activities in FMISC.

❖ Flood Management Information System Cell, Bihar, Patna issues Daily Flood Information Bulletin during monsoon season generally from 15th June to 15th October. The bulletin carries information on observed rainfall in Nepal, Bihar and three days maximum rainfall forecast from IMD and river water level for all six sub-basins/rivers of North Bihar viz Gandak, Burhi Gandak, Bagmati (including Adhwara group of rivers), Kamala, Kosi and Mahananda.

- ❖ Inundation Maps: These maps indicate the extent of flood water spread. The inundation extent is derived from RADARSAT Layers/Imagery provided by NRSC in processed 1bit image format.

- ❖ FMISC also provides regular embankment news, detailing the status of embankments in Bihar. Embankment Assets Management System for Bagmati and Kosi is currently functional and is providing up to date information on embankment conditions by collecting information from department officials and select community members through field data collection application and SMS.

- ❖ Following information products are regularly uploaded on the website for public viewing:

  - ◆ Inundation map
  - ◆ Flood intensity map
  - ◆ Village level inundation map
  - ◆ River status map during flood
  - ◆ Post flood River Status Map

h. Replicability

In order to address the flood situations in the flood prone states in India, the FMIS need to be rolled out across all states. Further the FMIS should contain modules for addressing land planning, zoning of flood plains, silt management besides integrating with flood forecasting and hydro-meteorological observations. The water flow data can also be used for irrigation in arid and semi-arid regions.

i. Sustainability

Sustainability analysis mechanisms, including 'Dynamic Sustainability' concepts, may be adopted in the flood management planning process. To ensure sustenance of benefits realized through FMIS, it is imperative to upgrade the application models in the FMIS and ensure seamless integration with new applications.

(References: http://www.fmis.bih.nic.in; Primary survey by DMEO during UCSS evaluations)

II. JNANABHUMI PORTAL - GOVERNMENT OF ANDHRA PRADESH

a. Introduction

The Post-Matric Scholarship Scheme for SC, ST, OBC, minority, differently abled, EBC and Kapu community in Andhra Pradesh was being delivered through a digital platform, namely e-Pass, until 2017. However, the large and complex eco-system consisting of over 16 lakh students, 2300+ courses, 8000+ colleges and 30+ affiliating authorities resulted in remarkably high turn-around time at every stage. Problems related to redundancy, duplicity, convoluted processing and insulation amongst departments and stakeholders ultimately led to wide dissatisfaction among beneficiaries. It became imperative, therefore, to streamline the process, improve external service delivery and internal processing times.

b. Solution

Jnanabhumi was introduced in 2017 which sought to address two key issues: (i) introducing parity of opportunity through government-aided education; and (ii) upgrading the necessary state infrastructure to facilitate the aid in a uniform, integrated and transparent manner.

The platform ultimately aims to become the unified repository for propagating education through intersection of necessary parties and processes so as to ensure a seamless and accountable environment for both the marginalized and non-marginalized strata of the society. Jnanabhumi is a holistic and distilled platform meant for delivering services related to education and scholarships. Principally, the conceptual objectives of the platform could be:

❖ Actualizing equal educational opportunities for all.

❖ Providing single desk for scholarships for all communities.

❖ Facilitating a central system of education and welfare ecosystem covering the entire student lifecycle.

The locus of control under Jnanabhumi was re-organized by integrating scholarship with admissions, augmented by government directives and e-Enablement, resulting in dispensing away physical presence requirements and creation of master data seeding by concerned affiliating authorities. The database integration across services lead to seamless information exchange without discretionary errors. Utilizing Aadhaar ensured integrity, which was further supported by digital signature-enabled transactions. This process re-engineering was reinforced with a dedicated 24x7 helpdesk, establishment of state and district level PMUs, Kaizala Application for monitoring, communication, and updates as well as Dashboard for providing relevant and up-to-date statistics.

In terms of operational principles, the platform seeks to realize timely releases and disbursements with minimal touchpoints while maintaining enhanced levels of accountability and transparency. The idea behind process re-engineering, therefore, was to introduce transformation through digital means, resulting in a secure, convenient, and paperless experience.

c. Impact

Jnanabhumi's paperless and digital approach has been tremendously successful in ensuring process simplification and in easing the burden of students. Through structural changes and elimination of intermediaries, the portal has significantly reduced the tedious aspects of community participation and the resultant institutional pressures that had plagued implementation of the scheme earlier. The subsequent impact can be broadly categorized as (i) impact on the individual; and (ii) impact on the institution. Before assessing the impact, however, it becomes imperative to understand the scenario that prevailed before the implementation of Jnanabhumi.
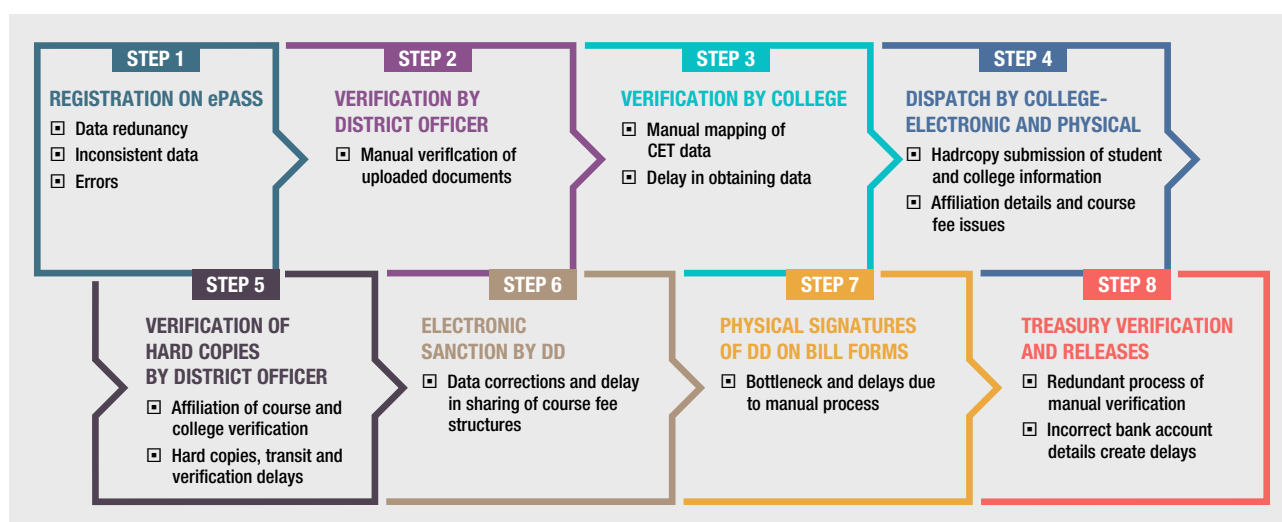
Figure 17: *Situation before the Deployment of Jnanabhumi*

Source: *DMEO Analysis during UCSS evaluations*

As the illustration highlights, the process was largely plagued by overwhelming duplicity and redundancy at various stages of implementation.

For students, this meant re-registering every year despite the original data being available with the authorities and subsequent re-entry to the college, making the process unnecessarily cumbersome due to completely avoidable duplicity. The addition of biometric authorization was sub-optimally utilized as applications were manually verified by district welfare officers, an arduous task given that student applications numbered at over 17 lakhs. This pendulous activity between the college, the welfare department and the students led to inordinate delays and the process was highly susceptible to errors and manipulation. Owing to manual entries, the bank account information would often be incorrect, leading to the funds being stuck with the treasury department as they manually verified and signed bills.

For authorities, the task of manual verification and signing of applications resulted in unnecessary loss of resources and productivity. Additionally, the parallel verification activity of college registration and affiliation, along with course affiliation, resulted in district welfare officer working greatly out of the locus of control and authority, resulting in further delays. The lack of directive, apart from affecting uniformity, hampered course fee mapping as well; since the affiliating authorities' responsibility stood outside the sphere of influence, they often operated in non-conformist ways.

Beyond procedural irritants, these operational hurdles negatively affected the core idea of the initiative. Delay of both maintenance (monthly) and tuition (quarterly) fees resulted in students being forced to incur loans to cover basic expenses as the gaps in financing made colleges enforce measures to recover tuition directly from students. And as both these stakeholders grappled with difficulties, the state and district offices, as ombudsman, were burdened with multiplicity of disputes and issues involving the students and the colleges. Lastly, the education department, despite being an essential stakeholder, was not part of the process and planning out of strategy for increase in cohesion. This presented further challenges, compounded by absence of data analytics and impact assessment.
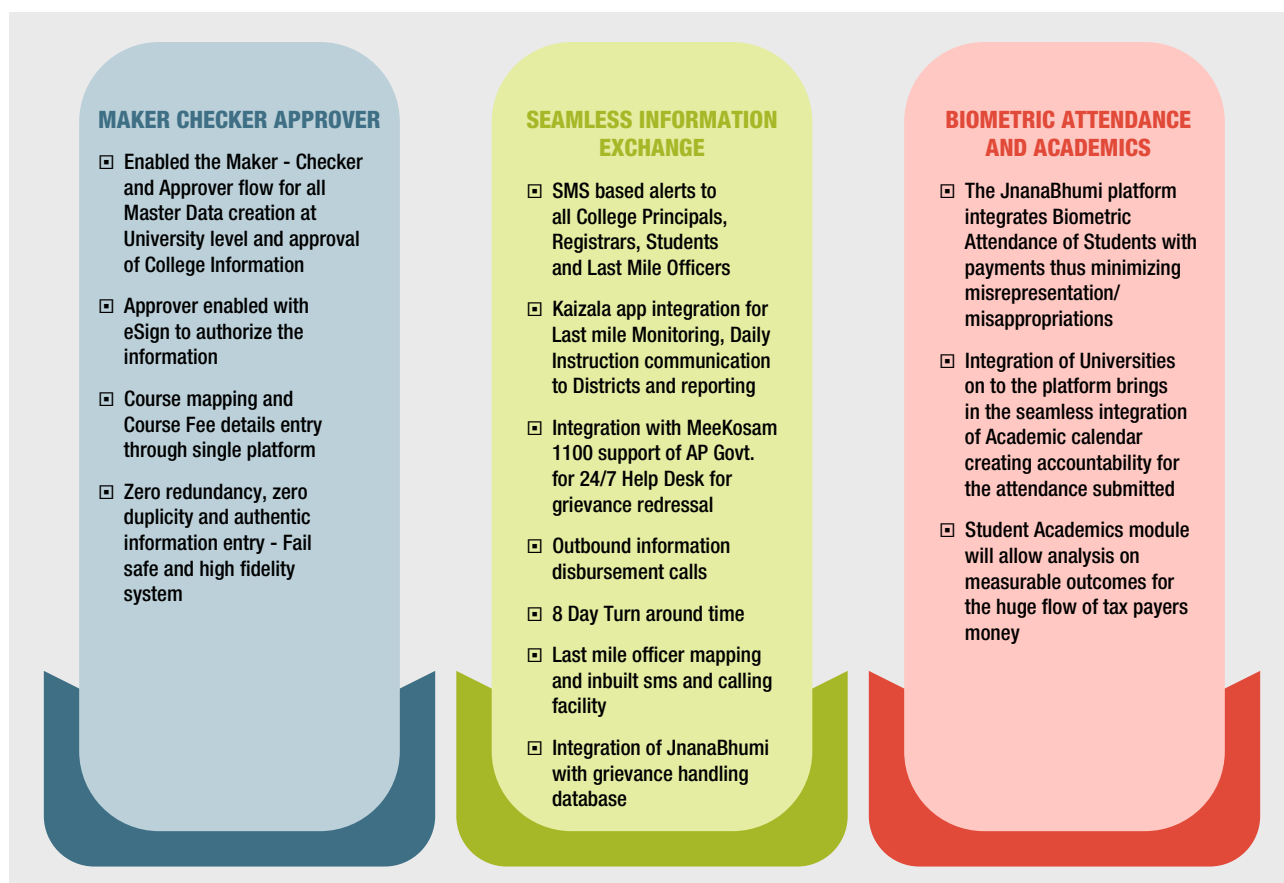
MAKER CHECKER APPROVER

- ☑ Enabled the Maker - Checker and Approver flow for all Master Data creation at University level and approval of College Information
- ☑ Approver enabled with eSign to authorize the information
- ☑ Course mapping and Course Fee details entry through single platform
- ☑ Zero redundancy, zero duplicity and authentic information entry - Fail safe and high fidelity system

SEAMLESS INFORMATION EXCHANGE

- ☑ SMS based alerts to all College Principals, Registrars, Students and Last Mile Officers
- ☑ Kaizala app integration for Last mile Monitoring, Daily Instruction communication to Districts and reporting
- ☑ Integration with MeeKosam 1100 support of AP Govt. for 24/7 Help Desk for grievance redressal
- ☑ Outbound information disbursement calls
- ☑ 8 Day Turn around time
- ☑ Last mile officer mapping and inbuilt sms and calling facility
- ☑ Integration of JnanaBhumi with grievance handling database

BIOMETRIC ATTENDANCE AND ACADEMICS

- ☑ The JnanaBhumi platform integrates Biometric Attendance of Students with payments thus minimizing misrepresentation/ misappropriations
- ☑ Integration of Universities on to the platform brings in the seamless integration of Academic calendar creating accountability for the attendance submitted
- ☑ Student Academics module will allow analysis on measurable outcomes for the huge flow of tax payers money

Figure 18: Complete Digital Overhaul of Processes Following the Deployment of Jnanabhumi

Source: *Government of Andhra Pradesh*

Table 1: Scenario for Students Pre and Post Deployment of Jnanabhumi

	PRE-DEPLOYMENT SCENARIO FOR STUDENTS						
	Student Application		Admission		Submission by College to Welfare	Verification by Welfare	Push to & Release by Treasury
	New	Renewal	New	Renewal			
Turn Around Time	6 months	6 months	◆ No such module. ◆ Scholarship not tied with admission.		Year long	Year long	Year long
Responsible Party	Student		◆ Process delays.		College	Welfare officer	Treasury
Process to Fetch Data	Student applies; followed by scrutiny by welfare officer				IT platform		
Main Gap	◆ Third party enters data, errors and duplicity of data, incorrect courses applied for. ◆ For existing students (renewal), data re-entered by student & reapplies.				◆ Manual verification of documents of 16 lakh students. ◆ Signing of hard copies. ◆ Error correction difficult at this stage. ◆ Delays due to affiliations and course affiliations.	◆ Manual process of verification and signing of documents. ◆ Corrections difficult at this stage.	◆ Manually signed proceedings and verification. ◆ Incorrect bank information leads to transaction delay.
Impact	Delay in transaction due to incorrect entry of personal & course details.				Delay in transit and other processing due to having to attach and authorize hard copies.		Manual process delays. Stuck transactions lead to banks enjoying a float rate.

POST-DEPLOYMENT SCENARIO FOR STUDENTS					
	Student Application	**Admission**	**Submission by College to Welfare**	**Verification by Welfare**	**Push to & Release by Treasury**
Activity Turnaround Time	60 man-days		Monthly	Monthly	Monthly
Responsible Party	College			Welfare Officer	Treasury
Process to Fetch Data	The student scholarship application is merged with the admission process of Jnanabhumi.		◆ College principal e-signs the new admission and pushes to welfare. ◆ Renewal admissions pushed via OTP-based confirmation.	Verify data pushed via e-sign and push data to treasury using e-sign.	
Main Gap	NONE				
Impact	◆ 4 to 10 months shaved off the process of application and admission with minimized errors. ◆ Paperless & high-fidelity transactions. ◆ Authentic student attendance. ◆ Validated communication data of students to reach out to and monitor.		◆ No transit delay on hard copies. ◆ Zero hard copies. ◆ Bank accounts errors minimized.		
Additional Modules to e-Enable and Aid Educational Institutions in Planning, Design, Execution and Monitoring					

Source: *Government of Andhra Pradesh*

Table 2: Scenario for Authorities Pre and Post Deployment of Jnanabhumi

PRE-DEPLOYMENT SCENARIO FOR AUTHORITIES					
	College Affiliation	**Course Affiliation**	**Course Fees**	**College to Course Mapping**	**Course Intake**
Activity Turnaround Time	Year long			6 months	
Responsible Party	Welfare officer				
Process to Fetch Data	Physical visits		Mail & phone communication	Jnanabhumi Platform	
Main Gap	External to locus of control, no uniformity in course information & no data repository.				
Impact	Delays in tuition fee and maintenance fee release.		Delays in tuition fee.	Delays in tuition fee and maintenance fee release.	Needed for cross-verification.

POST-DEPLOYMENT SCENARIO FOR AUTHORITIES					
	College Affiliation	Course Affiliation	Course Fees	College to Course Mapping	Course Intake
Activity Turn Around Time	2 months				
Responsible Party	College & affiliating authority/university				
Process to Fetch Data	College information pushed for affiliating authority approval. E-sign & zero hardcopies. Entire process e-Enabled				
Main Gap	None				
Impact	• Seamless, smooth processing and on time full delivery. • Approximately 10 months man days saved per process. • Affiliating authority has the locus of control over the colleges and is made owner of the process – rescued welfare officer by de-coupling him from the process chain. • Zero man days expended by the welfare officer compared to year-long engagement in previous deployment. • Authentic information from affiliating authorities. • Welfare officer available for other pertinent tasks. • Students not in debt and reduction in drop-out rates.				

Source: *Government of Andhra Pradesh*

III. ANDHRA PRADESH ONLINE BENEFICIARY MANAGEMENT AND MONITORING SYSTEM (OBMMS)

a. Introduction

Government of Andhra Pradesh launched OBMMS to cover all the bank-linked schemes implemented by seven welfare corporations and 11 federations. The OBMMS is used for the implementation of Special Central Assistance to Scheduled Castes Sub Plan (SCA to SCSP) in Andhra Pradesh to ensure convergence and map beneficiary lifecycle. This step was taken to address the issues previously faced by the government such as multiple trips required by beneficiaries for registration, document submission, etc.; high costs incurred for information retrieval of physical documents; delays in process and delivery of services; and absence of alerts for critical action.

b. Solution

A synergistic ecosystem cutting across 21 corporations/federations was put in place to bring previously divergent processes under uniform common process. To ensure transparency, features like built-in monitoring and linking of all the stakeholders from marginalized sections of the society, private and public sector banks and government officials to a common platform was introduced.
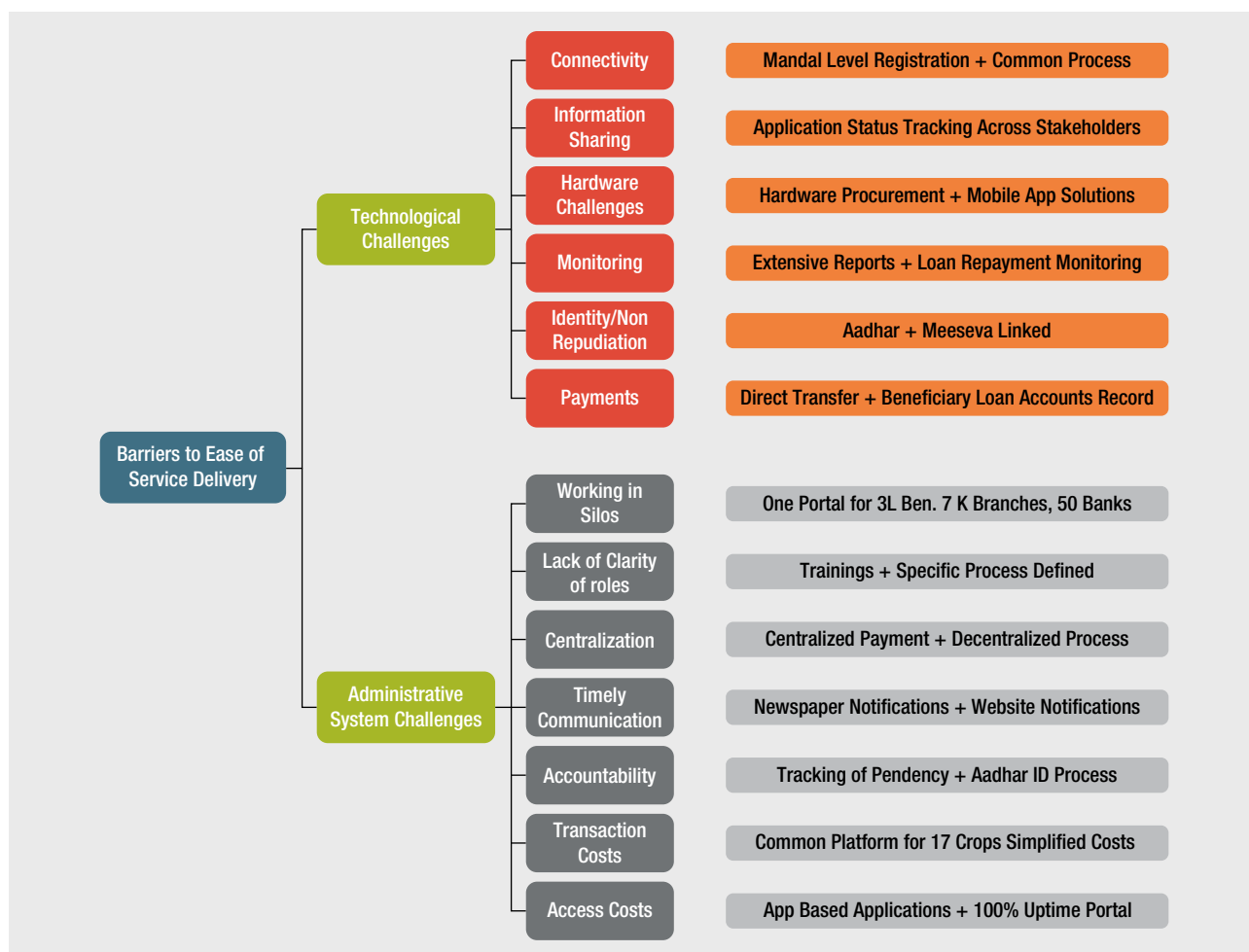
Figure 19: *Overcoming Challenges through OBMMS*

Source: *Andhra Pradesh Scheduled Caste Cooperative Finance Cooperation*

c.   Impact

- 6.7 lakh applications registered per year

- 3 lakh beneficiaries

- 778 Mandal (sub-district) officers associated with the platform

- 7000+ bank branches linked to the platform

- 48+ lakh sheets of paper saved during registration process

- 8-10 hours saved per beneficiary

- No duplicate/ghost applications

- Speedy verification: 1-2 hours saved per beneficiary

- Future retrieval of records improved

- Turnaround time improved by 30 per cent

- Staff productivity increased by 30 per cent

Source: *Andhra Pradesh Scheduled Caste Cooperative Finance Cooperation*

IV. ENSURING INCLUSIVE SOCIAL AUDITS

a. Introduction

Under Section 17 of MGNREGS, independent social audits of all the projects under the scheme taken up within the Gram Panchayats are required to happen every 6 months, carried out by a third party. These audits are required to be participatory, including all village members to ensure that MGNREGS works are being carried out inclusively, fairly and in line with annual plans. This is a key method to ensure accountability and transparency- and is particularly important in a context wherein socially excluded groups are often not included in the MGNREGS planning process and so the resulting projects in the annual plans do not benefit them. For example, a village Gram Panchayat may decide to carry out a "land improvement" project under MGNREGS, but this improvement will not extend to land that is owned or farmed by socially excluded villagers.

In addition, social audits may also bring to light many of the challenges faced by socially excluded groups in accessing or using the assets that are built, such as water pumps, irrigation systems or village services, due to discrimination against them.

b. Background

The conventional practice of conducting social audits is often restricted to discussions on finance. Thus, the financial performance of the projects becomes a de-facto indicator of the overall performance of MGNREGS. Against this backdrop, the Poorest Areas Civil Society (PACS) Programme, an initiative of the UK Government's Department for International Development (DFID) developed a new way of auditing in 2014 which went a step further - not only looking at the financial aspects of MGNREGS works but also assessing issues such as the provision of worksite facilities, timely payments and how much socially excluded communities benefit from and are included in MGNREGS plans.

c. Details of the Intervention

PACS first launched its social audit trial in 200 Gram Panchayats in 20 districts of Bihar and Jharkhand. Due to its success, the campaign was up scaled to all 7 PACS states covering 60 districts.

PACS trained 80 master trainers and 425 community facilitators to lead the social audit process – the master trainers are responsible for training community-based individuals to carry out social audits in the field. In total, 593 inclusive social audits were carried out in Gram Panchayats and villages to ensure that MGNREGS works is benefit all community members. The key questions that these social audits aim to answer include:

❖ What is the status of the timely delivery of the entitlements and provisions under MGNREGS including job cards, works, worksite facilities and wage payments?

❖ Are these entitlements and provisions being delivered without any discrimination to various social groups?

❖ Is the process of planning for works being carried out in a participatory and non-discriminatory manner?

❖ What are the assets that have been created by MGNREGS works and how many of these assets are functional?

❖ How many of the assets were created directly to benefit socially excluded communities and help them to improve or enhance their livelihood opportunities?

❖ Do socially excluded communities have non-discriminatory access to the use and benefits of the community assets created under MGNREGS?

❖ What is the status of formation and functioning of the MGNREGS Vigilance and Monitoring Committee and how inclusive is it?

d. Impact

In many States including Jharkhand, Bihar and Uttar Pradesh, the State Government has now accepted the approach and model of PACS, carrying out social audits that include the participation of excluded communities. This has also opened up the possibility of many Civil Society Organisation (CSO) becoming resource groups and partnering with the government-led social audit process. PACS has also been recognised by the Government of India's Ministry of Rural Development and is a named member on its Master Trainers list.

Source: Poorest Areas Civil Society (PACS). (2020). Inclusive Social Audits. Retrieved from http://www.pacsindia.org/ projects/mgnrega-employment-rights/social-audits-and-asset-maps. Accessed on 11 August 2020

V. COMMUNITY AS THE THIRD-PARTY QUALITY MONITOR – CASE OF ODISHA

a. Introduction

The roads under the Pradhan Mantri Gram Sadak Yojna (PMGSY) are designed and executed as per the standards laid down by the Indian Roads Congress (IRC). A 3-level quality control framework has been mandated to guarantee quality of the works. While the concerned Executive Engineer and the Project Management Unit comprise the principal level, all the states have been mentioned to take the services of a State level autonomous agency to check the quality of the roads through State Quality Monitors and on its part, the NRIDA appoints retired senior technical officers as National Quality Monitors to review the roads. The roads constructed under the PMGSY are to be maintained by the contractor for a period of five years from the date of completion after which they would be handed over to the Panchayati Raj Institutions (PRIs) (local self-governing bodies at the village level) for further maintenance.

b. Background

In the year 2012, Youth for Social Development (YSD), an independent social research and development organisation as a part of promoting social accountability had undertaken citizen monitoring of rural roads in Gajapati and Ganjam Districts of Odisha. YSD as a part of its commitment towards promoting accountability and empowering citizens had undertaken the rural roads monitoring. As a part of the programme, community members living in the habitations, where rural roads were constructed, were trained through rigorous classroom and field trainings. The main objective of the programme was to promote accountability by empowering communities' vis-à-vis quality of rural roads.

c. Details of the intervention

The Monitoring of roads involved a set of customised instruments for monitoring the quality of on-going PMGSY works, auditing the performance of completed PMGSY roads. Young

people with basic education were selected from habitations, where the PMGSY roads were being used or under construction. They were given three -day training and were formed into Citizen Monitoring and Audit Teams (CMATs). Each CMAT was given necessary toolkits for monitoring the roads. The CMATS were trained on quality and quantity parameters through both classroom and field training.

The methodology involved actual observation of roads for drains, traffic furniture, heavings, cracks, pits and boulders among other things. The technical monitoring involved measuring road width, width and height of milestones, measuring thickness of the road and camber of the road among other things. Apart from doing quality check using the basic customized toolkit, the study also considered visual observations of the road. Visual observations included free flow of side drains, heaving's, cracks, potholes, surface bleeding, spoiled edges, traffic furniture, etc., to name a few. Additionally, the monitoring steps involved the monitoring of contract agreements signed between the rural development department and contractors. These contracts were obtained and reviewed for understanding the deliverables. Similarly bill of quantities/estimates were reviewed for understanding the procurement process, quality aspects and quantity of various components.

d. Impact

The citizen participation in road monitoring is encouraging. Community people without any technical know-how about the roads were able to monitor the rural roads with providing proper capacity building training. The CMATs could actually find the discrepancies from the scheme guidelines or quality parameters. This ensured accountability at the grassroots level on the part of the contractors and Rural Development Department engineers apart from improved quality and maintenance of roads.

Source: Youth for Social Development, Brahmapur, Odisha. (2012). Citizen Monitoring of Public Procurement ensuring accountability in Rural Roads.

VI. MIS NARRATIVES FOR JHARKHAND SRLM

a. Introduction

The implementation of MIS under the Jharkhand State Livelihood Promotion Society (JSLPS) has introduced innovative features. It was developed as a transaction based tool meant for SHGs.

b. Background

In 2010, United Nations Development Programme (UNDP) sponsored for development of MIS. JSLPS worked as a nodal agency for DAY-NRLM. Its software e-SHG process tracking was adopted as e-NRLPS.

c. Details of the Intervention

E-NRLPS has modules on saving, credit, repayment and attendance. JSLPS has servers for file, Tally enterprise, and web services. It has private cloud services (Go Daddy) and internet through a 10 mbps leased line. Every district has one MIS officer. There are MIS bookkeepers and "tablet didis" who earn Rs.20/per meeting for data entry and reporting. Though there is no attempt to have mobile based applications, SMS services are provided to SHGs, cadres and staff at block/clusters. It has introduced USSD authentication through

National Payments Corporation of India (NPCI), Aadhar is in place for every member. Further, MKSP MIS is web based and is being prototyped--toll free number is being used for supporting data entry.

d.   Impact

The use of digital technology in MIS under Jharkhand SRLM helps in resolving beneficiary issues. DAY-NRLM Portal of NIC is being used for MPR with indicators, offline interfaces with Swalekha s/w (1st of very month). It has worked on dashboards for Financial Inclusion and vulnerability with performance indicators. It has worked on report engine to track reports and to generate own dash boards. (reports.swalekha.in/jspls.aspx and swalekha.in-dashboard). Currently there are 500 tablets given to "Tablet Didis".

Apart from this, JSLPS has introduced alert systems (every Tuesday), dynamic block ranking system and toll-free number for Didis to interact. Services such as SHG member transaction and on-line timely disbursal of funds on time is also tracked.

Source: *Institute of Rural Management Anand. (2017). Independent Assessment of Design, Strategies, and Impacts of DAY-NRLM. Ministry of Rural Development, Government of India.*

VII. INTRODUCTION OF ENSURE PORTAL AND DIRECT BENEFIT TRANSFER IN DEDS

a.   Introduction

Government of India in its efforts towards accountable governance has been pushing reforms for ensuring transparency in implementation of its schemes. Dairy Entrepreneurship Development Scheme (DEDS) has been implemented through NABARD for encouraging dairy entrepreneurship. Back-ended capital subsidy for different component is being provided to entrepreneurs under the scheme. One of the major issues that has been observed during the implementation of the scheme was delay in processing of subsidy to beneficiaries.

NABARD has introduced ENSURE portal for efficient implementation of the scheme. The bank which receives application on dairy related activities can log in to ENSURE portal and upload the application. The bank and other stakeholders can also view the amount that is available in the state under various head (General component and SC/ST component). Timelines for uploading and processing of application, release of first loan instalment and release of subsidy to the beneficiary account have been developed. To ensure that the timelines are followed automatic checks are introduced on the portal. For instance, if the first instalment is not released within 1 month of project upload the project is automatically removed from portal. The indicative cost norms for activities that can be supported and the maximum subsidy that can be granted are also being revised periodically. The portal has also been linked to Direct Benefit Transfer portal of government of India.

b.   Impact

   ❖   The scheme has been bought under DBT purview and beneficiaries' accounts are being linked with Aadhaar and the subsidy amount is being directly transferred into beneficiaries' account.

❖ This is the only scheme under the white revolution for which beneficiary level information (from 2018-19) is available in public domain due to linkages with DBT portal and transfer of subsidy.

❖ The application procedure for subsidy from concerned bank to NABARD is also transparent as the banks as well as public can view the state wise budget and amount that is available under the scheme. In addition, there is separate budgetary allocation for scheme monitoring.

❖ Timelines for processing of application, subsidy transfer and Automatic cancellation of application of sanctioned project in case of delay in action helps in faster processing of application and ensure transparency in terms of fund available, processing of application.

❖ Availability of relevant project information (i.e indicative cost norms, state wise allocation) and beneficiary details on public domain

❖ Geo tagging of assets is done by respective banks while monitoring the progress and for purchase of animals, ear tagging is done. This helps in better monitoring.

Source: DEDS scheme analysis from Department of Animal Husbandry

VIII. ENSURING TRANSPARENCY, QUALITY, EFFICIENCY & ACCOUNTABILITY IN THR DISTRIBUTION IN GUJARAT – PUSHTI "POSHAN UMBRELLA FOR SUPPLY CHAIN THROUGH TECH INNOVATION"

a. Introduction

The project aims to apply digital technology for transparent, timely and accurate supply chain management of Take-Home Ration (THR) with a bottom-up approach by eliminating the gap between actual requirement and supply of THR. The project is being implemented by Department of Women and Child Development, Gujarat, Gujarat Co-operative Milk Marketing Federation, SUMUL, AMUL & BANAS Dairy Unions and Gujarat Info Petro Limited (GIPL).

In 2017, Government of Gujarat signed an agreement with the Gujarat Cooperative Milk Marketing Federation (GCMMF) to procure energy dense micronutrient fortified food in form of THR and to ensure uninterrupted supply of THR through manufacturing at three leading District cooperative milk unions as Banas, Amul and Sumul Dairy under GCMMF. Three different products i.e., Balshakti for children, Matrushakti for pregnant & lactating women and Purnashakti for adolescent girls is designed considering the requirement of the specific age groups.

To streamline the THR service delivery and real-time monitoring, a software has been developed by the Department. Monthly indenting, approval, and delivery of THR packets up to AWC level is being monitored through the dashboard. It also comprises of a web-based application for demand & supply cycle and an Android based App for transportation solutions.

b. Benefits

❖   It ensures transparency. The entire processes are available at public domain and all the stakeholders D/oWDC, GCMMF AWC etc. are made equally responsible

❖   Quality- THR is initially tested at Amul lab and after passing of decided parameters it is distributed at AWCs. To cross check the quality, it is again tested in Government of Gujarat Food & Drug Laboratory and after passing of the test, it is allowed to distribute to beneficiaries for consumption.

❖   Safety of products is ensured by proper packaging of the product to make it free from contamination.

❖   Standardization is done by making same quality & quantity of product in the entire state as per the prescribed norms.

❖   Community involvement and Social Audit (as the distribution of THR is also done on monthly basis on 4th Tuesday in the presence of local persons)

❖   The entire supply chain management follows the principle of demand driven supply as opposed to the supply driven management.

❖   OTP based tracking of distribution of THR up to AWCs.

❖   Online certification of delivery is provided in the system to ensure timely and correct payment to the supplier.

Timely and regular supply of THR on monthly basis on 4th Tuesday (supply on monthly basis at the scheduled time) - Timely delivery of THR ensures timely distribution of Ration to beneficiaries, which will directly support in nutritional indicators.

CASE STUDIES: GLOBAL BEST PRACTICES

This section aims to provide brief details about some global best practices aiming at improving Accountability and Transparency in Government functioning, including through participatory and community-led processes.

I. COMMUNITY-LED PLANNING OF WAGE EMPLOYMENT PROGRAMMES – EXPERIENCE FROM ETHIOPIA

a. Introduction

In public employment programmes, programme-level control and accountability can be supplemented with inputs from beneficiaries and communities. These inputs have taken different roles in different countries, but the essential element is feedback in the form of planning, grievance reporting, monitoring, and redress. Community participation can enhance transparency and accountability if it encompasses areas such as participatory project planning and selection. Beneficiaries and community members having the more access to information and the more involved in key stages of program planning, they are more able to hold programme implementers accountable.

b. Background

Ethiopia's public employment programme – the Productive Safety Net Program (PSNP), launched in 2005 targets 'woredas' (districts) that suffer from severe environmental degradation and limited access to infrastructure. The programme seeks to address these issues through integrated watershed development principles. The PSNP projects result in the creation of community assets that contribute to sustainable livelihoods and long-term developments such as soil and water conservation structures, feeder roads, social infrastructure, water supply for human and livestock consumption, agriculture activities, and small-scale irrigation facilities. These community assets now provide the foundations of valuable services to the target communities.

One of the key principles of PSNP projects is that they should entail community participation and commitment wherein the community participates in the selection, planning, monitoring, and evaluation of projects. In essence, PSNP projects are required to be accepted and approved by the community.

c. Details of the Intervention

PSNP requires the project selection to be handled at the community level using a planning process based on the concept of community-based participatory watershed development (CBPWD). This approach was developed by the Government of Ethiopia over a period of many years, in collaboration with the World Food Programme and other agencies.

A "community" is an agreed-upon entity within the local government system. It typically consists of a socially homogenous and identifiable human settlement within a defined micro watershed. Project selection starts from the bottom up and depends on the participation of community members living in the relevant micro watershed. The community is prioritised as a stakeholder as they are the people who will live with the results, and the programme is one of their tools for addressing food insecurity. In this manner, poor households are assisted while contributing to the development of their locality.

Development agents together with 'kebele' (neighbourhood associations) staff provide the community with an introduction to watershed management principles. Community members are informed that they are welcome to participate in the planning process; they are encouraged to elect a dedicated and representative Community Watershed Team (CWT) to streamline and spearhead the planning process. The CWT leads a participatory survey in order to create a map and an inventory of community assets. The CWT undertakes several planning activities including baseline development, detailed natural resource survey and mapping, socioeconomic survey and constraint analysis, analysis of focus areas and priorities, problem identification and ranking and developing a vision for change. The resultant community development plans are required to include three main components: socioeconomic baseline, natural resource baseline, and community development map.

d.   Impact

Findings from a 2011 PSNP review indicate growing levels of community participation in selecting, prioritising, and planning projects. In fact, the literature revealed surprisingly high level of direct individual household-level community participation in project planning. Most communities had developed comprehensive plans with the required elements in place. The review indicated a high level of quality related to the preparation of the community-led plans which led to the development of infrastructure in line with the needs of the communities being served.

Source: Subbarao, K., Del Ninno, C., Andrews, C., & Rodríguez-Alas, C. (2012). Public works as a safety net: design, evidence, and implementation. The World Bank.

II. MECHANISMS TO AVOID INCLUSION AND EXCLUSION ERRORS IN CASH TRANSFER INTERVENTIONS

a.   Introduction

Targeting is one of the fundamental features of cash transfer programmes directed at reducing poverty. The poor are identified based on each programme's eligibility criteria and particular additional limitations, such as resource constraints. Further, efforts to include the poor in such programmes depend on the effectiveness of the process of identification of beneficiaries. Inclusion and exclusion errors often take place, with eligible beneficiaries disqualified to receive benefits and ineligible persons incorrectly covered as beneficiaries. Those errors are reflected in numerous issues in the performance of programmes, such as budget limitations.

In 2006, the Malawi Social Cash Transfer Scheme (SCTS) was launched as a pilot programme aimed at poverty alleviation and socioeconomic development. It targeted ultra-poor households with labour constraints to receive conditional cash transfers under the specified

eligibility criteria. Salient features of the scheme introduced a process of identification of beneficiaries based on community participation and a decentralised process of selection of applicants. During its pilot phase, the scheme presented error rates under global averages and impressive impacts, despite challenges.

b. Background

The Malawi SCTS pilot programme targeted ultra-poor households with extremely limited labour resources in the Mchinji District. The scheme objectives combined efforts in reduction of poverty, hunger and starvation, improvement of child health and nutrition status, and increase in school enrolment and attendance. Cash transfer amounts depend on the size of the household size and weather children are in primary or secondary school.

One of the first points of contention was the process of identifying and selecting beneficiaries under the particularly challenging socioeconomic context of Malawi. Since it was one of the poorest countries in the world at the time, targeting was a task on its own. In addition, infrastructure was limited, with no system of registration in place, and administrative capacity was limited, including human resources and IT.

c. Details of the Intervention

The identification and selection of households under SCTS relies on a carefully designed community-based participatory process. It comprises of a multi-stage process involving government officials and community level members. The process starts with a community meeting to spread awareness of the scheme and elect local representatives to form the Community Social Support Committee (CSSC). Election of community members follows rules to assure gender and geographic equality, with division of candidates based on geographic zones and half men/half women available posts for the Committee; and avoid elite capture, with village heads prohibited to be elected.

These representatives have central roles in the identification of potential beneficiary households. This includes holding a second community meeting to generate a list of the poorest households in the Village Cluster (VC). First criteria for identification follows measures of poverty, defined as the lowest expenditure quintile. Indicators include the consumption of one meal per day, risk of starvation, beggary for livelihood, absence of assets and inability to buy non-food essential items. Second criteria follow household labour constraints, defined by the dependency ratio of members – less than one able-bodied member aged 19–64 per three dependents.

Then, a survey takes place to produce additional data among these households. In this process, the Committee verifies the eligibility of households, ranks them based on their individual needs, and lists the poorest 10 percent in the VC. An additional effort of the scheme was the involvement of extension workers in the verification process. This was an effective step due to the selection of workers from outside the community or extended families, but well known among community members. As a result, they were able to be more impartial than community members.

Further, two other community meetings take place. First to review this list and present a final version to the District Assembly (DA) office for approval, and later to announce the final list of beneficiaries. In case the list contradicts national guidelines, it is the role of the district to mediate the issue. Finally, a member of the Secretariat participates in a

community meeting to raise awareness on the objectives of the scheme, and payment procedures and amounts. This process intends to assure accountability and transparency in the identification and selection of beneficiaries and avoid inclusion and exclusion errors.

d. Impact

The steps taken to combat targeting errors under the Malawi SCTS pilot showed effective results. In its first year of implementation, the programme has reached 2,442 households totalling 7,480 children, of whom 6,013 were orphans. This was considered such a success that the pilot received support to scale up for another five years. The achievements in targeting largely owed to the use of community-based processes. With measures to avoid elite capture and addition of verification steps to the process, inclusion and exclusion errors were avoided in the inception of the scheme. The contribution of other targeting instruments in this process was also key, such as the use of demographic eligibility criteria to focus on the households who are extremely poor.

It is important to note that inclusion and exclusion errors in the Malawi SCTS increased after the pilot. Although figures are under or in line with global averages, it stemmed away from the success of the pilot. Evidence suggests that special attention needs to be given to the demands of time and resources when scaling up cash transfer programmes, aiming at keeping high quality community-based targeting. In addition, the need for constant revision of the parameters used in the calculation of benefits was highlighted. This is because these parameters are particularly variable and affect targeting and further errors directly.
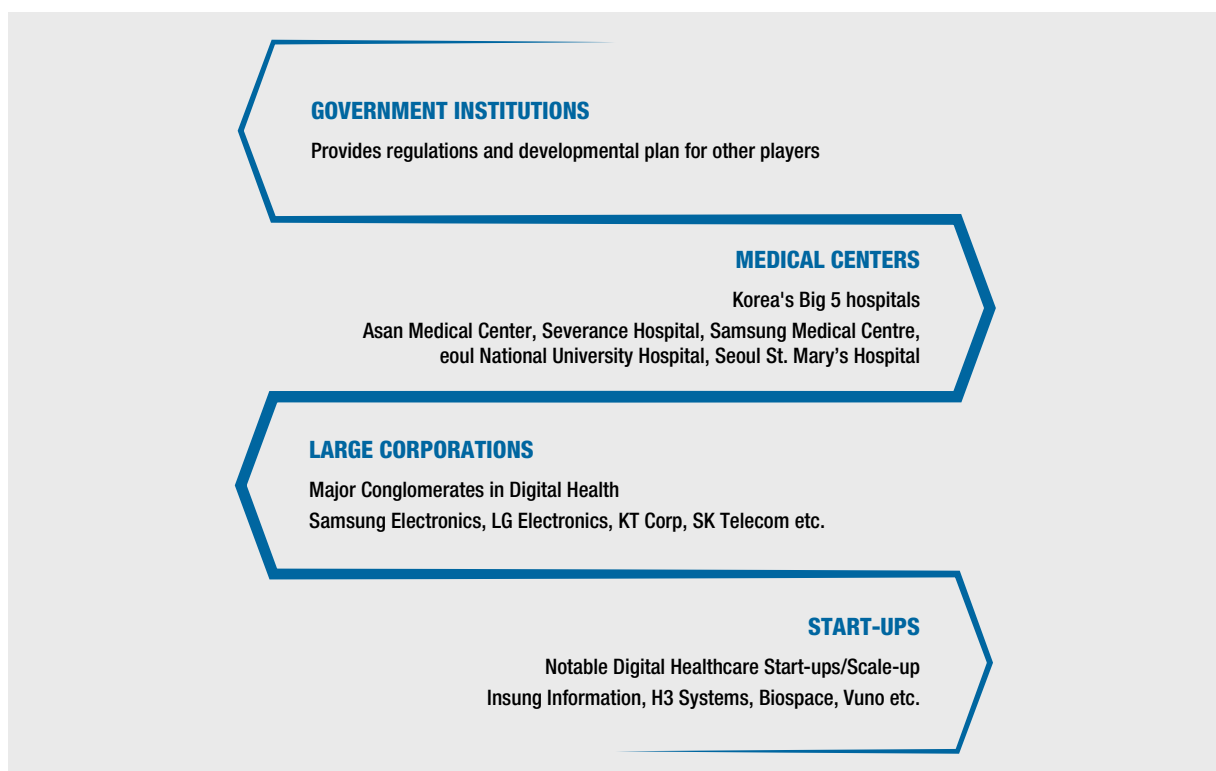
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III. DIGITAL HEALTHCARE SOLUTIONS-SOUTH KOREA

a. Introduction

The Korean healthcare system is run by the Ministry of Health and Welfare (MoHW) and is funded by a compulsory National Health Insurance Scheme (NHIS) that covers 97% of the population. Government of Korea has implemented various measures aimed at expanding its digital health industry, i.e., Digital healthcare for Korea. Since 2017 digital healthcare has become a top priority in the country with increased investment and deregulation where appropriate to spur innovation. Digital health is one of the four pillars of the current administration's plan for the fourth industrial revolution, with emphasis placed on areas such as healthcare related Big Data, Health IT (HIT) and artificial intelligence (AI). The Korean healthcare market majorly focuses on IT related solutions to be provided to the patients and as a result, they have recently started heavily investing in AI and Block-chain implementable solutions to create a total digital healthcare system that will enable sharing of accountable patient data via secure means in real-time. Korea envisions creating more IT enables solutions and customer centric products designed and customisable for different patients according to their need basis their medical records. In South Korea, 5G coverage is already relatively widespread which severs as a backbone for the digital health infrastructures, with approximately 80% population coverage, and demand for 5G services from consumers is higher than in most other countries.

Key Stakeholders

GOVERNMENT INSTITUTIONS

Provides regulations and developmental plan for other players

MEDICAL CENTERS

Korea's Big 5 hospitals
Asan Medical Center, Severance Hospital, Samsung Medical Centre,
eoul National University Hospital, Seoul St. Mary's Hospital

LARGE CORPORATIONS

Major Conglomerates in Digital Health
Samsung Electronics, LG Electronics, KT Corp, SK Telecom etc.

START-UPS

Notable Digital Healthcare Start-ups/Scale-up
Insung Information, H3 Systems, Biospace, Vuno etc.

b. Implementation of the practice

Most of the digital health care projects in South Korea are based on the following digital areas:

Digital areas	Highlights
Health IT	Wide-spread prevalence of clinical IT systems, growing investment in patient monitoring accessories, EMR/EHR, etc; Growing trend of fully digitizing the hospital operations
Big Data	Strong government support for precision medicine & genomics, AI-based health products and services, etc
Blockchain	Growing investment in Blockchain-based medical record database, disease prediction services, etc;
Telemedicine	Currently blocked by regulation, but active pilot programs in patient monitoring systems, chronic disease management systems, etc;
Consumer Health Electronics	Currently dominated by health activity monitoring applications from major smartphone companies
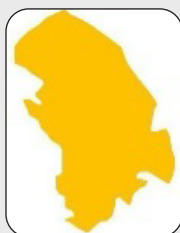
SOUTH KOREA

- Digital healthcare market in South Korea is expected to double in size to $5.7bn by 2020.
- Investment in digital health is seen a way to combat Korea's quickly growing medical expenses that is growing at 6.8% annually versus the 2.1% average in OECD countries.
- The government is supporting digital healthcare through key projects, investment and deregulation. Adoption rates of Electronic Medical Records (EMR) system in Korea were 93.6% in hospitals and 91.6% in clinics in 2017.

Key Features

- **FEEDER-NET** project launched in 2018, encourages hospitals to share information across healthcare providers
- **Bio database** is being built by collecting the genetic and biometric data of 10 million patients to assist in the development of new solutions and products.
- **Dr. Answer** an AI based system is implemented that analyses patients' medical data to offer personalised diagnostics and treatment plans
- **KOREN** a blockchain-based medical data network that collects medical information on a decentralised system and allows the transfer of health data between hospitals

Key Learnings

- **Common Data Module (CMD)** to enable an open research platform can be facilitated by converting participant hospitals Electronic Health Records (EHR) data into a cloud based open platform that works on a CDM.
- **Deep learning** applied to X-ray, CT, MRI scans to the analysis of biological signals forming a commercial AI product that can be used to improve IT related competencies among healthcare workers
- **Block-chain** to enable secure, accountable and integrated electronic health records system, safe data sharing platforms, medical supply chains, payment methodologies, insurance claims, research capabilities, Health Information Technoloies (HIT and data

Image: *Key Highlights of South Korea Digital Health Care*

The Key Feature and services in South Korean include:

i. Korean Health Insurance Review and Assessment Service (HIRA) is a value-based purchasing system that guarantees medical service quality improvement and cost appropriateness through efficient resource distribution. HIRA system creates synergistic effects by combining various healthcare purchasing activities and roles. It is based on 3 components:

- Rule Making - Benefit standard (Treatment, Drug, Medical material) management,

- Monitoring & Feedback – Medical claims & review, quality assessment, drug utilisation review, on-site investigation, medical fee verification,

- Infrastructure Management - Healthcare resources management, Korea Pharmaceutical Information Service, Patient classification system, Health Insurance System education, Healthcare big data analysis.

ii. Excellence of Korean Healthcare relies on its Advanced Health Technology (HT). Health Technology (HT) translates into healthy living for all people around the world with prevention, treatment and diagnosis of diseases, promotion of health, improvement in rehabilitation, and long-term care. HT comprises of 5 components – Biotech, Material Tech, Mechatronics, Nanotech and Information & Electronics.

iii. EMR systems in Korea have sophisticated functionalities such as clinical decision support and warnings for drug-drug contradictions and age restrictions. Focus is given on Health Information exchange (HIE) rates between external organisations. Korea utilise Digital healthcare using IT to help distribute medical resources efficiently.

iv. As part of the government policy to encourage hospitals to share information across healthcare providers, the Korean government announced a three-year project in 2018

called FEEDER-NET. The projects ultimatum is to create a sustainable bio-health big data ecosystem for research, industry and policy making

v.   South Korea uses Big data for medicine - The Korean Bio-Information Center (KOBIC) operates the National DNA Management System which can provide customized diagnosis and medical treatment for patients by integrating big data on various types of medical patient information. Desktop virtualisation, mobile EMR, dashboard, animation-based patient education, mobile e-consent, smart patient guide, smart bedside station and some of wireless device & systems are used.

vi.   Paradigm shift in healthcare: Information & Communication Technology has been a game-changer in healthcare, shifting the focus from treatment to prevention and management.
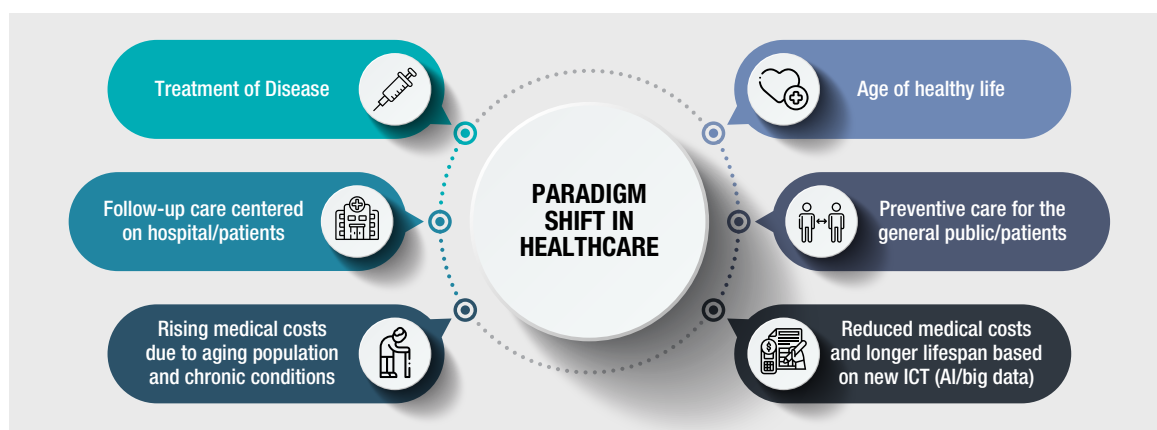
vii. Korea government's direction for healthcare is supporting innovative growth in healthcare through DNA-P: Data – Network – Artificial Intelligence + Platform. Key Features:

- OUR (On-Time Universal Reference) hospital that stays with patients every step of the care pathway.

- AI-powered smart emergency medical system – securing golden hour during an emergency and seamless integration of the emergency system. AI-based precision medicine services "Dr. Answer" where AI doctor answers all questions and offers medical diagnosis and treatments using medical big data. Targeting 8 major diseases relating to cardio, cancer and brain, it provides solution like prevention, diagnosis, treatment and prognosis.

- Post, precision, personalised hospital information system (P-HIS) – balance between large and small hospitals with cloud service efficiency. P-HIS – Develop a cloud HIS for Precision medicine to apply/deploy to primary/secondary and tertiary hospitals across the country. Cloud HIS is integrated with extensive additional features and analytics services for P-HIS expandability.

- Intelligent SW Technology Development for medical data analysis – personalised treatment based on integrated data and activation of ICT industry (AI, Big Data).

- AI-based smart emergency medical system – develop a seamless integrated emergency medical system to secure patients' golden hours and to reduce medical expenses.

c.   Results of the practice

South Korea is a forerunner in all the health care performance metrics and the country try to improve those metrics with technology and innovation. Most of the performance metrics are better than US and many European countries. Few metrics as follows in 2017:

- ❖   Life expectancy at birth was 82.7 years

- ❖   Colorectal cancer survival rate at 72.8% - (OECD highest)

- ❖   Cervical cancer survival rate at 76.8% - (OECD 2nd highest)

- ❖   Overall cancer survival rate at 66.9%

d.   Lesson Learnt

Data security and privacy become major concerns for Digital Health initiatives. Several laws and acts in Korea regulate the personal and medical information required to provide medical and healthcare services. Experts describe the regulations surrounding the sharing of patient data, which is important for the development of health IT and big data (AI, deep learning)-based technologies as well as precision medicine platforms, as being both complicated and vague. The guidelines surrounding deidentified data, as well, is unclear, and therefore leaves healthcare providers and companies at risk if they were to interpret the guidelines incorrectly.

The current administration has committed to removing excessive regulations on the data industry to boost the growth of the sector, especially relating to the healthcare. The major data privacy regulations act in South Korea are:

- ❖   Personal Information Protection Act (PIPA): Enacted on September 30, 2011, Korea's Personal Information Protection Act (PIPA) is considered as one of the strictest data protection regimes in the world. According to the Act, any information that, if revealed, may considerably infringe on the data subject's privacy, such as information related to an individual's health or medical treatment, genetic profile, sexual orientation, criminal records, ideology and faith is considered sensitive data.

- ❖   Medical Services Act: The Medical Services Act regulates matters related to quality of medical services, requirements for hospitals and medical records as well as prohibition against disclosure of confidential patient information such as treatment options and drugs prescribed.

e.   Conclusion

South Korea uses the vast amounts of health data to which it has access to assess the consumption of health services and improve efficiency and cost-effectiveness. When it comes to public health policy, notably a collaborative governing approach and rich data infrastructure, the country stays ways ahead than the rest of the world.

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ANNEXURE III: EFFECTIVENESS OF ACCOUNTABILITY AND TRANSPARENCY MEASURES

Measures in both accountability and transparency have come to the fore as integral ways to enhance development services as well as the depth of democracies. In the development context, the argument is that through greater accountability, 'leaky pipes' of corruption and inefficiency will be repaired, aid will be channelled more effectively, and in turn development initiatives will produce greater and more visible results. (Gaventa et al, 2013)

While traditional forms of state-led accountability, also characterised as vertical and horizontal channels of accountability, are increasingly found to be inadequate, a myriad of multi-stakeholder and bottom up citizen directed approaches have come to the fore, to supplement or supplant them. Despite their rapid growth, and the growing donor support they receive in the context of international development, little attention has been paid to the impact and effectiveness of these new transparency and accountability initiatives. (Transparency Initiative Synthesis Report, 2010)

From the case studies highlighted in the previous section, we can conclude that measures to improve transparency and accountability have improved public service delivery as follows.

- **Measures to reduce information asymmetry** such as the Flood Information Management System (FMIS) and Integration of all Centrally Sponsored Schemes' development projects in Andhra Pradesh through geo tagging have improved transparency by displaying time sensitive information on floods and embankment risks in Bihar and by promoting seamless data sharing with the Centre, in addition to promoting transparent output management for real time progress in Andhra Pradesh respectively.

- **Overhauls of programmatic design for scheme uptake** for approval through integrated and transparent systems such as Jnanabhumi portal for scholarships in Andhra Pradesh have reduced the time period for approval from six months to sixty man days, thereby reducing the burden on the primary beneficiaries, the students.

- **Community participation** for participatory project design and delivery such as the participatory wage employment programme in Ethiopia wherein the local community participates in the selection, planning, monitoring, and evaluation of projects have led active citizen participation and a high level of quality of community-led plans which created infrastructure in line with the needs of the communities being served

Overall, the evidence on impact is uneven and sparse on the assessment of impacts. Studies seem to be slightly more robust in areas which have a longer history of work, especially service delivery and budget transparency, but even here, there exists little systematic evidence. In recent focus areas, such as initiatives on natural resource transparency and aid transparency, while some projects are emerging, there is even less of a knowledge base from which to draw general conclusions about

impact and effectiveness. The field of freedom of information has been operating for decades, yet there are surprisingly few studies which illustrate its impacts.

Given the limitations, there still are a number of studies which suggest that transparency and accountability initiatives can make important differences, at least in certain settings. Individual studies provide evidence for instance that Transparency and Accountability Initiatives can, in some instances, contribute to:

   a.   increased state or institutional responsiveness

   b.   lowering of corruption

   c.   building new democratic spaces for citizen engagement

   d.   empowering local voices

   e.   better budget utilization and better delivery of services

Table 1: Type of Initiative, Impact, Country and Source

Type of Initiative	Impact	Country	Source
Public Expenditure Tracking surveys, when made public and linked to public information campaigns	Contribute to reducing leakages in delivery of service sector budgets locally	Uganda	Reinikka and Svennson 2004
Citizen report cards	Have considerable impact on local service delivery in some settings	India	Ravindra 2004
Community scorecards	Contribute to greater user satisfaction	India	Misra 2007
Community monitoring	Contribute to more responsive delivery of services, such as increased teacher attendance in schools	Uganda and India	Björkman and Svennsson 2009; Duflo et al 2008
Social audits	Contribute to exposure of corruption and effectiveness in programme implementation	India	Singh and Vutukuru 2010
Complaint mechanisms	Contribute to reduction of corruption, by linking citizens directly to managers who can then hold managers to account	India	Caseley 2003
Information provision when tied to a community based information campaign	Positive impacts found on increasing accountability in school systems	India	Bannerjee et al 2010 Pandey et al
Participatory budgeting initiatives	Contribute to multiple outcomes, including improved public services, redirection of resources to poor communities, new civic associations, etc., strengthened democratic processes, etc., but there are also contradictory findings in some settings	Multiple, but largely Brazil or Latin America	Goldfrank 2006 and others

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