Detailed Architecture

MeghEA: Strategic Pillar - Governance

Government of Meghalaya
Planning Department

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Document Control

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1. Introduction

Government of Meghalaya has prudently adopted Sustainable Development Goal 2030 as the guided baseline for MeghEA framework and embarked on efficient and effective governance by establishing of four strategic pillars (Human development, Primary Sector, Infrastructure and Entrepreneurship) and two cross-cutting pillars (Environment and Governance).

Governance is a key cross-cutting pillar in the strategic framework of Government of Meghalaya. Governance includes assessment the performance of the state government, and implies that authority must be deployed, and even necessarily based on, a larger purpose - the good of the people being governed i.e. people of Meghalaya. To a large extent, states across the country have similar institutional structures and practices in terms of administrative structures and delivering services in general and governance to the citizens. However, despite these commonalities, there have been variations in the progress seen in different states even after accounting for the diversity that makes our country. The Department of Administration Reform and Public Grievances (DARPG), Government of India prepared the Good Governance Index (GGI) and grouped states as per the criteria set.

Meghalaya's performance in various area of Governance have not been encouraging especially considering the potential the state has. The MeghEA project would look to resolve the problem areas with key interventions in the form of digital technologies, process improvement and other selective transformation change. Governance includes services of several department.

The key sectors that underlies Governance includes:

- Government Revenue and Taxes
- Economic Governance
- Growth rate of primary and allied sector
- Ease of Doing Business
- Quality of Education
- Healthcare Monitoring
- Social Welfare development
- Judiciary and Public Security
- Citizen Centric Governance

Purpose of Detailed Architecture Requirement

Thus, Governance touches several pillars with Planning and Finance department being at the core of it. The other key departments that are under the purview of the Governance pillars are – Excise, Registration, Taxes and Stamps, Commerce & Industries, Community & Rural Development.

This document remains part of overall Meghalaya Enterprise Architecture document, focusing on detail on "Governance" strategic pillar and should be read accordingly. The interconnected flow and rest details can be found in main document, along with various common systems and their

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architecture.

Target Audiences

The Detailed Architecture includes inputs from various key stakeholders. This document would be further reviewed and used for implementation by the following stakeholders:

- Planning Department
- Excise Registration Taxation and Stamps Department
- NIC Meghalaya
- Project Coordination Committee
- National E-Governance Division (NeGD)

The Detailed Architecture document and incorporated artifacts would lead to an overall project plan with measurable business success metrics post stakeholder buy-in.

This document is organized as per the below Sections

Chapter 1 – Introduction

Chapter 2 – About the Pillar

Chapter 3 – Business Architecture

Chapter 4 – Application Architecture

Chapter 5 – Data Architecture

Chapter 6 – Technology Architecture

Chapter 7 – Security Architecture

Chapter 8 – Architecture Realization

Chapter 9 – Annexure of various key analysis

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2. About the Pillar

2.1 Governance (Cross-Cutting Pillar) Overview

The concept of governance is not new to the state and is being used in a variety of ways covering institutions/ agencies working in the purview of the State Government of Meghalaya. The review of the services on the subject and further analysis suggests Governance to be restricted to the (i) the capacity of the government to effectively formulate and implement sound policies; and (ii) the respect of citizens and the state for the institutions that govern economic and social communications among them

As per analysis of Department of Administration Reform and Public Grievances (DARPG) – Good Governance Index (2019), the various areas of Good Governance are:

- Agriculture & Allied Sectors
- Commerce and Industries
- Human Resource Development
- Public Health
- Public Infrastructure & Utilities
- Economic Governance
- Social Welfare & Development
- Judicial & Public Security
- Environment
- Citizen Centric Governance

A total of **51** indicators were considered for grouping states under following category – Northeast and Hill States, Union Territories and other remaining states. Below is Meghalaya's performance as per report from DARPG

Overall Score	All India Rank among states & UTs	Rank among 11 NE & Hill States
0.43	18	**5**

Please follow Annexure 9.2 for detailed scores, categories and ranks

Governance is also measured by the performance with respect to service delivery. UN Sustainable Development Goals (SDG) has developed a holistic framework to measure the service delivery effectiveness through SMART indicators. NITI AAYOG have defined the country's SDG framework to measure the progress of different states. Below is a snapshot of Meghalaya's performance as per data from NITI AAYOG SDG (2020) framework

Overall Score 2019	All India Rank among states & UTs	Rank among NE & Hill States
54	25	**5**

Please follow Annexure for detailed scores, categories and ranks

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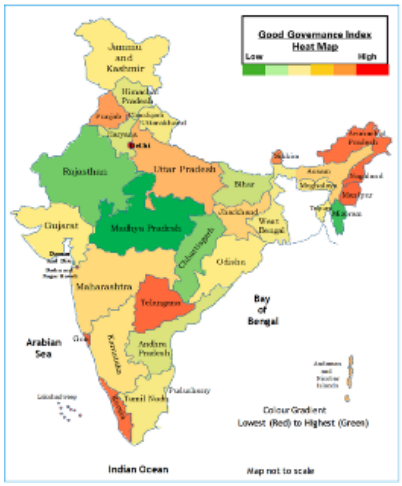

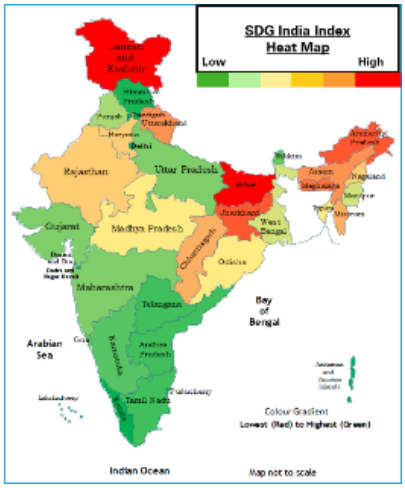

2.2 Vision of the Pillar – Governance

The State of Meghalaya has set up a vision to become a "**High Income State**" by 2030 and to be in the **Top ten states** in India in terms of GSDP per capita. Governance, which is a key component in the State's strategy, needs a vision to ensure the realization of the ambitious target set by the State. Accordingly, its vision is: -

- To be amongst the top ten States in Good Governance Index
- To be amongst the top ten States in GSDP per capita
- To be amongst the top ten safest State in India

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2.3 Mission of the Pillar – Governance

The 4 D's of Governance are:

- **Discover**: Discover information from the all sections of society on stakeholders need
- **Detect**: Detect actual problems and resolve through effective change management
- **Discern**: Predict key policy changes that can assist government in resolving issues
- **Decide**: Take swift and holistic decision through thorough analysis

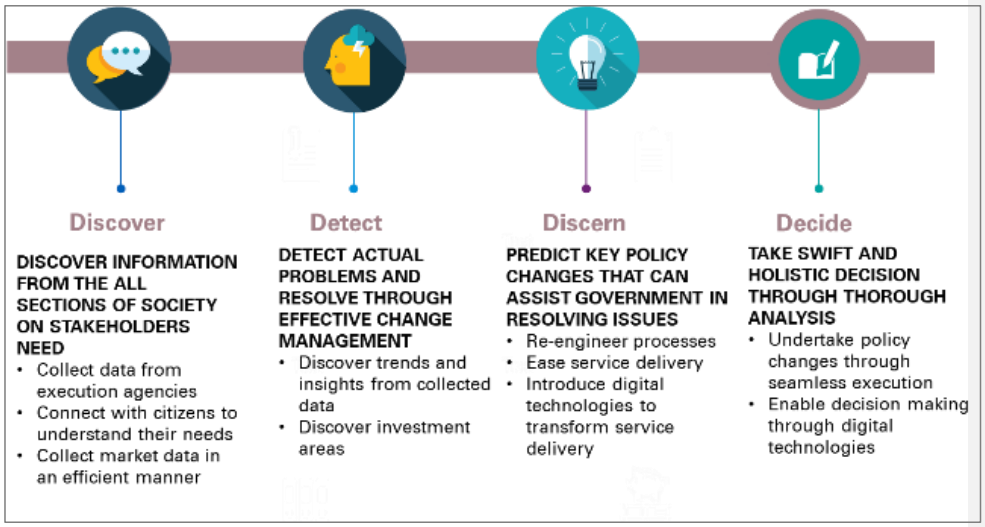

Figure 1: The 4D's of Governance

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2.4 Governance - Departments Structure

The departments under Governance are structured in respective directorates that has mostly exclusive functional role and responsibilities. There are other departments that has a defined structure, for the scope of this pillar the Planning Department and ERTS department's structure would be pivotal for the pillar.

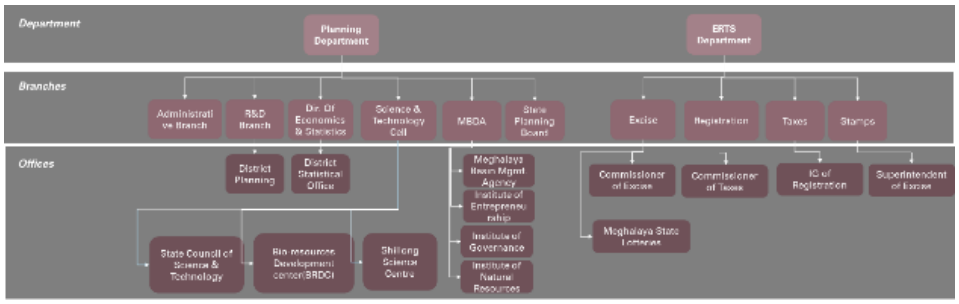

Table 1: Department Structure – Governance Pillar

Different offices/ delivery centers available in departments contributing to Governance are defined in table below:

Sr. No.	Attribute	Planning
1	District Offices	11
2	No of Agency Offices	11
3	No of Sub-Divisional Offices	0
4	No of Block Offices	0
5	No of Circle Offices	0
6	No of District Statistical Officers	11
7	No of Inspector of Statistics (District)	16
8	No of Sub- Inspector of Statistics (Block)	47
9	No. of Gram Sevak	15 per block
9	No of Primary Investigator (District)	19
10	No of Field Assistants (District)	67

Table 2: Offices/ Delivery Centers in Governance

- At the District level there is a District Statistical Officer in each of the 11 Districts of the state who is assisted by the technical and establishment staff comprising the Inspector of Statistics, Sub-Inspector of Statistics, Primary Investigator and Field Assistants. The primary function of the District Officers in the District is to supervise and to ensure that the field works by the field staff under them are carried out as per time schedule and compilation and submission of the same is completed in time.

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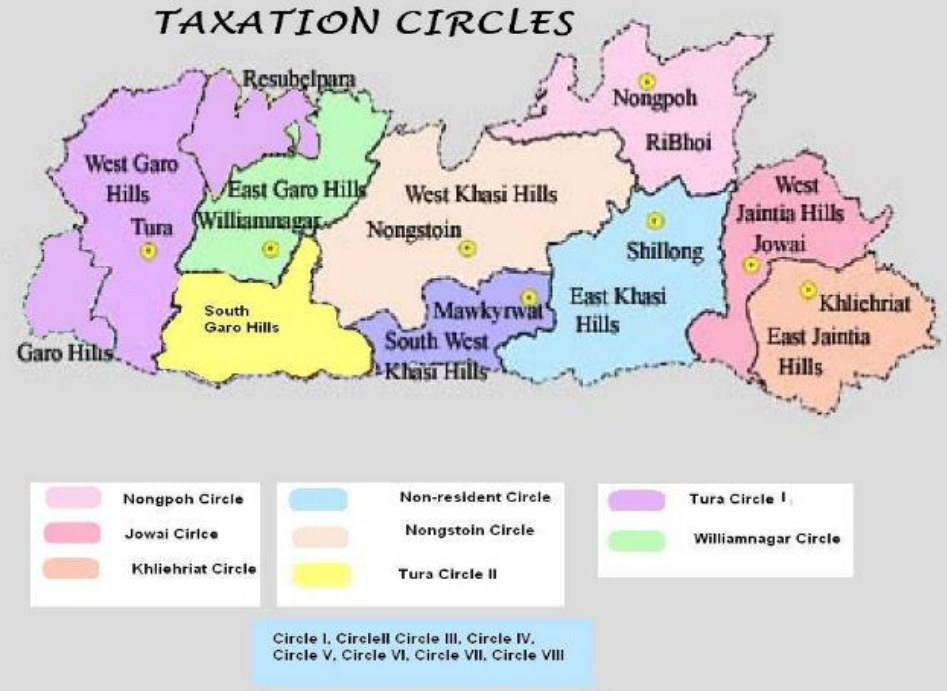
- At the community and Rural Development Block there is one post of Sub-Inspector of Statistics in each of the 46 blocks who is responsible for collection and maintenance of various type of Statistics at Block level. The District Statistical Officer of the Districts exercise administrative control over the Sub-Inspector in the Block and under the operative control of the Block Development Officer.
- All markets related data are collected weekly, 1 statistical officer for 65 markets per week in manual paper-based forms

In Excise Registration Taxation and Stamps department, taxation has their circle offices in the state. The locations are illustrated in below state map for better understanding.



Various stakeholders applicable to Governance Sector are as below:

Government:

- **Planning**
  - Secretariat : Chief Minister, Principal Secretary, Commissioner and Secretary, OSD & Ex-officio Joint Secretary, SMO & Ex-officio Deputy Secretary, SO & Ex-officio Deputy Secretary, PO/ Under Secretaries, Research Officers, Assistant Research Officer,

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computer programmer, Computer Programmer, Data entry operator, Research Analyst, Superintendents, Assistant Superintendents, UDAs, LDAs, Typists.

- Directorate : Director, Joint Director, Deputy Director, Research Officer, Statistical Officer, Inspector, UDA,LDA, Typist, Grade IV, Registrar
- Agencies : Chief Executive Officer, Deputy Chief Executive Officer, Executive Director, OSD's Of Different Division, Consultants

- **ERTS**
  - Department: Commissioner of Excise, Deputy Commissioner, Assistant Commissioner, Superintendent of Excise, Deputy Superintendents of Excise, Inspecting Staff, Ministerial Staff, Asst. Inspector of Excise, Head Excise Constable, Excise Constable, Additional Commissioner of Taxes, Joint Commissioner of Taxes, Deputy Commissioner of Taxes, Assistant Commissioner of Taxes, Office Superintendent, UDA, LDA, Steno, Typist, peon, Programmer Assistant, DEO

2.5 Goals of Governance Pillar

There are **235** indicators defined as part of the MeghEA Vision which are public service delivery centric and intended to measure the progress of the state in-terms of citizen centric service delivery. The Goals, Targets and Indicators with baseline data and targets to be achieved can be seen at Annexure 9.4

- Indicators Assigned to Governance – **43,** please follow list in section **9.4.1**
- Indicators under Governance and assigned to departments under Governance - **11**, please follow section 9.4.2
- Indicators under Governance but marked to departments **out of scope** – **29**, please follow section 9.4.3
- Indicators under Governance but marked to departments in Other Pillars – **3**, please follow list in section 9.4.4
- Indicators under Other Pillars but marked to departments under Governance – **8**, please follow list in section 9.4.5

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2.6 Business Capability for Governance Pillar

A business capability is an ability or capacity that Departments under Governance possess or exchange to deliver specific services. Governance primarily takes care of various aspects of planning, financial management and monitoring and evaluation of the service delivery

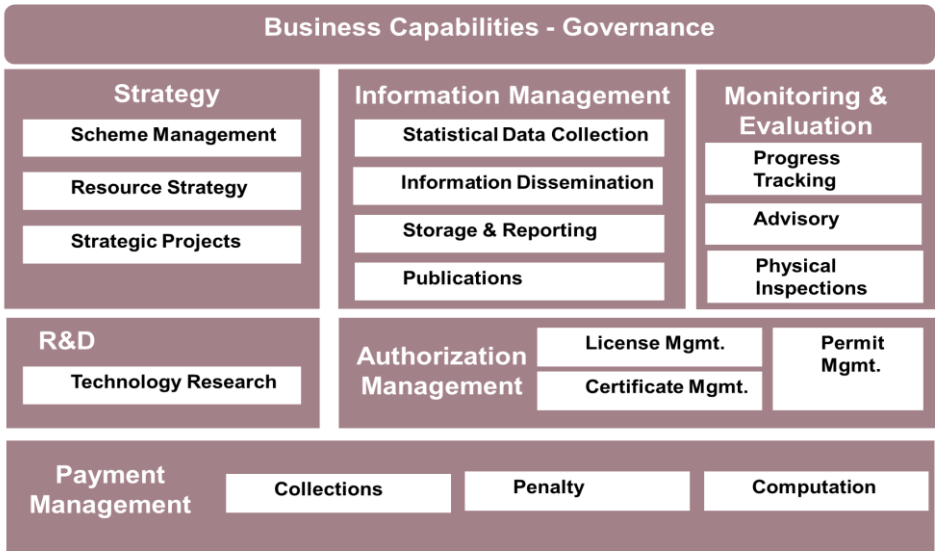

Figure 2: Governance- Business Capability Model

Strategy: Capability to plan for resources (funds), arrange resources, plan for new schemes and existing schemes and undertake cross-cutting strategic projects

Information Management: This is a key capability, mainly used by Planning department to gather data from different sources such as market data, survey reports, etc., report the same in the defined format.

Monitoring & Evaluation: Planning and ERTS department rely on effective monitoring of key aspects such as service delivery efficiency, state tax revenue collections, etc.

R&D: Key capability of Planning department to conduct research on key projects, technology usage and other aspects.

Authorization Management: Authorization Management includes issuance, renewal, amendment and cancellation of licenses, certificates, permits issued by ERTS department

Payment Management: This capability includes collection, reporting, computation and imposing penalty for State Tax/VAT/Fee. This capability is owned by ERTS department

Note: All above capabilities would be useful in defining micro-service or application service, while implementation of the system aligned to the Mirco-Service based architecture/SOA principles. These capabilities are at macro-level, further analysis is required to drill down to more granular level to qualify them as micro-service.

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3. Governance Pillar - Business Architecture

3.1 Key Concepts, Definitions and Approach

The Business Architecture is an essential key for the design of a good Enterprise Architecture, as it looks at the business vision and the functions/ services required to fulfil that vision, but not the technologies required to be used. The key entity in Business Architecture is Service, be it citizen centric, business centric or employee centric. Further, to understand the effectiveness of service delivery, it is very important to monitor these services. Governance plays a major role in achieving the same by building various processes and governing the progress. The business services under Governance Pillar are explained step by step in sections below.

3.1.1 Key Concepts

- **MeghEA Meta model:** MeghEA Meta model describes the types of entities described in Business, Application, Data and Technology architecture domains and the relationships between them. Refer MeghEA Meta Model for details.
- **Data Driven Governance**: Data Driven Governance is where data is used to drive policy decisions, set goals, targets, measure performance and increase government transparency.
- **Monitoring:** Services are delivered to citizens, students, farmers and other beneficiaries by the government departments in collaboration. Monitoring is a process to measure the effectiveness of the services to the beneficiary in terms of ease, transparency, timely bound.

3.1.2 Key Definitions

- **Governance**: Establishment of policies, and continuous monitoring of their proper implementation by the designated structures.
- **Research and Development:** These are the innovative activities taken by the Government in developing new services, improve existing services, help communities in their local issues/ products.

3.1.3 Approach - Business Architecture

One of the main objectives of Meghalaya Enterprise is to transform the services of the departments through effective assessment and holistic implementation plan. The key entity in Business Architecture is Service, be it citizen centric, business centric or employee centric. Further, to understand the effectiveness of service delivery, it is very important to monitor these services. Governance plays a major role in achieving the same by building various processes and governing the progress.

The approach towards business architecture is current state service identification, rationalization of service, prioritization of services and identification of business process reengineering opportunities. The approach and the steps taken to realize the objective is illustrated below:

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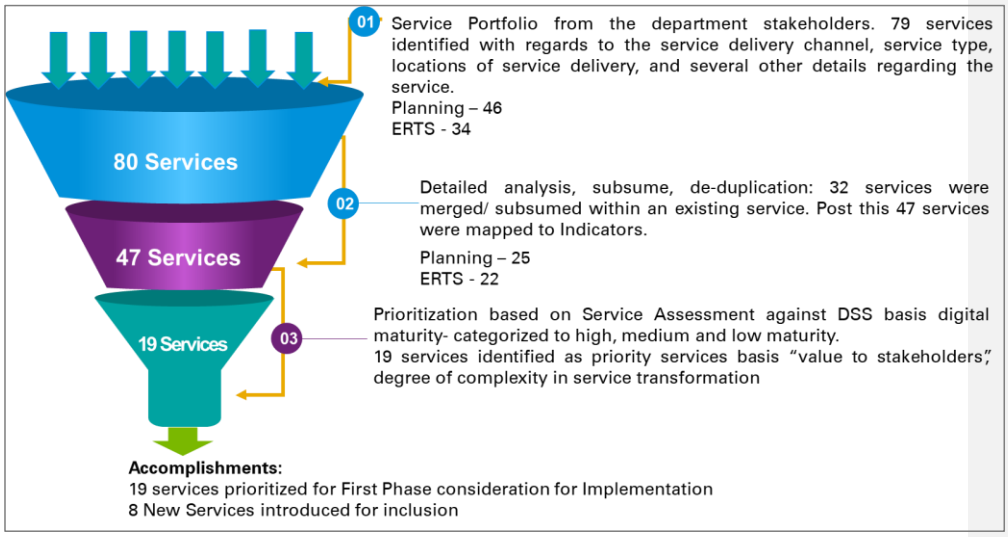

Figure 3: Service Identification, Rationalization and Prioritization

The steps illustrated above are detailed in following sections.

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3.2 Current State Assessment

3.2.1 Service Overview

Government Service is one that is provided by a government agency to its citizens, businesses, employees or other government agencies, in any form of delivery. A service may have several components, process steps, service levels and performance metrics

A service should have ONE beneficiary (Citizen, Business, Employee or Other Government Agency) and only ONE key outcome such as:

- Certificate, License, Information, NOC, Approval letter (Digital Outcomes)
- Food, Education, Seeds, Fertilizers, Goods, etc. (Physical Outcome)

The services of Governance Pillar have been categorized in different service domains. These are illustrated below:

Figure 4: Service Domains of Governance Pillar

- **Action Planning** – The service domain focuses on identification of schemes and projects, preparation of action plan, budget, undertake various measures and execution of science and technology initiatives which are in the interest of the State.
- **Advisory**: The domain consists of services which provide advisory to different departments to conduct science and technology interventions.
- **Awareness Campaigns**: The services under this domain mainly focuses on promotion of Science and Technology to the general public especially school children.
- **Budget Estimation**: The domain focus on preparation of development expenditure budget.
- **Financial Assistance**: The services related to providing funds to districts for short term training programmes and awareness through NGOs are covered under this domain.

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- **Funding Approval:** The domain contains services regarding approval and disbursement of funds for schemes/projects under Development Expenditure Budget.
- **GIS:** The domain focuses on remote sensing application-based technology services for Science and Technology projects.
- **Informational:** Services related to generate, publish & distribute various leaflets, journals and videos targeted at Community, project officials as well as to line departments.
- **Monitoring:** The functions related to monitoring the physical and financial progress of projects and schemes all over the state has been grouped to form Monitoring domain.
- **Research & Development:** The service related to sustainable green agriculture through research and development.
- **Scheme & Policy Management:** The service focuses on prioritization of different schemes and projects, manage policies for the schemes for funding from Ministry of DoNER, NEC, NABARD, MoTA, EAP etc.
- **Statistical Reporting:** Services related to statistics of different types including housing, land use, irrigation, crop cutting, national income, government employees, vegetable produce, price etc. has been marked under this domain.
- **Strategic Project Implementation:** Services related to identification of Local Issues and problems and to provide Science & Technology solutions to the issues especially those faced by the rural communities.
- **Strategy & Planning:** This domain contains services related to inventory preparation to investigate the possibilities of augmenting and improving resources of the state. Preparation of perspective plan for the optimum and balanced utilisation of the state resources and indicate Plan priorities.
- **Survey:** The services related to survey of different kinds are grouped together. E.g. National Sample Survey, Baseline Survey etc.
- **Training:** All services related to capacity building.
- **Auction:** The service related to auction of confiscated goods are under this domain.
- **Certificate:** Under this domain all services where the certificates are issued has been listed. E.g. VAT Registration Certificate, CST Registration Certificate etc.
- **Fee Revision:** The services related to revision of different fees being charged from the businesses and tax rates falls under this domain.
- **Hologram Issuance:** Service of issuing Holograms to the Excise Manufacturer.
- **License Issuance:** Services related to issuance of License to the liquor dealers are grouped into this domain.
- **Pass & Permit:** Pass and permit domain contain services related to movement of excise goods under the Excise department.
- **Refunds:** Refund domain contains the services for issuance of refunds related to tax to companies on filing of returns.
- **Registration:** Registration is provided to different dealers dealing with VAT, CST, GST, Excise. For doing business in the state, registration with the department is must.
- **Return Filing:** Return filing is process of reporting purchases and sales and declaring tax payable to the state by different types of companies. All services related to returns has been marked under this domain.
- **Statutory Forms:** Statutory forms are forms issued to dealers for interstate sales and commerce. There are 4 type of forms, i.e., C Forms, F Forms, H Forms and E Forms.

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- **Tax Payment:** As the name suggest, the services related to payment of taxes are marked in this domain.

3.2.2 Current Service Portfolio

Service discovery stage is to identify and finalize the current list of services offered by departments and corresponding directorates to citizens, businesses and other stakeholders in the ecosystem under preview. Details of all services (G2C, G2G, G2B and G2E), critical to stakeholders offered by any means need to be consolidated along with underlying sub services and processes details at current stage. To help department stakeholders understand the project objectives, service definition and the need for service identification, multiple sessions were organized with each department. With the help of Planning Department, Nodal officer for each department was assigned, who helped in meeting coordination activities and follow-up for data collection. Demonstrations for entering service data and process steps in MeghEA Questionnaire Portal were also give to department officers and nodal officers. The following are the accomplishments from this exercise:

- 79 services (45 Planning, 34 ERTS) identified along with detailed description of the services.
- All actors associated in the department's service delivery were identified.

Below is diagrammatical representation of the services of departments under Governance Pillar:

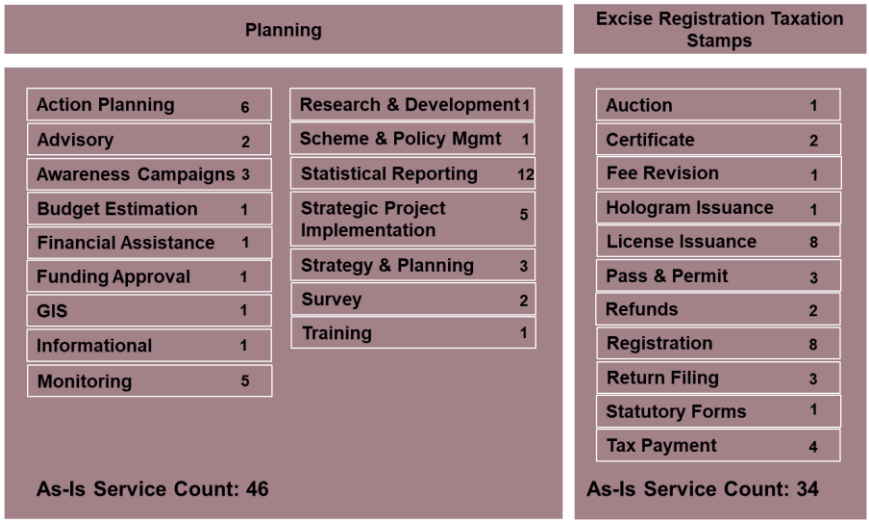

Figure 5: Governance Pillar - Service Domains with As-Is Service Counts

The data entered by the department is available at MeghEA Portal. Further the Service Catalog as on 10th March 2020 is detailed in 9.5

3.2.3 Current State Business Interaction Matrix

The departments in Governance Pillar consumes business services from other departments in State

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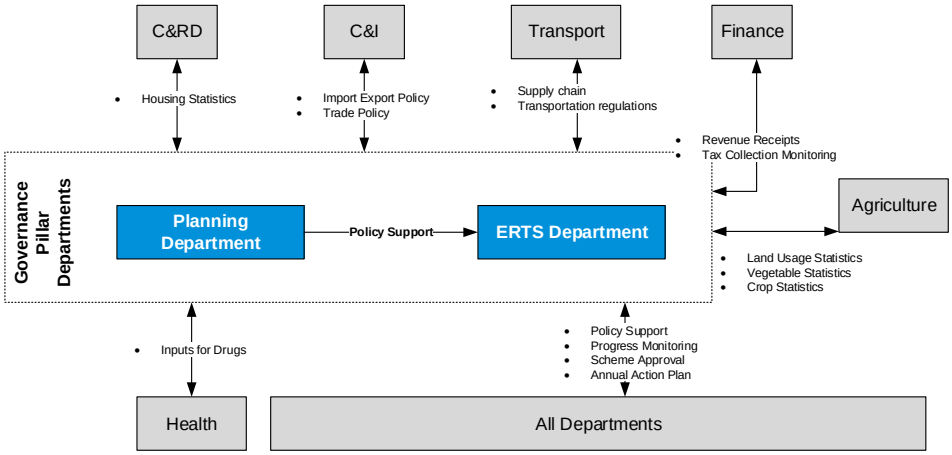
Government and provide services to other departments in State Government.

These business interactions have been captured in two different matrices, one for the business services Governance Pillar departments consume from other departments and the other for the business services Governance Pillar departments provide to other departments. For example, the departments provide Development Expenditure Budget to Finance Department thus marked as provided by Governance Pillar departments. The current business interaction is illustrated as below:



Refer section 9.14 for detailed Current State Business Interaction Matrix

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3.3 Service Delivery Challenges/ Bottleneck

The departments in Government of Meghalaya has been facing various challenges in delivering their services to the beneficiaries including other departments, citizens and businesses. The priority of the departments is to improve the service delivery experience and provide proactive services to the beneficiaries.

The key challenges identified in delivering services related to Governance Strategic Pillar and their impact are as below:

Governance Pyramid Stages	Service Domain	Challenge	Impact
Strategy	**Advisory**	• Earlier planning commission used to intimate on the Plan allocation for the State. Further to this planning department allocated the fund allocated by Planning Comm and issue Approved Outlay. After the Planning Comm and Plan/Non-Plan categorisation was done away with, the State Govt. created Establishment Expenditure Budget (replaces Non-Plan) and Development Expenditure Budget (replaces Plan) and both are funded by the State's own resources. This segregation is permeable and creates challenges in approvals. There is no outcome based budgeting in the state which has been adopted by various state Governments • Other advisory services are ad-hoc and without any standardized process.	• New bifurcation is based on development and establishment expenditure, yet there is no clear outline of differences between the two types. This creates re-work and conflict of responsibility issues • Unavailability of Planning officer at department level creates a gap in execution of ad-hoc services
Strategy	**Budget Estimation**	Budget estimation is manual and not enabled by historical data	• Process is tedious and time consuming
Strategy	**Scheme & Policy Management**	• New scheme addition, approval and modification is a time and effort intensive process	• Delay in scheme approval leads to impact in service delivery

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Governance Pyramid Stages	Service Domain	Challenge	Impact
Planning	**Awareness Campaign**	Limited service delivery options and cultural hindrance in adoption	Limited service delivery points and limited impact
Planning	**Financial Assistance**	• NGO authenticity verification has several challenges • Limited or no knowledge repository of NGO track records	Effectiveness of funds is compromised, additionally malpractices may creep in
Planning	**Funding Approval**	Non-standardized process creates issues related to approval and stretch approval time frame	• Delay in service delivery • Loss of opportunity in availing funding from central agencies owing to delay
Planning	**GIS**	Limited capacity of team	High potential to be a success however, due to limited capacity this has not been effectively leveraged in other departments
Planning	**Informational Services**	No digital repository to manage knowledge documents	In every EAP process department has to re-engineer the process to deliver requisite documents
Planning	**Research & Development**	The structured framework that connects local issues to scientific intervention is largely missing Several interventions are required in the field of agriculture but with limited capacity, very few are addressed	Limited awareness and capacity to implement
Revenue	**Certificate**	Manual Issuance of Tax Clearance Certificates leads to non-tracking of the certificates issued.	In case of loss of certificate, new certificate needs to be issued after manually checking the compliance/ file of the tax payer.
Revenue	**Hologram Issuance**	Holograms are issued and records are maintained	Holograms can be misused due to mismatch in manual stock.

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Governance Pyramid Stages	Service Domain	Challenge	Impact
		manually thus very difficult to track the stock and utilization.	
Revenue	**License Issuance**	The licenses are issued manually, and the records are maintained in registers.	Manual checking the compliance/ validity from files. No automated alerts on expiry of licenses. May lead to business operating after expiry of license.
Revenue	**Passes & Permits**	The passes and permits are manual and these need to be physically carried for movements.	Can be misused to carry similar quantity of stock multiple times in same time slot thus loss in revenue to government.
Revenue	**Refund**	The refunds need assessment of returns. As the assessment is pending for multiple years, refunds are delayed.	Manual assessments may lead to wrong refunds.
Revenue	**Return Filing**	Return filing is hybrid with both online and offline modes. It is very difficult to track if the return is filed offline or not in case not filed online.	This may lead to non-filing of returns by tax payers.
Revenue	**Tax Payments**	The payments are in GRAS with no linkage to systems available in ERTS.	Reconciliation issues between returns and payments as the systems are different.
Revenue	**Certificate**	Manual Issuance of Tax Clearance Certificates leads to non-tracking of the certificates issued.	In case of loss of certificate, new certificate needs to be issued after manually checking the compliance/ file of the tax payer.
Monitoring & Evaluation	**Monitoring**	• Unavailability of framework • No analytics enabled dashboard Non-standard process	Ad-hoc and need based monitoring
Monitoring & Evaluation	**Statistical Reporting**	• Data collection is manual • 50+ Price items data is collected by one S.I every week • No mobile devices to collect data	The decision post data analysis is error prone and hence, not valued within the state government machinery

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Governance Pyramid Stages	Service Domain	Challenge	Impact
		• No tool to store and analyse data	
Monitoring & Evaluation	**Survey**	• Unavailability of survey tool	Effectiveness of survey is lowered

Table 3: Service Domains, Challenges and Impacts

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3.4 SWOT Analysis of Business Architecture

Analysis Paradigm	Key Pointers	Target State
Strength	Great revenue earning potential in the Departments	Retained
	SLA based GST Services	Retained
	Adoption of standardized process in complex service processes such as in case of Excise License Issuance.	Retained
	Presence of Science & Technology cell for promoting S&T in state.	Retained
	Presence of Statistics and other officers in all districts.	Retained
Weakness	Redundant process steps involving actors with no value addition to the service delivery process.	Eliminated
	Paper based Application for Service request.	Eliminated
	Lack of transparent eligibility criteria for availing schemes.	Eliminated
	Lack of tracking stock from Manufacturer to Consumer	Eliminated
Opportunity	Integrated services across departments.	Realized
	Digitization of workflow to enable lean and fast service delivery.	Realized
	Unification and standardization of processes.	Partially realized
	Tracking of Stock of different items under different Schemes and stock requirement predictions.	Realized
	Tracking of Scheme Funds and utilization.	Realized
Threats	Inability to monitor current scheme funds and utilization	Addressed
	Inability to monitor real-time information on beneficiaries, stocks etc.	Addressed
	Security lapses owing to dispersed and different security authentication for system-based service delivery.	Addressed
	Inability to obtain funds from GoI owing to lack of UC submission.	Addressed

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3.5 Service Rationalization

As part of service rationalization, services providing same output as per service definition are merged together. Further, services part of any other service, the input and output of service is part of other service is subsumed in the larger service. The services are further confirmed and validated with the nodal and department and corresponding directorate officers.

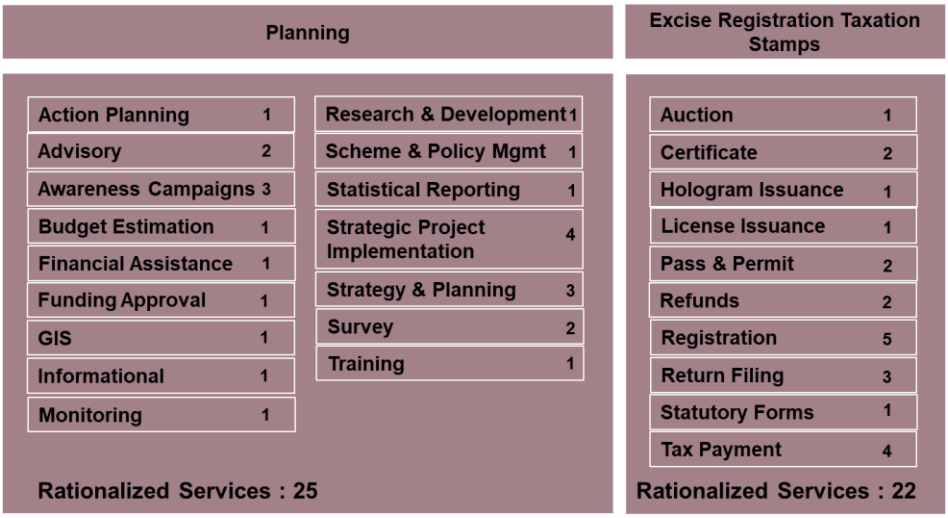

Figure 6: Governance Pillar- Service Rationalization Numbers

Accomplishments:

- 32 services are merged/ rationalized from the existing list of services leaving 47 services as qualified services.

Rationalized Service Catalog can be seen at Annexure 9.6

Below is diagrammatical representation of the qualified services of departments under Governance Pillar:

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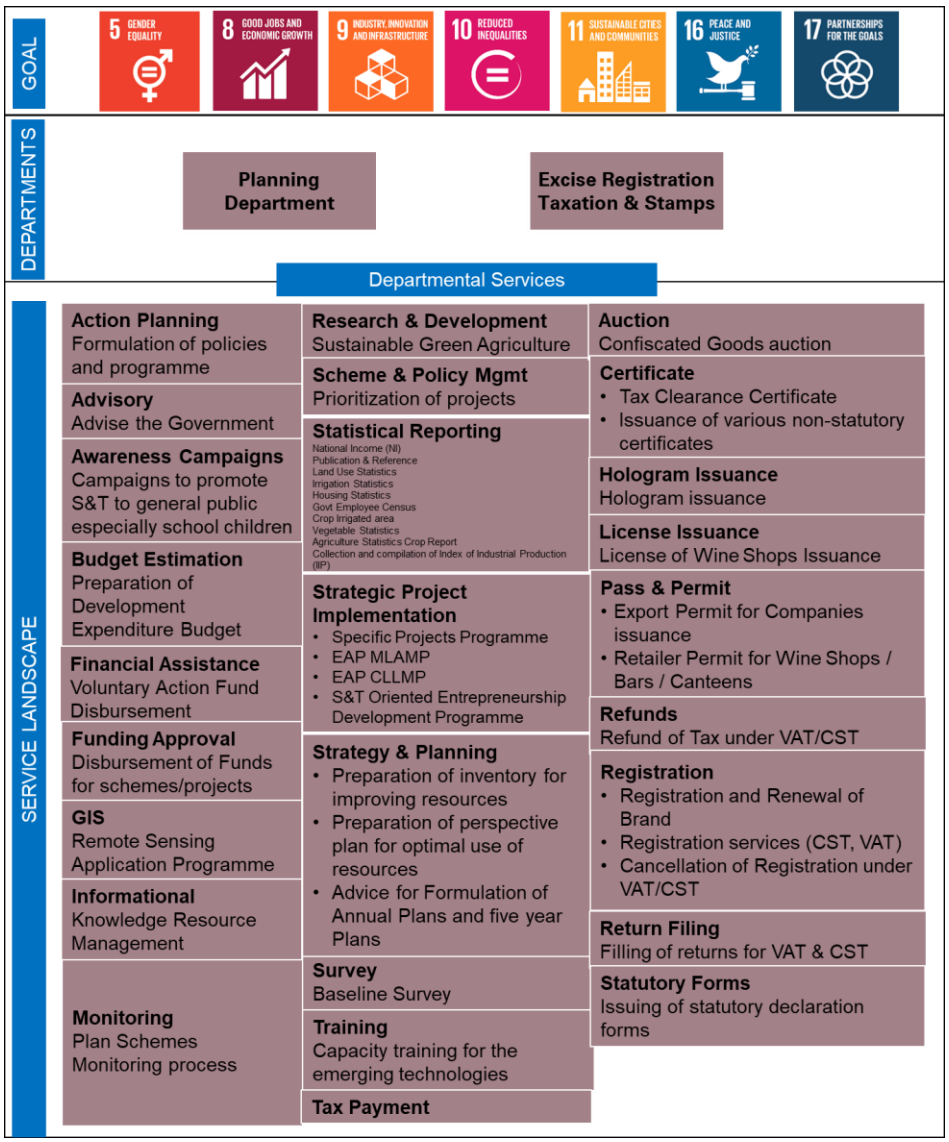

3.5.1 Service Indicator Mapping

UN has identified 17 sustainable development goals and the targets to be achieved by 2030. These identified targets have been mapped to indicators which are realistic and measurable criteria to monitor the progress of achieving targets. Meghalaya has adopted **55** indicators to measure and monitor the progress of targets linked to Governance, additionally as per the function of the pillar it

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would monitor several other pillars. The indicators have been finalized in Vision and Scope of Meghalaya Enterprise Architecture. The services provided by the contributing departments has been mapped to the indicators for achieving targets. The identification of key services mapped with listed indicator under each Strategic Pillar is based on the steps below:

1. Service outcome must have a direct impact to the indicator;
2. Key monitoring of the indicators of defined in other pillars
3. Service delivery efficiency can impact the indicator's target achievement milestones;
4. Services that are inter-linked to the service that has been mapped in the above two criteria.

The detailed service to indicator mapping is provided in Annexure 9.7

3.5.2 Current State Assessment and Service Prioritization

The departments contributing to Governance Pillar has many bottlenecks in service delivery and monitoring. It is imperative that such service delivery challenges impact the service delivery to its citizens/ businesses. As most of the services delivered by Governance are in manual mode with only GST services and payments being fully in online mode, Current state DSS assessment for the services is **Low** to **Medium** except payments and GST services. The illustration for service maturity is as below:

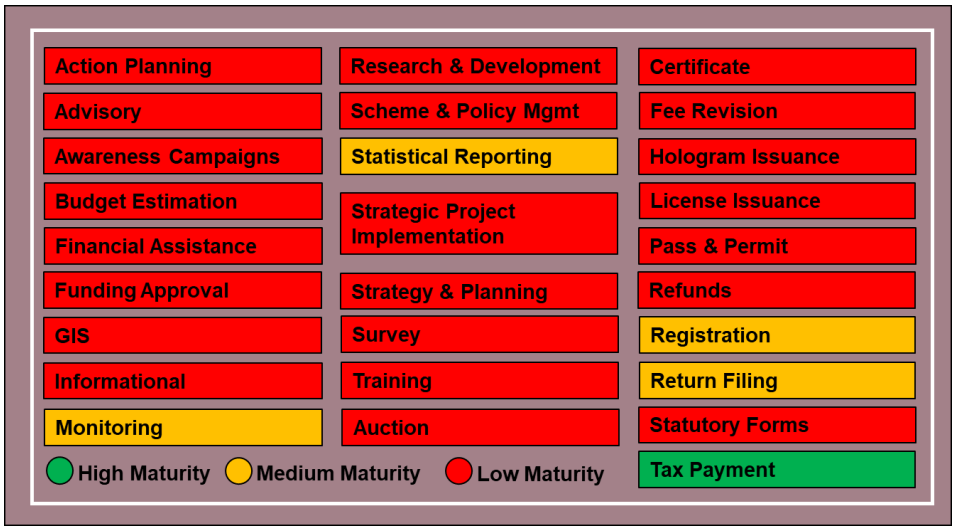

Figure 7: Governance Pillar- Service Assessment

Summary of Current State Assessment:

- Service objective are not SMART, the service delivery is not outcome oriented. Service personalization, service visibility and service scope are largely ad-hoc with no clear aspiration for improvement
- Service BPR, ease of delivery and service facilities have not been undertaken. Only a few of the department stakeholders are aligned to the service delivery.

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- Service UI and UX are primitive, service is limited to few delivery channels and hence, creates a gap in realization of intended service value. Paper trails gains traction and replaces digital services for ease of delivery

Please refer Annexure 9.8 for detailed assessment result along with the level of complexity in implementation and value to stakeholders. Please note the following pointers related to complexity of implementation.

Complexity of implementation is a function of the following parameters; these parameters are not exclusive.

- External stakeholder involvement in the service delivery process.
- Process-role has variability depending on the service request, the variability may arise due to various factors such as scheme funding from central government.
- No other similar implementation has been observed.

Please note the value to stakeholders have been derived from the strategic indicator mapping.

3.5.3 Government Performance Score Card

Meghalaya Government Performance would be primarily be based on:

- SDG Indicator tracking
- Good Governance Indicator tracking
- Process Improvement
- Technology Utilization
- Organizational Improvement

Below is a graphical representation of the performance score card at State level

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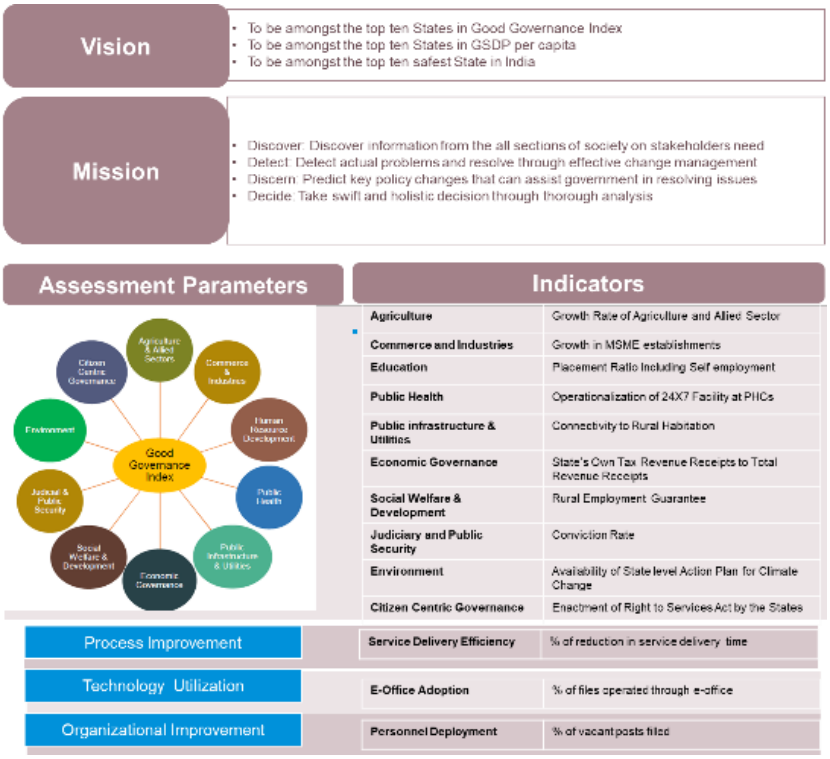

Performance Score Card – Indicators

Below is the list of indicators that needs to be tracked for Government Performance Score Card. It is to be noted that, SDG Indicators have been purposefully eliminated from the list to ensure there is no duplicate indicators between the two assessment

Assessment Area	Indicator
Agriculture and Allied Sectors	• Extent of coverage of Irrigation as part of Pradhan Mantri Krishi Sinchayi Yojana (PMKSY) • Extent of crops insured by farmers in the states under Pradhan Mantri Fasal Bima Yojana (PMFBY) • Ratio of soil samples collected to the number of soil health cards issued by the states under Soil Health Cards scheme • Total area expanded under Horticultural crops and senile gardens as part of NHM • Wholesale regulated markets in the state linked to eNAM (National Agriculture Market) • Extent of Rainfed Area Development promoted by the states as part of National Mission for Sustainable Agriculture • Adoption of Paramparagat Krishi Vikas Yojana by the states • Quantum of agricultural and horticultural commodities procured by the states as part of Market Intervention Scheme (MIS)

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Assessment Area	Indicator
Livestock & Fisheries	• Increase in fisheries production by enhanced usage of technology in fresh-water pond culture • Increase in milk production
Judiciary and Public Security	• Cognizable offences registered by police against the complaints received • Charge sheets filed against FIRs registered • Conviction Ratio • Access to police stations (per 10,000 population) • Disposal of court cases • Legal Aid committees functioning periodically
Economic Governance	• Revenue Deficit/surplus as a Percentage of GSDP • Fiscal deficit as against FRBM norms • State-own Revenue receipts as a percentage of total Revenue receipts • Capital Expenditure to total expenditure • Utilization of central funds by the states • Unemployment rate • Eligible Population with JANDHAN bank accounts
Commerce and Industry	• Increase in Industrial production • Increase in no. of industry establishments • Increase in the Start-up Incubators under Start-up India program • Approvals given for Industrial Establishments under Make In India program
Social Welfare	• Scholarships for Pre-Metric, Post Metric and higher education scholarships awarded • Social Welfare Hostels capacity to that of eligible population • Sex Ratio at Birth (Beti Bachao, Beti Padhao) • Average days of work provided per household under MGNREGA • Work Completion Rate under the scheme MGNREGA • Fund utilization of Matritva Sahyog Yojana Programme • Percentage of social welfare expenditure to total expenditure • Proportion of Homeless Population • Proportion of Housing Subsidies • Stamp duty Levied on Subsidised Housing • Farmers receiving Minimum Support Price within the stipulated time • Digitization of Beneficiary Database • Computerisation of Fare price shops • Eligible households using PDS • Manual Scavengers reported by the States
Human Resource Development	• Rural Population having facility of a school within 3 kms • Schools with drinking water facility • Schools with Girls' Toilets • Public Expenditure on Education as Percentage of Total State Government Expenditure • Enrolment in various Disciplines at Ph.D. & Post Graduate level in Higher Education • Enrolment in various Disciplines at Under-Graduate level in Higher Education • Number of Colleges per Lakh Population • Skill Development Utilization of Pradhan MantrI Kaushal Vikas Yojna (PMKVY) funds by the states • Extent of coverage of SEEKHO AUR KAMAO Number Employment exchanges linked to national career centres • Placement rate under DDUGKY program • Utilization of STEP programme funds for empowerment of women • Apprenticeship trainings conducted through Apprentice Prothsahan Scheme

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Assessment Area	Indicator
	• Accessibility to Primary Health Care (No. per 30,000 Population) • Accessibility to Community Health Centres (CHCs) (No. per 30,000 Population) • Operationalization of 24X7 Facility at PHC Percentage • Availability of Sub-Divisional / Area Hospitals • Availability of Mobile Medical Units • Utilization Ratio of National Health Mission Fund • Per Capita Expenditure on Health by State Government • Public Health Expenditure as Percentage to GSDP • Contraceptive Prevalence Rate • Institutional Deliveries • Subcentres without ANMs or and health workers (M)
Public Infrastructure & Utilities	• Incidence of water borne diseases in a year • Road Density per 1000 sq.km • Budget utilization for the construction of roads • Increase in the additional power generation capacity with Life Extensions, Renovation & Modernisation of Power Stations and DISCOMS program
Process Improvement	• Percentage reduction in service delivery time • Percentage of services delivered within defined service SLA
Technology Utilization	• Number of services delivered through digital channels • Adoption of e-Office • Adoption of other key technology solutions
Organizational Improvement	• Deployment of police personnel • Deployment of women police personnel • Vacancies of Health Care Staff Percentage • Vacancies of Specialists at CHCs Percentage • Vacancies of Paramedics at PHCs & CHCs Percentage • Vacancies of Doctors at Sub-Divisional and District Hospitals • Vacancies of Para Medical Staff at Sub-Divisional and District Hospitals Percentage • Percentage of staffs successfully completed assigned trainings

Operating Model for Performance Score Card Review

The operating model of the Governance performance review would primarily be a three-tier model:

- **Block Level**: At this level, nodal officers from different departments would collect data in digital devices for the performance score card of the block. Data entry would be executed by block level nodal officers from Agriculture, Social Welfare, C&RD, Health & FW, Education, PHE, PWD, Home(Police), C & I. The competition and quality checks would be derived by the Block Development Officer
- **District Level**: At district level, the task would be primarily about coordinating data entry for blocks. District Commissioner would call for quarterly review meeting to ensure data entry completion. The coordination and data collection reporting would be performed by District Planning Officer
- **State Level**: At state level, data for all blocks and districts would be reviewed through BI enabled dashboards. A meeting would be called by Secretary, Planning department and all district commissioners to review and analyze situation

Necessary Government Order for committee formation needs to be issued in this regard

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Below is a snapshot of the same

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3.6 The Governance Pyramid

The Governance (Cross-cutting Pillar) consists of three key stages – Planning, Revenue and Monitoring & Evaluation.

- Strategy – The strategy stage is about deriving state's strategy for schemes and funding areas
- Planning – Planning deals about resources(fund) plan outlay, awareness, reporting and decision making that is aligned to the strategy
- Monitoring and Evaluation – This stage is about data collection and representation to enable plan monitoring

The illustration for the same is as below:

Figure 8: Government Pyramid Layers

The Pyramid of Governance has been though basis service domains and cycle of authority of the pillar:

- **Planning**: The planning stage includes strategy formation that majorly includes resource(funding) strategy, identification of funding sources, application for loans and advances. Planning also involves approval for funding application, statistical reporting, publication of analysis reports, awareness of new technological intervention and adoption program for new technology.
- **Revenue**: The revenue stage includes services involving state own revenue collection through tax payment, license fee collection, permit issuance and fee collection and other similar service.

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- **Monitoring & Evaluation**: The stage includes monitoring of all service delivery outcomes for all Strategic Pillars of the Government. The is detailed in next section

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3.7 Future State Service Portfolio

The services prioritized based on current state assessment, implementation complexity and value to stakeholder are considered for conversion to digital services first. New services, which are not currently offered by the departments in Governance Pillar, are proposed to be delivered to beneficiaries by the departments. The services need to be deliberated and eligibility need to be defined by the departments. The rationalized services (Prioritized and Non-Prioritized) along with new services constitutes Future State Service Catalogue (Annexure 9.9). Further, these services are listed department wise along with service domains which can be seen on below links:

Planning Department

Excise Registration Taxation & Stamps Department

3.7.1 Service-Stakeholder Matrix

Governance Pillar services involve several stakeholders. Various external entities have a role to play in the service delivery process. Below is a snapshot of the service – stakeholder matrix. This matrix details out a high-level view of the services, to understand, the various key entities involved in the services delivery, please refer Annexure 9.10 for Service-Stakeholder matrix

- **Approval and Issuance**: The responsible department receives the service request, conducts internal checks and controls and further decides to approve/ reject the service request.
- **Apply for Service**: The citizen/ business applies for the service to get the certificate/ registration/ desired outcome.
- **Collect Payment**: The responsible agency helps in collection of payments through different means including offline challans and online payments.
- **Issue Refund**: Issues payment as refund in the account of taxpayer or through cheque.
- **Payment**: Payment is made by the business entity for clearing the dues to the state. The payment is made either through the manual challan or through e-challan in GRAS system.
- **Reconciliation**: Reconciliation is process of checking the status of payment due and payments done by the taxpayer to check compliance.
- **Facilitates**: The facilitator is one who provide platform to the taxpayer to perform a specific function.
- **Monitor**: Monitor the progress of the scheme/ project.
- **Audit**: The responsible department has the responsibility to do a systematic and independent examination of the information/ documents provided
- **Funding**: The agency providing the financial support for implementation of various schemes.
- **Transfer of Funds**: The agency processes service request to transfer money.
- **Sale**: The agency responsible for sale of produce, livestock or product.
- **Procure and Distribute**: The agency responsible to float tender, choose vendor, place order and get stock and finally distribute to the applicants.
- **Provide Training**: The agency responsible to provide training to the farmers, employees or applicant.
- **Approval of Proposal**: The agency responsible for providing approval on the proposal of scheme submitted to the department.

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- **Issuance of Sanction, LOA and Funds:** Agency responsible to issue sanction as per the approved proposal and issuance of Letter of Approval for withdrawal of Funds for implementation of scheme.

Stakeholders, their Roles & Responsibilities:

Farmers, Citizens and students apply for various service to Departments of Governance Pillar. Agriculture, AHVT and Fisheries Departments majorly plays the role of approver for these services.

Stakeholder	Brief about roles & responsibilities
Businesses/ Citizens/ NGOs	• Applies for various services like registration, amendment, cancellation, certificates etc. • Files returns with department for the business they are doing. • Makes payments for the dues as per the returns. • Applies for financial assistance.
ERTS Department	• Taxation department conducts audits of the businesses • Conducts assessment of the returns filed by the taxpayers • Issues Certificates and approvals on various forms • Checks Compliance and issues refunds • Issues permits for liquor import/ export.
Finance Department	• Collects payments through GRAS system. • Provides Funding for various schemes and projects. • Provides Sanction and LOA. • Approves Refund amount.
Government of India (GSTN)	• Facilitates for GST Registration, Amendment, Cancellations etc. • Facilitates for filing of GST returns • Facilitates payment collection of GST. • Assists for funding of External Aided Projects, Ministry of DoNER, NEC, NABARD, MoTA.
Planning	• Provides training and awareness sessions. • Conducts various Science and Technology projects. • Prepares Development Expenditure Budget. • Monitors progress of various projects in the state. • Conducts various economic surveys in the state.
CAG/ AG	• Conducts Audit of funds provided for various purposes to the departments.

Table 4: Stakeholder – Role Matrix

3.7.2 Future State Business Interaction Matrix

The departments in Governance Pillar consumes business services from other departments in State

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Government and provide services to other departments in State Government.

These business interactions have been captured in Section 3.2.3. As the objective is to provide One Government experience to citizens, thus the departments are grouped together based on sectors to form pillars. The interactions in future state between the pillars are captured in below diagram for better illustration:

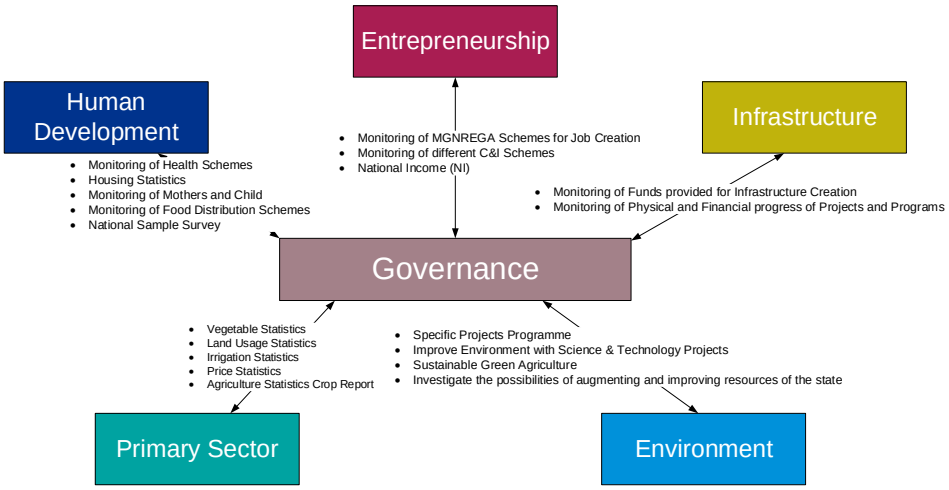

Figure 9: Future State Business Interaction between Pillars

Refer section 9.15 for detailed Future State Business Interaction Matrix

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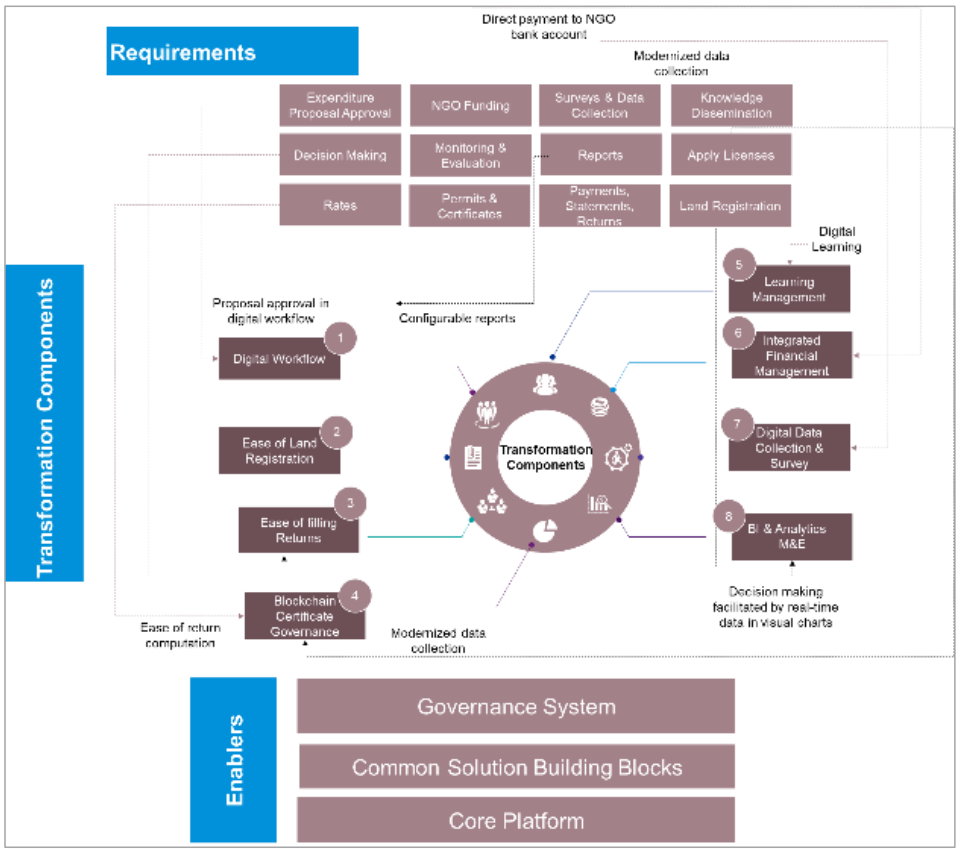
3.8 Business Transformation Requirements

The governance pillar is a cross cutting pillar which plays a major role in monitoring the service delivery whereas there are no defined procedures for the same. In Excise, most of the processes are manual and procedures for tracking the stock are not there thus leading to revenue loss to the Government.

This transformation should be considered as join responsibility by the state and the development agency by introducing various reforms addressing the challenges discussed above and in Section 3.3.

Below figure illustrates the transformation plan for Governance Pillar:



Transformation Components:

1. **Digital Workflow**: All schemes (existing and new) would go through a digital workflow approval process. The scheme DPR would be facilitated through digital system comprising of customized templates. Please follow the future state process model for Scheme Approval

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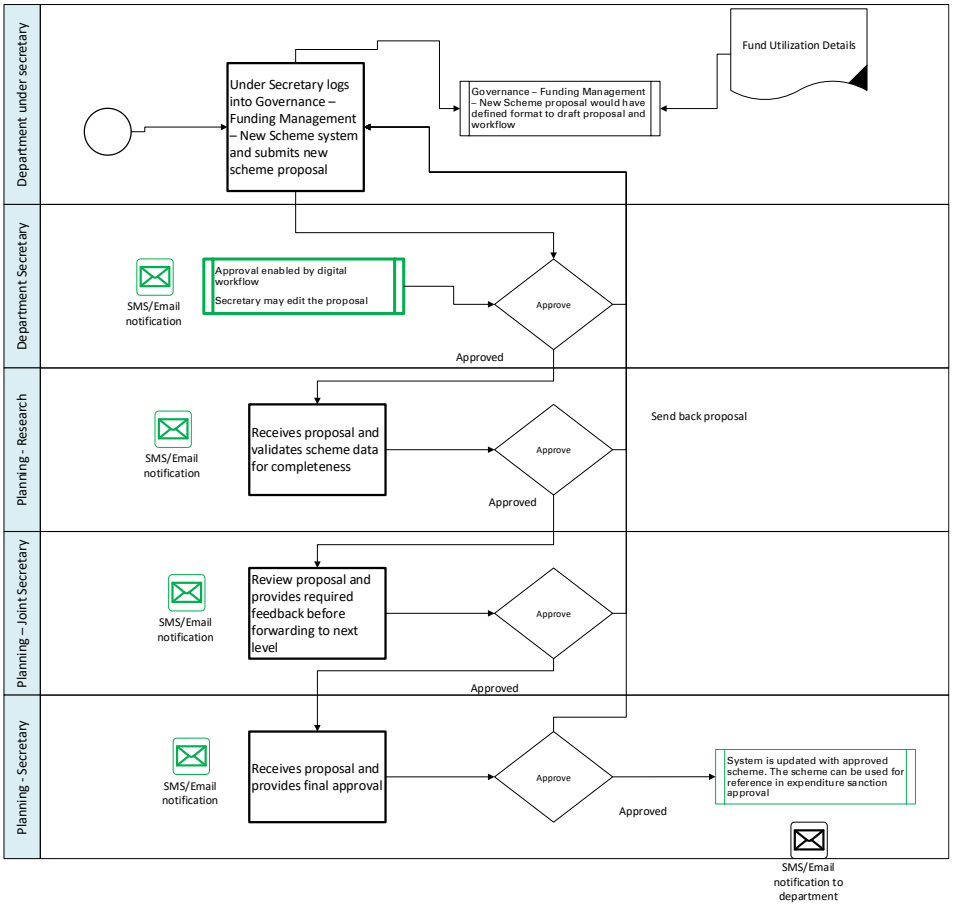

2. **Ease of Land Registration**: Lands registration to follow digital land record management process. MeghEA proposes to include a Digital Land Master Hub, that would comprise of GIS based land records managed with corresponding land owner recorded in the Digital Land Master Hub, mapping State Digital ID with land records.

   The Digital Land Master Hub envisions following benefits:

   1. **Land owners data** : This would enable identification of land owner basis State Digital Id. The privacy of the owner would be restricted by the security policies applicable to State Digital ID
   2. **Land Usage/Purpose**: The current categorization of the land would be recorded – Agriculture land, Urban/Rural residential land, Government Land, Industrial Land, etc.
   3. **Land Identifier**: GIS ID of the land would be used to uniquely identify the land parcel

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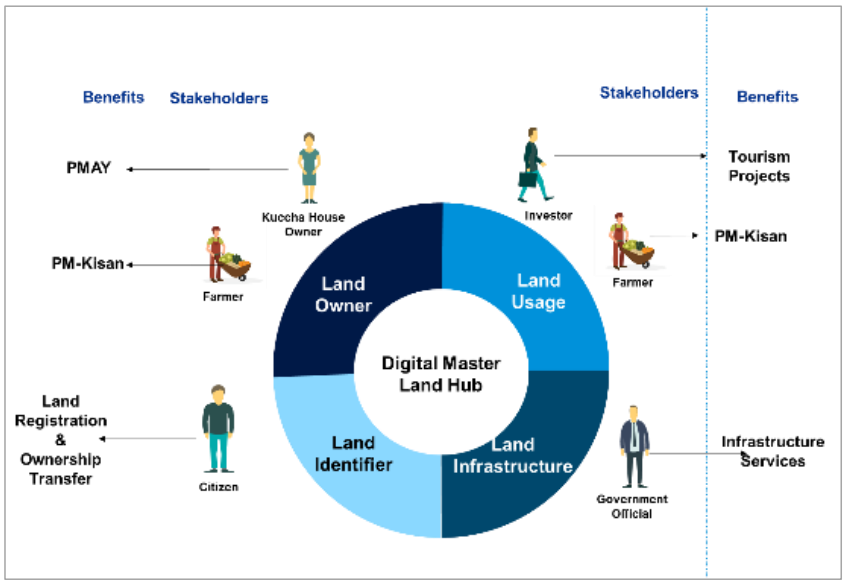
4. **Land Infrastructure**: Details of Government infrastructure such as water pipes, schools, bridges, roads



3. **Ease of filling of Returns:**

   Return fillings to be ease through digital channels with following features:

   - Automated calculations
   - Digital Payment
   - Direct Refund Transfer
   - Alerts and Notifications

4. **Blockchain Certificate Governance:**

   Everyday citizens of Meghalaya use certificates, which are electronic cards or digital equivalents of existing identity cards, while interacting with websites, e-commerce portals, banking sites, government agencies, etc. With the advancements in blockchain technology it is now possible to store academic certificates, birth certificates and other important certificates digitally and retrieve them securely and independently anywhere. Meghalaya Government Blockchain endeavors to eliminate the need for certificate through blockchain based authentication

   The digital certificates network will use a MeghEA blockchain, with the government, issuing institution, third parties and the citizens as nodes. The actual certificate will not be stored on the blockchain, instead the hash of the certificate along with State Digital ID of the citizen will be immutably stored. A certificate issuer will sign a well-structured digital certificate and the hash will be stored within a blockchain transaction. The output of this transaction will be assigned to the corresponding citizen's digital ID, which will allow him/her to prove

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ownership of the certificate at any time

Additionally , for future retrieval the certificate would be stored in DigiLocker.

The certificate issuance process would go through following transformation:

- **Stage 1 (Simplification):** Use of transcripts, blockchain based certificates and Digital Certificates in DigiLocker for verification and validation
- **Stage 2 (Elimination):** Certificate Less Governance, in this case certificates would no longer be required rather API based data would be shared across different data stores to verify authenticity and information based on State Digital ID , as done in certificate-based verification. In this stage, requirement of certificate(physical) copy would be highly discouraged through high charges. The data verification would primarily be executed through mobile app, barcodes, QR codes

Following are the certificates that are planned to be included under this paradigm:

Certificate/License/Permits	Issuing Authority	Short term Strategy
Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	Excise, Registration Taxation & Stamps Department	Stage 2 – eliminated through data verification from 2D Barcodes
Retailer Wine License	Excise, Registration Taxation & Stamps Department	Stage 2 – eliminated through data verification from 2D Barcodes
Wine Shops/Bars/Canteens Permits	Excise, Registration Taxation & Stamps Department	Stage 2 – eliminated through data verification from 2D Barcodes
FPS/ SK Dealer License	Food Civil Supplies & Consumer Affairs	Stage 2 – eliminated through data verification from mobile app
Ration Card	Food Civil Supplies & Consumer Affairs	Stage 2 – eliminated through data verification from State Digital ID and mobile app
License (Retail, Wholesale, Loan) for Drugs/ Homoeopathic/ Ayurvedic Medicines	Health & Family Welfare	Stage 2 – eliminated through data verification from 2D Barcodes
Licensing of Food Business Operators	Health & Family Welfare	Stage 2 – eliminated through data verification from 2D Barcodes
Birth/ Death Certificate	Health & Family Welfare	Stage 1 – simplified through DigiLocker
License of Nursing Homes	Health & Family Welfare	Stage 2 – eliminated through data verification from 2D Barcodes
MHIS E-Card	Health & Family Welfare	Stage 1 – simplified through DigiLocker
Admit card of SSLC and HSSLC Examination	Education	Stage 1 – simplified through Blockchain
Duplicate Reg. Card, Admit Card,	Education	Stage 1 – simplified through

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Certificate/License/Permits	Issuing Authority	Short term Strategy
Marksheet and Certificate		Blockchain
MBOSE Online Submission for Documents Verification	Education	Stage 1 – simplified through Blockchain, DigiLocker
Block level teacher award Certificate	Education	No Simplification proposed
Online Education Transcripts	Education	Not applicable
Transport fitness certificate	Transport Department	Stage 1 – simplified through 2D barcodes
Licensee to operate Pollution Testing Stations	Transport Department	Stage 1 – simplified through 2D barcodes
Mining leases	Forest & Environment Department	Stage 1 – simplified through 2D barcodes
NOC to set up timber depot	Forest & Environment Department	Stage 1 – simplified through 2D barcodes
Mining Leases	Forest & Environment Department	No simplification proposed
Forest clearance certificate	Forest & Environment Department	No simplification proposed
NOC for setting up of Stone Crushers in Meghalaya	Forest & Environment Department	No simplification proposed
Non-Forest Land Certificate/ NOC	Forest & Environment Department	No simplification proposed
NOC to set up Furniture unit	Forest & Environment Department	No simplification proposed
Permit	Mining & Geology Department	No simplification proposed
Job Card	Community & Rural Development	Stage 1 – simplified through Blockchain, DigiLocker

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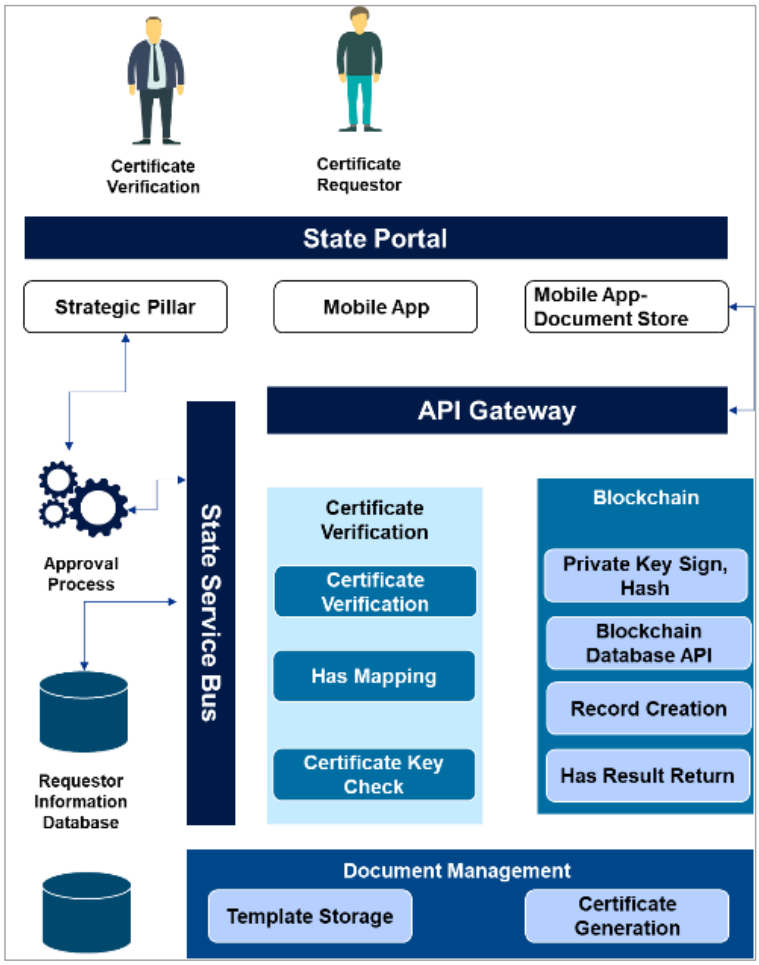

5. **Learning Management (LMS):** State Government would enable stakeholders with digital learning modules and content accessible from mobile and desktops. The LMS would enable following stakeholders

   - Department officers
   - Anganwadi workers
   - ASHA workers
   - NGOs
   - Other field officers

6. **Integrated Financial Management:** Refer Finance Solution architecture for details on Integrated financial management system

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7. **Digital Data Collection & Survey:** All data collection from field is to be enabled by digital apps that would work in poor network conditions
8. **BI & Analytics – M&E**: Refer SDG Dashboard requirement in section 4.5 for details

For transformation, variety of Game Changers should be introduced along with Process Re-engineering, as described below, but not limited to the same.

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3.8.1 Game Changers

Game Changers make a qualitative difference the way services are delivered and/ or introduce new technologies or processes for enhancing the outcomes significantly. The Game Changers proposed for Governance Pillar are as below:

- **Barcodes**: Introducing Barcode for Excise Supply Chain can be a game changer in way Excise Department works. Through use of 2D barcodes, all stock units can be uniquely tagged and tracked in the supply chain in real time. All stakeholders (including Government and Private) can use these barcodes to track the stock units and their movement from manufacturer to retail units including records of inventory. This can help in curbing illegal production of liquor, can help in more government revenue collection and consumer safety by controlling the quality of products in the marketplace. Mobile apps and website should be enabled for tracking through barcode number. Payment of tax under VAT/CST services would be highly benefited from such technology intervention

  Case Study: Delhi has QR/Serial Number in the label along with app to authenticate liquor and Uttar Pradesh has rigid barcoding to prevent such illegal practice
- **Big Data in Planning**: Big Data powered by advance analytics can provide ultra-early detection of economic issues, reduce false positives and empower authorities to run scenario models enabling them in better policy formation and planning. Planning department collects a number of statistics such as:
  - Land Use Statistics
  - Irrigation Statistics
  - Crop Cutting Experiment
  - National Income (NI)
  - Housing Statistics
  - Govt Employee Census
  - Crop Irrigated area
  - Vegetable Statistics
  - Price Statistics (Retailer)
  - Agriculture Statistics Crop Report

  Combining all these into business models can facilitate key interventions that are required from the Government side such as:
  - Market price control
  - Key economic stimulus to distressed farmers
  - Inflation control.

  Case Study: Japan. The Japanese government has initiated several programs to use accumulated large-scale data. From 2005 to 2011, the Ministry of Education, Sports, Culture, Science, and Technology (MEXT), in association with universities and research institutes, operated the New IT Infrastructure for the Information-explosion Era project (the so-called Info-plosion).
- **Use of Drones**: Drones are continually proving to be powerful commercial tools, simultaneously providing adopters with leaps in efficiency and safety. The surveying and mapping industry are no exception. Drones in Meghalaya can particularly use for land mapping however, for planning department land use statistics can be easily achieved through drones. Also following maps can also be derived from drones:

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  - 2D Orthomosaic
  - 3D Orthomosaic
  - Thermal Maps
  - LiDAR point cloud

  Case Study: UK Government has been delivering food and medicines in Covid-19 lockdown period using drones

- **NGO Profiling**: Use of analytics to profile NGOs to prevent them from registering using different entity or members owing to suspension of first case because of fraud related findings. The circular profiling would greatly enable the department to prevent frauds and suspend suspectable NGOs.
  Case Study: IRS (USA) has been using analytics to detect financial frauds using such circular profiling
- **Predictive Analytics in Scheme Management:** The potential benefits of predictive analytics in scheme management are many; including more effective decision making, more efficient decision processes, and less biased decision-making. There are also risks and challenges that must be adequately considered. Combining external data such as economic health of the country, weather prediction and internal factors such as Government's focus towards the scheme's objectives, scheme benefits as of now, etc. predictive analytics would be able to predict the funding requirement for next year using predictive modeling.
  Case Study: DISHA Dashboard brings data from 42 flagship government schemes to one place for the first time. This helps government officials at all levels explore and assess key government initiatives for any geographic level, at any time period. The dashboard is further getting enhanced with predictive capability
- **Blockchain**: The land has often been at the epicenter of disputes, crime, and fraud. Land Deeds not only provide critical protection for buyers in developed nations but also serve as a basis for investment and economic growth across many developing nations. By securing a unique and non-corruptible record on a blockchain and validating changes to the status of that record across owners, a reliable land record using blockchain can be created. Blockchain is attracting the attention of many state governments for recording land titles since it can provide a platform to record mutations, digitization of maps, integration of textual and spatial data, survey/re-survey and provide an update of all survey and settlement records in a secure, immutable and tamper-proof manner. Further, Land registration process is highly manual and paper-intensive and involves multiple government bodies for verification and authentication. Land title transfer involves repetition and duplication of processes, thus resulting in high processing time and cost. A blockchain based solution will be a good fit to bring robustness and digitization to the entire process as it brings all the layers on a single platform with distributed ownership rights. This provides transparency, automated verification and irreversible trail of title transfer; thus, blockchain enables faster, secure and cheaper mode of asset registry maintenance and taxation.
  Case Study: emBlock which is based on a Hyperledger Fabric has developed by eMudhra, eMudhra was established in 2008 and is a Certifying Authority in India and Mauritius to issue Digital Signature Certificates

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3.8.2 Game Changers – Strategic Indicator Mapping

The game changes defined above would help Government of Meghalaya in the following ways:

Game Changer	Strategic Indicator What to achieve?	Capability Increment How to achieve?
Barcodes	Proportion of domestic budget funded by domestic taxes Annual growth rate of GSDP per capita	• Monitoring & Evaluation • Collection • Computation
Big Data in Planning	Food Grains Production Growth in MSME establishments Growth of Industries	• Progress Tracking
Use of Drones	Food Grains Production Change in Forest Cover	• Physical Inspections
NGO Profiling	Annual growth rate of GSDP per capita	• Scheme Management
Predictive Analytics in Scheme Management		• Scheme Management
Blockchain	Certificate less governance(not a goal)	• Resource Strategy

Table 5: Game Changers – Strategic Indicator Mapping

3.8.3 BPR Opportunities Identification

No e-Governance initiative will produce desired impact unless it is accompanied by Business Process Re-engineering. The areas for process reengineering have been identified to simplify and eliminate the processes not adding value to the flow and integrate the service delivery. Process re-engineering and form re-engineering must be carried out at the time of implementation.

- **The As-Is process steps**

  Please follow annexure on as-is process steps for the services as provided by department stakeholders in MeghEA Portal

- **The service list for BPR:**

  Please follow the list of services that needs process re-engineering in section 9.8

- **The Use Cases for Services:**

  The architecture use cases for prioritized service is detailed in section 8.1, these use cases would form the basis of system and process design.

- **The System flow illustration**

  The implementation of services would need a specific system flow, this is detailed in section 8.2. Please follow the section for details on how to design the system basis of high-level process flow.

How to execute BPR

The areas identified are elaborated as below:

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- **System Redesign in Business Centric Way**: The services related to ERTS should be made online through a single portal along with mobile app. The usability should be designed keeping accessibility across devices and UI as priority.
- **Form Re-engineering**: The forms should be simplified removing any duplicate and unnecessary fields not required for the purpose of delivering the service. Only the data fields required to check eligibility and deliver effective services should be kept in the application form. The below principles need to be kept in mind for this purpose:
    - All businesses to be issued Business ID as a unique ID linked to PAN. The basic details provided while getting Business ID should not be asked again in any of the service forms. The data captured first time while registering on State Portal should not be asked in the form and should be pre-populated in online forms.
- **Business Process Reengineering**: The To-Be steps for services defined in Future State Service Catalogue should be defined for implementation. Below principles need to be kept in mind for BPR of the services:
    - Simplified steps to apply for a service.
    - Elimination of process steps not adding much value to the service flow.
    - Common form for multiple services to be availed together.
    - Multiple channels to apply for service.
    - Online Acknowledgement of the service with tracking.
    - Any type of financial assistance to be provided in beneficiary account.

As a result of game changers and business process reengineering implementation, the State-wide Building blocks would be consumed by the departments under Governance Pillar.

- The business capabilities of the departments would be enhanced by various Common Solution Building Blocks.
- The Core Building Blocks would provide technical (IT Capability) to facilitate departments to deliver their services.

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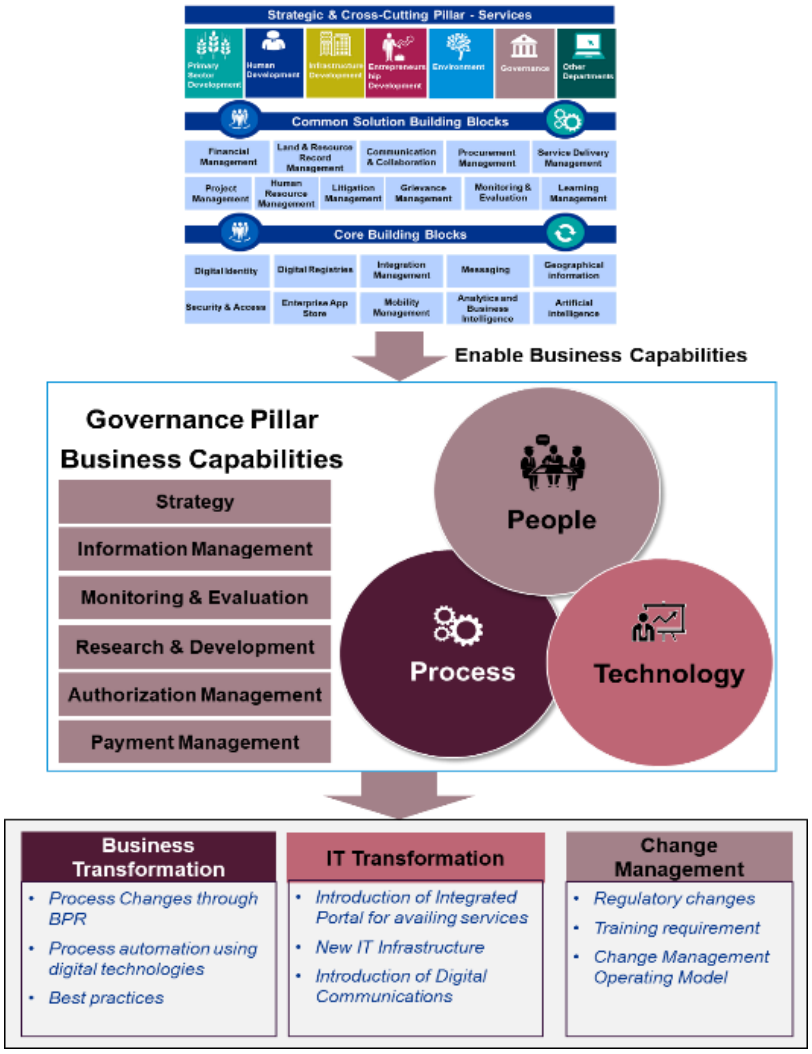

Figure 10: Business Capability to Transformation Linkage

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3.8.4 Regulatory Changes:

The changes as per redefined processes for the services need to be carried out in the respective acts and rules of the departments. The identified Acts for regulatory changes are listed below:

Changes in definition of a "NGO Qualification"

Guidelines of Voluntary Action Fund

- New guidelines - an NGO must provide a GST to be eligible for voluntary fund transfer from the Government, irrespective of another act exemption. This GST would act as the identifier of the NGO
- All NGOs must register themselves though digital channels provided by the state to avail voluntary action funds
- All existing registration forms needs to be eliminated
- NGO registration SOP, needs to be published

Guidelines of NGO disqualification

- Guidelines for NGO disqualification needs to be published
- Guidelines MUST specify the criteria for disqualification
- GST number needs to be marked post disqualification

Changes in Budget Outlay and Introduction of Outcome based Scheme Approval

Meghalaya Budget Manual

Following changes are required:

CHAPTER VII: New Expenditure – Proposal for new expenditure

Current Rule

- Rule 34(VIII) (c) of the Assam Rules of Executive Business requires the Finance Department to examine and advise on all schemes of new expenditure and to decline to provide in the estimates for any scheme which has not been so examined.

Modified Rule

- Planning department to examine and advise on all schemes of new expenditure and to decline to provide approval on scheme outlay submitted by department

Government Order on Scheme Approval

New order is required on scheme approval for all existing and new scheme basis outcome-based scheme monitoring process. The approval authority would be planning. Refer section 3.6 **Digital Workflow** for details

Changes in Excise service procedures

The Meghalaya Excise Amendment Rules

New amendment is required for change in standard operating procedures for following services

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- Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.
- New Registration, Amendment and Renewal under CST/VAT
- Issuance and renewal of License
- Issuance of various non-statutory certificates
- Registration and Renewal of Brand
- New Registration, Amendment and Renewal under GST
- Retailer Permit for Wine Shops/Bars/Canteens
- Hologram issuance
- Payment of License Fee

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3.9 Future State Business Architecture

The objective of MeghEA, related to Governance pillar is to **connect** the service delivery points to the service beneficiaries, ensure **collaboration** within and outside the departments, and **empower** beneficiaries by providing control back to them.

The diagram below describes the future state aspiration of MeghEA for Governance Pillar:

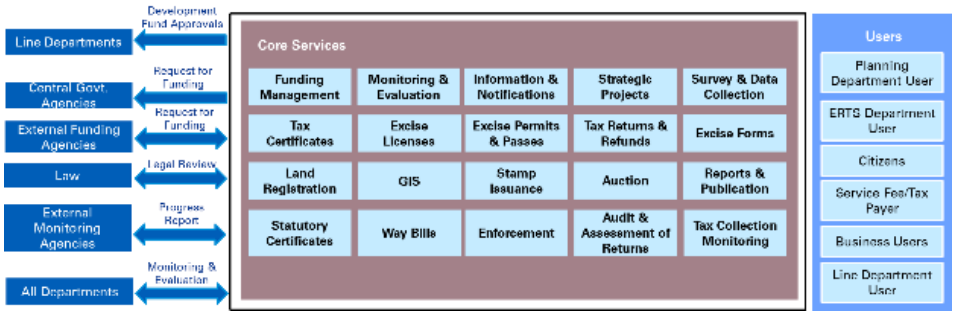

Figure 11: Governance Pillar - Future State Business Architecture

The core services, common services and management services constitute the architecture building blocks. The success of 'MeghEA' vision depends on its holistic approach, communication, and meticulous execution of the above building blocks to ensure the expectations meets the desired objectives.

Subsequent sections would determine the solutions to realize the above building blocks using applications, data, technology and security. It is imperative that each of the above building blocks be delivered through standard architecture methodology. The solution requirements to develop the above building blocks would follow a prioritized roadmap, basis of the government's priority. Hence, the realization of benefits would take a while however, the success measurement must be followed during the execution of the project.

To measure success, a similar approach must be followed to design solutions around the building blocks. As an illustration, digital service developed must adhere to the Digital Service Standard, the assessment framework must be followed to ensure all tenets are well covered for each service such as the service must have business process re-engineering executed before implementation.

Below is the future state business architecture, depicting the service domains and services under each domain in Governance pillar

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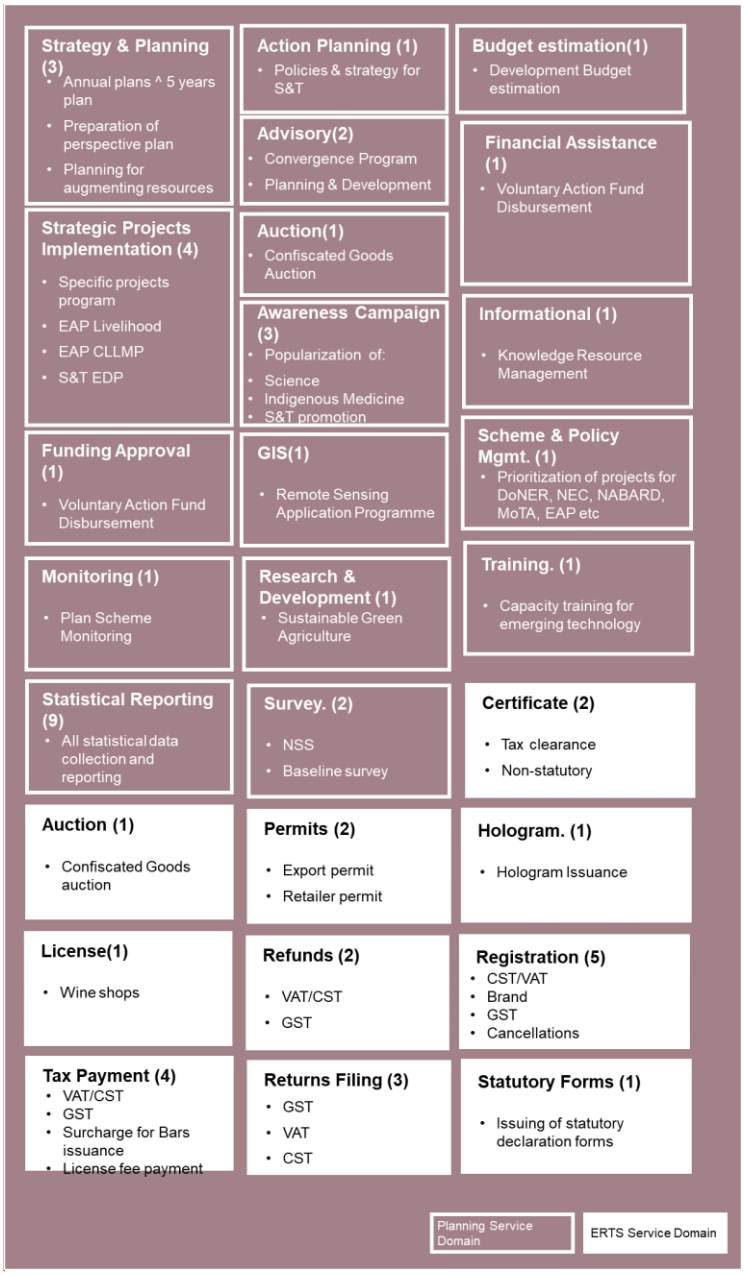

Figure 12: Future State Business Architecture

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3.10 Stakeholders Benefit

Considering, the limitations in resources, data collection channels and service delivery centers, and other physical delivery points it is imperative that a plan to bolster the Governance is very much needed to realize the ambitious vision that has been stated

The envisaged benefits from implementation of this detailed architecture is illustrated below

Value to Government

- Ease decision making on development expenditure through best in-class data reporting using visual charts, graphs and insights. Enable Government machinery to focus investment on areas that requires Government intervention
- Approval of schemes before budget streamlined and progressive through **Outcome oriented** budgeting
- Monitor progress of schemes, programs and initiatives through real-time and integrated data from various systems and data sources
- Collect statistical data from various sources using state of art data collection technology tools that is easy to configure and use
- Provide insights to facilitate decision making on State's expenditure and revenue
- Ensure **ZERO revenue leakage** through controls and checks in tax collections and license issuance

Value to Business

- Enable ease in obtaining licenses, permits and certificates for businesses that is under the purview of Excise
- Ease submission of statement, payment of taxes and resolution of disputes on tax related matters to ensure transparency and eliminate bottlenecks
- Empower businesses through connected government apply, amend and process licenses, payments and permits
- Enable registration of land through simple and lean processes using digital technology to track and store land records

The diagram below describes how the benefits to stakeholders are connected to the overall mission of the cross-cutting pillar

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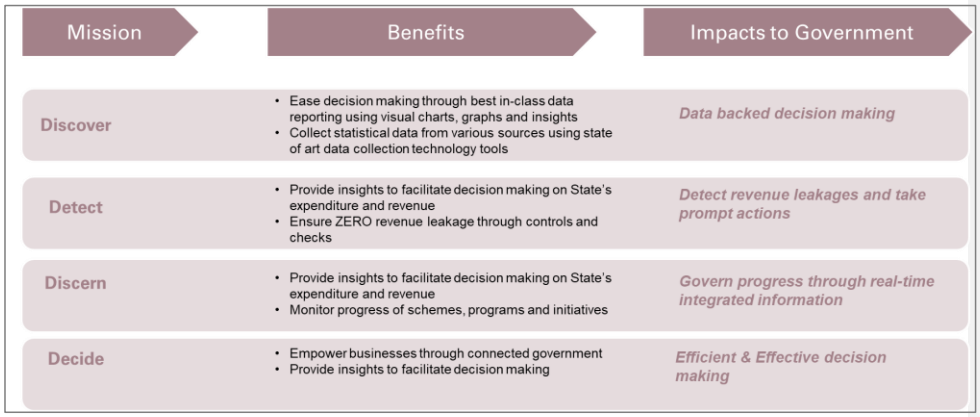

Figure 13: Connecting Mission with Envisaged Benefits

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4. Application Architecture

The application architecture model describes logical groups of IT Capabilities (logical application modules) that manage the data objects in the data architecture model and support the business services identified in the business architecture model. These components will tend to be static, but the technology portfolio used to implement them will change over time, based on the technologies currently available and changing business needs. The components provide the common, re-usable "Building Blocks" which can then be combined and orchestrated in order to construct business applications. The application architecture is based on the design principles defined in the Application Architecture principles of IndEA and shall ensure maximum value is extracted from IT investment, whilst at the same time minimizing the time, cost and complexity of developing, deploying, maintaining and enhancing the applications going forward.

The Objective of Application Architecture

- The application architecture section tries to capture the future state application landscape in line with the business requirements of the Governance Pillar Strategic Pillar. At Whole-of-Government level, the architecture framework would facilitate a common understanding of application assets and ICT services, identifying opportunities of sharing, reuse and consolidation or re-negotiation of licenses.
- The architecture framework would also assist in defining the data requirements, the design to store the data and how the data would need to be shared.
- The architecture would act as a framework in defining technology requirements.
- This would provide the framework through which Meghalaya Government would digitally **connect** with its stakeholders.
- Enable government to provide effective and integrated services to its stakeholders through integration – **collaborate.**
- This would also provide how processes and information would be executed to facilitate value delivery to citizens, **empower**ing government service delivery stakeholders.

4.1 As-Is State Application Architecture

The existing application landscape in Governance Pillar has significant gaps. Most of the business services are manual and not enabled by any systems. The monitoring and evaluation, statistical reporting, excise and taxation have services that are completely and mostly manual in operation

The existing systems that have been implemented is described below:

Application Name	Application Description	Application Architecture Description	Modules	No of Users	Application Group
Mother App	Mobile device app to collect key data on health, nutrition, education and rural development. The app is used by	Not Found	Not Found	Not Found	Group Specific

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Application Name	Application Description	Application Architecture Description	Modules	No of Users	Application Group
	Anganwadi workers to collect data. The same data is reflected in dashboard				
Planning Department Portal and MIS	Portal to publish, display and notify various key department specific matters MIS module for scheme outlay reporting and approval	Static Web portal designed using Drupal technology. MIS is Core PHP and PostgreSQL	• State Plan • Functions, Org Chart and Publication • Vision • Other Resources and web links • Notifications • Planning MIS	No Data found	Group Specific
MIS	MIS Reports on sanctions and expenditure of state budget related to development expenditure, loans from external funding agencies and functionality to administer budgeting for planning	MIS portal along with administrati on features built on open source technology	• Masters • Plan Allocation • Expenditure Reporting • Central Assistance • Budget Link • Submission of Proposals • Report • Log History	No Data found	Group Specific
VAT (e-return)	The e-Return system enables the dealers to file and furnish the quarterly Returns statement online. The tax amount paid by the dealer during the return quarter though e-Payment System or through Treasury Challans is incorporated in the e-Return form for easy assessment by the applicant. Most	Developed by NIC using Spring Hibernate framework in J2EE. Database is Oracle 10g. Architecture is single tier monolith architecture	• Return Filling • Calculations • Payment	No Data found	Group Specific

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Application Name	Application Description	Application Architecture Description	Modules	No of Users	Application Group
	of the calculations in the form have been automated in system which helps the dealer to furnish the data correctly.				
Computerized Value Added Taxes (e-Registration)	The e-registration system allows new dealers to apply online for registration. The system has the facility that enables the applicant to tract the status of his/her application. The Taxation officials will study the request, conduct enquiries and accordingly will grant/reject the application for registration. Once the request is approved, the dealer will be intimated by SMS/email to collect the Registration Certificate (RC) from the issuing authority. Taxation Officials can communicate with the dealers using e-mail and SMS at every step of the process.	Developed by NIC in Spring Hibernate J2EE framework. Database is Oracle 10g, reporting is through Oracle reports	• Dealer Registration • Verification / Status Enquiry • Approvals	No Data Found	Group Specific
VAT (e-c form)	The system enables the Registered dealers to apply for the C-Form electronically and	Developed by NIC in Spring Hibernate J2EE	• Apply Form • Approvals • Verifications	No Data Found	Group Specific

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Application Name	Application Description	Application Architecture Description	Modules	No of Users	Application Group
	print the pre-filled form after getting necessary approval from the issuing authority i.e. the Superintendent of Taxes.	framework. Database is Oracle 10g, reporting is through Oracle reports			
VAT (e-amendment)	E-Amendment enables the registered dealer to apply online for amendment of the Registration Certificate (RC) such as change of address, adding additional list of commodities, adding partners, change the nature of Business etc.	Developed by NIC in Spring Hibernate J2EE framework. Database is Oracle 10g, reporting is through Oracle reports	• Apply Amendment • Approvals • Status Enquiry	No Data Found	Group Specific
DM Dashboard	Dashboard used at district level to monitor various key sector project progress: Health, Education, IT &C, Agriculture, Finance, Transport, etc.	Developed by NIC, this is operational in more than 29 states and 630 districts	• KPI Review • Administration • Integration	Unknown	Common System

Table 6: As-Is Application Portfolio

Application Name	Application Number	Type
Mother App	G.DEP.01	Department
Planning Department Portal	G.DEP.02	Department
MIS	G.DEP.03	Department
VAT (e-return)	G.DEP.04	Department
Computerized Value Added Taxes (e-Registration)	G.DEP.05	Department

Table 7: As-Is Application Encoding

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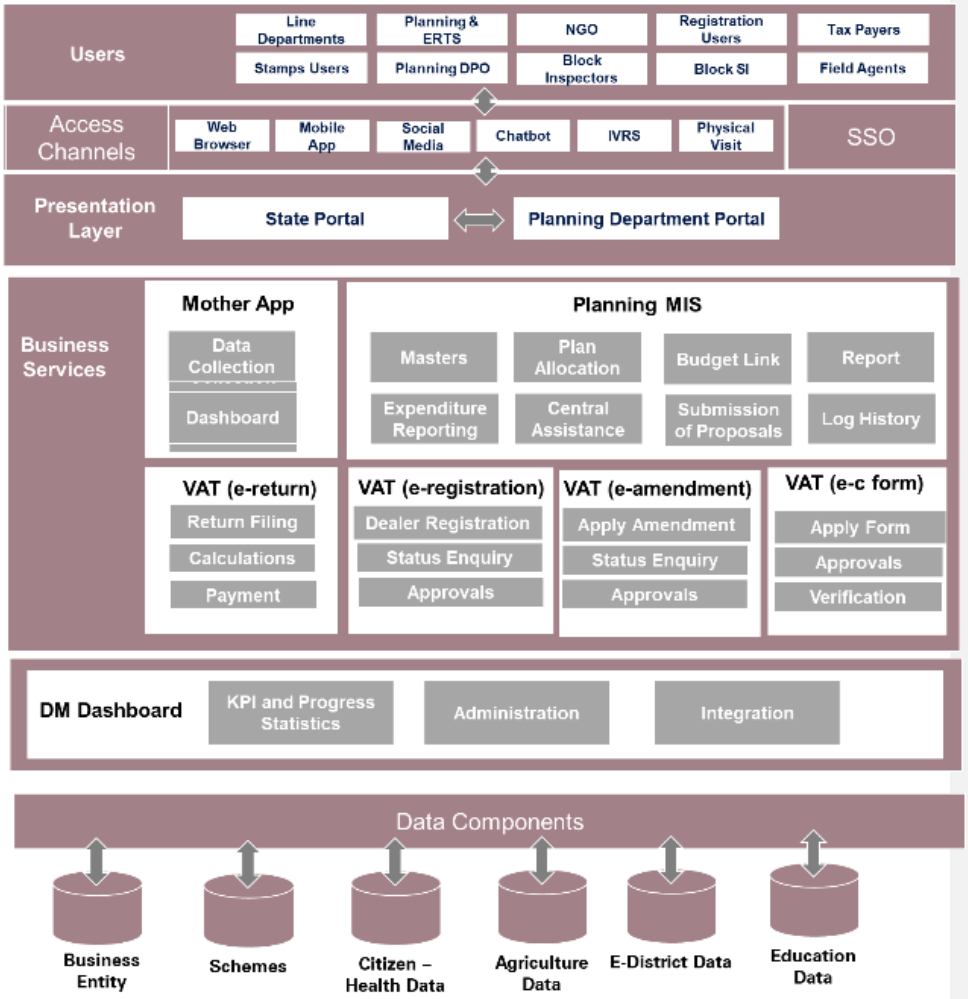

Figure 14: As-Is Application Portfolio

The above diagram illustrates that apart various business services, in Governance are delivered through digital channels. While, these systems operate in a stable manner however, the operations are in silos with a complete gap integration as per modern architecture principles.

Further to the above illustration, each of the systems have been analyzed with respect to architecture pattern, functional gaps and other parameters. Please refer section 4.3 for detailed analysis

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Presently, various stakeholders have a specific role to play in the Governance paradigm, the role is mostly limited to analysis, data entry and registration in the department. There are few systems that the State Government must enable the connect to the farmers. Below is a pictorial description of the department specific systems that are used by various stakeholders in performing transactions.

	Mother App	Planning MIS	VAT(e-Return)	VAT(e-Amendment)& Regd.	VAT(C-Form)	Land Record System	DM Dashboard
Anganwadi Workers	Data Entry						
Asha Workers	Data Entry						
District Officers	Review						Review
Block Officers	Review					Verify	Review
Dept. Leadership	Review	Apply & Approve					Review
Business Dealers			File Return	Apply	Apply		
Excise Officers				Verify			
Tax Officers			Approve Return	Verify			
Land Regd. Officer			Approve Return			Approve	
Other State Officers					Verify		

Figure 15: Stakeholder - System Matrix

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4.2 Gap Assessment

There are several gaps that exists in consideration to the existing application landscape in Governance. The major gap includes lack of capability to integrate effectively between one system to the other. ERTS department has few systems with each service being supported by a different system, this leads to functional gaps in data flow across the systems.

Stage	Gaps	Impact
Strategy	There is no system to publish reports in a desired format. The reports are published as document uploads without the capability to index, link them to analytical tools to capture and display the progress. Reports published in portals are outdated and lacks awareness in other departments	• Low awareness of the reports. Hence, strategy developed is not followed by other departments. • The strategy planning process is also not enabled by statistical reporting tools
Funding	Funding approval reporting is enabled by MIS system however, there is no system to process the approval through digital channels	Manual file handling is a time and effort intensive process. This creates delay, there is a possibility of loss of files, human errors. Additionally, this also creates issues with respect to MIS reporting wherein extra effort is required for data entry
Statistical Reporting	No reporting, survey or data collection system. This creates a huge gap in all points of the statistical reporting value chain With one officer entrusted to collect data for 50+ price items every week, the ratio is too skewed to ensure accuracy	Data collection process is erroneous and effort intensive, the value expected from these reports are significantly diminished
Awareness	The awareness services need to be facilitated by digital systems. Awareness campaigns are mostly ad-hoc and there is no push mechanism to deliver value through the service	The state is largely devoid from benefits that may be delivered through these services. The reach of these services is very limited
Registration	Registration for VAT and CST is already online with medium maturity. The certificate issued as part of Registration, Amendment,	• Multiple visits to office for checking status of application.

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Stage	Gaps	Impact
	Cancellation are manual and need to be collected by visiting office. No facility to track the application and no defined timelines for approval of registration/ amendment.	• Lack in transparency in approval process. • Delay in approvals of amendments/ registrations.
License	Grant of License is manual and needs to be facilitated by digital systems.	• Multiple visits to office for checking status of application. • Lack in transparency in approval process.
Returns	The returns are partially online for VAT and CST whereas there are no returns filed in Excise. The invoice level matching is only possible if the returns are made completely online with online assessment and automatically issuing refunds/ demand notices-based assessment of returns and track the payment against the same.	• No defined mechanisms for Revenue Reconciliation against returns. • Manual assessment of returns leads to manual matching of invoices which is not possible for all invoices in all returns thus can lead to inaccurate assessments. • Refunds are delayed because of manual interventions. • Demand Notices/ Recovery procedures are difficult to track.
Permits	The permits are generated by the excise licensee from system and physical copy needs to be carried along with consignment. No facility to mark the permit as used. Online authenticity for payment of permit is not there.	• Permit once generated can be misused to carry another consignment of similar quantity. • Payment receipt can be counterfeit as there is no option to verify. • May result in Revenue loss.
Tax Payment	The payments are made in GRAS system and no information is kept in VAT/ Excise system for status of payment at real time.	• May lead to information delay/ no information of payment. • Can lead to reconciliation issues.

Table 8: Gap Assessment

There are several gaps in business functional coverage and service delivery enablement. However, over the course of the years the state along with some focus teams have developed few systems to bridge these gaps. The systems so developed have few lacunae, below is a high-level representation of the gaps.

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4.2.1 Mother App

Category	Description (Details are awaited from Application Team)
Functional Modules	• Delivery Follow-up Questionnaire • New Survey Form Development
Technology	• Developed in MS.NET and PostgreSQL
Business Functional Gaps	Missing Business functionality: • Dynamic form creation to add new survey • Analytics capability on survey results • Business intelligence for reports
Application Architecture Gaps	• Need further review basis information from application team
Data Architecture Gaps	• Need further review basis information from application team
Technology Architecture Gaps	• Need further review basis information from application team.

4.2.2 Planning MIS

Category	Description
Functional Modules	• Masters • Plan Allocation • Expenditure Reporting • Central Assistance • Budget Link • Submission of Proposals • Report • Log History
Technology	• Web Portal has been developed in monolith Architecture in Core PHP • Database is PostgreSQL
Business Functional Gaps	Missing Business functionality: • Workflow for department addition • Workflow for directorate addition and update • Workflow for scheme addition or modification • Workflow for sanctions of development expenditure • Facility to upload supporting documents for proposals • Expenditure reporting • Central Assistance and EAP funding reports

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Category	Description
Application Architecture Gaps	• Architecture does not provide flexibility to integrate with Finance systems • Architecture has no defined framework hence; coding is effort intensive and error prone • Reporting does not have business intelligence capability
Data Architecture Gaps	• Data is in silo, not in sync with the Finance systems • Data model does not follow Finance systems hence, there are several notable gaps • Data Quality issues exists • Master data management for departments, schemes, agencies/directorates are not followed
Technology Architecture Gaps	• The application is hosted in State Data Centre, with outdated infrastructure • Servers does not have a DR site • Several security gaps are there such as functional modules are not given selective access

4.2.3 VAT System (e-Returns, e-Registration, e-Amendment, e-Forms)

Category	Description
Functional Modules	• VAT Return Filing • VAT Registration • VAT Amendment • Statutory Forms
Technology	• Oracle 10g with JAVA Spring Hibernate
Business Functional Gaps	Missing Business functionality: • No mapping with GRAS/ Payments system • IP based URL which is difficult to remember. • Different URLs for different modules.
Application Architecture Gaps	• Application framework is outdated • Application has frequent fatal errors with no user-friendly messages • System architecture does not have integration capability • Workflow is not flexible and would require codding changes for any new business flow
Data Architecture Gaps	• Some of the tables don't have Primary and Foreign keys and relationships defined. E.g. VAT.DF_INVOICE_ONLINE_NEW table has VAT_RC_NO but foreign key is not defined with table VAT.REGD_DEALER field VAT_RC_NO which is a Primary key.

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Category	Description
Technology Architecture Gaps	• The server has crossed end of life and need to be replaced immediately.

4.2.4 DM Dashboard System

Category	Description
Functional Modules	• Price Reports • Price Trends • Commodity Profile • Markets List
Technology	• MS.Net 4.0, C# and MS SQL Database 2012
Business Functional Gaps	Missing Business functionality: • Filtering facilities commodity wise • Market wise filters • Facility to select multiple date • Business intelligence-based reports – insights and analysis • Additional charts and graphs on commodity wise price trends • Supply- demand gap is not showcased • Meghalaya specific produces are not highlighted in separate reports • No animal/poultry and dairy data or reports • Fisheries related data is missing
Application Architecture Gaps	• Application UI does confirm to GIGW guidelines on: • Accessibility, Mobile friendliness, Assistive technology, screen reader access • UI is compatible to limited browser (IE 8) • Application built-on PHP and PostgreSQL in single tier architecture • Business logic layer is engraved in system layer • System architecture does not have integration capability
Data Architecture Gaps	• No commodity identifier, hence, data sharing and re-use is difficult • Market entity is not connected to GIS ID, these leads to issues in future integration • Data model have limitation with respect to data design – this leads to in-efficiency in data query
Technology Architecture Gaps	• No details of the infrastructure have been provided by the team.

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4.3 SWOT Analysis of Application Architecture

Analysis Paradigm	Key Pointers	Target State
Strength	Currently Planning and ERTS department uses established and stable IT systems to perform key functions	Retained
	ERTS systems are already integrated with key verification databases	Retained
	Workflow management system exists (Service Plus).	Retained
Weakness	Monolith architecture with minimal integration capability.	Recommended for Re-architecture
	Multiple systems with multiple user profiling.	Recommended for SSO
	Unavailability of Integration platform.	Recommended for State Service Bus and API-Gateway
	Unavailability of Data Analytics tool	Recommended for implementation
Opportunity	Adoption of emerging technology to address unthinkable IT capability gaps such as: • Real-time monitoring of service delivery outcome • Integration of data for analysis • Business intelligence from reconciled data	Realized
	Introduction of new services in digital service delivery channels	Realized
	Use of modern portable device to collect data	Realized
	Ease of configuration of survey or data collection	Realized
Threats	Unavailability of SSO leads to non-uniform security	Addressed
	Non real-time information for monitoring may lead to incorrect decision making	Partially Addressed
	Ad-hoc process in planning department	Not Addressed

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4.4 Application Transformation Plan

Based on the current state understanding, it is observed that the Planning and ERTS of Government of Meghalaya have few systems to facilitate service delivery. These systems are non-compliant to architecture principles, standards and have several gaps in various architecture domain

Basis study of business architecture and the derived business transformation plan. It is evident that, few of these systems needs to be re-architected while few would need to be decommissioned as proposed system would subsume the application service.

Following categories of changes are planned for the applications:

1. **Business Functionality Elimination**: This would be applicable for systems which have limited capability, existing functionality would be transferred to existing/ new system to ensure better service delivery.
2. **Application Architecture Enhancement**: The application may have been supporting critical functionality with low technical fitment. It is imperative that the application needs to be modified to incorporate necessary architecture enhancement.
3. **Decommissioned**: Systems that have duplicate or redundant functionality would be decommissioned to rationalize the portfolio and enhance efficiency.
4. **New Introduction**: System to be added in the portfolio to facilitate digital delivery of services, the functionality of the system would be new to the application portfolio.

Basis gap assessment study and analysis, below table represents the plan

Please follow the diagram below depicting the application portfolio for Governance Pillar along with MeghEA Common Systems and Core Platform.

Application	Category for Transformation	Description
Mother App	• Business Functionality Enhancement	To be defined
	• Application Architecture Enhancement	To be defined
Planning MIS	• Business Functionality Enhancement	• Workflow for development expenditure • Workflow for scheme addition or modification • Workflow for new department or directorate
	• Application Architecture Enhancement	• Re-architecture of application to SOA/Micro-service Architecture • Integration with (Common) workflow management system
VAT (e-Return)	• Application Architecture Enhancement	• Re-architecture of application to SOA/Micro-service Architecture • Integration with (Common) workflow management system
VAT (e-Amendment)	• Application Architecture Enhancement	• Re-architecture of application to SOA/Micro-service Architecture

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Application	Category for Transformation	Description
		• Integration with (Common) workflow management system
VAT (C and F-Form)	• Application Architecture Enhancement	• Re-architecture of application to SOA/Micro-service Architecture • Integration with (Common) workflow management system
DM Dashboard	• Decommission	Reporting would be enabled by Business Intelligence enabled Data Warehouse System. The same system would be used for: • Monitoring & Evaluation of SDG • Strategic Project Administration
Data Collection & survey	• New Introduction	System to facilitate collection of data and conducting offline and online surveys. The system would have the capability to create new forms in simple configurable manner; connect to existing APIs and create new surveys
Excise system	• New Introduction	System to facilitate applications for Grant of License, Renewal of License, Issuance of Permits, Submission of Statements, Payments. The system would have the capability to create new forms in simple configurable manner; connect to existing APIs.

Table 9: Application Transformation Plan

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4.5 Monitoring & Evaluation – SDG Dashboard

The M&E – SDG Dashboard would pull data from various sources to display the State of Meghalaya's progress as part of the MeghEA Vision. The methodology to be adopted to pull these data would follow the principal of "Real or near Real-time information". The design considers that all systems recommended in each of the pillar architecture are implemented in the desired manner. Following are the different types of ways the data would be pulled from the systems:

- **Data from State Systems**: These set of data would be pulled using REST API through State Service Bus (Integration Platform). The data would be pulled real-time basis, from systems OR data warehouse. The System and module have been specified in the table in annexure
- **Data from external systems**: There are Government of India Systems that store few of the data related to the SDG indicators. These data need to be pulled into the M&E – SDG Dashboard using API through the API Gateway and stored in the Data warehouse connected to the M&E- Dashboard. There must be consensus with the Ministry and the state with regards to the data sharing, encryption to be used (if any) and frequency of sharing.
- **Data Collections & Surveys**: State of Meghalaya needs to conduct periodic surveys to discover data related to few of the indicators. These surveys would be facilitated by the Governance- Data Collections and Survey modules with features such as business configurable survey forms, ease of data collections and business intelligence-based reporting.
- **Department update**: Certain indicators needs departments to update the data basis actual implementation such as number of facilities (example: No. of ITI per 10,000 of population). Departments would be provided a screen to update the same along with necessary accesses. The updated data would be reviewed by the department leadership (secretary) before finalization. This review would be facilitated by a digital workflow.
- **To be Reviewed**: A total of 18 indicators needs inputs from the department on the methodology to capture the data. These indicators need deep-dive assessment to finalize the process of data source identification.

Please follow the list of Indicators, **corresponding pillar mapping, identified data source system, module, mode of data sharing, proposed frequency and reference of website in the Annexure Section 9.13**

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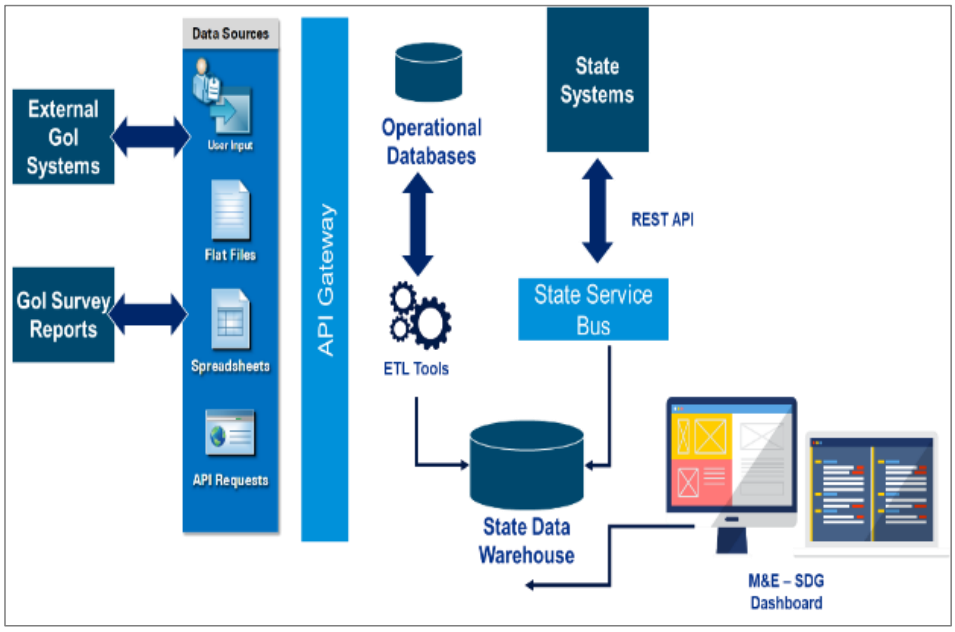

Figure 16: M&E - SDG Monitoring Dashboard Integration Architecture

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4.6 Future State

It is critical to note that, MeghEA would follow the **minimum viable architecture** principle. Hence, not all building blocks stated above would be built in a big bang approach. Rather, the roadmap would follow a step-by-step approach to ensure a smooth transition to the future state and a holistic approach that includes dependency assessment and several other considerations such as legal and regulatory assessment before project initiation.

The Prioritization Phase-I, would implement a minimum viable architecture for Governance that includes following principles:

- Implementation of systems that are mandatory for coverage of prioritized business service digital implementation
- Implementation of common systems that can be used in a plug and play model, however these systems would be aligned to IndEA principles
- A high-level cost impact assessment would be considered for derivation of the Phase-I architecture plan

Based on above principles, below is a diagrammatic representation of the Phase-I Application Architecture for Governance is derived below:

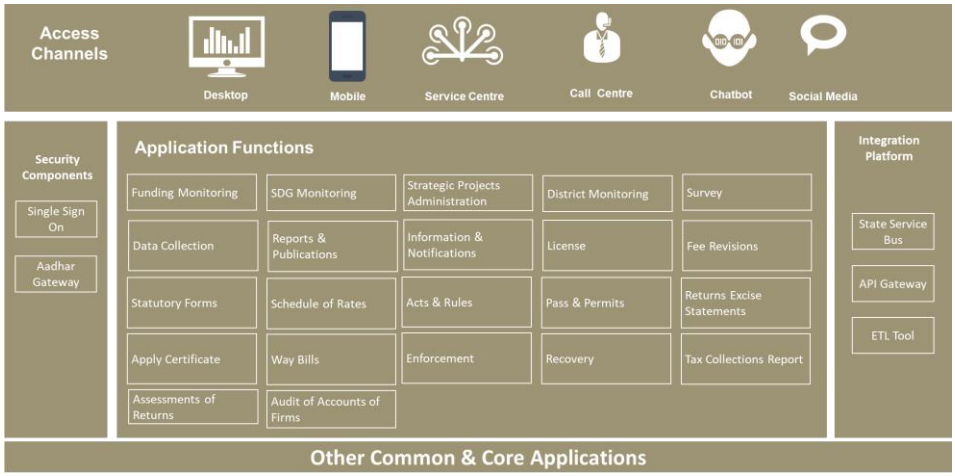

Figure 17: Governance Application Architecture

The above diagram illustrates the Phase -I application portfolio for Governance. The core and common applications to be included is described in other section (please refer section 4.2)

Below is the system functionality for the Governance Pillar new applications.

Governance (New Applications)		
New Modules	**Sub-Modules**	**Description**
Finance	• Budget Estimation • Budget Distribution	Please refer Finance Solution Architecture document for details

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Governance (New Applications)		
	• Treasury • Apply LOA/LOC • Audit Coordination • Billing • Receipts & Collections • Loans • SD/RA • CPPS • NPS	
Funding Management	• Development Expenditure Approval • NGO Funding Request • Plan Allocation • Central Assistance • Budget Link • Report	Presently the functionality is available in Planning MIS system. The system needs: • Functional Modification as illustrated in section 4.4 • The system needs to be re-architected as illustrated in section 4.4
Monitoring & Evaluation	• SDG Monitoring • District Monitoring • Strategic Project Administration	The M&E module would be enabled by following components of core platform: • Data Warehouse • Analytics
Reports Information & Notifications Acts Rules	• Reports • Information • Notices • Rules • Acts	The reports and notifications would be enabled by following common systems: Knowledge Management Document Management Content Management
Survey & Data Collection	• Data Collection • Survey	The module would facilitate data collection, survey through easy and configurable forms
Services	• New Service • Service Status	Enabled by Service Plus; following services would be implemented: Planning • Voluntary Action Fund Disbursement (basis verification of NGO data from Registrar of societies) • On-Demand Statistical Information ERTS • Issuance and renewal of License • Registration and Renewal of Brand • Issuing of statutory declaration forms • Retailer Permit for Wine Shops/Bars/Canteens
Land Records	• Land Record Registration • Amendment	Enabled by common system – Meghalaya Computerized Land Record System

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Governance (New Applications)	
	Technical Architecture
Application Architecture	Application to be built in Service Oriented Architecture/Micro-Service Architecture with complete isolation of business logic. The architecture needs to follow MeghEA architecture principles and adhere to MeghEA application architecture standards. These standards and principles are derived from IndEA
Data Architecture	Please follow data architecture section for data design: • Conceptual Data Model • Logical Data Model Physical data model must be derived aligned to the Logical Data Model
Technology Architecture	The system would be deployed at State Data Centre and following are required: • Application Server • Web Server • Database Server Please refer Technology architecture section for detailed requirement

Table 10: Governance Pillar New Applications

4.6.1 The Service – Application Matrix

The below table is a critical table to explain the flow of information across modules to deliver services in Governance.

The categories of applications are represented above, following service domains mapped to the applications:

Finance: Finance Solution Architecture includes all related services along with the corresponding digital systems. Please refer Finance Solution Architecture Document for details

Statistical Reporting: Services that involves data collection and reporting would be transformed using the Survey and Data Collection Module of the Governance Portal

Strategic Project Implementation: Services under this domain would be covered under Monitoring & Evaluation – Strategic Project Administration module. Please note; for all these services only the administration part of the process would be covered

Informational: The informational services would be enhanced through digital delivery channels that would be covered under Information/Reports/Acts & Rules module under Governance. This would be enabled by certain common systems such as Document Management System and Knowledge Management System

Training: The training services would be further enabled and delivered through digital channels covered under Learning Management System

Pass, Permit, License, Certificates: ERTS departments services would be enabled by service provisioning software (service plus) with configurable workflow and forms

Refunds and Payments: Refunds and payments would be done using digital channels with

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Governance portal having Payment and refund modules

Please refer section 9.11 for more details

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4.6.2 Future State Application Communication Model

The future state application communication model would not be based on point to point integration rather be enabled by State Integration platform. The integration platform's primary function would be to provide the connections between communicating applications - acting much like a router to control the data. The interaction and communication between components are across the platform, which has a similar function as a physical computer bus to handle data transfer or message exchange between services without writing any actual code.

As per the business architecture interaction matrix (please refer section), the systems need a high degree of integration owing to the varied portfolio and business functional capability. To enable information flow for effective business integration, the integration platform would ensure reliable, cost effective and managed integration across the systems.

Below are the logical integration details between each system:

Consumes Information ---> Provides Information V	Governance Systems						
	Survey & Data Collection	**Funding Reporting**	**Monitoring & Evaluation**	**Reports**	**Refund & Payment**	**Service Plus**	**Land Record System**
Other Pillar Modules	New Requests for Data Survey	Development Expenditure Information	KPI data	Notifications, Publications, Acts, Government Orders	Invoke Service Request from list Provide Resolution Stakeholder		Land Information
Knowledge Management				All Acts, Rules and Government Orders			
Content Management	Contents required in web portal publications such as images, graphics, media files, other key contents						
Document Management				Publications Reports Internal documents			
Service Provisioning (Service Plus)						Service implementation and status checks	
Project Management System			Project status				

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Consumes Information ---> Provides Information | V	Governance Systems						
	Survey & Data Collection	Funding Reporting	Monitoring & Evaluation	Reports	Refund & Payment	Service Plus	Land Record System
Chatbot						Service Application	
Beneficiary Document Store						Storage of: License Certificates Permits Pass	
Email Gateway	Email notification to stakeholders	Email notification to stakeholders			Email notification to stakeholders	Email notification to stakeholders	
SMS Gateway	SMS notification to stakeholders	SMS notification to stakeholders			SMS notification to stakeholders	SMS notification to stakeholders	
GIS							GIS ID
Data Analytics	Business Intelligence Through visualization of data using charts and graphs		Business Intelligence Through visualization of data using charts and graphs				
Data Warehouse	Storage of data for business reporting		Retrieval of data for business reporting				
Service Plus					Verification of NGO database from Registrar of Societies		

Table 11: Application Communication Model

Basis of the above communication matrix, below diagram is an illustrative representation of application

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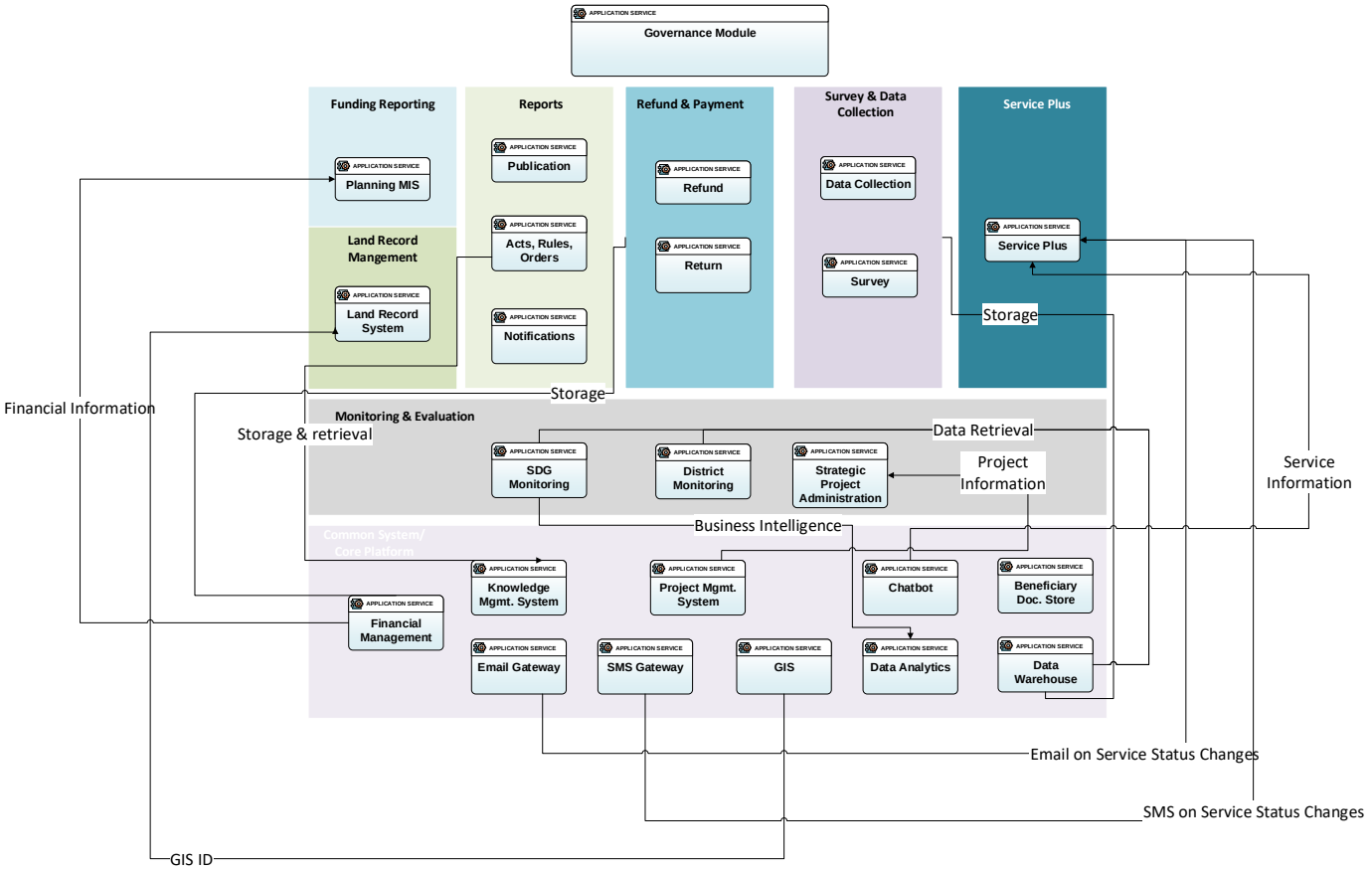

Figure 18: Future State- Application Communication Model

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Even though above diagram illustrates the logical model for application communication, the practical implementation would be different.

The future state application communication model would not be based on point to point integration rather be enabled by State Integration platform. The integration platform's primary function would be to provide the connections between communicating applications - acting much like a router to control the data. The interaction and communication between components are across the platform, which has a similar function as a physical computer bus to handle data transfer or message exchange between services without writing any actual code.

Based on above analysis, following APIs (logical level) needs to be made available. Please note the list below is indicative in nature and needs to be further elaborated at the time of implementation.

API/ Application Service	Data Sharing Details	Source Application	Destination Application
Service Request	• Service ID (Number) • Mobile Number (Number)	Chatbot	Service Plus
Service Acknowledgement Status	• Service request ID(Number) • Service application URL	Service Plus	Chatbot
GSTN Verification	• GSTN • Verification Result	Service Plus	GST System
Fetch Company Details	• GSTN • Legal Name • Trade Name • Date of Liability • Date of Validity • Type of Registration • Address	GST System	Service Plus
Amend Company Details	• GSTN • Legal Name • Trade Name • Date of Liability • Date of Validity • Type of Registration • Address	GST System	Service Plus
KPI Data	• KPI ID • Data	Data warehouse	Monitoring & Evaluation Module
Project Administration Data	• Project Progress	PMIS	Monitoring & Evaluation Module
District Monitoring Data	• Existing system data	Data Warehouse	Monitoring & Evaluation Module

Table 12: Logical Application Integration Requirements

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4.6.3 Illustrative Use Cases

Based on above analysis, MeghEA Governance Application Architecture would aim to be futuristic and visionary to achieve citizen centric objectives that is not been achieved in many Indian states. Below are the objectives which would be realized.

Information Collaboration

The data related all 236 indicators of State SDG would be reconciled and provided to the SDG Monitoring dashboard enabled by business intelligence and analytics capability.

Business Intelligence Capability

Data visualization would be enabled by business intelligence system, charts, graphs and other visualization tools would be easily configurable for business users in all dashboards

Real-time Information

Enabled by integration platform using modern architecture approach information from systems would be pulled through configuration of APIs.

Commodity Services

Certificates, License, Approval, NoC and similar such documents would be available for citizens without the need of citizens/business users to request for such document. These documents would be stored in secured citizen locker.

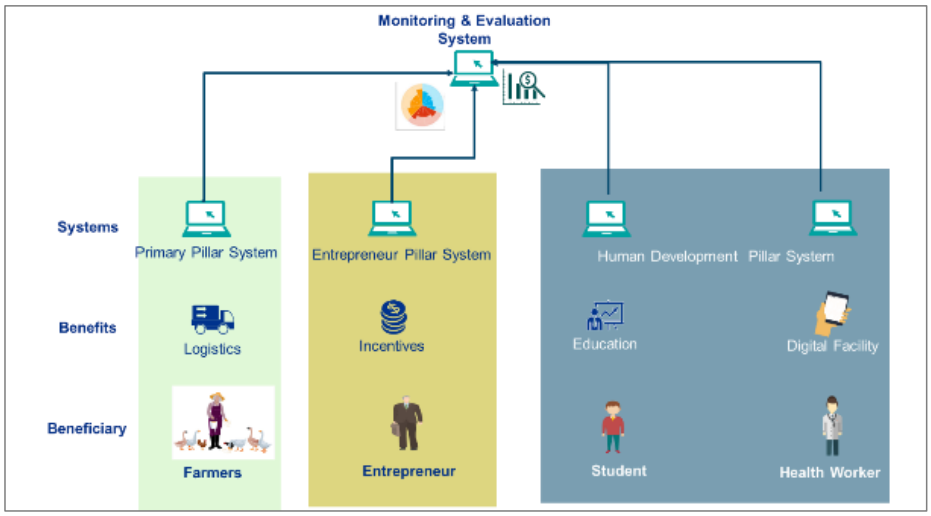

Figure 19: Illustrative Use Case

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4.6.4 The Future State Application – Stakeholder Matrix

One of the key objectives of MeghEA – Governance Application Architecture is to enable all stakeholders with digital service delivery and resolution channels. The application so designed is aimed to ensure all stakeholders are taken into consideration to design the application functionality

Governance has a varied list of stakeholders – Business and Citizens (at the core of it), Department Employees, Data inspectors, Excise inspectors, and various other department users as well. Uniquely Governance system would also be accessed by the state Government leadership as well. Below is a table illustrating the planned mapping for Governance Pillar:

Stakeholders	Governance Pillar Application						
	Survey & Data Collection	Funding Reporting	Monitoring & Evaluation	Reports	Refund & Payment	Service Plus	Land Record System
Research Officer	✓	✓	✓	✓		✓	✓
Computer Officer	✓	✓	✓	✓			✓
Statistical Officer	✓		✓				
Inspector	✓		✓				
Sub-Inspector	✓		✓			✓	
Deputy Director		✓	✓	✓	✓	✓	✓
Director		✓	✓	✓	✓	✓	✓
Superintendent		✓	✓	✓	✓	✓	✓
U.D. A	✓		✓	✓		✓	
L.D. A	✓		✓	✓		✓	
Joint Secretary			✓	✓	✓		
Secretary			✓	✓	✓		
Secretary & Commissioner			✓	✓	✓		
Minister			✓	✓	✓		
Commissioner (Taxes & Excise)			✓	✓	✓		
Additional Commissioner (Taxes & Excise)			✓	✓	✓		
Joint Commissioner (Taxes & Excise)			✓	✓	✓		
Deputy Commissioner (Taxes & Excise)		✓	✓	✓	✓		✓
Assistant Commissioner (Taxes & Excise)			✓	✓	✓		
Chemical Examiner	✓		✓	✓	✓	✓	

Table 13: Future State Application – Stakeholder Matrix

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5. Data Architecture

Data Architecture provides means for departments to consistently define their data. It will ensure sharing of information among various departments and external agencies thereby providing opportunities for improved efficiency and effectiveness in Governance. Further, it facilitates increased **collaboration** among departments/agencies and reduce the number of incompatible systems thereby contributing to Government-wide interoperability. It ensures that special attention is given to security and technical requirements of individual data elements so that they are implemented appropriately.

The Objective of Data Architecture

- Improving the discovery, access and sharing of data among both internal (departments) as well as external stakeholders (citizens, businesses and developers);
- Minimizing the duplicative efforts by capturing the data only once in the system and **connecting** with other systems and capturing only the incremental data as and when required in the business process. Auto-populating of the existing data with due validations would be required;
- Ensuring the accountability for the quality, consistency and security of data;
- Developing shared vocabularies for ensuring common understanding of data;
- Facilitating **collaboration** among departments at all levels of the Government;
- Reducing cost and impact on citizens and businesses because of redundant collection of citizen and/or business data;
- Identifying the technical and security requirements of different data assets;
- Ensuring that notified standards are adopted so that interoperability among applications is ensured.

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5.1 Current State Assessment

5.1.1 Current State Data Entities

There are a few systems in Planning and ERTS Department and largely works independently without any data sharing. The Department lacks any data governance processes and is at a risk owing to lack of availability of data retention, data back-up and data sharing policies.

Refer section 9.16 for the list of critical data entities along with the system of origin and usage. Please note these data entities are mostly at conceptual level.

Currently, the data entities are not integrated. The silos exist for different systems and don't have any integration with each other.

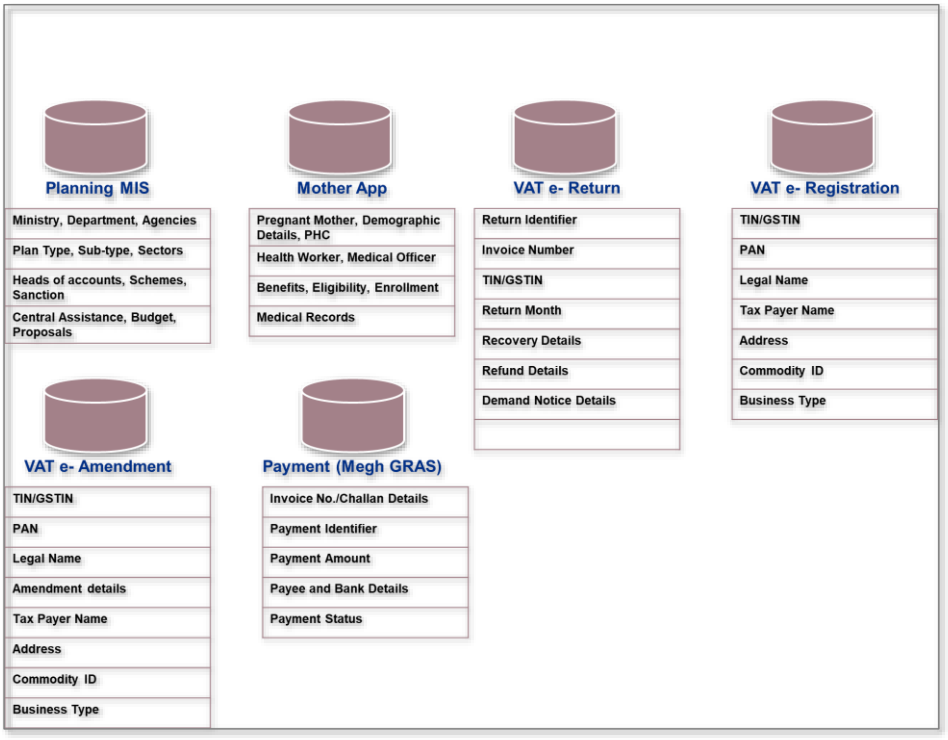

Figure 20: Current State Data Entities - System Map

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5.2 Challenges and Pain Points

The challenges and pain points of data architecture is categorized as below:

5.2.1 Data Design

The data design for systems such as Farm Mechanization, Service Plus, Meghalaya Agri Board have issues with regards to the key aspects such as

- The database design does not follow Boyce-Codd Normal Form or Third Normal Form as there are multiple attributes that are redundantly there in the key data tables. This creates duplicated data in the ecosystem. A normalization exercise at database level is required to re-design the database. Following systems have normalization issues:
    - Planning MIS
    - Mother App
    - VAT – e-Return
    - VAT C-Form
    - VAT e-Registration
- Unavailability of master data management platform and practice has created duplicate data in Finance and Planning MIS. Described below are key data entities that needs to be managed using Master Data Management:
    - Ministry Master
    - Department Code Master
    - Agencies Code Master
    - Scheme Code Master
    - Plan Details
    - GSTIN
    - Taxpayer Details
    - Land Records
- Various data entities in Planning department are duplicate to Finance department systems, however, these are not linked
    - Ministry Master
    - Department Code Master
    - Agencies Code Master
    - Funding
    - Sanctions
    - Expenditure
    - Sanctions
- The VAT data design does not follow data design standard leading to lack of optimization in database search queries

5.2.2 Data Quality Management:

The data quality management involves key aspects of data such as correctness of data, metadata management, data profiling and monitoring quality of data through statistical procedures. Key issues identified are described below:

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- Master data management is unavailable, hence, there are issues with respect to data synchronization on common data elements
- Planning MIS and Mother App data entities are not in sync with **LGD** database for districts, blocks and other demographical entities
- GIS initiative does not collaborate for data hence, many departments have built their own GIS leading to data discrepancies
- Unavailability of process related to metadata management, data dictionary documentation, and documentation around data repository has created lacuna in system adoption.
- Data quality dashboard is not built, or no process exists to track quality of data used. This impacts causal analysis and error corrections.

5.2.3 Data Life-cycle Management:

The data life-cycle management is the process of managing business information throughout its lifecycle, from requirements through retirement. The lifecycle for data crosses different application systems, databases and storage media. The cycle is made up of phases of activity including create, use, share, update, archive, store and dispose.

- Data ownership or steward is not defined for any data entity; the relationship between departments and data does not exist. Monitoring and Evaluation requires high degree of data life-cycle management to ensure accuracy of monitoring and decision making. Example- Finance department does not share state lead bank data that can track banking penetration in rural and urban Meghalaya. Monitoring and Evaluation is not feasible under such circumstances
- Data entities are not mapped to services rather are coupled with systems. Thus, a business justification of data is weak. Most of the data entities are re-formed as department is not aware of the existence of such data. Example- Finance department is not aware that planning MIS has department/agency master that needs to be updated for every department addition/modification
- The data attributes, data models, data dictionary and other related documentation does not exist. This has led to issues on management of data. Example- The M&E framework involves 236 indicators which would source data from more than 50 source database, with limited collaboration in data capture and storage across departments, real-time M&E dashboard is a tedious effort
- Data security requirement is not established, data classification does not exist. This creates a risk of data theft/ loss. Example- ERTS/Planning does not store data securely, various secured data related to funding, central assistance, VAT needs additional security to store
- Cloud-data policy is not well defined by the State Government, this may lead to data theft. Example- **Mother App** stores **sensitive** information related to pregnant mother; this needs to be aligned to National Data Security Policy
- Land records data sharing policy is not defined
- Disaster recovery site for the state does not exists, this is a key risk especially considering Meghalaya (Shillong) is in a risk prone earthquake zone.
- Data archival process is not there.

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5.3 SWOT Analysis of Data Architecture

Analysis Paradigm	Key Pointers	Target State
Strength	Several critical systems have formed the information repository in ERTS (Excise primarily). These systems store updated information of business entities	Retained
	GSTIN/TIN has been followed to be the key identifier (Digital ID) for businesses	Retained
	Department, Agencies and ministries codification exists	Retained
Weakness	Expenditure and funding data design is not in sync with Finance systems	Eliminated
	VAT systems does not have a BCNF aligned normalized data design, this leads to data duplicity	Eliminated
	Unavailability of Master Data Management system leads to additional effort in synchronization of master data- example: Department code maintained in Planning MIS needs replication in Finance	Eliminated
	Unavailability of data warehouse, business intelligence-based capability to ensure operational systems are not burdened for reporting	Eliminated
Opportunity	Enhancement of data quality, data integration and data warehouse implementation to enhance reporting	Realized
	Introduction of new capabilities – data analytics, data quality management	Realized
	Introduction of new data entities for digitization of manual services are in synchronization with data entities from other pillars (example: Data design of business entities in ERTS system in Governance and Entrepreneurship pillar)	Realized
Threats	Duplication of data and inconsistent metadata. Example: Department codes in Planning MIS and Finance Systems	Addressed
	Systems do not have sufficient processing power to process reports, instead a data warehouse system might highly benefit	Addressed

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5.4 Data Transformation Plan

5.4.1 Master Data Management and Data Warehouse

Governance pillar Departments would play a significant role in the state master data management. Following are the key data entities that would be included as part of the State Master Data, along with the extraction methodology and frequency. The extracted data would be included in the Data Warehouse.

Data Entity	Data Store (System)	Data Extraction Tool	Master Data	Frequency (Recommended)
Ministry	Planning MIS	ETL	✓	Weekly
Department	Planning MIS	ETL	✓	Daily
Programme	Planning MIS	Not Required		Weekly
Plan Type	Planning MIS	ETL	✓	Daily
Sub Plan Type	Planning MIS	ETL		Weekly
Agency	Planning MIS	ETL	✓	Weekly
Sector	Planning MIS	ETL	✓	Weekly
Head of accounts	Planning MIS	ETL	(already included in Finance)	Weekly
User	Planning MIS	ETL		Weekly
District	Planning MIS	ETL	To be synced with LGD Database	Weekly
Scheme	Planning MIS	ETL	✓	Daily
Sanctions	Planning MIS	ETL	✓	Weekly
Central Assistance	Planning MIS	ETL	✓	Weekly
Pregnant Mother	Mother App	ETL	✓	Daily
Health Officers	Mother App	ETL	✓	Weekly
Medical Facility	Mother App	ETL	✓	Weekly
Taxpayer	VAT e-Registration	ETL	✓	Weekly
Tax Amount	VAT e-Refund			
Commodity	VAT e-Registration	ETL	✓	Weekly
Rates	VAT e-Refund			
Waybill	e-waybill			
Land Details	Land Records System	ETL	✓	Weekly
Land Registration	Land Records System			
New Data Entities				
SDG Goal	M&E – SDG Monitoring Module	ETL	✓	Weekly
Indicators	M&E – SDG Monitoring Module	ETL	✓	Weekly

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Data Entity	Data Store (System)	Data Extraction Tool	Master Data	Frequency (Recommended)
Target State	M&E – SDG Monitoring Module			
Current State	M&E – SDG Monitoring Module			
Project	M&E – Strategic Project Module	ETL	✓	Weekly
District Monitoring KPIs	M&E – District Monitoring	ETL	✓	Weekly
License	Governance-Services Module	ETL	✓	Weekly
Permit	Governance-Services Module	ETL	✓	Weekly
Excise Statement	Governance-Services Module	ETL		Monthly
Hologram	Governance-Services Module	ETL		Daily
Payment	Governance-Services Module	ETL		Daily

Table 14: Master Data Management Requirements Matrix

The data warehouse would follow Enterprise Data Warehouse Model, with ETL used as data extraction tool and Business Intelligence used for visualization of data reports.

5.4.2 Data Warehouse Strategy

Monitoring and Evaluation is most important aspect of Governance Pillar and the same is possible through Data Warehouse, Analytics and Business Intelligence. The below picture illustrates the Monitoring and Evaluation of all data pertaining to all six pillars in Meghalaya Enterprise Architecture project

The data flows through the proposed solution as below:

1. For each data source in the state as well as center system, any data which is updated will be exported to Blob Storage through Extract, Transfer, Load (ETL) Jobs.
2. The data will be cleansed and transformed and stored into Data Warehouse.
3. The Data Factory will load the data incrementally in tables of Data Analytics tool.
4. The data analytics tool applies the analytics on business data and relationships.
5. Business Intelligence tool analyzes data stored in Data Warehouse via Data Analytic Services.

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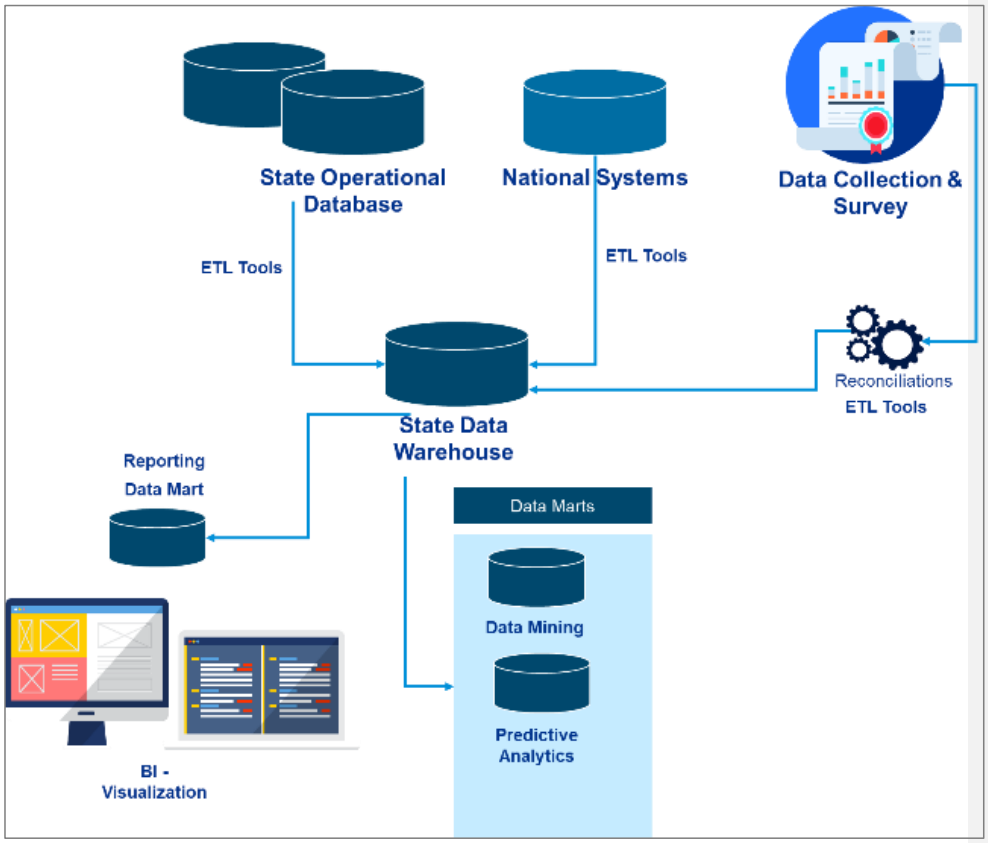

5.4.3 Data Governance in Governance

All departments under Governance Pillar would have a role to play in each of the stages of the Data Lifecycle for the Scheme (core data entity).

Data, being a key asset of the Government, must be correct, up-to-date, complete and secure (quality data). These requirements are managed by the following roles:

- Data owner
- Data Trustee
- Data Custodian
- Data Steward

For details on the above roles along with data governance responsibilities, please refer Statewide – Detailed Architecture Requirements document.

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The Data Steward, Data Custodian and Data Owner for various key data entities are described below:

Data Entity	Data Trustee	Data Steward
Ministry	Planning – Joint Secretary	Planning – Director
Department	Planning – Joint Secretary	Planning – Director
Programme	Planning – Joint Secretary	Respective Departments – Program Nodal Officer
Plan Type	Planning – Joint Secretary	Planning - Director
Sub Plan Type	Planning – Joint Secretary	Planning - Director
Agency	Planning – Joint Secretary	Planning – Director
Sector	Planning –Secretary	Planning – Joint Secretary
Head of accounts	Finance - Secretary	Finance – Joint Secretary
User	Planning – Director	Planning – Research Officer
District	Planning –Secretary	Planning – Joint Secretary
Scheme	Planning –Secretary	Planning – Joint Secretary
Sanctions	Planning –Secretary	Planning – Joint Secretary
Central Assistance	Planning –Secretary	Planning – Joint Secretary
Pregnant Mother	Health & FW- Secretary	Planning – Joint Secretary
Health Officers	Health & FW- Secretary	Planning – Joint Secretary
Medical Facility	Health & FW- Secretary	Planning – Joint Secretary
Taxpayer	ERTS – Joint Secretary	ERTS – Deputy Secretary
Tax Amount	ERTS – Joint Secretary	ERTS – Deputy Secretary
Commodity	ERTS – Joint Secretary	ERTS – Deputy Secretary
Rates	ERTS – Joint Secretary	ERTS – Deputy Secretary
Waybill	ERTS – Joint Secretary	ERTS – Deputy Secretary
Land Details	ERTS – Joint Secretary	ERTS – Deputy Secretary
Land Registration	ERTS – Joint Secretary	ERTS – Deputy Secretary
New Data Entities		
SDG Goal	Planning- Secretary	Planning – Joint Secretary
Indicators	Planning- Secretary	Planning – Joint Secretary
Target State	Planning- Secretary	Planning – Joint Secretary
Current State	Planning- Secretary	Planning – Joint Secretary
Project	Planning- Secretary	Planning – Joint Secretary
District Monitoring KPIs	Planning- Secretary	Planning – Joint Secretary
License	ERTS –Secretary	ERTS – Joint Secretary
Permit	ERTS –Secretary	ERTS – Joint Secretary
Excise Statement	ERTS –Secretary	ERTS – Joint Secretary
Hologram	ERTS –Secretary	ERTS – Joint Secretary

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Data Entity	Data Trustee	Data Steward
Payment	ERTS –Secretary	ERTS – Joint Secretary

Table 15: Data Entity Role Matrix

The Steps for data Quality Management is illustrated below:

Data quality thresholds and rules: As a first step to data quality management, it is critical to set data quality threshold. What data, how much of completeness is required, what is the minimum accuracy threshold. This step is required to set a threshold of completeness by Data Trustees, on the threshold values in a system enabled reporting system.

Assess the quality of data: Data Custodian is responsible to report data quality test results to data trustees in a pre-defined timeline.

Resolve data quality issues: Data Trustee to derive plan for resolving data quality issues with respect to Governance Pillar in consultation with Data Custodians and keep the Data Owners informed of the new processes.

Monitor and control data: This stage is required for regular monitoring using tools and reports. The monitoring would be primarily be done by Data Custodians and overseen by Data Trustees.

Below Table describes the key process and details of the data quality management process.

Data Quality Management Steps	Who? Department & Branches	What? Data Entities	How? Procedures and steps	When? Time Schedules
Data quality thresholds and rules	Governance Pillar Departments has following set of roles: • Data Trustee - The origination point of data • Data Steward - Responsible for setting data quality thresholds • Data Custodian - Responsible for deriving current data quality and define metadata type	• District • Scheme • Sanctions • Central Assistance • Pregnant Mother • Health Officers • Medical Facility • Taxpayer • Commodity • Waybill • Land Details • Land Registration • SDG Goal • Indicators • Target State • Current State • Project • District Monitoring KPIs • License 5. Permit	• Set threshold for completeness • Set threshold for accuracy • Set metadata type	• Completeness to be monitored **Quarterly** • Accuracy to be monitored **monthly** • Metadata Type to be set once by data custodian and agreed by Data Trustee
Assess the quality of data	Data Custodian to publish report on data quality	• District • Scheme • Sanctions • Central Assistance • Pregnant Mother • Health Officers • Medical Facility • Taxpayer • Commodity • Waybill	This will be done through reports	Every month

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Data Quality Management Steps	Who? Department & Branches	What? Data Entities	How? Procedures and steps	When? Time Schedules
		• Land Details • Land Registration • SDG Goal • Indicators • Target State • Current State • Project • District Monitoring KPIs 6. License 7. Permit		
Resolve data quality issues	• Data custodian to resolve all quality issues in the defined time frame • Data Steward to define time frame to resolve quality issues	Entities for which quality issue exists	Data Steward and Data custodian to get into joint meeting to decide on quality issue resolution timeline	As and when required
Monitor and control data	Data Trustee and Steward to monitor	• District • Scheme • Sanctions • Central Assistance • Pregnant Mother • Health Officers • Medical Facility • Taxpayer • Commodity • Waybill • Land Details • Land Registration • SDG Goal • Indicators • Target State • Current State • Project • District Monitoring KPIs 8. License 9. Permit	This will be done through reports	Monthly

Table 16: Data Quality Management

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5.5 Future State

5.5.1 Governance Data Architecture

MeghEA data architecture includes various core data entities. The core data entities are those which contain data elements that are most commonly used in the applications of several departments of the Meghalaya Government. The core data entities are listed below:

- Citizen/ Farmer
- Employee
- Things
- GIS
- Business
- Schemes & Policies

Governance deals with all the core data entities, however, it the owner of the Schemes and Policies data

As defined in State-wide Enterprise Architecture, the data architecture building blocks are defined considering minimalistic approach – to include only those building blocks which are mandatory for the Government of Meghalaya. Below is a list of data tools and technologies that are critical for Governance Pillar Departments:

- **Data Transformation**: Governance pillar departments would be enabled to process data in various forms (XML, JSON, Fla File, etc.) from multiple sources.
- **Digital Identity**: Aadhaar/Employee Id would be used to create login for the citizen/employee. This ID would be used for access to all Governance department services.
- **Data Extraction**: Extraction of data from relational databases to data warehouse for easier and efficient reporting.
- **Data Storage**: Storage, load and design of relational data base for transactional and analytical processing.
- **Data Analysis:** Data analysis would be enabled by both system level processing and business intelligence and data warehousing tools.
- **Data Visualization**: M&E dashboard would need tools to visualize data analysis through Business Intelligence, MeghEA State-wide architecture would include such capabilities.
- **Data Retention:** Data retention policies needs to be revamped to include necessary retention requirements.
- **Data Life-cycle Management:** Data life-cycle management would include necessary and specific requirements of the sector; however, it would be aligned to MeghEA data life-cycle management.
- **Data Dissemination**: Data dissemination of public data as classified in data classification model, needs to be shared with Government of India or Open Data repository.
- **Data Authentication & Authorization:** The substantiation of the identity, definition and enforcement of permitted capabilities of a user related to the department or system in some way.
- **Metadata Management**: Departments participating under Governance Pillar would contribute to the metadata repository for data that are classified under their ownership.

Based on above, the various tools and technology required as per MeghEA data architecture and

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relevant to Governance Pillar are illustrated below:

Tools	Description
Data Warehouse	Data warehouse (DW) is a key component in data architecture to enable effective reporting and decision making. The data for the **M&E dashboards** would be fetched from data warehouse instead of operational data systems
Business Intelligence (BI)	BI is critical to ensure visual representation of data to enable decision making and usability. The M&E dashboard would be enabled by the BI tools' capability
Metadata Repository	Metadata is data that is describe and characterise other data, answering the 'who', 'what', 'when', 'where', 'why', and 'how' about the data set that is being described. Metadata repository software would provide the following capabilities: • An embedded repository • Programmer development tools • Analysis, modelling, and design tools • Data movement and replication software • Data connectivity software The metadata for the existing data entities defined in section 9.16 and new data entities defined in section 9.16.2 would be incorporated. It is the responsibility of the **data custodian** to define and update the metadata repository
Data Modelling Tools and Repository	The data modelling tools enable easier and sophisticated data modelling for Governance system. Development and maintenance of Conceptual, Logical and Physical data models would be enabled by this software. The repository used to store this model would be called as Data Model Repository.
Open Data Catalogue	The catalogue is a repository of data that are exposed as part of the open data policy of the Government. Departments in Governance pillar needs to classify the open data, post which the catalogue would be operational. The open data would be shared with following entities (not exhaustive): • NITI Aayog for SDG monitoring • EAP – Project Status
Data Governance Tool	The tool required to perform various key functions such as data quality checks, data access audit, etc. The data quality management responsibility would also include all KPI related data
ETL Tools	To automate data integration and transformation operation, through transferring data from operational store to data warehouses. Departments in Governance would need such a tool to perform the data warehouse operations.
Data Clean up tools	Data cleansing or data scrubbing is a process for removing corrupt, inaccurate or inconsistent data from a database. Excise (ERTS department) would use the tool to clean up Excise/Tax payer related data.

Table 17: Tools and Technologies

Data architecture in Governance- detailed architecture requirement is a key component. The data layer of the MeghEA Framework focuses on access, storage and management of data. An architectural approach to data management supports improved data quality, leading practices for integration, and inherent interoperability between applications resulting in a strong data foundation upon which to deliver dynamic business services in accordance with IndEA principles. No single technology or platform can address all the requirements of the MeghEA for data management, however, a portfolio of tools, a structured process of data governance and holistic approach of data designing would lead to the desired results.

The Governance pillar requires critical changes in the data. Primarily, new data entities need to be

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designed to cover new business workflows and major changes are required in the existing data design. The Data Architecture recommends a critical process – Data Governance, which is a missing capability in Government of Meghalaya. **Data Governance** would be facilitated by tools and technologies; however, it is to be noted that people aspects such as skill development, monitoring and process adherence is key to the success.

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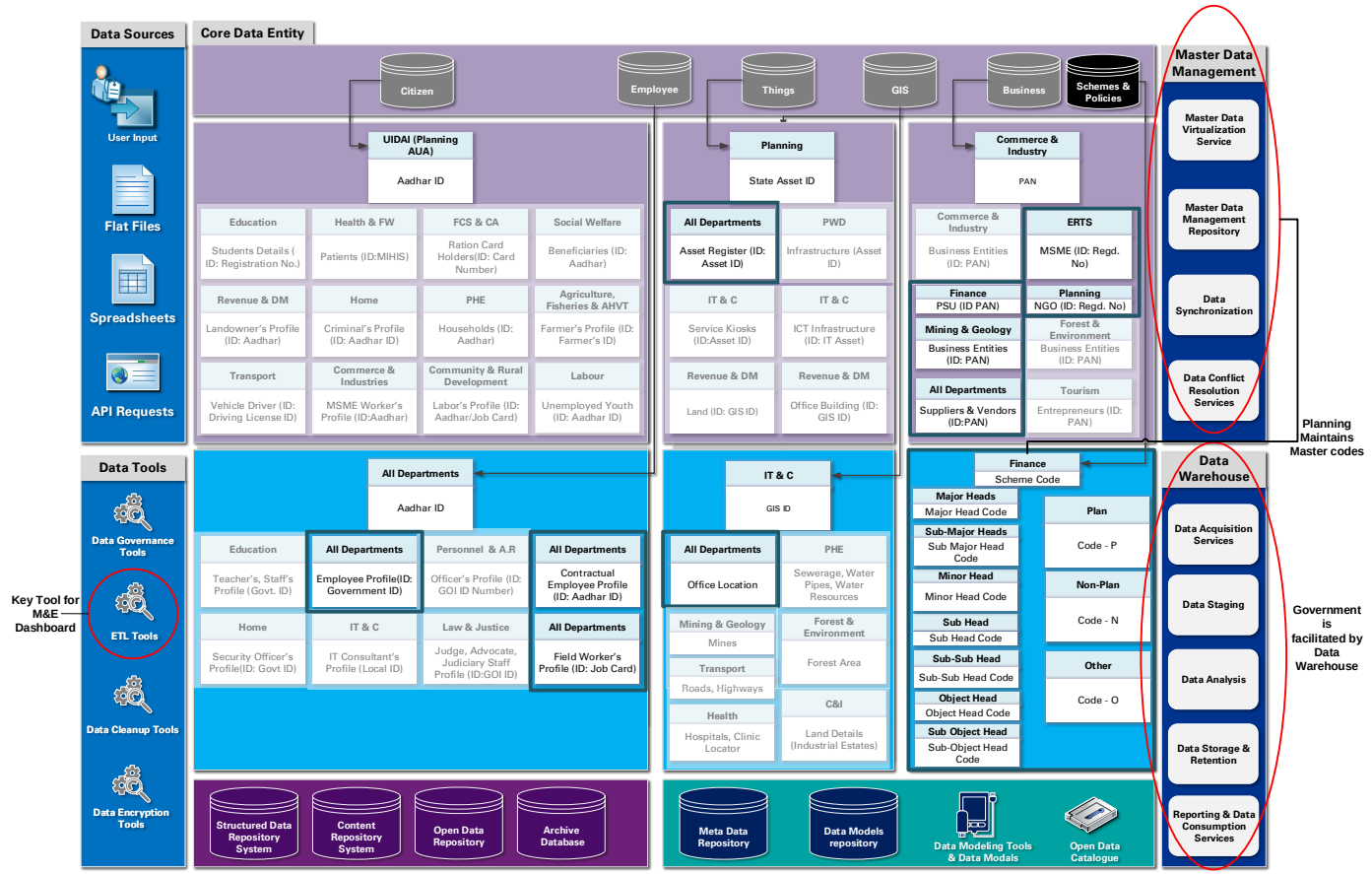

Figure 21: Governance Pillar - Digital Registries and Data Tools

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5.5.2 Conceptual Data Model

Data Entities: The data entity is the fundamental building block in the data structure design of the department. An Entity is an abstraction for a Tax Payer, Scheme, location, object, event, or concept described (or characterized) by common Attributes.

Attributes: An Attribute is a property or characteristic of an Entity. Different instances of an entity may have different values for an attribute.

Digital Data Source: A Digital Data Resource is a digital container of information. A Digital Data Resource may correspond to three types of data: "Structured Data Resource", "Semi-Structured Data Resource", and "Unstructured Data Resource".

Relationship: Relationship defines the relation between the data entities.

S. No	Entity Name	Description	Attributes	Digital Data Source	Relationship
1	Ministry	Master data of all GoI ministries	• Ministry ID	Planning MIS	• Scheme
2	Department	Master data of all GoM departments	• Department ID	Planning MIS	Master Data
3	Programme	Key development program taken up under the purview of planning department	• Program ID	Planning MIS	• Scheme • Sanction
4	Agency	The directorates/ other agency under any existing department	• Agency ID	Planning MIS	• Department
5	Sector	The GOM sector categorization for all applicable sectors	• Sector ID	Planning MIS	• Scheme • Sanction
6	Head of accounts	The 17-digit scheme code that includes major, minor heads	• Scheme Code	Planning MIS	• Departments • Sectors • Sanctions
7	User	The unique user of the IT transaction	• Aadhar Number/ Employee Id	Master Data	
8	District	The unique district codes for all 11 districts of Meghalaya	• District Code	Master Data	• LGD database
9	Block	The unique block codes for all 47 blocks of Meghalaya	• Block Code	Master Data	• LGD database
9	Central Assistance	The amount and details of the Central assistance for a scheme/ expenditure	• Central Assistance Identifier	Planning MIS	• Head of Accounts • Department • Sector
10	Pregnant Mother	The details of the pregnant mother collected by Asha worker/medial officer	• Aadhar Number • Demographic details • Scheme eligibility details • Health records	Mother App	• District • Medical Officer • Scheme
11	Health Officer	Various medical officers/ Asha workers that	• Aadhar Number	Mother App	• District • Block

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S. No	Entity Name	Description	Attributes	Digital Data Source	Relationship
		provide field level services under Mother App	• Demographic Details		
12	Medical Facility	The unique code for various medical facilities such as PHC, hospitals, etc	• Medical Facility ID	Mother App	• District • Block • Heath Officer
13	Taxpayer	The details of the taxpayer under ERTS departments	• GSTIN • TIN • Legal Name	VAT e-Registration	• Commodity
14	Commodity	The commodity details that the taxpayer sells and has been registered under VAT	• Commodity ID	VAT e-registration	
16	Rates	The rates for tax as set by ERTS department	• Rate ID	VAT e-Return	• Commodity
17	Waybill	The details of goods being carried over road	• Waybill ID	e-Way Bill	• Rates • Commodity
18	Land Record	The digital record of land that has been registered	• GIS ID	Land Record	• Landowner
19	Landowner	The human/ institutional owner of land that has been registered	• Aadhar Number	Land Record	• Land Record
20	SDG Goal	The list of goals under UN Sustainable Development Goals	• Goal Number (1-17)	M&E-Dashboard	• Indicators
21	Indicators	The indicators as per State SDG framework, aligned to the UN SDG framework and derived in MeghEA vision phase	• Indicator ID	M&E-Dashboard	• SDG Goals
22	Project	The key development projects that are implemented by districts	• Project Code	M&E – Dashboard	• Scheme Code
23	District Monitoring KPIs	List of KPIs that	• KPI ID	M&E – Dashboard	
24	License	License to operate business under State's jurisdiction	• License Number	License Service	• GSTIN
25	Permit	Permit to operate business under State's jurisdiction	• Permit Number	Permit Service	• GSTIN
26	Excise Statement	Reconciled statement provided by taxpayer	• Statement ID	VAT e-Refund and Payment	• GSTIN
27	Hologram	Issued by Excise department	• Hologram ID	Hologram Service	• GSTIN
28	Payment	Amount of payment payed by the taxpayer	• Payment Number	VAT e-Refund and Payment	• GSTIN

Table 18: Governance Pillar – Conceptual Data Model

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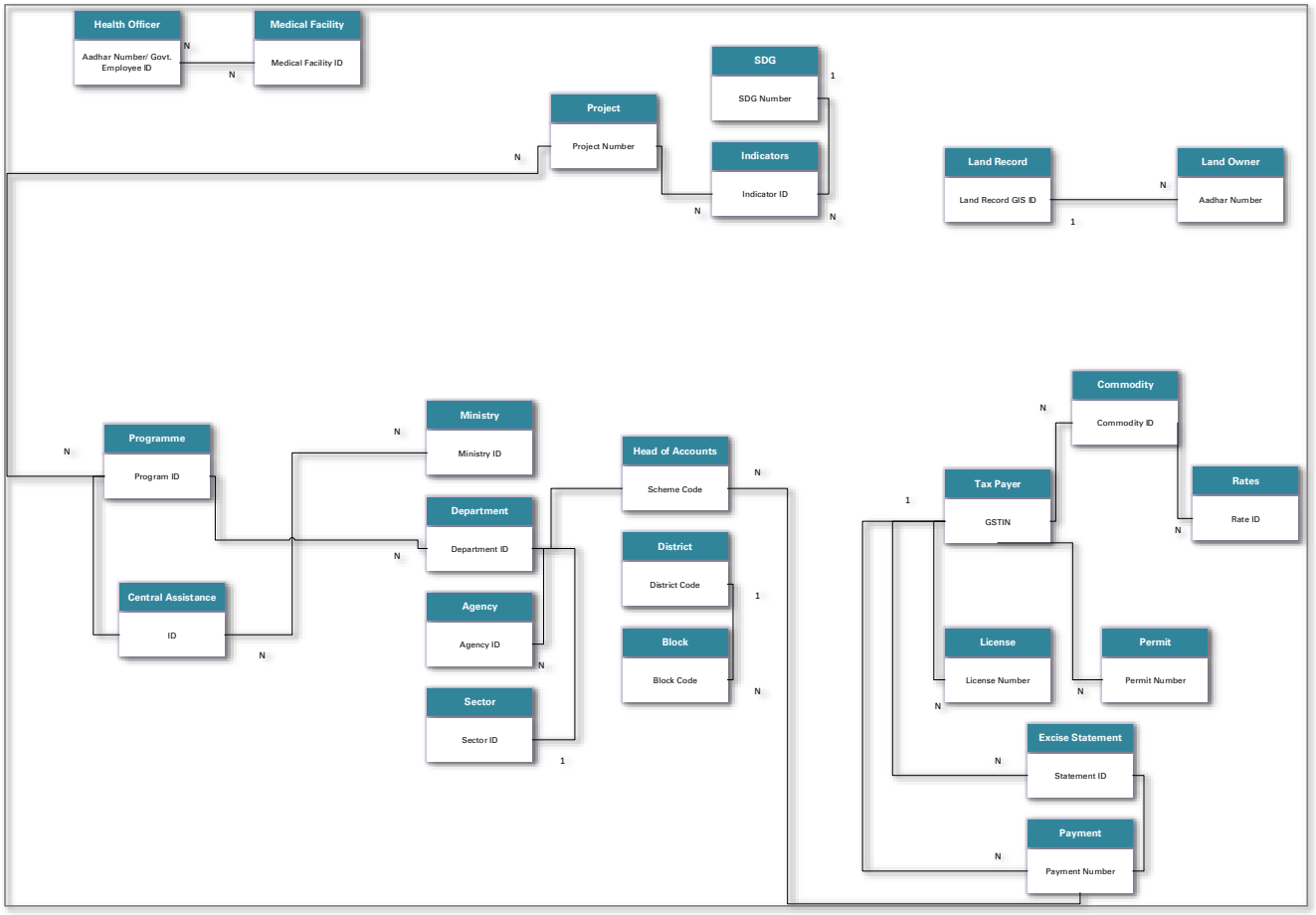

Figure 22: Governance Pillar Conceptual Data Model

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5.5.3 Logical Data Model

A logical data model is a holistic representation of the 'in scope' of data entities, their relationships, and their attributes. It is used to provide a detailed description of the data requirements and needs in support of the 'in-scope' business activities irrespective of the physical implementation environment or performance considerations.

The new data entities discussed above have been further detailed to include in Logical Data Model. It is also to be noted that the data entity detailing may change upon further analysis of the requirement.

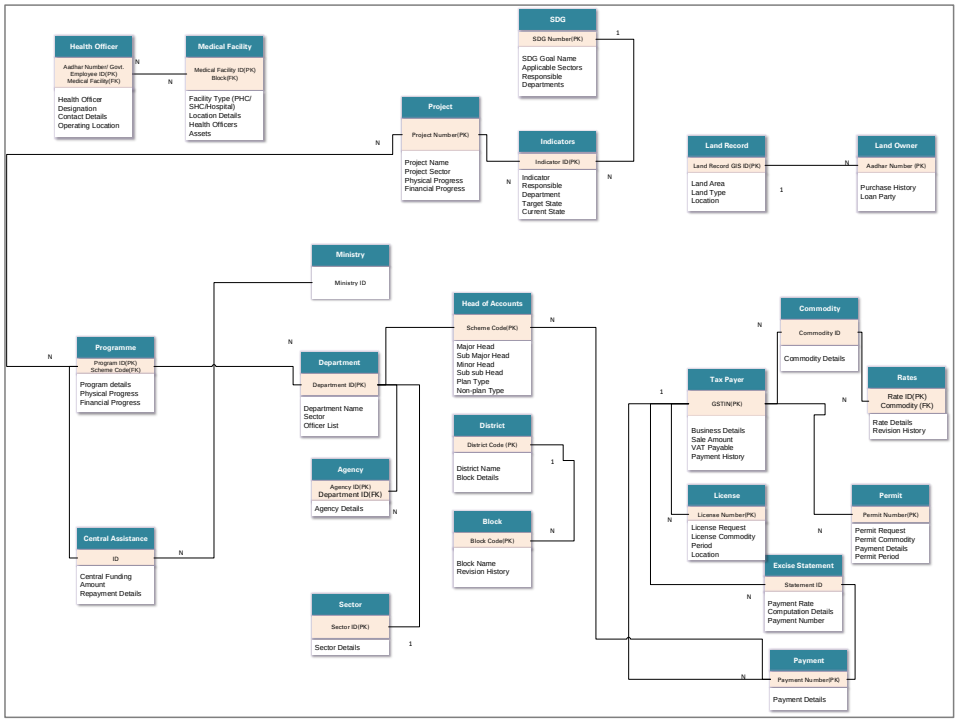

Figure 23: Logical Data Model

5.5.4 Service and Data Mapping

As we had observed in the earlier section, there are not many systems in Governance Pillar and hence, minimum data. These data are stored in system specific databases. As a part of the transformation, data entities need to be created and these data entities would be stored in new systems. It is imperative to understand the services that these new data entities would create. This would ensure establishment of a structure for data management and development of new systems.

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Data Entity	Data Store (System)	Created By	Modified By	Used By
Ministry	Planning MIS	PLA.50 Create or update department and/or agencies	PLA.50 Create or update department and/or agencies	All services related to fund sanctioning or expenditure
Department	Planning MIS	PLA.50 Create or update department and/or agencies	PLA.50 Create or update department and/or agencies	All services related to fund sanctioning or expenditure
Programme	Planning MIS	PLA.01. Specific Projects Programme	PLA.01. Specific Projects Programme	Plan Schemes Monitoring process
Agency	Planning MIS	PLA.50 Create or update department and/or agencies	PLA.50 Create or update department and/or agencies	All services related to fund sanctioning or expenditure
Sector	Planning MIS	PLA.01. Specific Projects Programme	PLA.01. Specific Projects Programme	Plan Schemes Monitoring process
District	Planning MIS	Administrative service to update State Master Data Management system basis LGD	Administrative service to update State Master Data Management system basis LGD	All services
Central Assistance	Finance – Loan Management Module	FS.37. Sanction and disbursement for Central Schemes	FS.37. Sanction and disbursement for Central Schemes	FS.113. Monitor Utilization Certificate Submission
Pregnant Mother	M&E- SDG Dashboard	Human Development Pillar Service	Human Development Pillar Service	PLA.51. Monitor State performance in SDG
Health Officers	M&E- SDG Dashboard	Human Development Pillar Service	Human Development Pillar Service	PLA.51. Monitor State performance in SDG
Medical Facility	M&E- SDG Dashboard	Human Development Pillar Service	Human Development Pillar Service	PLA.51. Monitor State performance in SDG
Taxpayer	VAT e-Registration	ERTS.02. New Registration, Amendment and Renewal under CST/VAT	ERTS.02. New Registration, Amendment and Renewal under CST/VAT	• Payment of Tax under GST for normal taxpayers • Tax Clearance Certificate
Commodity	VAT e-Registration	ERTS.02. New Registration, Amendment and Renewal under CST/VAT	ERTS.02. New Registration, Amendment and Renewal under CST/VAT	• Payment of Tax under GST for normal taxpayers • Tax Clearance Certificate
Rates	VAT e-Refund	ERTS.34. Payment of License Fee	ERTS.34. Payment of License Fee	• All Excise related services

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Data Entity	Data Store (System)	Created By	Modified By	Used By
Waybill				•
Land Details	Land Records System	Land Registration	Land Registration	• Services from all departments
SDG Goal	M&E- SDG Dashboard	PLA.51. Monitor State performance in SDG	PLA.51. Monitor State performance in SDG	• PLA.51. Monitor State performance in SDG
Indicators	M&E- SDG Dashboard	PLA.51. Monitor State performance in SDG	PLA.51. Monitor State performance in SDG	• PLA.51. Monitor State performance in SDG
Project	M&E- Strategic Project Dashboard	PLA.01. Specific Projects Programme	PLA.01. Specific Projects Programme PLA.36. EAP MLAMP PLA.37. EAP CLLMP	• PLA.01. Specific Projects Programme • PLA.33. Plan Schemes Monitoring process
District Monitoring KPIs	M&E- District Monitoring Dashboard	PLA.46. Decentralized district progress evaluation	PLA.46. Decentralized district progress evaluation	• PLA.46. Decentralized district progress evaluation
License	License Services	ERTS.06. Issuance and renewal of License	ERTS.34. Payment of License Fee	• ERTS.34. Payment of License Fee
Permit	Permit Services	ERTS.01. Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	ERTS.01. Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	• ERTS.01. Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.
Excise Statement	VAT e-Refund & Payment	ERTS.35. Submission of Excise Statement	ERTS.35. Submission of Excise Statement	• ERTS.35. Submission of Excise Statement
Hologram	Hologram Services	ERTS.33. Hologram issuance	ERTS.33. Hologram issuance	• ERTS.33. Hologram issuance
Payment	VAT e-Refund & Payment	ERTS.34. Payment of License Fee	ERTS.34. Payment of License Fee	• ERTS.34. Payment of License Fee

Table 19: Governance Pillar Service Data Mapping

The above table shows data flow in Governance Pillar. A data flow is a path for data to move from one part of the IT system to another. The above is tentative and may be revised at time of implementation.

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6. Technology Architecture

Technology Architecture depicts the layout of the technology foundation of ICT-based systems to be designed for delivery of identified business services. Technology Architecture lists all the components of the technology system on an end-to-end basis, including IT Infrastructure, Applications, Access Devices, Communication Systems and Service Delivery modes. It further defines the currently applicable open standards for all the solution building blocks and components and identifies the Open Source Products for each technology component.

6.1 Current State Assessment

Current state assessment is an important aspect to understand the infrastructure components available and can be used. The infrastructure available for Governance Pillar is assessed in further sections.

6.1.1 Environments and Locations

Environment and location components incudes all the IT infrastructure needed for deployment with respect to production environment for as-is and future state.

The following table provide the current technology stack Governance Pillar applications already available:

Application Name	Application Platform	Operating System	Database	Software License Status
meggst.gov.in	MS.Net 4.0 with C#	Windows 2012 SP3	SQL Server 2012	SQL Server 2019 released
meghalayaonline.gov.in	Java Spring Hibernate	Cent OS 7	Oracle 10g	Oracle 19c
Darpan DM Dashboard	Not Known (Developed by NIC Delhi)	Not Known (Developed by NIC Delhi)	Not Known (Developed by NIC Delhi)	Not Known (Developed by NIC Delhi)
Mother App	Not Known (Hosted in AWS)	Not Known (Hosted in AWS)	Not Known (Hosted in AWS)	Not Known (Hosted in AWS)

Table 20: Governance Pillar Current Technology Stack

6.1.2 IT Infrastructure

Following systems are hosted at Mini Data Centre maintained by NIC Meghalaya:

- Meghalaya GST Portal
- Meghalaya Online Application

The existing infrastructure components and their locations are provided below;

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Infrastructure ID	Infrastructure Component Type	Application/ application component	Make, Model,	Data Centre	Infrastructure Challenges
NIC-WEB-05	Web Server	Meghalaya GST Portal	HP ProLiant BL460C	NIC	End of Life
NIC-APP-02	App Server	Meghalaya Online Application	HP ProLiant BL460C	NIC	End of Life

Table 21: Existing Infrastructure Components

6.1.3 Network

The primary network for the service delivery centres is NICNET, the secondary network of Meghalaya SWAN is outdated and mostly non-operational. The network details for blocks are not available hence not included in the document.

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6.2 Challenges and Pain Points

The critical challenges and points have been captured under the following categories:

- **Unavailability/Outdated IT Infrastructure**: The tools and technologies that are missing and are required considering the reference technology model. The IT infrastructure that have crossed the end of life; and have issues related to support and maintenance.
- **Network**: The availability of uninterrupted primary and secondary network is critical for the working of departments under Governance Pillar. The key challenges with respect to network is discussed under this consideration.

6.2.1 Unavailability/Outdated IT Infrastructure

The infrastructure on which the applications/ portals of departments in Governance Pillar are deployed has been analysed and the gaps has been identified. The details identified are listed below:

Application Name	User Departments/ Function	Gaps
Meghalaya GST Portal	ERTS Department (Taxation)	Crystal Server infrastructure needs immediate upgrade.
Meghalaya Online Application	ERTS Department (Taxation)	Crystal Server infrastructure needs immediate upgrade.

Table 22: Infrastructure Gaps

6.2.2 Network Challenges

Network is a critical area and Meghalaya Government have several issues with respect to the network. Below are the key challenges Meghalaya is facing in terms of network.

Key Issues:

- Unavailability of network (Primary and Secondary) in many blocks.
- Unavailability of secondary network in some districts.
- Network audit is not carried out
- Network devices are not assessed, no inventory exists in the state data centre.

6.2.3 Consolidated Challenges

Below is a list of key challenges as observed in the Technology Architecture assessment phase

S. No	Challenges
1	Few critical hardware/software components have crossed end of life; hence, needs upgrade in near term.
2	Unavailability of primary network in some blocks and secondary network at many places leads to severe impact in normal operations.
3	Department do not have proper back up database, data archival, database clustering, data management and there is no backup policy.
4	State lacks tools for monitoring of application and network. Tools for access rights, performance monitoring, and utilization monitoring are required.

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S. No	Challenges
5	State do not have proper IT asset Management, Software licenses management, access management, Asset management etc.
6	Notable errors/ issues have been observed in systems – the causal analysis for the same has not been performed.
7	Analytics capability is limited owing to unavailability of data analytics specialized software

Table 23: Technology Architecture – Key Challenges

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6.3 SWOT Analysis of Technology Architecture

Analysis Paradigm	Key Pointers	Target State
Strength	Desktop availability in Districts and Blocks	Retained
	Network Availability in Districts and Blocks	Retained
Weakness	Outdated infrastructure	Recommendations for infrastructure modernization
	Availability of uninterrupted network in all offices	Recommendations Provided
Opportunity	Availability of Field officers/ staff can be leveraged to deliver services through desktops/ mobile apps.	Realized
Threats	Unavailability of systems due to network outages	Addressed
	Risk of system outages owing to outdated infrastructure	Addressed
	Security lapses in current architecture.	Addressed

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6.4 Future State

6.4.1 IT Infrastructure

- The State Government needs to revamp and upgrade its IT Infrastructure considering the end of life analysis.
- Primary and secondary network needs to be made available at all District, Block and Circle offices.
- Desktops, Printers, POS machines, Mobile devices need to be procured and distributed to the officers to perform their duties efficiently.

Below is proposed Technology Architecture in future state:

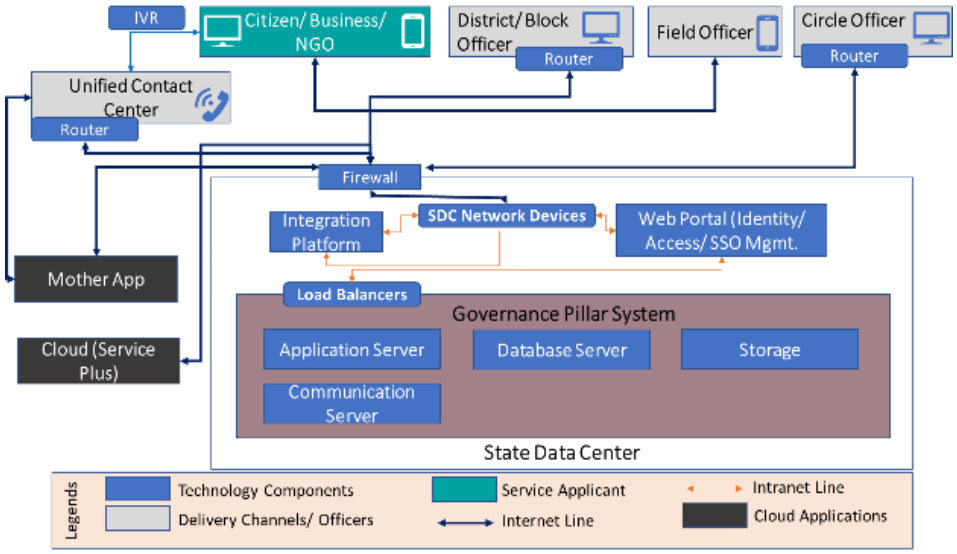

Figure 24: Future State Technology Architecture

6.4.2 New System-Technology Matrix

System module to technology component matrix for new technology products are listed for logical components only.

Technology Component	System Name	System Component	Proposed Location
Integration Platform	State Service Bus	New	State Data Centre

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Technology Component	System Name	System Component	Proposed Location
Single Sign on Component	Identity and Access Management	New	State Data Centre
Data Warehouse	Darpan	Reports	State Data Centre/ Cloud

Table 24: System – Technology Matrix

6.4.3 New Requirement Specifications

The new technology component listed below along with High-level specifications based on number of users and volume of expected transactions.

Equipment / component /supply/works	Qty. at Primary Site	Qty. at DR Site	Remarks
Governance Pillar System DB Server	1	1	LBS (Load Balancer Switch) & FOS (Fail Over Switch) at SDC (State Data Centre) between SDC & DR (Disaster Recovery), with licenses
Governance Pillar System App Server	1+1	1	LBS & FOS at SDC between SDC & DR, with licenses
IAM / WAM Software (including SSO and associated software components [e.g. application server, web server etc.] if any) with 40 Core perpetual license	1	1	
Directory Service per Instance/Node basis	1	1	High Availability Scalability: High Scalability to store minimum 20 Million user records Support for 64-bit Architecture
IAM/WAM Server	1+1	1	LBS & FOS at SDC between SDC & DR, with licenses
IAM/WAM DB Server	1+1	1	LBS & FOS at SDC between SDC & DR, with licenses

Table 25: New Requirement Specifications

In addition to above, there will be infrastructure requirement in terms of laptops, desktops, printers etc. based on the roles of the officers in Governance Pillar. The actual infrastructure details are not available thus the total tentative requirement has been illustrated below:

Department Officers	Desktop	Mobile Device	Biometric Device	Barcode Scanner
Inspector Excise	✓	✓		✓
Commissioner Excise	✓			
Enforcement Wing		✓		✓
Superintendent of Taxes	✓			

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Department Officers	Desktop	Mobile Device	Biometric Device	Barcode Scanner
Taxation Officer	✓			
Commissioner of Taxes	✓			
Additional Commissioner of Taxes	✓			
Deputy Commissioner of Taxes	✓			
Assistant Commissioner of Taxes	✓			
Asst. Commissioner of Excise	✓			
Superintendent of Excise	✓			
Deputy Superintendent of Excise	✓			
Asst. Inspector of Excise	✓	✓		✓
Head Excise Constable	✓			✓
Excise Constable	✓			✓
Joint Commissioner of Taxes	✓			
UDA	✓			
LDA	✓			
Dept. Sec.	✓			
Joint Sec.	✓			
Director	✓			
Deputy Director	✓			
Research Officer	✓	✓		
Statistical Officer	✓	✓	✓	
Inspector	✓			
Financial Advisor	✓			
FAO	✓			
Register	✓			
Superintendent	✓			

Table 26: Infrastructure Requirements

Key Changes

- Deployment of Enterprise Service Bus and API gateway for effective integration. Re-architecture of systems to SOA/ MSA based architecture
- Re-architecture of Taxation systems to modern architecture. Development of Governance Pillar System accessible through common state portal.
- Implementation of data back-up and disaster recovery mechanism, implementation of DR drills.
- Implementation of analytics software.
- Server virtualization at SDC.
- Implementation of tools for access rights, performance monitoring, and utilization monitoring.
- Implementation of SSO components.

6.4.4 Consolidated Recommendations

Technology standards catalogue is already listed in IndEA. Compliance with respect to the IndEA Technology standards catalogue are captured as below;

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S. No	Challenges	Recommendations
1	Unavailability of modern integration methods.	Deployment of Enterprise Service Bus and API gateway for effective integration. Re-architecture of systems to SOA/ MSA based architecture
2	Few critical hardware/software components have crossed end of life; hence, needs upgrade in near term.	Upgrade existing IT infrastructure as per End of Life analysis
3	Unavailability of primary/ secondary network may lead to severe impact in normal operations.	Availability of primary/ secondary network in all district, block and circle offices.
4	Department do not have proper back up database, data archival, database clustering, data management and there is no backup policy.	Implementation of data back-up and disaster recovery mechanism, implementation of DR drills.
5	Department has deployed ICT infrastructure at a fast pace, however, there is a lack of methodology for infrastructure design, procurement and support	Implementation of IT infrastructure guidelines for procurement. Architecture review of new changes for study and analysis.
6	State lacks tools for monitoring of application and network. Tools for access rights, performance monitoring, and utilization monitoring are needed.	Implementation of tools for access rights, performance monitoring, and utilization monitoring.
7	State do not have proper IT asset Management, Software licenses management, access management, Asset management etc.	Implementation of IT Asset management system along with integrated software license management
8	Notable performance issues have been observed in few systems – the causal analysis for the same has not been performed.	Controlled performance monitoring and IT service desk for issue resolution.
9	Peak hours accessibility and availability is an issue owing to excess load. Virtualization of server is limited.	Server virtualization at SDC.
10	Analytics capability is limited owing to unavailability of data analytics specialized software.	Implementation of analytics software.

Table 27: Technology Standards Catalogue

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7. Security Architecture

Meghalaya state government has been planned its services online through web and mobile interfaces. This may open a boulevard for multiple threats to access the information, systems, and assets to be viewed and/or altered unauthorized to harm the services, applications or the departments. This points out the importance of defining and implementing policies, processes, controls for information security.

Security is not confined to a single level but needs to be addressed at business (defining security policies), infrastructure (appropriate configurations at the network, data center, and hardware), application (Application deployment, OS hardening) and data (storage, access) levels. It is least costly and most effective to plan for and implement security-specific elements in the To-Be Architecture as early as possible in the MeghEA development cycle to avoid costly retrofit or rework because of the required building blocks for security were not added or used during systems development and deployment.

7.1 Current State Assessment, Challenges and Pain Points

There are various applications or portals in Governance pillar with varied functionalities. There are no security audits conducted for the applications. The functionality of the application portals has been covered in application architecture. The major challenges have been captured as below:

- Devices for data collections are not under any security policy, data theft or loss is highly likely
- VAT systems have issues in security management:
    - Website has production IP in the web link. This leads to several security vulnerabilities
    - User profile management is not secured and consistent to State's security policy
    - Hosting data center is not audited
- There is no backup policy on the servers which are already out of warranty thus there is always threat of data loss in case of server failure.
- No defined anti-virus policy exists. Users laptops and devices are not covered under any anti-virus policy.
- Currently, Authentication and Authorization is system-role based. Hence, it is not uniform. Accounting of information actions is not captured.
- There is no session management policy in Governance Pillar departments.
- Absence of regular third-party auditing has created lacuna in security threat management. OWASP based security assessment are not carried out.
- Identity and Access management is implemented at data level.
- Data is currently not classified.
- No data recovery policy exists. DR Site is not operational.

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7.2 SWOT Analysis of Security Architecture

Analysis Paradigm	Key Pointers	Target State
Strength	Secured system through effective user administration of users in Planning MIS	Retained
	Planning department have secured desktops connected to intranet and regularly updated with security patches	Retained
Weakness	System level security and user profiling; lack of availability of SSO	SSO recommended
	State Data Centre is non audit compliant and have several security lapses	Recommendations Provided
	Cloud system data security is not reviewed	Recommendations Provided
Opportunity	Single-Sign-On	Recommended
	Access management based on user need analysis	Recommended
Threats	Lack of DR environment and DR policy	Recommendations Provided

7.3 Future State

7.3.1 Access Requirement

Module-> User	Inbox	Finance	Fund Reporting	SDG Monitoring	Strategic Projects Administration	District Monitoring	Survey & Data Collection	Reports & Publication	Information & Notification
Citizens				✓				✓	✓
Business				✓				✓	✓
Central Govt.				✓				✓	✓
Module-> User	**Inbox**	**Finance**	**Fund Reporting**	**SDG Monitoring**	**Strategic Projects Administration**	**District Monitoring**	**Survey & Data Collection**	**Reports & Publication**	**Information & Notification**
Dept. Sec.	✓	✓	✓	✓	✓	✓		✓	✓
Joint Sec.	✓	✓	✓	✓	✓	✓		✓	✓
Director	✓	✓	✓	✓	✓	✓	✓	✓	✓
Deputy Director	✓	✓	✓	✓	✓	✓	✓	✓	✓
Research Officer	✓	✓	✓	✓	✓	✓	✓	✓	✓
Statistical Officer	✓			✓			✓	✓	✓
Inspector				✓			✓	✓	✓
Financial Advisor	✓			✓	✓	✓		✓	✓
FAO	✓			✓	✓	✓		✓	✓
Register	✓			✓				✓	✓
Superintendent	✓	✓		✓	✓	✓	✓	✓	✓
U.D. A	✓	✓		✓			✓	✓	✓
L.D. A	✓	✓		✓			✓	✓	✓

Module-> User	License	Fee Revision	Statutory Forms	Rates	Acts & Rules	Pass & Permits	Returns	Certificate	Waybills	Enforcement & Recovery	Reports	Assessment & Audit
Asst. Commissioner of Excise	✓	✓	✓	✓	✓	✓						
Inspector Excise	✓	✓	✓	✓	✓	✓						
Superintendent of Excise	✓	✓	✓	✓	✓	✓						
Deputy Superintendent of Excise	✓		✓	✓	✓	✓						
Inspector of Excise	✓		✓	✓	✓	✓						
Asst. Inspector of Excise	✓		✓	✓	✓							
Head Excise Constable			✓	✓	✓							
Excise Constable				✓	✓							
Additional Commissioner of Taxes							✓	✓	✓			
Joint Commissioner of Taxes							✓	✓	✓			
Deputy Commissioner of Taxes							✓	✓	✓			
Assistant Commissioner of Taxes							✓	✓	✓			
UDA							✓	✓	✓			
LDA									✓			

Steno									✓			
Asst. Prog												
IT												

7.3.2 Data Classification

Please refer Statewide – Detailed Architecture Requirements document, Detailed Architecture Requirements – Security section for details on the data classification categories.

The data related to Governance Pillar has been classified as per below:

Data Entity	Data Classification	Securing data at rest	Securing data in transit	Data encryption	Data quality	ETL Security	Data Loss Prevention
Ministry	Official	✓	✓				✓
Department	Official	✓	✓				✓
Programme	Official	✓	✓				✓
Plan Type	Official	✓	✓				✓
Sub Plan Type	Official	✓	✓				✓
Agency	Official	✓	✓				✓
Sector	Official	✓	✓				✓
Head of accounts	Official	✓	✓	✓	✓	✓	✓
User	Private	✓	✓				✓
District	Public	✓	✓	✓	✓	✓	✓
Scheme	Private	✓	✓				✓
Sanctions	Confidential	✓	✓	✓	✓	✓	✓
Central Assistance	Confidential	✓	✓				✓
Pregnant Mother	Private	✓	✓		✓	✓	✓
Health Officers	Private	✓	✓	✓	✓	✓	✓
Medical Facility	Public	✓	✓				✓
Taxpayer	Private	✓	✓				✓
Tax Amount	Confidential	✓	✓				✓
Commodity	Public	✓	✓				
Rates	Public		✓				

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Data Entity	Data Classification	Securing data at rest	Securing data in transit	Data encryption	Data quality	ETL Security	Data Loss Prevention
Waybill	Public	✓	✓				
Land Details	Private		✓				
Land Registration	Private	✓	✓				
SDG Goal	Public						
Indicators	Public						
Target State	Public						
Current State	Private	✓	✓	✓		✓	✓
Project	Private	✓	✓				
District Monitoring KPIs	Private	✓	✓				
License	Private	✓	✓	✓			✓
Permit	Private	✓	✓	✓			✓
Excise Statement	Private	✓	✓	✓			
Hologram	Private	✓	✓				
Payment	Private	✓	✓	✓			✓

Table 28: Governance Pillar Data Classification

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8. Architecture Realization

8.1 Service Realization Model

The sections above have described the services, processes within the service and the need for capability increment to enhance service delivery. The current section mainly covers the business use cases needed to support the service delivery, a business use case model is a model that describes the processes of a business and their interactions with external parties like beneficiaries and stakeholders.

Following sub-section describes the business use cases along with the key activities to be undertaken within the service and re-usable architecture building blocks. The prioritized services are explained below:

8.1.1 Voluntary Action Fund Disbursement

- **Strategic Indicators:**
  - Funds utilized vis-à-vis estimates.
- **Use Case Steps**: NGO registers for voluntary action fund through digital channels and provides GST.
  - Key Activities: NGO registers GST from digital channel, this is available at state level.
  - Architecture Building Blocks: State Portal-Governance-Services- NGO funding requests.
- **Use Case Steps**: NGO applies for the fund.
  - Key Activities: As per need, NGO applies for the fund to District Planning Officer.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification and Scrutiny.
  - Key Activities: Verification of application for correctness and scrutiny by district empowered committee.
  - Architecture Building Blocks: Workflow, Fund Management.
- **Use Case Steps**: Approval and notification.
  - Key Activities: Committee approves the application and send for acceptance. SMS is sent to NGO's registered mobile
  - Architecture Building Blocks: Messaging, Workflow.
- **Use Case Steps**: Disbursement of Funds.
  - Key Activities: District planning officer prepared bill and submits for transfer of funds.
  - Architecture Building Blocks: Messaging, Workflow, Payment.

8.1.2 Statistical Reporting

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
  - EoDB ranking
- **Use Case Steps**: Collection of data.
  - Key Activities: Inspector Statistics collects data from various sources and enters into Governance System.

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  - Architecture Building Blocks: Data Collection Form, Workflow.
- **Use Case Steps**: Estimation of GSDP, estimation of industrial production, etc. (analysis and conclusion)
  - Key Activities: Incorporation of all processed data for all sectors of economy.
  - Architecture Building Blocks: Workflow, Analytics.
- **Use Case Steps**: Reconciliation and finalization of results.
  - Key Activities: Joint discussion on the comparable estimates for finalization of results estimates both at Current and Constant prices and upload finalized details on website.
  - Architecture Building Blocks: Workflow.

8.1.3 Preparation of Expenditure Budget - Process

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
  - Funds utilized vis-à-vis estimates.
  - Total liability as a percentage of state GDP.
- **Use Case Steps**: Scheme Proposals is uploaded by department officers for all new and existing schemes in desired digital format.
  - Key Activities: Departments prepare their proposals for development expenditure budget and send to planning.
  - Architecture Building Blocks: Workflow, Expenditure Approval
- **Use Case Steps**: Verification of Proposals.
  - Key Activities: Competent authority logs into system, verify details and send for approval to Chief Minister/ Minister Incharge.
  - Architecture Building Blocks: Workflow, Expenditure Approval.
- **Use Case Steps**: Approval.
  - Key Activities: Issue of approved Development Budget Expenditure by paper, on website and MIS and convey approval.
  - Architecture Building Blocks: Messaging, Workflow.
- **Use Case Steps**: Budget and Treasury Systems updated.
  - Key Activities: All financial systems are updated on the approved scheme amount
  - Architecture Building Blocks: Integration Platform

8.1.4 National Sample Survey (NSS)

- **Strategic Indicators:**
  - Socially engaged Population aged between 3 to 60.
- **Use Case Steps**: Workshops and trainings of trainers.
  - Key Activities: Conducting workshops and trainings of trainers at national, regional and state level.
  - Architecture Building Blocks: Learning Management System.
- **Use Case Steps**: Commencement of Survey and Data entry.
  - Key Activities: National Sample Survey officer conducts survey as per schedules and allocated districts.
  - Architecture Building Blocks: Workflow, Messaging.
- **Use Case Steps**: Monitoring and Validation of Data entered.

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- Key Activities: The progress of data collection is monitored and validated and sent to center for processing and publishing
- Architecture Building Blocks: Workflow.

8.1.5 Capacity training for the emerging technologies

- **Use Case Steps**: Students, Interns, Volunteers apply for training for emerging technologies.
  - Key Activities: As per need, Students, Interns, Volunteers apply for the training for emerging technologies.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Make batches and publish schedule of training.
  - Key Activities: District/ Block wise consolidation of participants with similar training needs and preparation of training schedule.
  - Architecture Building Blocks: Workflow, Messaging, Scheduling (Learning Management System)
- **Use Case Steps**: Arrange trainer and provide training.
  - Key Activities: Trainer is arranged, and training is delivered to the applicants.
  - Architecture Building Blocks: Learning Management System, Messaging, Workflow

8.1.6 Inventory preparation to investigate the possibilities of augmenting and improving resources of the state

- **Use Case Steps**: Prepare Inventory.
  - Key Activities: Planning officer prepares report on state resources - fund.
  - Architecture Building Blocks: Financial Management (Cash Flow).
- **Use Case Steps**: Prepare report.
  - Key Activities: Investigate and prepare report on possibilities of augmenting and improving resources of the state.
  - Architecture Building Blocks: Document Management.
- **Use Case Steps**: Report submission.
  - Key Activities: Report is submitted to concerned authority for approval.
  - Architecture Building Blocks: Document Management

8.1.7 Plan Schemes Monitoring process

- **Strategic Indicators:**
  - Percentage of digital payments in government.
  - EoDB ranking as per DIPP evaluation.
  - Services available online.
  - Horticulture Produce.
  - Growth of Industries.
  - Growth in MSME establishments.
  - Immunization Achievement.
  - Towns Declared ODF.
  - Villages Declared ODF.
  - State's Own Tax Revenue Receipts to Total Revenue Receipts.
  - Debt (Total Outstanding Liabilities) to GSDP.
  - Empowerment of SCs, STs, OBCs and Minorities.

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  - Change in Forest Cover.
  - Enactment of Right to Services Act by the State.
- **Use Case Steps**: Monitor the progress of Projects and Schemes.
  - Key Activities: Monitoring of progress of Projects and Schemes by the Planning officer.
  - Key Activities: Observe districts and blocks against each indicators
  - Architecture Building Blocks: Monitoring & Evaluation Dashboard, Business Intelligence
- **Use Case Steps**: Prepare meeting agenda and call for meeting.
  - Key Activities: Prepare meeting agenda and disseminate agenda
  - Architecture Building Blocks: Document Management, Communication & Collaboration

8.1.8 EAP MLAMP

- **Use Case Steps**: Monitor Physical and Financial progress of the project
  - Key Activities: Review progress through analysis of reports
  - Architecture Building Blocks: Monitoring & Evaluation- Strategic Project Administration
- **Use Case Steps**: Prepare meeting agenda and call for meeting.
  - Key Activities: Prepare meeting agenda and disseminate agenda
  - Architecture Building Blocks: Document Management, Communication & Collaboration

8.1.9 EAP CLLMP

- **Use Case Steps**: Monitor Physical and Financial progress of the project
  - Key Activities: Review progress through analysis of reports
  - Architecture Building Blocks: Monitoring & Evaluation- Strategic Project Administration
- **Use Case Steps**: Prepare meeting agenda and call for meeting.
  - Key Activities: Prepare meeting agenda and disseminate agenda
  - Architecture Building Blocks: Document Management, Communication & Collaboration

8.1.10 Knowledge Resource Management

- **Use Case Steps**: Create knowledge resources in digital media
  - Key Activities: Create digital content using technology in selected subject
  - Architecture Building Blocks: Content Management
- **Use Case Steps**: Distribute media content through digital and non-digital channels.
  - Key Activities: Deploy digital content in state portal and/or procure vendor to print and distribute content
  - Architecture Building Blocks: Content Management, Messaging

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8.1.11 Prioritization of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc – Process

- **Strategic Indicators:**
  - Total liability as a percentage of state GDP.
- **Use Case Steps**: Receipt of Proposal from department.
  - Key Activities: Department prepares proposal and submits in system to planning department.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Examination.
  - Key Activities: The proposal is examined in detail for feasibility, benefits and guidelines requirement.
  - Architecture Building Blocks: Workflow, Analytics
- **Use Case Steps**: Approval and Submission to Funding Organization.
  - Key Activities: Competent Authority approves the proposal and send for funding to funding organization through selection of desired templates from the available list
  - Architecture Building Blocks: Messaging, Workflow, Document Management
- **Use Case Steps**: Sanction Intimation.
  - Key Activities: Competent Authority receives sanction of fund from funding organization and conveys the same to project/ scheme implementing department.
  - Architecture Building Blocks: Financial Management (Loan Management)

8.1.12 Disbursement of Funds for schemes/projects under Development Expenditure Budget

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
  - Funds utilized vis-à-vis estimates.
  - Total liability as a percentage of state GDP.
- **Use Case Steps**: Receipt of Proposal from department.
  - Key Activities: Department prepares proposal and submits in system to planning department.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Examination.
  - Key Activities: The proposal is examined in detail for feasibility, benefits and funds requirement.
  - Architecture Building Blocks: Workflow, Financial Management (Loan Management)
- **Use Case Steps**: Approval and notification.
  - Key Activities: Competent Authority approves the proposal and convey approval.
  - Architecture Building Blocks: Messaging, Workflow.

8.1.13 Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
  - Proportion of domestic budget funded by domestic taxes.
- **Use Case Steps**: Apply for Permit.
  - Key Activities: The business applies for permit to the District Superintendent.

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  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification.
  - Key Activities: The district officer verifies the application and forward with recommendation to office of Commissioner Excise for approval.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Approval.
  - Key Activities: Approving authority approves the permit and notification is sent to the applicant licensee.
  - Architecture Building Blocks: Workflow, Messaging, DigiLocker.

8.1.14 Issuance and renewal of License

- **Strategic Indicators:**
  - Proportion of domestic budget funded by domestic taxes.
- **Use Case Steps**: Apply for License Registration/ Renewal.
  - Key Activities: The business applies for registration/ renewal of License to the District Superintendent.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification.
  - Key Activities: The district officer verifies the application and forward with recommendation to office of Commissioner of Excise for approval.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification.
  - Key Activities: Office of Excise commissioner verifies the application and forward with recommendation to State Government for approval.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Approval.
  - Key Activities: Competent authority approves the application and notification is sent to the applicant licensee.
  - Architecture Building Blocks: Workflow, Messaging, DigiLocker.

8.1.15 Registration and Renewal of Brand

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
- **Use Case Steps**: Apply for Registration/ Renewal.
  - Key Activities: The business applies for registration/ renewal to the District Superintendent.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification.
  - Key Activities: The district officer verifies the application and forward with recommendation to office of Commissioner Excise for approval.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Approval.
  - Key Activities: Approving authority approves the application and notification is sent to the applicant licensee.
  - Architecture Building Blocks: Workflow, Messaging, DigiLocker.

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8.1.16 Refund of Tax under VAT/CST

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
  - Proportion of domestic budget funded by domestic taxes.
- **Use Case Steps**: Apply for Refund.
  - Key Activities: The business applies for refund to the District Superintendent.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification.
  - Key Activities: The district officer verifies the application and forward with recommendation to office of Commissioner of Taxes for approval.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification.
  - Key Activities: Office of Tax commissioner verifies the application and forward with recommendation to State Government for approval.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Approval.
  - Key Activities: Competent authority approves the application and Conveys Sanction.
  - Architecture Building Blocks: Workflow, Messaging.
- **Use Case Steps**: Preparation of Bill.
  - Key Activities: District Superintendent prepares bill as per sanction and send to treasury for processing.
  - Architecture Building Blocks: Workflow, Fund Management.
- **Use Case Steps**: Transfer of Refund.
  - Key Activities: Treasury processes the bill as per norms and transfers the amount to taxpayers bank account.
  - Architecture Building Blocks: Workflow, Messaging, Fund Management.

8.1.17 Issuing of statutory declaration forms

- **Strategic Indicators:**
  - Proportion of domestic budget funded by domestic taxes.
- **Use Case Steps**: Apply for Statutory Declaration Forms.
  - Key Activities: The business applies for statutory forms to the District Superintendent.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification.
  - Key Activities: The district officer verifies the application along with return details.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Approval.
  - Key Activities: Superintendent of Taxes approves the application and notification is sent to the applicant.
  - Architecture Building Blocks: Workflow, Messaging, DigiLocker.

8.1.18 Retailer Permit for Wine Shops/Bars/Canteens

- **Strategic Indicators:**

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  - Annual growth rate of GSDP per capita.
  - Proportion of domestic budget funded by domestic taxes.
- **Use Case Steps**: Apply for Registration/ Renewal.
  - Key Activities: The business applies for registration/ renewal to the District Superintendent.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Verification.
  - Key Activities: The district officer verifies the application.
  - Architecture Building Blocks: Workflow.
- **Use Case Steps**: Approval.
  - Key Activities: Superintendent of Excise approves the application and notification is sent to the applicant.
  - Architecture Building Blocks: Workflow, Messaging, DigiLocker.

8.1.19 Payment of License Fee

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
  - Proportion of domestic budget funded by domestic taxes.
- **Use Case Steps**: Payment of License Fee.
  - Key Activities: The business comes to portal, enters required details and make payment of fee.
  - Architecture Building Blocks: Workflow, Messaging.

8.1.20 Decentralized District Progress Evaluation

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
  - Population satisfied with their last experience of public services
- **Use Case Steps**: Reconciliation of data from various systems district wise
  - Key Activities: District leadership reviews Monitoring & Evaluation Dashboard-District Monitoring module to understand progress of various schemes and projects
  - Architecture Building Blocks: Integration Platform, Reporting (M&E Dashboard - District Monitoring)
- **Use Case Steps**: Prepares for meeting in focus areas to direct competent authority to review progress and resolve issues
  - Key Activities: Sends meeting agenda and report to competent authority
  - Architecture Building Blocks: Messaging, Document Management

8.1.21 Industrial Statistical data collection under two categories: Organized factory sector and Unorganized non-factory sector.

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita.
  - Socially engaged Population aged between 3 to 60
- **Use Case Steps**: Data Collection as per pre-defined forms

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  - Key Activities: Inspector (Planning – Economics & Statistics) collects data from organized and unorganized business sector
  - Architecture Building Blocks: Data Collection & Survey
- **Use Case Steps**: Collected data is reconciled at block, district and subsequently at state level
  - Key Activities: All data collected is reconciled at headquarter
  - Architecture Building Blocks: Analytics, Data Warehouse
  - Key Activities: Data is reported in State SDG Dashboard through automated analytical processing
  - Architecture Building Blocks: Analytics, M&E Dashboard – SDG Monitoring

8.1.22 Monitoring, Marketing and Management of MeghEA.

- **Strategic Indicators:**
  - Services available online.
  - Population satisfied with their last experience of public services
- **Use Case Steps**: Monitor MeghEA project progress
  - Key Activities: Planning Joint Secretary regularly update/review project physical and financial progress
  - Architecture Building Blocks: Monitoring & Evaluation – Strategic Project Administration Dashboard

8.1.23 On-Demand Statistical Information.

- **Strategic Indicators:**
  - Services available online
- **Use Case Steps**: Department uploads Government order and requests for new agency creation in master data management system
  - Key Activities: Requests new agency creation
  - Architecture Building Blocks: Workflow
  - Key Activities: Planning Joint Secretary reviews and updates request
  - Architecture Building Blocks: Workflow, Messaging
  - Key Activities: IT Support creates new agency in the master data management system
  - Architecture Building Blocks: Master Data Management, Workflow, Messaging

8.1.24 Create or update department and/or agencies.

- **Strategic Indicators:**
  - Depends on statistical information requested
- **Use Case Steps**: Departments requests new statistical information from planning
  - Key Activities: Department logs into Data Collection & Survey – New Request and logs new statistical information requests
  - Architecture Building Blocks: Data Collection & Survey – New Requests, Workflow
  - Key Activities: Competent authority from planning reviews and update request. He may advice for new data collection or provide access to existing reports
  - Architecture Building Blocks: Data Collection & Survey – Resolve Requests, Workflow, Reports

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- Key Activities: Cases for which data collection is required, new forms would be designed by requesting departments along with reporting formats through simple business friendly configuration
- Architecture Building Blocks: Data Collection & Survey – Form Design, Workflow, Report Design

8.1.25 Monitor State performance in SDG.

- **Strategic Indicators:**
  - Monitoring service, hence, linked to all **235** State SDG indicators
- **Use Case Steps**: Log into M&E Dashboard – SDG Monitoring
  - Key Activities: Review SDG performance in various indicators – block wise, district wise and State wise
  - Architecture Building Blocks: M&E Dashboard – SDG Monitoring
  - Key Activities: Request meeting and share meeting agenda
  - Architecture Building Blocks: Document Management, Messaging

8.1.26 Submission of Excise Statement.

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita
- **Use Case Steps**: Log into Governance – Returns/Excise Statement
  - Key Activities: Log into system and click on submit new statement
  - Architecture Building Blocks: Digital Registry
  - Key Activities: Enter required data in form and submit statement, system would send back approved certificate and for cases of payments would re-direct to payment screen.
  - Architecture Building Blocks: Document Management, Messaging, DigiLocker, Payment Gateway

8.1.27 Retail License Auction.

- **Strategic Indicators:**
  - Annual growth rate of GSDP per capita
- **Use Case Steps**: Notification for Auction Applications
  - Key Activities: Notification in various newspaper and through digital media to receive applications for auction along with security money.
  - Architecture Building Blocks: Messaging.
- **Use Case Steps**: Verification of Applications and Notification
  - Key Activities: Applications received are verified for completeness and fee payments post which the list is published for qualified applicants along with Auction date time and place.
  - Architecture Building Blocks: Messaging, Workflow.
- **Use Case Steps**: Auction Process

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- Key Activities: On scheduled date and time, auction is done, and retail licenses are allotted to highest bidders and given provisional license to pay due fee. Allottee pays the fee as per schedule.
- Architecture Building Blocks: Messaging, Payment Gateway, Document Management, DigiLocker.

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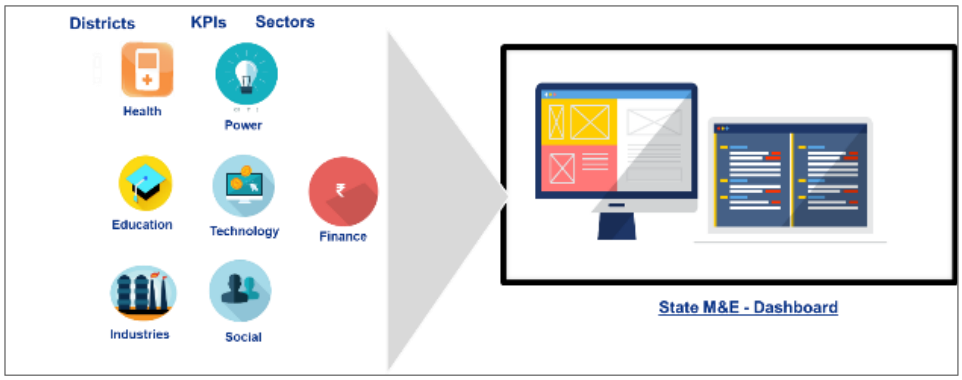
8.2 Illustration of Use Case Realization:

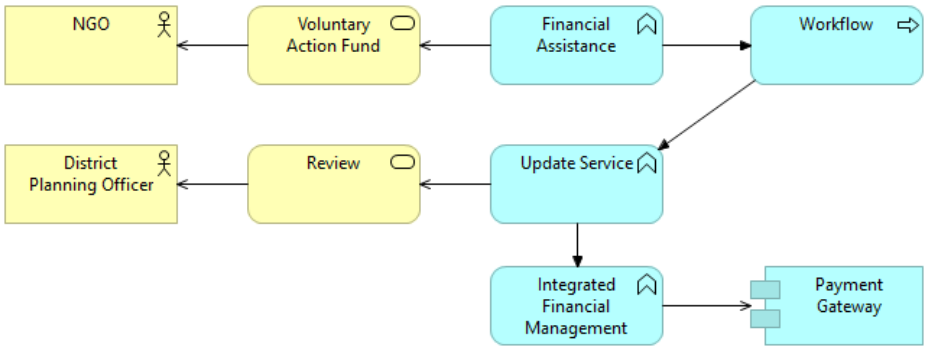
8.2.1 Monitoring & Evaluation, Strategic Project Administration

Monitoring & Evaluation is the core service of Governance pillar, integrated data from various systems would be feed to the M&E dashboards to provide a holistic and real-time view of the various progress parameters of the state



8.2.2 Funding Approval

For all disbursement of Funds for schemes/projects under Development Expenditure Budget, funding proposal needs to be approved by Planning. Proposal would be shared in defined template in the digital system with pre-defined workflow. Once approved, financial system needs to be updated with approval note along with notification to the requesting department



8.2.3 Survey, Statistical Reporting

For all surveys and data collection services, forms would be prepared through digital systems and shared with the Planning – Economics and Statistics inspectors for data collection. These data collection would be reconciled by the system from different sources and displayed in visual reports

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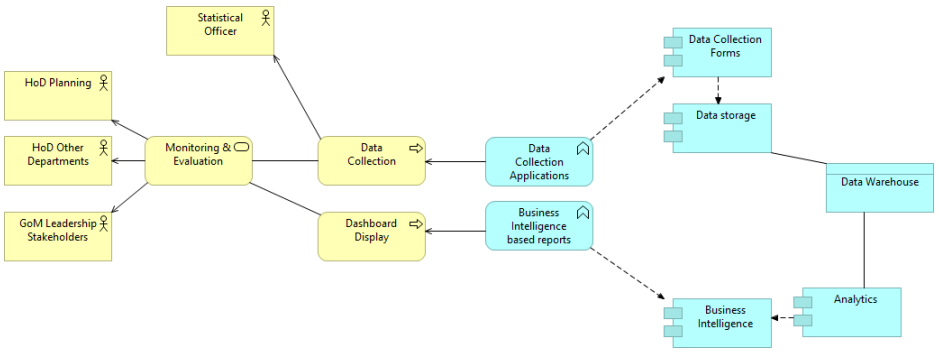
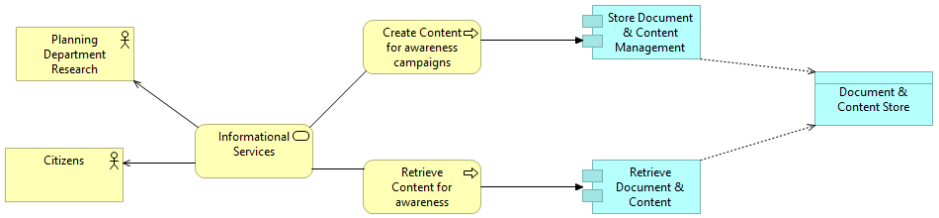


8.2.4 Informational Services

The Knowledge Resource Management generates, publish & distributes various leaflets, journals and videos targeted at Community, project officials as well as to line departments. The unit functions on available knowledge resources and provides repository of various traditional and acquired knowledge during the process of EAP implementation. In the future state, planning department would create digital content on its own to share with in an automated workflow with respective stakeholders



8.2.5 Export Permit

As defined in previous section, the business applies for Permit and the request is routed to Superintendent of Excise for verification of application and necessary checks. The application is forwarded to office of Commissioner of Excise with recommendation. The application is verified and approved. The illustrative use case is as shown below:

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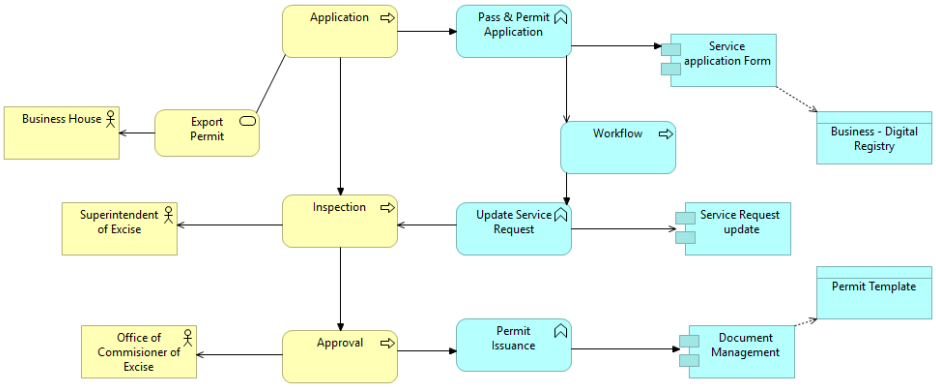
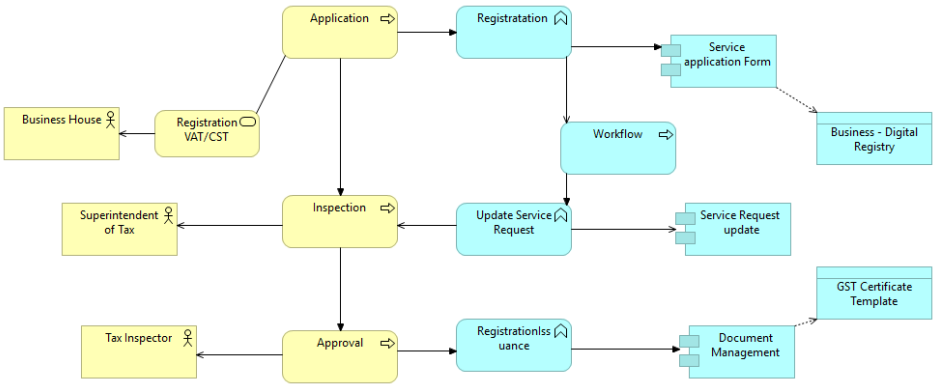


8.2.6 Registration VAT/CST

The business applies for VAT/ CST registration along with necessary documents. The request is forwarded to Superintendent of Taxes. He verifies the application and assigns field officer for verification of premises and other necessary checks. Based on the report received, district officer approves the application and issues certificate. The illustrative use case is as shown below:



8.2.7 License Issuance

The business applies for License and the request is routed to Superintendent of Excise for verification of application and necessary checks. The application is forwarded to office of Commissioner of Excise with recommendation. The office of commissioner verifies the application against recommendation and further forwards the application to State Government with his recommendation. The application is verified and approved by the competent authority and the license certificate is issued to the applicant. The illustrative use case is as shown below:

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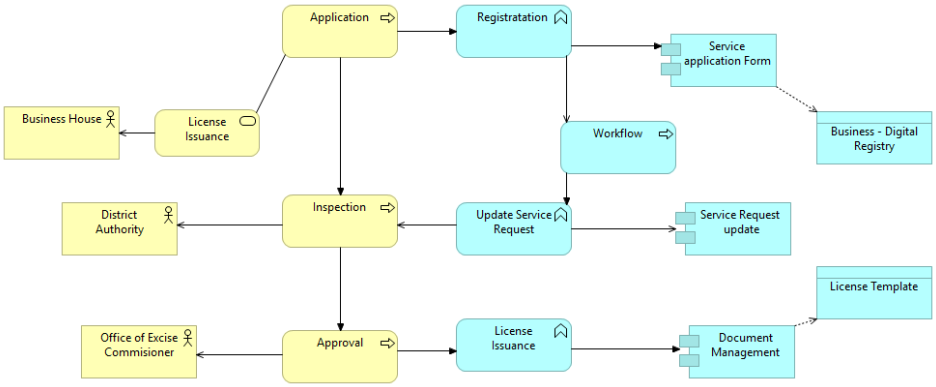
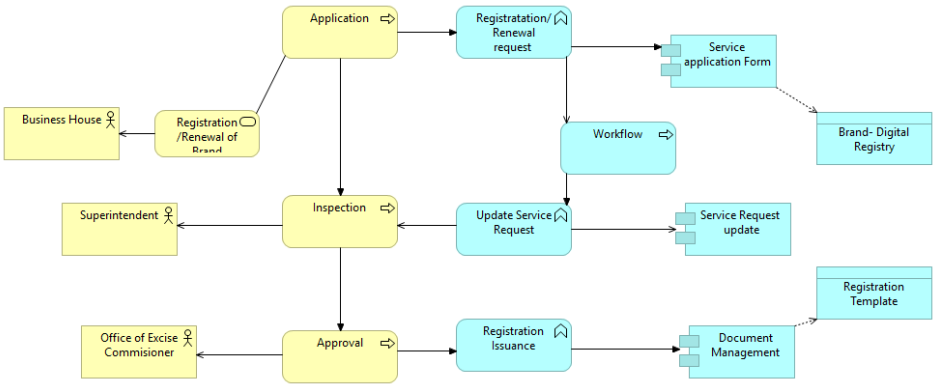


8.2.8 Registration/Renewal of Brand

The business applies for Registration/ Renewal of Brand and the request is routed to Superintendent of Excise for verification of application and necessary checks. The application is forwarded to office of Commissioner of Excise with recommendation. The application is verified and approved. The illustrative use case is as shown below:



8.2.9 Refund of VAT

The business applies for Refund under VAT and the request is routed to Superintendent of Taxes for verification of application and necessary checks. The application is forwarded to Assistant Commissioner Taxes with recommendation who verifies and forwards it further to office of Commissioner of Taxes with recommendation. The office of commissioner verifies the application against recommendation and further forwards the application to State Government with his recommendation. The competent authority verifies the application and accords sanction of payment. The superintendent prepares bill and submit to treasury for payment to the VAT dealer. Treasury verifies the bill and finally disburse payment to the applicant. The illustrative use case is as shown below:

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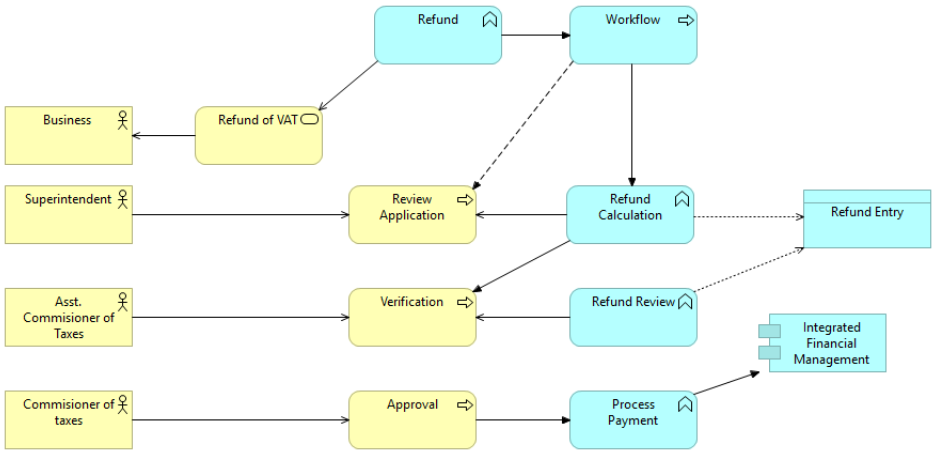
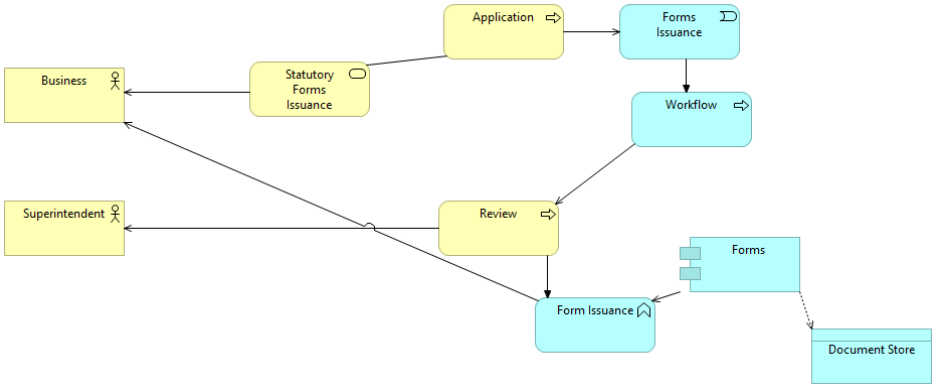


8.2.10 Statutory Forms Issuance

The business applies for Statutory Forms. The request is forwarded to Superintendent of Taxes. He verifies the application and approves the application and issues required forms. The illustrative use case is as shown below:



8.2.11 Retail Permit Issuance/ Renewal

The business applies for Retail Permit Issuance/ Renewal. The request is forwarded to Superintendent of Excise. He verifies the application and approves the application and issues Retail Permit. The illustrative use case is as shown below:

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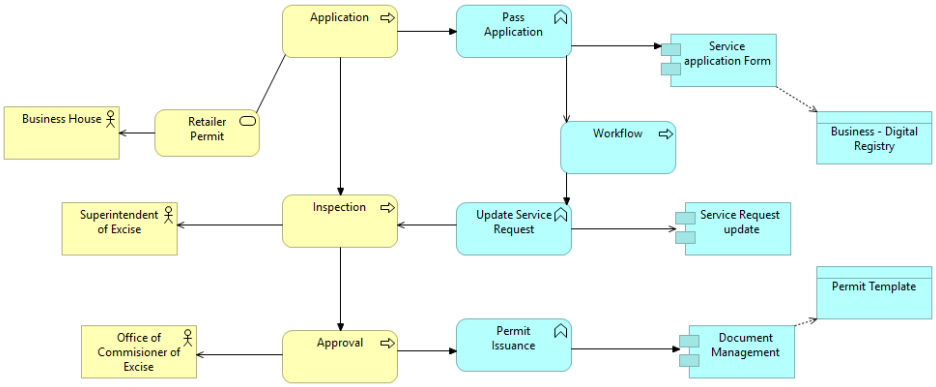
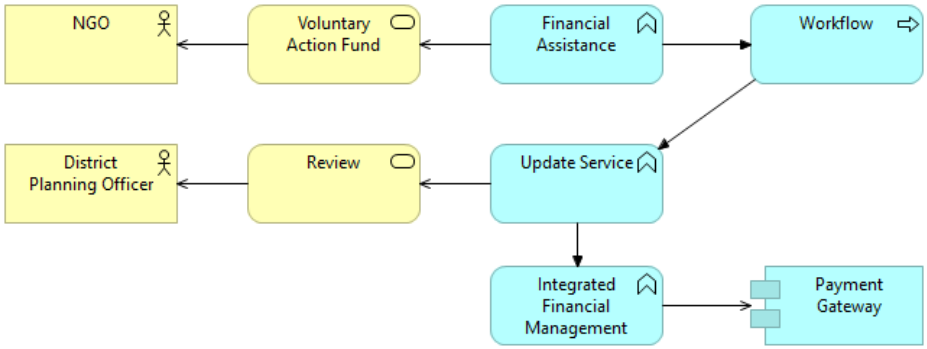


8.2.12 Financial Assistance

NGO applies for voluntary action fund for implementation of certain projects in the state. The application is forwarded to district planning officer for verification. The district officer forms a district level empowered committee and discuss the proposal submitted by NGO for benefits and value to community. Based on the discussion, approval is accorded to the fund and bill is sent to bank for processing payment into bank account of NGO. The illustrative use case is as below:



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8.3 Architecture Realization

Based on above analysis on services, a set of building blocks are required to be built to deliver the services in the desired manner. These building blocks can be built though key changes in each of the architecture layers.

8.3.1 Performance Architecture

Governance Pillar have been assigned certain strategic goals that are required to be achieved. These goals are planned to be measured through certain indicators. The indicators are further mapped to the services through which they can be achieved. The services have been enabled through architecture initiatives and solutions to enhance delivery experience for the businesses and citizens.

The Strategic Indicators are listed below:

S. No	Strategic Indicator
1	EoDB ranking as per DIPP evaluation
2	Socially engaged Population aged between 3 to 60
3	Percentage of RTI queries responded
4	Funds utilized vis-à-vis estimates
5	Number of employees in state government under physically handicapped category
6	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age
7	Unsentenced detainees as a proportion of overall prison population
8	Rate of crime against women and children per 100,000
9	Percentage growth in marital violence registered in local police stations
10	Number of Domestic Violence cases registered
11	Number of cases registered and disposed off by Women Commission
12	Proportion of sexual crimes against women and children to total crime against women and children
13	Number of marriages reported with girls below the age of 18
14	Number of crimes relating to human trafficking
15	Number of children registered in Track the Missing Children Portal by all registered Child Care Institution
16	Percentage growth in the number of sexual harassments cases reported
17	Reported murders per 1 lakh population
18	Number of victims of intentional homicide per 10,000 population
19	Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months
20	Reported cognizable crimes against children per 1 lakh population
21	Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation
22	Proportion of Crime Committed against Children during the year
23	Percentage of Gram Panchayats covered under BharatNet
24	Percentage of digital payments in government
25	Services available online
26	Proportion of women subjected to dowry related offences to total crime against women
27	Number of children referred to Child Welfare Committees and cases disposed off
28	Number of children in Child Care Institutions
29	Number of children declared free for Adoption by CWCs
30	Number of children placed under Foster Care by SFCC

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S. No	Strategic Indicator
31	Number of children provided Sponsorship by the Sponsorship and Foster Care Committee under ICPS scheme
32	No. of NDPS and MACT cases in the State
33	No. of POCSO cases in recent months/years
34	Annual growth rate of GSDP per capita
35	Population satisfied with their last experience of public services
36	Proportion of domestic budget funded by domestic taxes
37	Total liability as a percentage of state GDP
38	Percentage of population covered under Aadhaar
39	Number of bank branches in Urban, Semi-urban and Rural areas
40	Number of Business Correspondents (BCs) per branch
41	Number of commercial bank branches and automated teller machines (ATMs) per 10,000 adults
42	Percentage of accounts with Nil / 1-5/ more than 5 transactions annually
43	Proportion of population having Bank accounts
44	Food Grains Production
45	Horticulture Produce
46	Growth of Industries
47	Growth in MSME establishments
48	Immunization Achievement
49	Towns Declared ODF
50	Villages Declared ODF
51	State's Own Tax Revenue Receipts to Total Revenue Receipts
52	Debt (Total Outstanding Liabilities) to GSDP
53	Empowerment of SCs, STs, OBCs and Minorities
54	Change in Forest Cover
55	Enactment of Right to Services Act by the State

Table 29: Strategic Indicators of Governance Pillar

Please follow Section 2.5 for details.

The indicator to service mapping can be seen at Annexure 9.7. The mapping has been done considering the contribution of service to achieve target of that particular indicator.

The service will be delivered through different applications and application modules the mapping can be seen at Annexure 9.11.

The budget outlay for the applications and modules would be prepared as part of implementation. The funds will be sanctioned for each identified project/ application and RFP will be floated for deciding the implementation agency.

8.3.2 Business Architecture

The approach towards business architecture is service identification, rationalization of service, current state assessment including mapping to indicators and prioritization of services and business transformation requirements.

- Service Identification – **79** services have been entered as service in the MeghEA portal.
- Service Rationalization – **47** Services have been identified post rationalization.
- Service Prioritization – **19** Services have been prioritized based on detailed assessment.

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- New Services – **8** New services have been identified for inclusion in future state service portfolio.

Future Service Portfolio: Governance Pillar would have future services enhanced and efficiently delivered. The future service portfolio would comprise of three sets of services:

- The prioritized set of 19 services;
- The non-prioritized set of 28 services;
- The newly introduced set of 8 services.

The key changes that are part of the recommendations in business architecture are listed as Business Transformation changes which includes Game Changes and identification of BPR opportunities.

The business architecture of the future state portfolio of Governance Pillar would include key business services grouped according to functional categorizations to suit user needs.

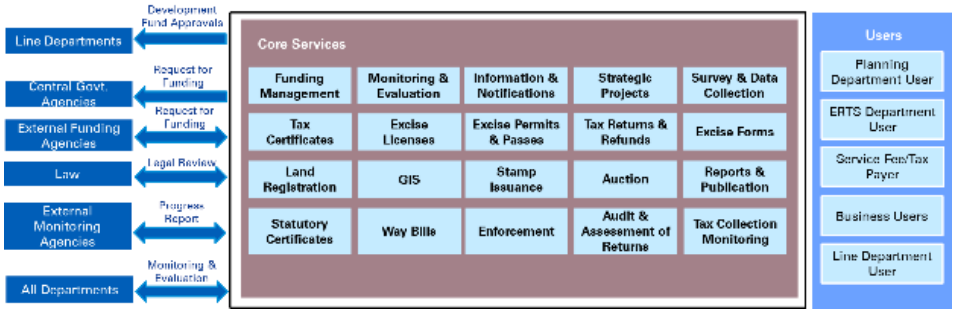

Figure 25: Future State Business Architecture

The services in the future state would be delivered through Governance Pillar application whereas there will be two departments i.e. Planning and Excise, Registration, Taxation and Stamps, **collaborating** to deliver the services. The primary and secondary responsibility has been fixed for each service in the future state portfolio. The responsibility matrix to protect the departmental autonomy is as below:

Service Name	Responsibility
Specific Projects Programme	Planning Department
Sustainable Green Agriculture	Planning Department
Popularisation of Science Programme	Planning Department
Voluntary Action Fund Disbursement	Planning Department
Promotion of Indigenous System of Medicine	Planning Department
National Income (NI)	Planning Department
Preparation of Development Expenditure Budget - Process	Planning Department
National Sample Survey (NSS)	Planning Department
Convergence Programme	Planning Department
Formulation of policies and programmes on various aspects of Science & Technology	Planning Department
Capacity training for the emerging technologies	Planning Department
Remote Sensing Application Programme	Planning Department

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Service Name	Responsibility
Advise the Government on matters relating to Planning and Development.	Planning Department
Inventory preparation to investigate the possibilities of augmenting and improving resources of the state	Planning Department
Preparation of a Perspective Plan for the optimum and balanced utilisation of the state's resources and indicate Plan priorities.	Planning Department
Advice for Formulation of Annual Plans and five-year Plans	Planning Department
Plan Schemes Monitoring process	Planning Department
Baseline Survey	Planning Department
EAP MLAMP	Planning Department
EAP CLLMP	Planning Department
Knowledge Resource Management	Planning Department
Prioritisation of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc - Process	Planning Department
S&T Oriented Entrepreneurship Development Programme (S&T EDP):	Planning Department
Disbursement of Funds for schemes/projects under Development Expenditure Budget	Planning Department
To promote Science and Technology to the general public especially school children.	Planning Department
Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	ERTS Department
New Registration, Amendment and Renewal under CST/VAT	ERTS Department
Payment of Tax under GST for normal tax payers	ERTS Department
Tax Clearance Certificate	ERTS Department
Issuance and renewal of License	ERTS Department
Issuance of various non-statutory certificates	ERTS Department
Payment of tax under VAT/CST	ERTS Department
Filling of returns under GST	ERTS Department
Surcharge for Bars issuance	ERTS Department
Confiscated Goods auction	ERTS Department
Registration and Renewal of Brand	ERTS Department
New Registration, Amendment and Renewal under GST	ERTS Department
Cancellation of Registration under GST	ERTS Department
Refund of Tax under VAT/CST	ERTS Department
Filling of returns for CST	ERTS Department
Filling of returns for VAT	ERTS Department
Refunds of Tax under GST	ERTS Department
Issuing of statutory declaration forms	ERTS Department
Cancellation of Registration under VAT/CST	ERTS Department
Retailer Permit for Wine Shops/Bars/Canteens	ERTS Department
Hologram issuance	ERTS Department
Payment of License Fee	ERTS Department
Decentralized district progress evaluation	Planning Department
Industrial Statistical data collection under two categories: Organized factory sector and Unorganized non-factory sector.	Planning Department
Monitoring, Marketing and Management of MeghEA	Planning Department
On-Demand Statistical Information	Planning Department
Create or update department and/or agencies	Planning Department
Monitor State performance in SDG	Planning Department

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Service Name	Responsibility
Submission of Excise Statement	ERTS Department
Retail License Auction	ERTS Department

8.3.3 Application Architecture

The application architecture is a representation of the business aligned systems, the portfolio of the systems, the technology behind the systems, the information access methodology and the gaps around the systems – both functional and technical.

The application architecture approach consists of current state assessment. The current portfolio consists of Government of Meghalaya systems and external systems that are frequently used:

- Internal State Government Systems:
  - Mother App
  - Planning MIS
  - DM Dashboard (DARPAN)
  - VAT Systems (e-Registration, e-Return, e-Amendment, e-Forms)
- External Systems
  - GST Portal

As a part of the analysis, a thorough analysis on existing business functions, IT maturity in each function, key gaps in the applications existing, data and technology standardization level, reliability and scalability aspects etc. has been conducted and a suitable EA model for Meghalaya has been developed, which could be a sustainable model to cater the requirements. Please refer section for details.

The application transformation plan for Governance Pillar architecture has been categorized under following heads:

1. Business Functionality Enhancement
2. Application Architecture Enhancement
3. Infrastructure Upgrade
4. Decommissioned

The future state application architecture to support the business transformation plan would can be represented through the following figure:

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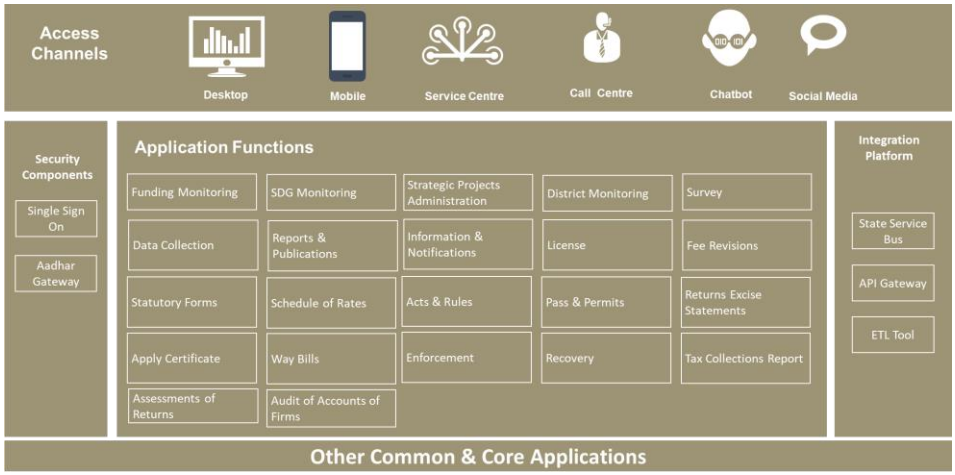

Figure 26: Future State Application Architecture

8.3.4 Data Architecture

Data architecture identifies the key aspects of information management – the key data that resides in the enterprise, how government can deliver services using the data, which are the stakeholders that accesses the data, how the data is managed through secured storage, access and the various forms in which the data is needed.

The **key** data entities (at conceptual level) are defined in two categories:

- Existing data entities:
  - Ministry
  - Department
  - Programme
  - Plan Type
  - Sub Plan Type
  - Agency
  - Sector
  - Head of accounts
  - User
  - District
  - Scheme
  - Sanctions
  - Central Assistance
  - Pregnant Mother
  - Health Officers
  - Medical Facility
  - Taxpayer
  - Tax Amount

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    - Commodity
    - Rates
    - Waybill
    - Land Details
    - Land Registration
- New data entities:
    - SDG Goal
    - Indicators
    - Target State
    - Current State
    - Project
    - District Monitoring KPIs
    - License
    - Permit
    - Excise Statement
    - Hologram
    - Payment

The key interventions required in data architecture to align the data to support the business transformation plan is categorized as below:

- **Data Design**: The data design needs to be revamped to align the data architecture adhering to the data principles.
- **Data Governance**: Departments in Governance Pillar would have a role to play in each of the stages of the Data Lifecycle for the Scheme (core data entity). Data Trustee and data steward role has been defined for each data life-cycle management phases.
- **Data Tools**: To enable business transformation, the data portfolio requires few tools and technologies to support the plan.

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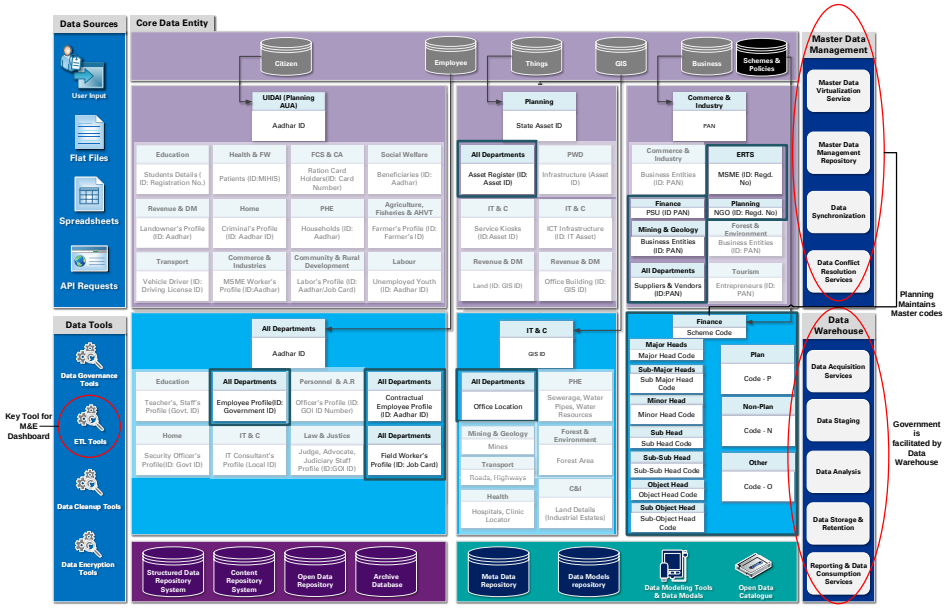

Figure 27: Future State Data Architecture

8.3.5 Technology Architecture

The technology architecture defines the infrastructure (IT) and their respective technical standards to enable better system integration and interoperability and align the application and data to deliver the required results to realize the business transformation objective.

Technology architecture section of the document illustrates the current state of the technology architecture for Governance Pillar, the gaps identified in the technology architecture and the future (proposed) requirements.

Current State Assessment: This includes the key infrastructure, system technology, devices and tools portfolio:

- **Environment & Locations**: The key infrastructure for different environments (development, production and testing) is illustrated in the section.
- **Network**: The section illustrates the primary and secondary network availability in the State of Meghalaya.
- **System-Technology List**: The list of systems along with the supporting technology is illustrated in this section.

Aligned to the transformation plan, a gap analysis was carried out to derive the future state of the technology architecture. The future state transformation plan is categorized under following:

- **State Data Centre Modernization**: Upgrade of infrastructure (systems) in the data center to modernize system technology landscape.

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- **Network Availability:** Requirement for uninterrupted primary and secondary network to facilitate the planned business transformation.

The diagram below illustrates the future state deployment model for Governance Pillar:

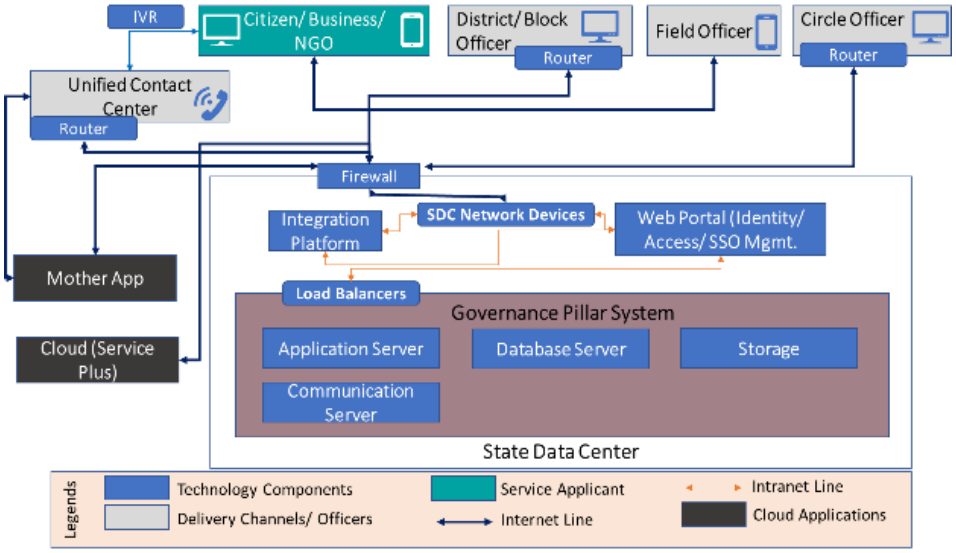

Figure 28: Future State Technology Architecture

8.3.6 Security Architecture

Security architecture illustrates the security details of the information storage, access and management. The security architecture has key transformation requirement to facilitate the realization of the business objectives:

- **Single Sign-On**: Harmonized identification and authentication for all systems to enable realization of the business objective of ease of use, secured data transmission and access of information.
- **Data Classification and Management**: The security architecture also illustrates the need for classification of data and rules governing each classified set of data.

The Architecture realization model comprises of key changes in each of the above layers. Below is the diagrammatic representation for the same.

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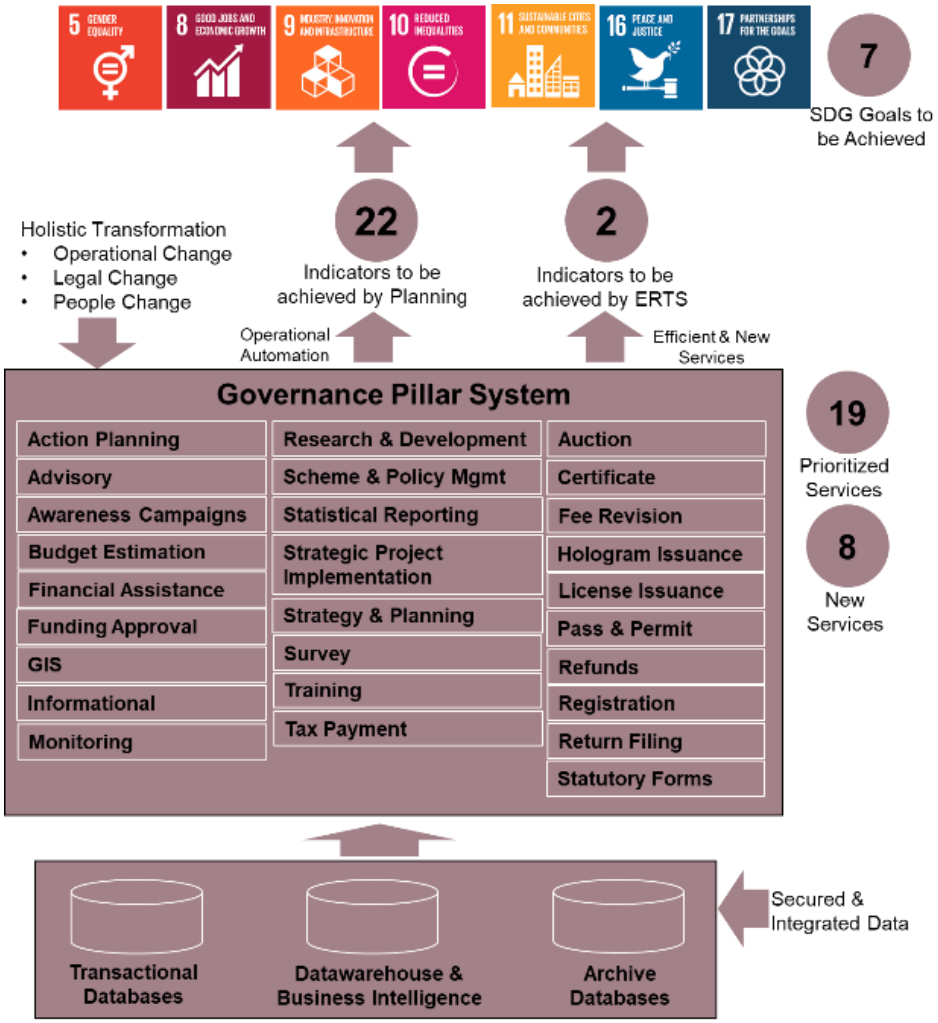

Figure 29: Governance Pillar Architecture Realization Model

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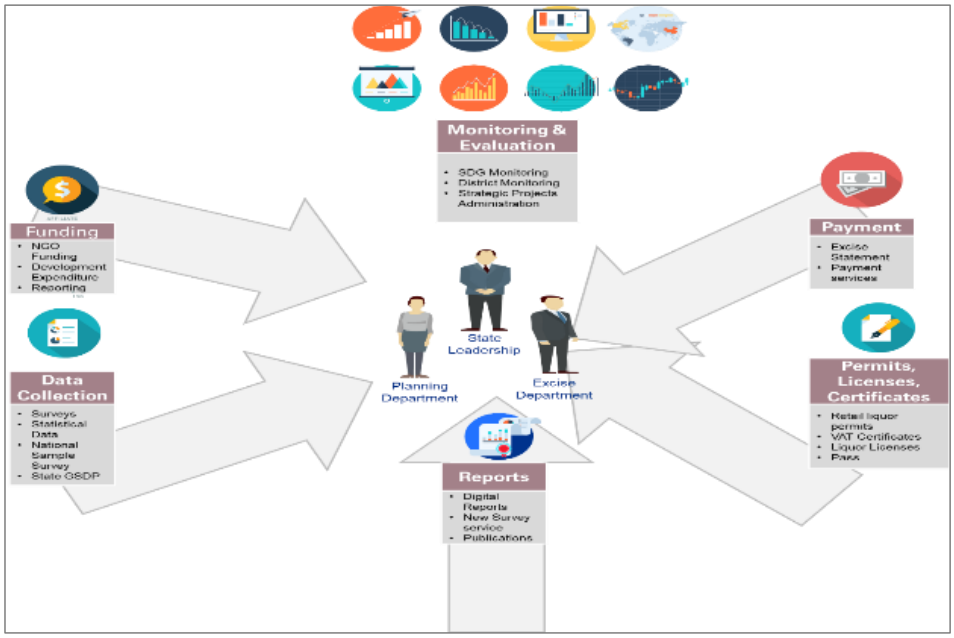
8.4 Architecture Initiatives

8.4.1 Connect

The section focuses on the initiatives to connect citizens, business and communities to the governance ecosystem through convenient channels leveraging modern technologies. Connect would also interlink the service providers with service beneficiaries in an open but secured manner.



Other components for connecting are as mentioned below:

IT System	Description	Dependency/ Risk
Service Plus	Service Plus has already been deployed in Meghalaya. The service plus instance shall include following new services: • Voluntary Action Fund Disbursement • Capacity training for emerging technology • Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA. • Issuance and renewal of License • Registration and Renewal of Brand • Retailer Permit for Wine Shops/Bars/Canteens • Create or update department and/or agencies	• Service plus needs to have the capability to support reengineered service delivery as well as new transactions.
Monitoring	State M&E would be enhanced through three	State has to purchase DW &

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IT System	Description	Dependency/ Risk
& Evaluation (M&E)	different technology solutions: • Data Warehouse • Analytics • Business Intelligence	BI tool, Analytics from vendor to ensure State owns the IP for the solution to customize the solution time to time basis
Governance System	Governance System needs to be built with following functional modules: • Fund Management (to include funding reporting, new funding requests from departments and financial assistance from NGO) • SDG Monitoring (Enabled by M&E Dashboard) • Strategic Projects Administration (Enabled by M&E Dashboard) • District Monitoring (Enabled by M&E Dashboard) • Survey • Data Collection • Reports & Publication (to include New data collection request service and all reports published till date) • Information & Notifications • License • Fee Revision • Statutory Forms • Schedule of rates • Acts & Rules • Pass & Permits • Return & Excise Statement • Apply Certificate • Waybills • Enforcement • Recovery • Tax Collection Reports • Assessment of Returns • Audit of Accounts of Firms	Infrastructure, regulatory changes and training of people has to be considered

8.4.2 Collaborate

Making government units cohesively work towards delivering value ensuring a single government experience to the stakeholders of the government. Collaborate would also orchestrate the activities of the government to enhance efficiency in functioning and citizen centric service delivery. The different APIs required to make this happen are described below:

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API	Data Sharing Details	Source Application	Destination Application
Service Request ID	• Service ID (Number) • Mobile Number (Number)	Chatbot	Service Plus
Service Acknowledgement	• Service request ID(Number) • Service application URL	Service Plus	Chatbot
Funding Disbursement	• Requesting agency bank details • Fund amount • Scheme Code	Service Plus	TreasuryNET
Training Request	• Content ID • Content Metadata	Service Plus	Learning Management System
Upload New KRM Content	• Content ID • Content Metadata	Governance System	Learning Management System
GSTIN Verification	• GSTIN • Verification Status	Service Plus	GST System
Fetch Company Details	• Legal Name • Date of Registration • Operating Location	Service Plus	GST System
Payment	• PAN • Invoice Number • Payment Amount • Payment Status	Service Plus	MeghGRAS
Reporting Data	• Data for various KPIs, please refer XX section for system details	M&E Dashboard	Data Warehouse

8.4.3 Empower

Creating opportunities and accessibility provided to citizens, to develop capabilities that are valuable to actively participate in the development and decision making of a community. It can be viewed in terms of knowledge and other aspects (such as digital inclusion) and affecting their everyday quality of life.

Program	Description
Digitization of Data	Following data needs to be digitized: • Data of existing approved NGOs. • Data of existing license holders in VAT • Data of existing permit holders • Data of existing pass holders • All latest reports and publications • New financial year funding details

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Program	Description
	• Template for EAP Proposals • Template for development expenditure proposals • All survey and data collection forms
Digital Service Training	For the services to be digitized, the need for training and capacity building is at following levels: • Officers on Service Plus • Department Officers on Data Collection and Survey System • Monitoring and Evaluation dashboard • How to add new projects, KPIs and various other features of BI in dashboard
Learning Management System	The MeghEA learning Management System would enable to deliver learning lessons online. There is a training requirement of department officers on the usages of the system.

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9. Annexure

9.1 SDG Scores and Ranks of Indian States – 2019

AREA	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8	Goal 9	Goal 10	Goal 11	Goal 12	Goal 13	Goal 15	Goal 16	RANK 2019	SCORE 2019	SCORE 2018
India	50	35	61	58	42	88	70	64	65	64	53	55	60	66	72		60	57
Meghalaya	68	35	53	55	34	70	52	65	22	76	22	60	36	99	59	25	54	52
Kerala	64	74	82	74	51	77	70	61	88	75	51	57	56	98	77	1	70	69
Himachal Pradesh	60	44	67	81	52	82	64	76	70	78	79	52	61	92	84	2	69	69
Andhra Pradesh	69	35	76	52	37	96	86	78	66	68	36	57	70	86	86	3	67	64
Tamil Nadu	72	48	76	70	40	90	90	74	53	65	51	63	45	91	78	3	67	66
Telangana	52	36	66	64	26	84	93	82	61	94	62	58	66	88	77	3	67	61
Karnataka	49	37	72	67	42	88	86	78	40	70	48	72	71	89	75	6	66	64
Goa	53	76	60	71	46	77	95	71	45	19	79	63	41	99	79	7	65	64
Sikkim	65	66	59	58	49	79	97	68	27	64	74	60	38	100	69	7	65	58
Gujarat	47	39	67	47	36	92	75	75	88	59	77	33	63	77	86	9	64	64
Maharashtra	47	34	76	65	41	93	82	70	59	70	45	71	50	85	72	9	64	64
Uttarakhand	64	45	58	66	38	90	78	73	55	59	51	50	59	95	85	9	64	60
Punjab	48	61	71	67	46	74	89	65	69	50	61	35	57	59	83	12	62	60
Manipur	42	69	62	70	34	87	72	27	43	81	28	85	37	100	70	13	60	59
West Bengal	52	40	70	50	38	83	58	72	68	73	34	57	37	88	73	13	60	56

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AREA	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Goal 7	Goal 8	Goal 9	Goal 10	Goal 11	Goal 12	Goal 13	Goal 15	Goal 16	RANK 2019	SCORE 2019	SCORE 2018
Madhya Pradesh	40	24	50	54	45	92	62	67	44	68	55	58	47	94	63	15	58	52
Odisha	47	34	61	40	35	85	50	59	72	69	51	44	69	99	61	15	58	51
Tripura	70	49	61	55	32	69	56	63	48	45	31	92	37	88	73	15	58	55
Haryana	47	43	65	68	36	81	77	71	73	54	49	39	34	40	76	18	57	55
Nagaland	56	70	29	47	42	75	70	28	23	61	23	100	51	94	84	18	57	51
Rajasthan	56	35	58	51	39	76	61	65	38	70	61	30	60	75	76	18	57	59
Chhattisgarh	49	27	52	52	43	92	56	67	38	60	49	58	29	97	71	21	56	58
Mizoram	67	75	52	61	37	81	81	42	8	66	33	50	45	75	63	21	56	59
Assam	48	39	44	44	33	78	70	62	46	67	40	68	47	90	52	23	55	49
Uttar Pradesh	40	31	34	48	41	94	63	64	63	46	56	62	48	62	69	23	55	42
Arunachal Pradesh	34	66	50	58	33	88	74	52	31	38	43	67	31	71	62	26	53	51
Jharkhand	28	22	55	42	34	78	50	70	70	64	57	36	27	99	67	26	53	50
Bihar	33	26	44	19	40	81	62	64	47	74	50	47	43	54	64	28	50	48

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9.2 Good Governance Index

States	Score	Category	Category Rank	Overall Rank
Madhya Pradesh	0.73	Big States	1	1
Rajasthan	0.6	Big States	2	3
Chhattisgarh	0.58	Big States	3	4
Bihar	0.5	Big States	4	6
Haryana	0.48	Big States	5	7
Andhra Pradesh	0.48	Big States	5	7
Uttar Pradesh	0.45	Big States	7	10
West Bengal	0.45	Big States	7	10
Tamil Nadu	0.45	Big States	7	10
Orissa	0.44	Big States	10	14
Gujarat	0.44	Big States	10	14
Karnataka	0.43	Big States	12	18
Maharashtra	0.42	Big States	13	20
Jharkhand	0.41	Big States	14	21
Punjab	0.35	Big States	15	25
Kerala	0.3	Big States	16	28
Telangana	0.29	Big States	17	30
Goa	0.29	Big States	17	30
Mizoram	0.66	NE & Hill	1	2
Himachal Pradesh	0.47	NE & Hill	2	9

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States	Score	Category	Category Rank	Overall Rank
Tripura	0.44	NE & Hill	3	14
J & K	0.44	NE & Hill	3	14
Meghalaya	**0.43**	**NE & Hill**	**5**	**18**
Assam	0.41	NE & Hill	6	21
Uttarakhand	0.38	NE & Hill	7	23
Sikkim	0.33	NE & Hill	8	26
Arunachal Pradesh	0.3	NE & Hill	9	28
Manipur	0.29	NE & Hill	10	30
Nagaland	0.29	NE & Hill	10	30
Daman & Diu	0.51	UT	1	5
Pondicherry	0.45	UT	2	10
A&N Islands	0.38	UT	3	23
Chandigarh	0.32	UT	4	27
Lakshadweep	0.25	UT	5	34
D&N Haveli	0.23	UT	6	35
Delhi	0.17	UT	7	36

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9.3 Functions of department agencies

Agency/Directorate	Functions
State Council of Science Technology and Environment	The Cell formulates policies and programmes for the State on various aspects of Science & Technology and provides direction for formulation and execution of relevant schemes/projects on Science & Technology in the State. The Cell also undertakes all necessary measures as required for initiating, facilitating, monitoring and following-up schemes/projects in various areas of Science & Technology in the State.
Dir. Of Economics & Statistics	Conducts census on State Government employees Collects secondary data and information from various Departments of the State and Central Government including Autonomous bodies and Semi-govt
Planning Research	• Consulted by Departments before submission of proposals to GoI under the CSS and EAP • Examines and scrutinizes Developmental schemes before AA is accorded • Lay down guidelines for Departments in respect of Developmental Programmes • Liaise with the Prime Minister's Office, NITI Aayog, Cabinet Secretariat etc
State Planning Board	To assist the Government in making realistic appraisal from time to time so as to ensure steady execution & purposeful utilization of the available resources of the state.
MBDA	• To sustainably develop the river basin resources, which shall ultimately lead to promoting the sustainable livelihood and gainful employment opportunities. • To help in promoting sustainable enterprises at micro and small scale especially to the poor by way of providing equity, debt financing, leasing, insurance and other means and mechanisms
District Planning	• To convene meetings of the District Planning Boards at least once in two months and to pursue the recommendations of such meetings

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Agency/Directorate	Functions
	with the concerned Departments of the State Government and other agencies • To prepare District Annual Plans for the districts • To monitor the implementation of various plan schemes in the districts in general, • To ensure co-ordination among all the District heads of Development Departments
Commissioner of Excise	• Issuance, renewal, amendment and cancellation for bar license, bonded warehouse, bottling plant, brewery, distillery, retail wine shop, bars • Auctioning of confiscated goods
Commissioner of Taxes	• Monitoring of Subordinate Offices, Processing of Refunds, Hearing of Appeals, Reviews, Fixation of Revenue Collection Target, General Administration, Legal Matters, Policy formulation, Audit Assessment, Data Analysis, etc.

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9.4 Goals, Indicators and Baseline data for Governance

9.4.1 Indicators Assigned to Governance Pillar

SDG Goal	Indicator	Baseline Data	Target
Goal 5. Achieve gender equality and empower all women and girls	Rate of crime against women and children per 100,000	9 %	1%
	Percentage growth in marital violence registered in local police stations		
	Number of Domestic Violence cases registered		
	Number of cases registered and disposed-off by Women Commission		
	Proportion of sexual crimes against women and children to total crime against women and children	32.76	0
	Number of marriages reported with girls below the age of 18	16.9	0
	Proportion of women subjected to dowry related offences to total crime against women		
	Proportion of domestic budget funded by domestic taxes	88%	100%
Goal 8: Decent work and economic growth	Number of crimes relating to human trafficking	2	0
	Number of children registered in Track the Missing Children Portal by all registered Child Care Institution		
	Annual growth rate of GSDP per capita	17%	
	Number of bank branches in Urban, Semi-urban and Rural areas	13.08 (per 1000 adults)	26
	Number of Business Correspondents (BCs) per branch		
	Number of commercial bank branches and automated teller machines (ATMs) per 10,000 adults	12	
	Percentage of accounts with Nil / 1-5/ more than 5 transactions annually		

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SDG Goal	Indicator	Baseline Data	Target
	Proportion of population having Bank accounts	100	100
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Percentage of Gram Panchayats covered under BharatNet	11%	100%
Goal 10. Reduce inequality within and among countries	Socially engaged Population aged between 3 to 60		
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	Percentage growth in the number of sexual harassments cases reported		
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Percentage of RTI queries responded		
	Funds utilized vis-à-vis estimates		
	Number of employees in state government under physically handicapped category		
	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age		
	Unsentenced detainees as a proportion of overall prison population		
	Reported murders per 1 lakh population	3.1	1.1
	Number of victims of intentional homicide per 10,000 population		
	Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months	25.44	0
	Reported cognizable crimes against children per 1 lakh population		
	Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation	2	0
	Proportion of Crime Committed against Children during the year		

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SDG Goal	Indicator	Baseline Data	Target
	Percentage of digital payments in government		
	Services available online	170	500
	Number of children referred to Child Welfare Committees and cases disposed off		
	Number of children in Child Care Institutions		
	Number of children declared free for Adoption by CWCs		
	Number of children placed under Foster Care by SFCC		
	Number of children provided Sponsorship by the Sponsorship and Foster Care Committee under ICPS scheme		
	No. of NDPS and MACT cases in the State		
	No. of POCSO cases in recent months/years	280	0
	Population satisfied with their last experience of public services		
	Percentage of population covered under Aadhaar	32%	100%
	EoDB ranking as per DIPP evaluation	35	<10
Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	Total liability as a percentage of state GDP		

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9.4.2 Indicators under Governance and Assigned to Departments under Governance

S. No	Key indicators	Primary Responsible Department	Pillar
1	Funds utilized vis-à-vis estimates	Finance	Governance
2	Annual growth rate of GSDP per capita	Planning	Governance
3	Population satisfied with their last experience of public services	Planning	Governance
4	Proportion of domestic budget funded by domestic taxes	Planning	Governance
5	Total liability as a percentage of state GDP	Planning	Governance
6	Percentage of population covered under Aadhaar	Planning	Governance
7	Number of bank branches in Urban, Semi-urban and Rural areas	Finance	Governance
8	Number of Business Correspondents (BCs) per branch	Finance	Governance
9	Number of commercial bank branches and automated teller machines (ATMs) per 10,000 adults	Finance	Governance
10	Percentage of accounts with Nil / 1-5/ more than 5 transactions annually	Finance	Governance
11	Proportion of population having Bank accounts	Finance	Governance

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9.4.3 Indicators under Governance but marked to departments out of scope

S.No	Key indicators	Primary Responsible Department
1	Percentage of RTI queries responded	Cooperation
2	Number of employees in state government under physically handicapped category	General Administration
3	Unsentenced detainees as a proportion of overall prison population	Home (Jails)
4	Rate of crime against women and children per 100,000	Home (Police)
5	Percentage growth in marital violence registered in local police stations	Home (Police)
6	Number of Domestic Violence cases registered	Home (Police)
7	Number of cases registered and disposed off by Women Commission	Home (Police)
8	Proportion of sexual crimes against women and children to total crime against women and children	Home (Police)
9	Number of marriages reported with girls below the age of 18	Home (Police)
10	Number of crimes relating to human trafficking	Home (Police)
11	Number of children registered in Track the Missing Children Portal by all registered Child Care Institution	Home (Police)
12	Percentage growth in the number of sexual harassments cases reported	Home (Police)
13	Reported murders per 1 lakh population	Home (Police)
14	Number of victims of intentional homicide per 10,000 population	Home (Police)
15	Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months	Home (Police)
16	Reported cognizable crimes against children per 1 lakh population	Home (Police)
17	Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation	Home (Police)
18	Proportion of Crime Committed against Children during the year	Home (Police)
19	Percentage of Gram Panchayats covered under BharatNet	Information Technology & Communication
20	Percentage of digital payments in government	Information Technology & Communication
21	Services available online	Information Technology and Communication
22	Proportion of women subjected to dowry related offences to total crime against women	Law

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S.No	Key indicators	Primary Responsible Department
23	Number of children referred to Child Welfare Committees and cases disposed off	Law
24	Number of children in Child Care Institutions	Law
25	Number of children declared free for Adoption by CWCs	Law
26	Number of children placed under Foster Care by SFCC	Law
27	Number of children provided Sponsorship by the Sponsorship and Foster Care Committee under ICPS scheme	Law
28	No. of NDPS and MACT cases in the State	Law
29	No. of POCSO cases in recent months/years	Law

9.4.4 Indicators under Governance but marked to departments in Other Pillars

S.No	Key indicators	Primary Responsible Department
1	EoDB ranking as per DIPP evaluation	Commerce & Industries
2	Socially engaged Population aged between 3 to 60	Community & Rural Development
3	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	Health & Family Welfare

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9.4.5 Indicators Assigned to Other Pillars with Responsibility Marked to Departments under Governance Pillar

S.No	Key indicators	Primary Responsible Department	Pillar
1	Number of science and/or technology cooperation agreements and programs between departments and international agencies/ institutes/etc.	Planning	Human Development
2	Palma ratio of Household Expenditure in Urban Meghalaya	Planning	Human Development
3	Proportion of people living below 50 per cent of median household expenditure	Planning	Human Development
4	Percentage of financial assistance from Externally Aided funding institutions as a total of government expenditure (planned) in budget	Planning	Human Development
5	Percentage of government expenditure in Education, Health and Social Protection	Planning	Human Development
6	Percentage of government spending under following heads: Social Welfare Rural Development Women benefiting schemes Education scholarships for minority/ marginalized community	Planning	Human Development
7	Percentage of Priority Sector Advances to Total credit/Advance	Planning	Environment Sustainability
8	Percentage of conservation expenditure of government to total expenditure (annually)	Planning	Environment Sustainability

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9.5 As-Is Service Catalogue

Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
PLA.01	Specific Projects Programme	Identification of Local Issues and problems and to provide S & T solutions to the issues especially those faced by the rural communities. Issues in the areas of wastes management, water management, low cost livestock management etc. have been taken as Action Research programmes	Offline	G2C	1. State HQ	As and when required
PLA.02	Sustainable Green Agriculture	Social, Economical & Environmental Development	Offline	G2C	1. Village	As and when required
PLA.03	INTRODUCTION OF APPROPRIATE TECHNOLOGY PROGRAMME	To put an application of appropriate technologies for daily life improvement and socio-economic development.	Offline	G2C	1. State HQ	As and when required
PLA.04	POPULARISATION OF SCIENCE PROGRAMME	To inculcate a scientific temper among the public particularly school children and ultimately generate scientific minded and environmentally conscious citizens of the State.	Offline	G2C	1. State HQ 2. Block Office 3. District HQ	As and when required
PLA.05	Voluntary Action Fund Disbursement	Disbursement of fund to each district office for short term training and awareness programs conducted by NGOs	Offline	G2B	1. District HQ	As and when required
PLA.06	Publication & Reference	Collects secondary data and information from various Departments of the State and Central Government including Autonomous bodies and Semi govt to publish different kind of reports such as State Statistical Handbook, Meghalaya in Figures, District Statistical Handbook, Meghalaya on a regular basis	Offline	G2G	1. State HQ 2. Block Office 3. District HQ	Annually
PLA.07	Land Use Statistics	This report is compiled once in a year at the end of the crop calendar year. The nine-fold classification of land is used for	Offline	G2G	1. State HQ 2. Block Office 3. District HQ	Annually

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		compiling this report. This report is compiled based on the information supplied by the concerned Departments				
PLA.08	Irrigation Statistics	This report is also compiled once in a year at the end of the crop calendar year. The irrigated area under the Soil & Water Conservation Department, Water Resources Department and Agriculture Department formed the Irrigated area under Govt. sources whereas the irrigated area supplied by the respective BDOs formed the Private Irrigation.	Offline	G2G	1. State HQ 2. Block Office 3. District HQ	Annually
PLA.09	Crop Cutting Experiment	To calculate the yield rate of some selected crops		G2G	1. State HQ 2. Block Office 3. District HQ	Monthly
PLA.10	Promotion of Indigenous System of Medicine	Up-liftment of Traditional Healers of the State for preservation and promotion of the indigenous system of medicine/Traditional Healers	Offline	G2C	1. Village	As and when required
PLA.11	National Income (NI)	Estimation of State Domestic Product (SDP), generally known as State Income as a macroeconomic aggregate to measure the economic development of the State and the standard of living of its people. The final estimates of the GSDP is made in consultation with the Ministry of Statistics& Program Implementation, Government of India also analyses the budget documents of the State Government to analyse aspects like budgetary transactions and their effect on the	Offline	G2G	1. State HQ 2. District HQ	Annually

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		socio-economic standard of the people.				
PLA.12	Preparation of Development Expenditure Budget - Process	Allocation budgetary resource to all developmental sectors	Offline	G2G	1. State HQ	Annually
PLA.13	Monitoring of physical and financial progress of schemes/projects	To monitor the progress of implementation of schemes/projects both financial and physical	Hybrid	G2G	1. State HQ	Quarterly
PLA.14	Housing Statistics	Data on housing and building construction related activities are being collected in prescribed formats as per guidelines/instructions issued by National Buildings Organisation (NBO). The information collected is collated and transmitted online to NBO using Building Related Information and Knowledge System (BRIKS).	Hybrid	G2G	1. State HQ 2. District HQ	Quarterly
PLA.15	Govt Employee Census	To generate employee statistics of Govt. employees in the State. The reports are utilized by various departments like Finance and Personnel & AR and also by the State Pay Commissions from time to time	Hybrid	G2G	1. State HQ 2. Block Office 3. District HQ	Once in 5 yrs
PLA.16	Crop Irrigated area	This report is pertaining to the Crop wise irrigated area and it is compiled based on the results of the Crop Cutting Experiment (CCE) of different crops. At the moment, the Directorate of Economics and Statistics is carrying out CCE on 13 major crops of the State. Based on this percentage of irrigation, the irrigated area is calculated for each crop based on the total cultivated area under each crop.	Offline	G2G	1. State HQ	Annually
PLA.17	Vegetable Statistics	This report is compiled once in a year at the	Offline	G2G	1. State HQ 2. Block	Annually

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		end of the crop calendar year. At the moment, 24(twenty-four) major vegetables of the State are included in this report. Few other vegetables are also likely to be included in the report as per the decision of the SLCRC. Though this report is compiled separately, the APY data on these crops are clubbed together with the Crop Report to get the total APY data on all crops of the Block, District, State.			Office 3. District HQ	
PLA.18	National Sample Survey (NSS)	To collect socio economic data in the state in collaboration with National Sample Survey Office (NSSO) Govt. of India	Offline	G2G	1. State HQ 2. Block Office 3. District HQ 4. Village	Annually
PLA.19	Convergence Programme	To Converge with other line Department for more S &T Intervention Outreach	Offline	G2C		As and when required
PLA.20	Preparation of S&T Budget	To prepare Science &Technology annual plans, budgets, etc. for the State	Offline	G2G		Annually
PLA.21	Scrutiny of S&T proposals	To scrutinise proposals relating to Science & Technology for consideration by the State Government.	Offline	G2G		As and when required
PLA.22	Allocation of fund for S&T Promotion	To allocate, allot and release fund from the state budget for S&T promotion in the State	Offline	G2G		As and when required
PLA.23	Formulation of policies and programmes on various aspects of Science & Technology	To formulate policies and programmes on various aspects of Science & Technology which are in the interest of the State	Offline	G2G		As and when required
PLA.24	Identification of schemes/projects in various aspects of Science & Technology	To facilitate the process of identification of schemes, projects and formulation of proposals in various aspects of Science & Technology in the State.	Offline	G2G		As and when required
PLA.25	Monitoring of S&T activities	To provide direction for, coordinate, monitor, supervise and follow up	Offline	G2G		As and when required

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		S&T activities undertaken in the State.				
PLA.26	Measures for effective S&T utilisation	To undertake various measures for effective utilisation of Science & Technology in the State.	Offline	G2G		As and when required
PLA.27	Capacity training for the emerging technologies	To conduct training programme for the student, intern, volunteers and VECs in order to build up the capacity with the emerging technologies.	Offline	G2C		As and when required
PLA.28	Remote Sensing Application Programme	To utilise Remote Sensing Application based technologies for S & T projects. To map S & T applications in rural areas by application of GIS technique. To establish a GIS laboratory for benefit of the student's community	Offline	G2C	1. State HQ	Quarterly
PLA.29	Advise the Government on matters relating to Planning and Development.	Advise the Government on matters relating to Planning and Development.	Offline	G2G		As and when required
PLA.30	Inventory preparation to investigate the possibilities of augmenting and improving resources of the state	To prepare an inventory of available and potential resources of the State, Capital and human and investigate the possibilities of augmenting and improving such resources.	Offline	G2G		As and when required
PLA.31	Preparation of a Perspective Plan for the optimum and balanced utilisation of the state's resources and indicate Plan priorities.	To prepare a Perspective Plan of the State for the next 15 to 20 years for the optimum and balanced utilisation of the state's resources and indicate Plan priorities.	Offline	G2G		As and when required
PLA.32	Advice for Formulation of Annual Plans and five-year Plans	To advise the government regarding the formulation of Annual Plans and five years plan	Offline	G2G		As and when required
PLA.33	Plan Schemes Monitoring process	To review the progress in the implementation of the schemes and to ascertain the factors which have been tending to retard	Offline	G2G		As and when required

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		economic development of the State and to determine the conditions to be created for successful execution of the Plans.				
PLA.34	IBDLPP	Integrated Basin Development and Livelihood promotion program Progress report	Offline	G2C		As and when required
PLA.35	Baseline Survey	Baseline survey Online mobile, tab-based household level survey across villages under Mlamp project targeting 90,000 hh. The survey aims to collect baseline database of targeted hh on livelihood & economic activities, assets, access to market and credit linkage.	Offline	G2C		As and when required
PLA.36	EAP MLAMP	Meghalaya Livelihood and Access to Market project funded by IFAD. The project targets 1350 villages with 200,000 hh, on improving the quality of life in rural Meghalaya with sustainable livelihood opportunities and adapted to climate change	Offline	G2C		Once in a life time
PLA.37	EAP CLLMP	Community Led Landscape Management Project will provide targeted support to landscape restoration activities in an estimated 400 villages, in prioritized degraded and highly degraded landscapes, of the state. The ultimate beneficiaries of the project are village communities (estimated number not less than 100,000) in the targeted landscapes that depend on land, forests, water, and agroforestry for their livelihood.	Offline	G2C		As and when required
PLA.38	Knowledge Resource Management	The KRM generates, publish & distributes various leaflets, journals and videos targeted at Community,	Offline	G2C		As and when required

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		project officials as well as to line departments. The unit functions on available knowledge resources and provides repository of various traditional and acquired knowledge during the process of EAP implementation.				
PLA.39	Monitoring & Evaluation Unit	The M&E unit at MBDA tracks the performance of various components under respective EAPs as part of regular monitoring activity and evaluates the project achievement periodically. The unit function in coordination with field M&E unit at districts and provides reports and analysis in both online and offline mode. The unit is also responsible for overall coordination and implementation of survey activities, i.e. baseline survey, Outcome & thematic survey.	Offline	G2C		As and when required
PLA.40	Price Statistics (Retailer)	Collection and compilation of Wholesale and Retail price statistics on food and non-food items from open markets. Price statistics indicates the changes of general price level of essential commodities in the State. Price Indices on Industrial Workers are also utilised for fixation, revision of dearness allowance of Government employees in the state	Offline	G2G	1. State HQ 2. Block Office 3. District HQ	Weekly
PLA.41	Prioritisation of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc - Process	To prioritise projects to be submitted to ministries etc for funding	Offline	G2G	1. State HQ	Annually
PLA.42	Agriculture Statistics Crop Report	This report is compiled at the Block level, District level and at the	Offline	G2G	1. State HQ 2. Block Office	Annually

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		State level. At the Block and the District level, the report is compiled five times in a year i.e. in the month of September, November & January, April and June of the subsequent year whereas at the State level this report is compiled for Rabi and Kharif season at the end of the calendar year. For compilation of this report the crop calendar i.e. beginning from July and ending on June of the subsequent year is followed.			3. District HQ	
PLA.43	S&T Oriented Entrepreneurship Development Programme (S&T EDP):	To expose the unemployed youth (Particularly those S&T background to innovative technologies viable for income generation and to motivate these youths to go for self-employment activities with the help of science and technology.	Offline	G2C	1. State HQ	As and when required
PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget	Examine and approve schemes and projects for sanction under the Development Expenditure Budget	Offline	G2G	1. State HQ	Daily
PLA.45	To promote Science and Technology to the general public especially school children.		Offline through Museum	G2C	1. State HQ	Daily
PLA.52	Collection and compilation of Index of Industrial Production (IIP)	Collection & Compilation of Index of Industrial Production (IIP). IIP measures the changes in the industrial production during a period compared to a fixed period, known as base period (the current base period is 2011-12). IIP measures the general level of performance and	Offline	G2B	1. State HQ 2. Block Office 3. District HQ	Monthly

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		growth in the Industrial Sector of a State/UT. • IIP covers three sectors, viz; Mining & Quarrying, Electricity and Manufacturing Sectors. • IIP is used as a short-term macro-economic indicator of industrial growth. It is also used extensively by Government Departments, Industrial Associations, Research Institutes, Academicians, etc. for research and policy formulation. It is used to compare the performance and growth of various States/UTs in the industrial sector				
ERTS.01	Export Permit for Companies issuance	Issuance of Export Permit for exporting of IMFL/WINE/BEER/ENA from Bottling units to other Firms outside the state and issued by the Office of the Commissioner of Excise	Offline	G2B	1. State HQ	As in one required
ERTS.02	Registration services (CST, VAT)	Registration of tax payers under indirect taxes	Digital (CST, VAT)	G2B	1. State HQ 2. District HQ	As in one required
ERTS.03	License Out still Issuance	Application for Issuance of License of Bottling Plant.	Offline	G2B	1. State HQ 2. District HQ	As and when required
ERTS.04	Payment of Tax under GST for normal tax payers	All normal tax payers making outward supply of goods and/or services in a month/quarter and DDOs for every month there was deduction.	online by visiting https://www.gst.gov.in	G2B		Monthly
ERTS.05	Tax Clearance Certificate	Issuance of Tax Clearance Certificate for various usages by the tax payer.	Manual	G2B		As in one required
ERTS.06	License of Wine Shops Issuance	Issuance of Licenses for Retailer Wine Shops by the Office of the Commissioner of Excise	Offline	G2B	1. State HQ 2. District HQ	As and when required
ERTS.07	Issuance of various non-	Issuance of various non-statutory	Offline	G2B	1. State HQ	As in one required

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
	statutory certificates	certificates such as no-objection certificate, tax clearance certificate, licences, etc.				
ERTS.08	Payment of tax under VAT/CST	Tax Payers to pay the tax liability quarterly.	Hybrid	G2B		Quarterly
ERTS.09	Filling of returns under GST	To be filed by Tax Payers under GST, monthly and quarterly.	Online	G2B	1. District HQ	Quarterly
ERTS.10	Surcharge for Bars issuance	Accepting payment against Surcharge and issuing of Permits thereof to the Bars by the Office of the District Offices of the Superintendent of Excise	Offline	G2B	1. District HQ	As in one required
ERTS.11	License Renewal Wine Shops/Bars issuance	Annual Renewal of Licenses for Retailer Wine Shops by the Office of the Commissioner of Excise	Offline	G2B	1. State HQ 2. District HQ	Annually
ERTS.12	Periodic review and change of License and Permit Fees	Updation which may result in increase or decrease of Import, Export and Retailer Permit Fees	Offline	G2B	1. State HQ	As in one required
ERTS.13	Confiscated Goods auction	Actioning of all confiscated goods from the concerned District Authority.	Offline	G2B	1. District HQ	As in one required
ERTS.14	License Brewery Issuance	Application for Issuance of License of Brewery.	Offline	G2B	1. State HQ 2. District HQ	As and when required
ERTS.15	Registration and Renewal of Brand	Companies have paid the security deposit before Registration of their brand and renewal fees should be paid annually.	Manual	G2B	1. State HQ	Annually
ERTS.16	Registration Services GST	Registration under GST compulsory for Tax Payers with Threshold turnover of more than Rs20Lakh per annum. Voluntary GST Registration as and when required (no threshold limit).	https://www.gst.gov.in	G2B		Only Once
ERTS.17	Cancellation of Registration under GST	Cancellation of Registration under GST in case the business is discontinued, transferred, amalgamated with other legal entity, change of constitution, or death of proprietor, or other reasons where	Online	G2B		Once in a life time

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
		the proper officer is satisfied that cancellation of the registration is warranted.				
ERTS.18	Refund of Tax under VAT/CST	Refund of excess Tax paid or excess input tax credit to Tax Payers eligible for refund.	Offline	G2B	1. State HQ	As in one required
ERTS.19	License Bottling Plant Issuance	Application for Issuance of License of Bottling Plant.	Offline	G2B	1. State HQ 2. District HQ	Only Once
ERTS.20	License of Bars Issuance	Issuance for Bar Licenses by the Office of the Commissioner of Excise	Offline	G2B	1. State HQ 2. District HQ	Annually
ERTS.21	Filling of returns for CST	Tax Payers under CST to be file return quarterly.	Online	G2B		Quarterly
ERTS.22	Filling of returns for VAT	To be filed by all registered Tax Payers Quarterly and Annually.	Online	G2B		Quarterly
ERTS.23	Refunds of Tax under GST	Refund of Tax to eligible tax payers.	Online	G2B	1. State HQ	As in one required
ERTS.24	Issuing of statutory declaration forms	Issuing of declaration forms in Form C, F, H, E, etc under CST Act in connection with Inter-State trade and commerce.	Online/Offline	G2B		As in one required
ERTS.25	Revocation of cancellation of registration under GST.	Revocation of suo moto cancelled registration under GST by the proper officer.	Online	G2B		As in one required
ERTS.26	Amendment of Registration under GST	Amendment of Registration under GST in case changes are required to be made after obtaining GST Registration.	Online	G2B		As in one required
ERTS.27	Amendment of Registration under VAT / CST	Amendment of details in Registration Certificate under VAT / CST	Online	G2B		As in one required
ERTS.28	Cancellation of Registration under VAT/CST	Cancellation of Registration under VAT/CST in case business is discontinued.	Manual	G2B		As and when required
ERTS.29	Bonded Warehouses Issuance	Application for Issuance of License of Bonded Warehouses	Offline	G2B	1. State HQ 2. District HQ	As and when required
ERTS.30	Retailer Permit for Wine Shops/Bars/Canteens	Issuance of Licenses for Retailer Wine Shops by the Office of the District Offices of the Superintendent of Excise	Offline	G2B	1. District HQ	As and when required

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Sl. No.	Service Name	Service Description	Service Delivery Channel	Service Type Classification	Locations at which this service is being offered	How frequently does the applicant need to avail this service
ERTS.31	Import Permit of IMFL/BEER/WINE/BIO/ENA	Issuance of Import Permit for the Bonded Warehouses for importing of IMFL/BEER/WINE/BIO/ENA from companies as applied by the Bonded Warehouses.	Offline	G2B	1. State HQ 2. District HQ	As in one required
ERTS.32	Temporary Bar Licenses Issuance	Issuance of Licenses for Temporary Bar Licenses to any person or group by the Office of the Commissioner of Excise on the Recommendation of respective Deputy Commissioner after careful verification so as not to create any law and order problems and om payment of a fee.	Offline	G2C	1. State HQ 2. District HQ	As in one required
ERTS.33	Hologram issuance	Application of Hologram	Offline	G2B	1. State HQ 2. District HQ	As in one required
ERTS.34	Payment of License Fee	Payment of License Fee for different types of Licenses issued				

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9.6 Rationalized Service Catalogue

Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
PLA.01	Specific Projects Programme	Identification of Local Issues and problems and to provide S & T solutions to the issues especially those faced by the rural communities. Issues in the areas of wastes management, water management, low cost livestock management etc. have been taken as Action Research programmes	Planning	Strategic Project Implementation	No			
PLA.02	Sustainable Green Agriculture	Social, Economical & Environmental Development	Planning	Research & Development	No			
PLA.03	Introduction of Appropriate Technology Programme	To put an application of appropriate technologies for daily life improvement and socio-economic development.	Planning	Strategic Project Implementation	Yes	PLA.01		
PLA.04	Popularization of Science Programme	To inculcate a scientific temper among the public particularly school children and ultimately generate scientific minded and environmentally conscious citizens of the State.	Planning	Awareness Campaigns	No			
PLA.05	Voluntary Action Fund Disbursement	Disbursement of fund to each district office for short term training and awareness programs conducted by NGOs	Planning	Financial Assistance	No			
PLA.06	Publication & Reference	Collects secondary data and information from various Departments of the State and Central Government including Autonomous bodies and Semi govt to publish different kind of reports such as State Statistical Handbook, Meghalaya in Figures, District Statistical Handbook, Meghalaya on a regular basis	Planning	Statistical Reporting	Yes	PLA.11		
PLA.07	Land Use Statistics	This report is compiled once in a year at the end of the crop calendar year. The nine-fold classification of land is used for compiling this report. This report is compiled based on the information supplied by the concerned Departments	Planning	Statistical Reporting	Yes	PLA.11		
PLA.08	Irrigation Statistics	This report is also compiled once in a year at the end of the crop calendar year. The irrigated area under the Soil & Water Conservation Department, Water	Planning	Statistical Reporting	Yes	PLA.11		

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
		Resources Department and Agriculture Department formed the Irrigated area under Govt. sources whereas the irrigated area supplied by the respective BDOs formed the Private Irrigation.						
PLA.09	Crop Cutting Experiment	To calculate the yield rate of some selected crops	Planning	Statistical Reporting	Yes	PLA.11		
PLA.10	Promotion of Indigenous System of Medicine	Upliftment of Traditional Healers of the State for preservation and promotion of the indigenous system of medicine/Traditional Healers	Planning	Awareness Campaigns	No			
PLA.11	National Income (NI)	Estimation of State Domestic Product (SDP), generally known as State Income as a macroeconomic aggregate to measure the economic development of the State and the standard of living of its people. The final estimates of the GSDP is made in consultation with the Ministry of Statistics& Program Implementation, Government of India also analyzes the budget documents of the State Government to analyze aspects like budgetary transactions and their effect on the socio-economic standard of the people.	Planning	Statistical Reporting	No		Statistical	This includes all statistical reporting services
PLA.12	Preparation of Development Expenditure Budget - Process	Allocation budgetary resource to all developmental sectors	Planning	Budget Estimation	No			
PLA.13	Monitoring of physical and financial progress of schemes/projects	To monitor the progress of implementation of schemes/projects both financial and physical	Planning	Monitoring	Yes	PLA.33		
PLA.14	Housing Statistics	Data on housing and building construction related activities are being collected in prescribed formats as per guidelines/instructions issued by National Buildings Organization (NBO). The information collected is collated and transmitted online to NBO using Building Related Information and Knowledge System (BRIKS).	Planning	Statistical Reporting	Yes	PLA.11		

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
PLA.15	Govt Employee Census	To generate employee statistics of Govt. employees in the State. The reports are utilized by various departments like Finance and Personnel & AR and also by the State Pay Commissions from time to time	Planning	Statistical Reporting	Yes	PLA.11		
PLA.16	Crop Irrigated area	This report is pertaining to the Crop wise irrigated area and it is compiled based on the results of the Crop Cutting Experiment (CCE) of different crops. At the moment, the Directorate of Economics and Statistics is carrying out CCE on 13 major crops of the State. Based on this percentage of irrigation, the irrigated area is calculated for each crop based on the total cultivated area under each crop.	Planning	Statistical Reporting	Yes	PLA.11		
PLA.17	Vegetable Statistics	This report is compiled once in a year at the end of the crop calendar year. At the moment, 24(twenty-four) major vegetables of the State are included in this report. Few other vegetables are also likely to be included in the report as per the decision of the SLCRC. Though this report is compiled separately, the APY data on these crops are clubbed together with the Crop Report to get the total APY data on all crops of the Block, District, State.	Planning	Statistical Reporting	Yes	PLA.11		
PLA.18	National Sample Survey (NSS)	To collect socio economic data in the state in collaboration with National Sample Survey Office (NSSO) Govt. of India	Planning	Survey	No			
PLA.19	Convergence Programme	To Converge with other line Department for more S &T Intervention Outreach	Planning	Advisory	No			
PLA.20	Preparation of S&T Budget	To prepare Science &Technology annual plans, budgets, etc. for the State	Planning	Action Planning	Yes	PLA.23		
PLA.21	Scrutiny of S&T proposals	To scrutinize proposals relating to Science & Technology for consideration by the State Government.	Planning	Action Planning	Yes	PLA.23		
PLA.22	Allocation of fund for S&T Promotion	To allocate, allot and release fund from the state budget for S&T promotion in the State	Planning	Action Planning	Yes	PLA.23		

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
PLA.23	Formulation of policies and programmes on various aspects of Science & Technology	To formulate policies and programmes on various aspects of Science & Technology which are in the interest of the State	Planning	Action Planning	No			
PLA.24	Identification of schemes/projects in various aspects of Science & Technology	To facilitate the process of identification of schemes, projects and formulation of proposals in various aspects of Science & Technology in the State.	Planning	Action Planning	Yes	PLA.23		
PLA.25	Monitoring of S&T activities	To provide direction for, coordinate, monitor, supervise and follow up S&T activities undertaken in the State.	Planning	Monitoring	Yes	PLA.33		
PLA.26	Measures for effective S&T utilization	To undertake various measures for effective utilization of Science & Technology in the State.	Planning	Action Planning	Yes	PLA.23		
PLA.27	Capacity training for the emerging technologies	To conduct training programme for the student, intern, volunteers and VECs in order to build up the capacity with the emerging technologies.	Planning	Training	No			
PLA.28	Remote Sensing Application Programme	To utilize Remote Sensing Application based technologies for S & T projects. To map S & T applications in rural areas by application of GIS technique. To establish a GIS laboratory for benefit of the students community	Planning	GIS	No			
PLA.29	Advise the Government on matters relating to Planning and Development.	Advise the Government on matters relating to Planning and Development.	Planning	Advisory	No			
PLA.30	Inventory preparation to investigate the possibilities of augmenting and improving resources of the state	To prepare an inventory of available and potential resources of the State, Capital and human and investigate the possibilities of augmenting and improving such resources.	Planning	Strategy & Planning	No			
PLA.31	Preparation of a Perspective Plan for the optimum and balanced utilization of the state's resources	To prepare a Perspective Plan of the State for the next 15 to 20 years for the optimum and balanced utilization of the state's resources and indicate Plan priorities.	Planning	Strategy & Planning	No			

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
	and indicate Plan priorities.							
PLA.32	Advice for Formulation of Annual Plans and five-year Plans	To advise the government regarding the formulation of Annual Plans and five years plan	Planning	Strategy & Planning	No			
PLA.33	Plan Schemes Monitoring process	To review the progress in the implementation of the schemes and to ascertain the factors which have been tending to retard economic development of the State and to determine the conditions to be created for successful execution of the Plans.	Planning	Monitoring	No			
PLA.34	IBDLPP	Integrated Basin Development and Livelihood promotion program Progress report	Planning	Monitoring	Yes	PLA.33		
PLA.35	Baseline Survey	Baseline survey Online mobile, tab-based household level survey across villages under Mlamp project targeting 90,000 hh. The survey aims to collect baseline database of targeted hh on livelihood & economic activities, assets, access to market and credit linkage.	Planning	Survey	No			
PLA.36	EAP MLAMP	Meghalaya Livelihood and Access to Market project funded by IFAD. The project targets 1350 villages with 200,000 hh, on improving the quality of life in rural Meghalaya with sustainable livelihood opportunities and adapted to climate change	Planning	Strategic Project Implementation	No			
PLA.37	EAP CLLMP	Community Led Landscape Management Project will provide targeted support to landscape restoration activities in an estimated 400 villages, in prioritized degraded and highly degraded landscapes, of the state. The ultimate beneficiaries of the project are village communities (estimated number not less than 100,000) in the targeted landscapes that depend on land, forests, water, and agroforestry for their livelihood.	Planning	Strategic Project Implementation	No			
PLA.38	Knowledge Resource Management	The KRM generates, publish & distributes various leaflets, journals and videos	Planning	Informational	No			

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
		targeted at Community, project officials as well as to line departments. The unit functions on available knowledge resources and provides repository of various traditional and acquired knowledge during the process of EAP implementation.						
PLA.39	Monitoring & Evaluation Unit	The M&E unit at MBDA tracks the performance of various components under respective EAPs as part of regular monitoring activity and evaluates the project achievement periodically. The unit function in coordination with field M&E unit at districts and provides reports and analysis in both online and offline mode. The unit is also responsible for overall coordination and implementation of survey activities, i.e. baseline survey, Outcome & thematic survey.	Planning	Monitoring	Yes	PLA.33		
PLA.40	Price Statistics (Retailer)	Collection and compilation of Wholesale and Retail price statistics on food and non-food items from open markets. Price statistics indicates the changes of general price level of essential commodities in the State. Price Indices on Industrial Workers are also utilized for fixation, revision of dearness allowance of Government employees in the state	Planning	Statistical Reporting	Yes	PLA.11		
PLA.41	Prioritization of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc - Process	To prioritize projects to be submitted to ministries etc for funding	Planning	Scheme & Policy Management	No			
PLA.42	Agriculture Statistics Crop Report	This report is compiled at the Block level, District level and at the State level. At the Block and the District level, the report is compiled five times in a year i.e. in the month of September, November & January, April and June of the subsequent year whereas at the State level this report is compiled for Rabi and	Planning	Statistical Reporting	Yes	PLA.11		

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
		Kharif season at the end of the calendar year. For compilation of this report the crop calendar i.e. beginning from July and ending on June of the subsequent year is followed.						
PLA.43	S&T Oriented Entrepreneurship Development Programme (S&T EDP):	To expose the unemployed youth (Particularly those S&T background to innovative technologies viable for income generation and to motivate these youths to go for self-employment activities with the help of science and technology.	Planning	Strategic Project Implementation	No			
PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget	Examine and approve schemes and projects for sanction under the Development Expenditure Budget	Planning	Funding Approval	No			
PLA.45	To promote Science and Technology to the general public especially school children.		Planning	Awareness Campaigns	No			
PLA.52	Collection and compilation of Index of Industrial Production (IIP)	Collection & Compilation of Index of Industrial Production (IIP). IIP measures the changes in the industrial production during a period compared to a fixed period, known as base period (the current base period is 2011-12). IIP measures the general level of performance and growth in the Industrial Sector of a State/UT. • IIP covers three sectors, viz; Mining & Quarrying, Electricity and Manufacturing Sectors. • IIP is used as a short-term macro-economic indicator of industrial growth. It is also used extensively by Government Departments, Industrial Associations, Research Institutes, Academicianns, etc. for research and policy formulation. It is used to compare the performance and growth	Planning	Statistical Reporting	Yes	PLA.11		

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
		of various States/UTs in the industrial sector						
ERTS.01	Export Permit for Companies issuance	Issuance of Export Permit for exporting of IMFL/ WINE/ BEER/ ENA from Bottling units to other Firms outside the state and issued by the Office of the Commissioner of Excise	ERTS	Pass & Permit	No		Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	
ERTS.02	Registration services (CST, VAT)	Registration of taxpayers under indirect taxes	ERTS	Registration	No		New Registration, Amendment and Renewal under CST/VAT	
ERTS.03	License Out still Issuance	Application for Issuance of License of Bottling Plant.	ERTS	License Issuance	Yes	ERTS.06		Merged with issuance and renewal service
ERTS.04	Payment of Tax under GST for normal taxpayers	All normal taxpayers making outward supply of goods and/or services in a month/quarter and DDOs for every month there was deduction.	ERTS	Tax Payment	No			
ERTS.05	Tax Clearance Certificate	Issuance of Tax Clearance Certificate for various usages by the taxpayer.	ERTS	Certificate	No			
ERTS.06	License of Wine Shops Issuance	Issuance of Licenses for Retailer Wine Shops by the Office of the Commissioner of Excise	ERTS	License Issuance	No		Issuance and renewal of License	
ERTS.07	Issuance of various non-statutory certificates	Issuance of various non-statutory certificates such as no-objection certificate, tax clearance certificate, licenses, etc.	ERTS	Certificate	No			
ERTS.08	Payment of tax under VAT/CST	Taxpayers to pay the tax liability quarterly.	ERTS	Tax Payment	No			

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
ERTS.09	Filling of returns under GST	To be filed by Taxpayers under GST, monthly and quarterly.	ERTS	Returns Filing	No			
ERTS.10	Surcharge for Bars issuance	Accepting payment against Surcharge and issuing of Permits thereof to the Bars by the Office of the District Offices of the Superintendent of Excise	ERTS	Tax Payment	No			
ERTS.11	License Renewal Wine Shops/Bars issuance	Annual Renewal of Licenses for Retailer Wine Shops by the Office of the Commissioner of Excise	ERTS	License Issuance	Yes	ERTS.06		Merged with issuance and renewal service
ERTS.12	Periodic review and change of License and Permit Fees	Updation which may result in increase or decrease of Import, Export and Retailer Permit Fees	ERTS	Fee Revision	Yes			Fee revision is an internal process
ERTS.13	Confiscated Goods auction	Actioning of all confiscated goods from the concerned District Authority.	ERTS	Auction	No			
ERTS.14	License Brewery Issuance	Application for Issuance of License of Brewery.	ERTS	License Issuance	Yes	ERTS.06		Merged with issuance and renewal service
ERTS.15	Registration and Renewal of Brand	Companies have paid the security deposit before Registration of their brand and renewal fees should be paid annually.	ERTS	Registration	No			
ERTS.16	Registration Services GST	Registration under GST compulsory for Taxpayers with Threshold turnover of more than Rs20Lakh per annum. Voluntary GST Registration as and when required (no threshold limit).	ERTS	Registration	No		New Registration, Amendment and Renewal under GST	
ERTS.17	Cancellation of Registration under GST	Cancellation of Registration under GST in case the business is discontinued, transferred, amalgamated with other legal entity, change of constitution, or death of proprietor, or other reasons	ERTS	Registration	No			

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
		where the proper officer is satisfied that cancellation of the registration is warranted.						
ERTS.18	Refund of Tax under VAT/CST	Refund of excess Tax paid or excess input tax credit to Taxpayers eligible for refund.	ERTS	Refunds	No			
ERTS.19	License Bottling Plant Issuance	Application for Issuance of License of Bottling Plant.	ERTS	License Issuance	Yes	ERTS.06		Merged with issuance and renewal service
ERTS.20	License of Bars Issuance	Issuance for Bar Licenses by the Office of the Commissioner of Excise	ERTS	License Issuance	Yes	ERTS.06		Merged with issuance and renewal service
ERTS.21	Filling of returns for CST	Taxpayers under CST to be file return quarterly.	ERTS	Returns Filing	No			
ERTS.22	Filling of returns for VAT	To be filed by all registered Taxpayers Quarterly and Annually.	ERTS	Returns Filing	No			
ERTS.23	Refunds of Tax under GST	Refund of Tax to eligible taxpayers.	ERTS	Refunds	No			
ERTS.24	Issuing of statutory declaration forms	Issuing of declaration forms in Form C, F, H, E, etc under CST Act in connection with Inter-State trade and commerce.	ERTS	Statutory Forms	No			
ERTS.25	Revocation of cancellation of registration under GST.	Revocation of suo moto cancelled registration under GST by the proper officer.	ERTS	Registration	Yes	ERTS.17		Cancellation and revocation of Cancellation are merged
ERTS.26	Amendment of Registration under GST	Amendment of Registration under GST in case changes are required to be made after obtaining GST Registration.	ERTS	Registration	Yes	ERTS.16		New registration and amendment are all merged
ERTS.27	Amendment of Registration under VAT / CST	Amendment of details in Registration Certificate under VAT / CST	ERTS	Registration	Yes	ERTS.02		New registration and

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Service Code	Service Name	Service Description	Department	Service Domain	Rationalized	Merged with Service No	Modified Service Name	Rationalization Remarks
								amendment are all merged
ERTS.28	Cancellation of Registration under VAT/CST	Cancellation of Registration under VAT/CST in case business is discontinued.	ERTS	Registration	No			
ERTS.29	Bonded Warehouses Issuance	Application for Issuance of License of Bonded Warehouses	ERTS	License Issuance	Yes	ERTS.06		Merged with issuance and renewal service
ERTS.30	Retailer Permit for Wine Shops/Bars/Canteens	Issuance of Licenses for Retailer Wine Shops by the Office of the District Offices of the Superintendent of Excise	ERTS	Pass & Permit	No			
ERTS.31	Import Permit of IMFL/BEER/WINE/BIO/ ENA	Issuance of Import Permit for the Bonded Warehouses for importing of IMFL/BEER/WINE/BIO/ENA from companies as applied by the Bonded Warehouses.	ERTS	Pass & Permit	Yes	ERTS.01		Import and Export has been merged.
ERTS.32	Temporary Bar Licenses Issuance	Issuance of Licenses for Temporary Bar Licenses to any person or group by the Office of the Commissioner of Excise on the Recommendation of respective Deputy Commissioner after careful verification so as not to create any law and order problems and om payment of a fee.	ERTS	License Issuance	Yes	ERTS.06		Merged with issuance and renewal service
ERTS.33	Hologram issuance	Application of Hologram	ERTS	Hologram Issuance	No			
ERTS.34	Payment of License Fee	Payment of License Fee for different types of Licenses issued	ERTS	Tax Payment	No			

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9.7 Service Indicator Mapping

S. No	Indicator	Department	Service No	Service Name
1	EoDB ranking as per DIPP evaluation	Commerce & Industries		Monitoring Service
		Planning	PLA.46	Collection and compilation of Index of Industrial Production (IIP)
2	Socially engaged Population aged between 3 to 60	Community & Rural Development	PLA.18	National Sample Survey (NSS)
			PLA.43	S&T Oriented Entrepreneurship Development Programme (S&T EDP):
3	Percentage of RTI queries responded	Cooperation		
4	Funds utilized vis-à-vis estimates	Finance	PLA.05	Voluntary Action Fund Disbursement
			PLA.12	Preparation of Development Expenditure Budget - Process
			PLA.23	Formulation of policies and programs on various aspects of Science & Technology
			PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget
5	Number of employees in state government under physically handicapped category	Planning	PLA.15	Monitoring Service
6	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	Health & Family Welfare		Monitoring Service
7	Unsentenced detainees as a proportion of overall prison population	Home (Jails)		Monitoring Service
8	Rate of crime against women and children per 100,000	Home (Police)		Monitoring Service
9	Percentage growth in marital violence registered in local police stations	Home (Police)		Monitoring Service
10	Number of Domestic Violence cases registered	Home (Police)		Monitoring Service
11	Number of cases registered and disposed off by Women Commission	Home (Police)		Monitoring Service

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S. No	Indicator	Department	Service No	Service Name
12	Proportion of sexual crimes against women and children to total crime against women and children	Home (Police)		Monitoring Service
13	Number of marriages reported with girls below the age of 18	Home (Police)		Monitoring Service
14	Number of crimes relating to human trafficking	Home (Police)		Monitoring Service
15	Number of children registered in Track the Missing Children Portal by all registered Child Care Institution	Home (Police)		Monitoring Service
16	Percentage growth in the number of sexual harassments cases reported	Home (Police)		Monitoring Service
17	Reported murders per 1 lakh population	Home (Police)		Monitoring Service
18	Number of victims of intentional homicide per 10,000 population	Home (Police)		
19	Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months	Home (Police)		Monitoring Service
20	Reported cognizable crimes against children per 1 lakh population	Home (Police)		Monitoring Service
21	Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation	Home (Police)		Monitoring Service
22	Proportion of Crime Committed against Children during the year	Home (Police)		Monitoring Service
23	Percentage of Gram Panchayats covered under BharatNet	Information Technology & Communication		Monitoring Service
24	Percentage of digital payments in government	Information Technology & Communication		Monitoring Service
25	Services available online	Information Technology		Monitoring Service

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S. No	Indicator	Department	Service No	Service Name
		and Communication		
26	Proportion of women subjected to dowry related offences to total crime against women	Law		Monitoring Service
27	Number of children referred to Child Welfare Committees and cases disposed off	Law		Monitoring Service
28	Number of children in Child Care Institutions	Law		Monitoring Service
29	Number of children declared free for Adoption by CWCs	Law		Monitoring Service
30	Number of children placed under Foster Care by SFCC	Law		Monitoring Service
31	Number of children provided Sponsorship by the Sponsorship and Foster Care Committee under ICPS scheme	Law		Monitoring Service
32	No. of NDPS and MACT cases in the State	Law		Monitoring Service
33	No. of POCSO cases in recent months/years	Law		
34	Annual growth rate of GSDP per capita	Planning	PLA.11	National Income (NI)
			PLA.12	Preparation of Development Expenditure Budget - Process
			PLA.24	Identification of schemes/projects in various aspects of Science & Technology
			PLA.29	Advise the Government on matters relating to Planning and Development.
			PLA.42	Agriculture Statistics Crop Report
			PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget
			ERTS.01	Export Permit for Companies issuance
			ERTS.02	Registration services (CST, VAT)

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S. No	Indicator	Department	Service No	Service Name
			ERTS. 04	Payment of Tax under GST for normal taxpayers
			ERTS. 08	Payment of tax under VAT/CST
			ERTS. 09	Filling of returns under GST
			ERTS. 10	Surcharge for Bars issuance
			ERTS. 12	Periodic review and change of License and Permit Fees
			ERTS. 15	Registration and Renewal of Brand
			ERTS. 16	Registration Services GST
			ERTS. 18	Refund of Tax under VAT/CST
			ERTS. 21	Filling of returns for CST
			ERTS. 22	Filling of returns for VAT
			ERTS. 23	Refunds of Tax under GST
			ERTS. 25	Revocation of cancellation of registration under GST.
			ERTS. 30	Retailer Permit for Wine Shops/Bars/Canteens
			ERTS. 31	Import Permit of IMFL/BEER/WINE/BIO/ENA
			ERTS. 34	Payment of License Fee
35	Population satisfied with their last experience of public services	Planning		All services
36	Proportion of domestic budget funded by domestic taxes	Planning	ERTS. 01	Export Permit for Companies issuance
			ERTS. 03	License Out still Issuance
			ERTS. 04	Payment of Tax under GST for normal taxpayers
			ERTS. 06	License of Wine Shops Issuance
			ERTS. 08	Payment of tax under VAT/CST
			ERTS. 09	Filling of returns under GST
			ERTS. 10	Surcharge for Bars issuance

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S. No	Indicator	Department	Service No	Service Name
			ERTS.11	License Renewal Wine Shops/Bars issuance
			ERTS.13	Confiscated Goods auction
			ERTS.14	License Brewery Issuance
			ERTS.18	Refund of Tax under VAT/CST
			ERTS.19	License Bottling Plant Issuance
			ERTS.20	License of Bars Issuance
			ERTS.21	Filling of returns for CST
			ERTS.22	Filling of returns for VAT
			ERTS.23	Refunds of Tax under GST
			ERTS.24	Issuing of statutory declaration forms
			ERTS.25	Revocation of cancellation of registration under GST.
			ERTS.26	Amendment of Registration under GST
			ERTS.27	Amendment of Registration under VAT / CST
			ERTS.29	Bonded Warehouses Issuance
			ERTS.30	Retailer Permit for Wine Shops/Bars/Canteens
			ERTS.31	Import Permit of IMFL/BEER/WINE/BIO/ENA
			ERTS.32	Temporary Bar Licenses Issuance
			ERTS.33	Hologram issuance
			ERTS.34	Payment of License Fee
37	Total liability as a percentage of state GDP	Planning	PLA.12	Preparation of Development Expenditure Budget - Process
			PLA.24	Identification of schemes/projects in various aspects of Science & Technology
			PLA.30	Inventory preparation to investigate the possibilities of augmenting and improving resources of the state

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S. No	Indicator	Department	Service No	Service Name
			PLA.31	Preparation of a Perspective Plan for the optimum and balanced utilization of the state's resources and indicate Plan priorities.
			PLA.32	Advice for Formulation of Annual Plans and five-year Plans
			PLA.41	Prioritization of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc - Process
			PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget
38	Percentage of population covered under Aadhaar	Planning		All services
39	Number of bank branches in Urban, Semi-urban and Rural areas	Finance		Already covered in Finance Solution Architecture
40	Number of Business Correspondents (BCs) per branch	Finance		Already covered in Finance Solution Architecture
41	Number of commercial bank branches and automated teller machines (ATMs) per 10,000 adults	Finance		Already covered in Finance Solution Architecture
42	Percentage of accounts with Nil / 1-5/ more than 5 transactions annually	Finance		Already covered in Finance Solution Architecture
43	Proportion of population having Bank accounts	Planning		Already covered in Finance Solution Architecture
44	Food Grains Production	Agriculture	PLA.16	Crop Irrigated area
			PLA.17	Vegetable Statistics
			PLA.40	Price Statistics (Retailer)
			PLA.42	Agriculture Statistics Crop Report
45	Horticulture Produce	Agriculture		Monitoring Service
46	Growth of Industries	Commerce & Industries		Monitoring Service
47	Growth in MSME establishments	Commerce & Industries		Monitoring Service
48	Immunization Achievement	Health & Family Welfare		Monitoring Service

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S. No	Indicator	Department	Service No	Service Name
49	Towns Declared ODF	Public Health Engineering		Monitoring Service
50	Villages Declared ODF	Public Health Engineering		Monitoring Service
51	State's Own Tax Revenue Receipts to Total Revenue Receipts	Finance		Monitoring Service
52	Debt (Total Outstanding Liabilities) to GSDP	Finance		Monitoring Service
53	Empowerment of SCs, STs, OBCs and Minorities	Social Welfare		Monitoring Service
54	Change in Forest Cover	Forest Department		Monitoring Service
55	Enactment of Right to Services Act by the State	Planning		Monitoring Service

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9.8 Prioritized Services Catalogue

Service No	Service Name	Service Assessment Value as per DSS (High/Low/Medium maturity)	Complexity of Implementation	Value to Stakeholders	Prioritization
PLA.01	Specific Projects Programme	Low	High	Low	Not Prioritized
PLA.02	Sustainable Green Agriculture	Low	High	Low	Not Prioritized
PLA.04	Popularization of Science Programme	Low	Medium	Low	Not Prioritized
PLA.05	Voluntary Action Fund Disbursement	Low	Low	Medium	Prioritized
PLA.10	Promotion of Indigenous System of Medicine	Low	High	Low	Not Prioritized
PLA.11	Statistical Reporting	Medium	Medium	High	Prioritized
PLA.12	Preparation of Development Expenditure Budget - Process	Low	Medium	High	Prioritized
PLA.18	National Sample Survey (NSS)	Low	Medium	High	Prioritized
PLA.19	Convergence Programme	Low	Medium	Low	Not Prioritized
PLA.23	Formulation of policies and programmes on various aspects of Science & Technology	Low	High	Medium	Not Prioritized
PLA.27	Capacity training for the emerging technologies	Low	Medium	Low	Prioritized
PLA.28	Remote Sensing Application Programme	Low	High	Low	Not Prioritized
PLA.29	Advise the Government on matters relating to Planning and Development.	Low	High	Low	Not Prioritized
PLA.30	Inventory preparation to investigate the possibilities of augmenting and improving resources of the state	Low	High	Low	Prioritized
PLA.31	Preparation of a Perspective Plan for the optimum and balanced utilization of the state's resources and indicate Plan priorities.	Low	High	Low	Not Prioritized

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Service No	Service Name	Service Assessment Value as per DSS (High/Low/Medium maturity)	Complexity of Implementation	Value to Stakeholders	Prioritization
PLA.32	Advice for Formulation of Annual Plans and five-year Plans	Low	Medium	Low	Not Prioritized
PLA.33	Plan Schemes Monitoring process	Medium	Medium	High	Prioritized
PLA.35	Baseline Survey	Low	Medium	Low	Not Prioritized
PLA.36	EAP MLAMP	Low	Low	High	Prioritized
PLA.37	EAP CLLMP	Low	Low	High	Prioritized
PLA.38	Knowledge Resource Management	Low	Medium	Low	Prioritized
PLA.41	Prioritization of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc - Process	Low	Low	High	Prioritized
PLA.43	S&T Oriented Entrepreneurship Development Programme (S&T EDP):	Low	Medium	Medium	Not Prioritized
PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget	Low	Low	High	Prioritized
PLA.45	To promote Science and Technology to the general public especially school children.	Low	Medium	Low	Not Prioritized
ERTS.01	Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	Low	Low	High	Prioritized
ERTS.02	New Registration, Amendment and Renewal under CST/VAT	Medium	Low	High	Not Prioritized
ERTS.04	Payment of Tax under GST for normal taxpayers	High	Low	High	Not Prioritized
ERTS.05	Tax Clearance Certificate	Low	Low	Low	Not Prioritized
ERTS.06	Issuance and renewal of License	Low	Low	High	Prioritized
ERTS.07	Issuance of various non-statutory certificates	Low	Low	Low	Not Prioritized
ERTS.08	Payment of tax under VAT/CST	High	Low	High	Not Prioritized
ERTS.09	Filling of returns under GST	Medium	Low	High	Not Prioritized

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Service No	Service Name	Service Assessment Value as per DSS (High/Low/Medium maturity)	Complexity of Implementation	Value to Stakeholders	Prioritization
ERTS.10	Surcharge for Bars issuance	High	Low	High	Not Prioritized
ERTS.13	Confiscated Goods auction	Low	High	Medium	Not Prioritized
ERTS.15	Registration and Renewal of Brand	Medium	Medium	Medium	Prioritized
ERTS.16	New Registration, Amendment and Renewal under GST	Medium	Low	High	Not Prioritized
ERTS.17	Cancellation of Registration under GST	Medium	Low	High	Not Prioritized
ERTS.18	Refund of Tax under VAT/CST	Low	Medium	High	Prioritized
ERTS.21	Filling of returns for CST	Medium	Low	High	Not Prioritized
ERTS.22	Filling of returns for VAT	Medium	Low	High	Not Prioritized
ERTS.23	Refunds of Tax under GST	High	Low	High	Not Prioritized
ERTS.24	Issuing of statutory declaration forms	Low	Low	Medium	Prioritized
ERTS.28	Cancellation of Registration under VAT/CST	Medium	Low	Low	Not Prioritized
ERTS.30	Retailer Permit for Wine Shops/Bars/Canteens	Low	Low	High	Prioritized
ERTS.33	Hologram issuance	Low	Medium	Medium	Not Prioritized
ERTS.34	Payment of License Fee	High	Low	High	Prioritized

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9.9 Future State Service Catalogue

Service Code	Service Name	Service Description	Service Type	Service Delivery Location	Service Frequency	Service Delivery Channel	Service Level (Days)
Planning Department							
PLA.01	Specific Projects Programme	Identification of Local Issues and problems and to provide S & T solutions to the issues especially those faced by the rural communities. Issues in the areas of wastes management, water management, low cost livestock management etc. have been taken as Action Research programmes	G2C	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.02	Sustainable Green Agriculture	Social, Economical & Environmental Development	G2C	1. Village	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.04	Popularization of Science Programme	To inculcate a scientific temper among the public particularly school children and ultimately generate scientific minded and environmentally conscious citizens of the State.	G2C	1. State HQ 2. Block Office 3. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.05	Voluntary Action Fund Disbursement	Disbursement of fund to each district office for short term training and awareness programs conducted by NGOs	G2B	1. District HQ	As and when required	Online	Service will be delivered in **7 days** from fund availability
PLA.10	Promotion of Indigenous System of Medicine	Upliftment of Traditional Healers of the State for preservation and promotion of the indigenous system of medicine/Traditional Healers	G2C	1. Village	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.11	Statistical Reporting	This includes following services: • Publication & Reference • National Income(NI) • Land Use Statistics • Irrigation Statistics • Housing Statistics • Govt Employee Census • Crop Irrigated area • Vegetable Statistics • Agriculture Statistics Crop Report • Collection and compilation of Index of Industrial Production (IIP)	G2G	1. State HQ 2. District HQ	Annually	Mobile App, Online	Not defined

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Service Code	Service Name	Service Description	Service Type	Service Delivery Location	Service Frequency	Service Delivery Channel	Service Level (Days)
PLA.12	Preparation of Development Expenditure Budget - Process	Allocation budgetary resource to all developmental sectors	G2G	1. State HQ	Annually	iOBS	**30 days**
PLA.18	National Sample Survey (NSS)	To collect socio economic data in the state in collaboration with National Sample Survey Office (NSSO) Govt. of India	G2G	1. State HQ 2. Block Office 3. District HQ 4. Village	Annually	Mobile App, Online	Not Defined
PLA.19	Convergence Programme	To Converge with other line Department for more S &T Intervention Outreach	G2C	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.23	Formulation of policies and programmes on various aspects of Science & Technology	To formulate policies and programmes on various aspects of Science & Technology which are in the interest of the State	G2G	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.27	Capacity training for the emerging technologies	To conduct training programme for the student, intern, volunteers and VECs in order to build up the capacity with the emerging technologies.	G2C	1. District HQ	As and when required	Online, LMS	Within **3 Months** of service application
PLA.28	Remote Sensing Application Programme	To utilize Remote Sensing Application based technologies for S & T projects. To map S & T applications in rural areas by application of GIS technique. To establish a GIS laboratory for benefit of the students community	G2C	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.29	Advise the Government on matters relating to Planning and Development.	Advise the Government on matters relating to Planning and Development.	G2G	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.30	Inventory preparation to investigate the possibilities of augmenting and improving resources of the state	To prepare an inventory of available and potential resources of the State, Capital and human and investigate the possibilities of augmenting and improving such resources.	G2G	1. State HQ	As and when required	Mobile App, Online	Not Defined
PLA.31	Preparation of a Perspective Plan for the optimum and	To prepare a Perspective Plan of the State for the next 15 to 20 years for the optimum and	G2G	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second

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Service Code	Service Name	Service Description	Service Type	Service Delivery Location	Service Frequency	Service Delivery Channel	Service Level (Days)
	balanced utilization of the state's resources and indicate Plan priorities.	balanced utilization of the state's resources and indicate Plan priorities.					phase of Implementation
PLA.32	Advice for Formulation of Annual Plans and five-year Plans	To advise the government regarding the formulation of Annual Plans and five years plan	G2G	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.33	Plan Schemes Monitoring process	To review the progress in the implementation of the schemes and to ascertain the factors which have been tending to retard economic development of the State and to determine the conditions to be created for successful execution of the Plans.	G2G	1. State HQ	As and when required	Online	Real Time
PLA.35	Baseline Survey	Baseline survey Online mobile, tab-based household level survey across villages under Mlamp project targeting 90,000 hh. The survey aims to collect baseline database of targeted hh on livelihood & economic activities, assets, access to market and credit linkage.	G2C	1. State HQ 2. Block Office 3. District HQ 4. Village	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.36	EAP MLAMP	Meghalaya Livelihood and Access to Market project funded by IFAD. The project targets 1350 villages with 200,000 hh, on improving the quality of life in rural Meghalaya with sustainable livelihood opportunities and adapted to climate change	G2C	1. State HQ 2. Block Office 3. District HQ 4. Village	As and when required	Mobile App, Online	Not Defined
PLA.37	EAP CLLMP	Community Led Landscape Management Project will provide targeted support to landscape restoration activities in an estimated 400 villages, in prioritized degraded and highly degraded landscapes, of the state. The ultimate beneficiaries of the project are village communities (estimated number not less than 100,000) in the targeted landscapes that depend on land, forests, water, and agroforestry for their livelihood.	G2C	1. State HQ 2. Block Office 3. District HQ 4. Village	As and when required	Mobile App, Online	Not Defined
PLA.38	Knowledge Resource Management	The KRM generates, publish & distributes various leaflets, journals and videos targeted at Community, project officials as well as to line departments. The unit functions on available knowledge resources and provides repository of various traditional and acquired knowledge during the process of EAP implementation.	G2C	1. State HQ	As and when required	Online	As per requirement

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Service Code	Service Name	Service Description	Service Type	Service Delivery Location	Service Frequency	Service Delivery Channel	Service Level (Days)
PLA.41	Prioritization of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc. - Process	To prioritize projects to be submitted to ministries etc. for funding	G2G	1. State HQ	Annually	Mobile App, Online	As per requirement
PLA.43	S&T Oriented Entrepreneurship Development Programme (S&T EDP):	To expose the unemployed youth (Particularly those S&T background to innovative technologies viable for income generation and to motivate these youths to go for self-employment activities with the help of science and technology.	G2C	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget	Examine and approve schemes and projects for sanction under the Development Expenditure Budget	G2G	1. State HQ	Daily	Online	Service will be delivered in **7 days** from date of submission
PLA.45	To promote Science and Technology to the general public especially school children.		G2C	1. State HQ	Daily	To be defined in second phase of Implementation	To be defined in second phase of Implementation
PLA.46	Decentralized district progress evaluation	A district planning committee would evaluate the performance of the district basis of MeghEA KPI (vision) framework through data being collated from all blocks and report to the State Planning Board	G2G	1. District HQ	Quarterly	Online	Service will be delivered every **3 months.** Date of delivery would be **7 days** prior to the last working day of March, June, September and December
PLA.47	Industrial Statistical data collection under two categories: Organized factory sector and Unorganized non-factory sector.	Collection of factory output, employment and other details for all factories through block level Sub Inspector(Statistics)	G2B	1. Block HQ	Quarterly	Online	Service will be delivered every **3 months**

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Service Code	Service Name	Service Description	Service Type	Service Delivery Location	Service Frequency	Service Delivery Channel	Service Level (Days)
PLA.48	Monitoring, Marketing and Management of MeghEA	Effective management of Meghalaya Enterprise Architecture team, procurement of manpower and software tools as necessary and marketing of the MeghEA for better adoption	G2G	1. State HQ	Ongoing	Manual	Please follow MeghEA Operating Model in MeghEA Blueprint for details
PLA.49	On-Demand Statistical Information	Provide on-demand statistical information to various Government Departments, offices, committees, working groups, commission's set-up by the government and the research institutions	G2G	1. State HQ	As and when Required	Online	For data that is already collected – response time would be less than **1 day** For all other data, response time would not be more than **3 months**
PLA.50	Create or update department and/or agencies	Service to create new department or any agencies within an existing department	G2G	State HQ	As and when Required	Online	The new department would be created within **one day** from date of Government order notification
PLA.51	Monitor State performance in SDG	This service is about monitoring state performance on all matters related to SDG, publishing reports and organize committee meetings	G2G	State HQ	Ongoing	Online	This service would be delivered in real-time through digital dashboard
Excise Registration Taxation Stamps Department							
ERTS.01	Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	Issuance of Export Permit for exporting of IMFL/ WINE/ BEER/ ENA from Bottling units to other Firms outside the state and issued by the Office of the Commissioner of Excise	G2B	1. State HQ	As and when required	Online	Service will be delivered in **15 days** from Service Application
ERTS.02	New Registration, Amendment and	Registration of taxpayers under indirect taxes	G2B	1. State HQ 2. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second

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Service Code	Service Name	Service Description	Service Type	Service Delivery Location	Service Frequency	Service Delivery Channel	Service Level (Days)
	Renewal under CST/VAT						phase of Implementation
ERTS.04	Payment of Tax under GST for normal taxpayers	All normal taxpayers making outward supply of goods and/or services in a month/quarter and DDOs for every month there was deduction.	G2B	1. District HQ	Monthly	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.05	Tax Clearance Certificate	Issuance of Tax Clearance Certificate for various usages by the taxpayer.	G2B	1. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.06	Issuance and renewal of License	Issuance of Licenses for Retailer Wine Shops by the Office of the Commissioner of Excise	G2B	1. State HQ 2. District HQ	Once in a lifetime	Online	Service will be delivered in **15 days** from Service Application
ERTS.07	Issuance of various non-statutory certificates	Issuance of various non-statutory certificates such as no-objection certificate, tax clearance certificate, licenses, etc.	G2B	1. State HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.08	Payment of tax under VAT/CST	Taxpayers to pay the tax liability quarterly.	G2B	1. State HQ 2. District HQ	Quarterly	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.09	Filling of returns under GST	To be filed by Taxpayers under GST, monthly and quarterly.	G2B	1. State HQ 2. District HQ	Quarterly	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.10	Surcharge for Bars issuance	Accepting payment against Surcharge and issuing of Permits thereof to the Bars by the Office of the District Offices of the Superintendent of Excise	G2B	1. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.13	Confiscated Goods auction	Actioning of all confiscated goods from the concerned District Authority.	G2B	1. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.15	Registration and Renewal of Brand	Companies have paid the security deposit before Registration of their brand and renewal fees should be paid annually.	G2B	1. State HQ	Annually	Online	Service will be delivered in **15 days** from Service Application

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Service Code	Service Name	Service Description	Service Type	Service Delivery Location	Service Frequency	Service Delivery Channel	Service Level (Days)
ERTS.16	New Registration, Amendment and Renewal under GST	Registration under GST compulsory for Taxpayers with Threshold turnover of more than Rs20Lakh per annum. Voluntary GST Registration as and when required (no threshold limit).	G2B	1. State HQ 2. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.17	Cancellation of Registration under GST	Cancellation of Registration under GST in case the business is discontinued, transferred, amalgamated with other legal entity, change of constitution, or death of proprietor, or other reasons where the proper officer is satisfied that cancellation of the registration is warranted.	G2B	1. State HQ 2. District HQ	Once in a lifetime	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.18	Refund of Tax under VAT/CST	Refund of excess Tax paid or excess input tax credit to Taxpayers eligible for refund.	G2B	1. State HQ 2. District HQ	As and when required	Online	Service will be delivered in **15 days** from Service Application
ERTS.21	Filling of returns for CST	Taxpayers under CST to be file return quarterly.	G2B	1. State HQ 2. District HQ	Quarterly	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.22	Filling of returns for VAT	To be filed by all registered Taxpayers Quarterly and Annually.	G2B	1. State HQ 2. District HQ	Quarterly	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.23	Refunds of Tax under GST	Refund of Tax to eligible taxpayers.	G2B	1. State HQ 2. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.24	Issuing of statutory declaration forms	Issuing of declaration forms in Form C, F, H, E, etc under CST Act in connection with Inter-State trade and commerce.	G2B	1. State HQ 2. District HQ	As and when required	Online	Service will be delivered in **15 days** from Service Application
ERTS.28	Cancellation of Registration under VAT/CST	Cancellation of Registration under VAT/CST in case business is discontinued.	G2B	1. State HQ 2. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.30	Retailer Permit for Wine Shops/Bars/Canteens	Issuance of Licenses for Retailer Wine Shops by the Office of the District Offices of the Superintendent of Excise	G2B	1. District HQ	As and when required	Online	Service will be delivered in **15 days** from Service Application

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Service Code	Service Name	Service Description	Service Type	Service Delivery Location	Service Frequency	Service Delivery Channel	Service Level (Days)
ERTS.33	Hologram issuance	Application of Hologram	G2B	1. State HQ 2. District HQ	As and when required	To be defined in second phase of Implementation	To be defined in second phase of Implementation
ERTS.34	Payment of License Fee	Payment of License Fee for different types of Licenses issued	G2B	1. State HQ 2. District HQ	As and when required	Online	To be done by Licensee
ERTS.35	Submission of Excise Statement	The returns of permits taken IMFL imported, excise duty payable, previous stock, consumed, permissible loses and stock left should be reported to department every month for reconciliation and compliance.	G2B	1. State HQ 2. District HQ	Monthly	Online	To be done by Licensee
ERTS.36	Retail License Auction	Auction and allotment of Excise Retailer license every year	G2B	1. State HQ 2. District HQ	Annually	Online	**1 Month** before Close of Financial Year.

9.9.1 Future State Service Catalogue – Planning Department

Service Code	Service Name	Service Description	Service Domain
PLA.01	Specific Projects Programme	Identification of Local Issues and problems and to provide S & T solutions to the issues especially those faced by the rural communities. Issues in the areas of wastes management, water management, low cost livestock management etc. have been taken as Action Research programmes	Strategic Project Implementation
PLA.02	Sustainable Green Agriculture	Social, Economical & Environmental Development	Research & Development
PLA.04	Popularization Of Science Programme	To inculcate a scientific temper among the public particularly school children and ultimately generate scientific minded and environmentally conscious citizens of the State.	Awareness Campaigns
PLA.05	Voluntary Action Fund Disbursement	Disbursement of fund to each district office for short term training and awareness programs conducted by NGOs	Financial Assistance
PLA.10	Promotion of Indigenous System of Medicine	Up-liftment of Traditional Healers of the State for preservation and promotion of the indigenous system of medicine/Traditional Healers	Awareness Campaigns

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Service Code	Service Name	Service Description	Service Domain
PLA.11	Statistical Reporting	This includes following services: • Publication & Reference • National Income (NI) • Land Use Statistics • Irrigation Statistics • Housing Statistics • Govt Employee Census • Crop Irrigated area • Vegetable Statistics • Agriculture Statistics Crop Report • Collection and compilation of Index of Industrial Production (IIP)	Statistical Reporting
PLA.12	Preparation of Development Expenditure Budget – Process	Allocation budgetary resource to all developmental sectors	Budget Estimation
PLA.18	National Sample Survey (NSS)	To collect socio economic data in the state in collaboration with National Sample Survey Office (NSSO) Govt. of India	Survey
PLA.19	Convergence Programme	To Converge with other line Department for more S &T Intervention Outreach	Advisory
PLA.23	Formulation of policies and programmes on various aspects of Science & Technology	To formulate policies and programmes on various aspects of Science & Technology which are in the interest of the State	Action Planning
PLA.27	Capacity training for the emerging technologies	To conduct training programme for the student, intern, volunteers and VECs in order to build up the capacity with the emerging technologies.	Training
PLA.28	Remote Sensing Application Programme	To utilize Remote Sensing Application based technologies for S & T projects. To map S & T applications in rural areas by application of GIS technique. To establish a GIS laboratory for benefit of the students community	GIS
PLA.29	Advise the Government on matters relating to Planning and Development.	Advise the Government on matters relating to Planning and Development.	Advisory

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Service Code	Service Name	Service Description	Service Domain
PLA.30	Inventory preparation to investigate the possibilities of augmenting and improving resources of the state	To prepare an inventory of available and potential resources of the State, Capital and human and investigate the possibilities of augmenting and improving such resources.	Strategy & Planning
PLA.31	Preparation of a Perspective Plan for the optimum and balanced utilization of the state's resources and indicate Plan priorities.	To prepare a Perspective Plan of the State for the next 15 to 20 years for the optimum and balanced utilization of the state's resources and indicate Plan priorities.	Strategy & Planning
PLA.32	Advice for Formulation of Annual Plans and five year Plans	To advise the government regarding the formulation of Annual Plans and five years plan	Strategy & Planning
PLA.33	Plan Schemes Monitoring process	To review the progress in the implementation of the schemes and to ascertain the factors which have been tending to retard economic development of the State and to determine the conditions to be created for successful execution of the Plans.	Monitoring
PLA.35	Baseline Survey	Baseline survey Online mobile , tab based household level survey across villages under Mlamp project targeting 90,000 hh. The survey aims to collect baseline database of targeted hh on livelihood & economic activities, assets, access to market and credit linkage.	Survey
PLA.36	EAP MLAMP	Meghalaya Livelihood and Access to Market project funded by IFAD. The project targets 1350 villages with 200,000 hh , on improving the quality of life in rural Meghalaya with sustainable livelihood opportunities and adapted to climate change	Strategic Project Implementation
PLA.37	EAP CLLMP	Community Led Landscape Management Project will provide targeted support to landscape restoration activities in an estimated 400 villages, in prioritized degraded and highly degraded landscapes, of the state. The ultimate beneficiaries of the project are village communities (estimated number not less than 100,000) in the targeted landscapes that depend on land, forests, water, and agroforestry for their livelihood.	Strategic Project Implementation

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Service Code	Service Name	Service Description	Service Domain
PLA.38	Knowledge Resource Management	The KRM generates , publish & distributes various leaflets , journals and videos targeted at Community , project officials as well as to line departments .The unit functions on available knowledge resources and provides repository of various traditional and acquired knowledge during the process of EAP implementation.	Informational
PLA.41	Prioritization of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc – Process	To prioritize projects to be submitted to ministries etc for funding	Scheme & Policy Management
PLA.43	S&T Oriented Entrepreneurship Development Programme (S&T EDP):	To expose the unemployed youth (Particularly those S&T background to innovative technologies viable for income generation and to motivate these youths to go for self-employment activities with the help of science and technology.	Strategic Project Implementation
PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget	Examine and approve schemes and projects for sanction under the Development Expenditure Budget	Funding Approval
PLA.45	To promote Science and Technology to the general public especially school children.		Awareness Campaigns
PLA.46	Decentralized district progress evaluation	A district planning committee would evaluate the performance of the district basis of MeghEA KPI (vision) framework through data being collated from all blocks and report to the State Planning Board	New Service
PLA.47	Industrial Statistical data collection under two categories: Organized factory sector and Unorganized non-factory sector.	Collection of factory output, employment and other details for all factories through block level Sub Inspector(Statistics)	New Service

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Service Code	Service Name	Service Description	Service Domain
PLA.48	Monitoring, Marketing and Management of MeghEA	Effective management of Meghalaya Enterprise Architecture team, procurement of man-power and software tools as necessary and marketing of the MeghEA for better adoption	New Service
PLA.49	On-Demand Statistical Information	Provide on-demand statistical information to various Government Departments, offices, committees, working groups, commission's set-up by the government and the research institutions	New Service
PLA.50	Create or update department and/or agencies	Service to create new department or any agencies within an existing department	New Service
PLA.51	Monitor State performance in SDG	This service is about monitoring state performance on all matters related to SDG, publishing reports and organize committee meetings	New Service

9.9.2 Future State Service Catalogue – ERTS Department

Service Code	Service Name	Service Description	Service Domain
ERTS.01	Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	Issuance of Export Permit for exporting of IMFL/ WINE/ BEER/ ENA from Bottling units to other Firms outside the state and issued by the Office of the Commissioner of Excise	Pass & Permit
ERTS.02	New Registration, Amendment and Renewal under CST/VAT	Registration of tax payers under indirect taxes	Registration
ERTS.04	Payment of Tax under GST for normal tax payers	All normal tax payers making outward supply of goods and/or services in a month/quarter and DDOs for every month there was deduction.	Tax Payment

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Service Code	Service Name	Service Description	Service Domain
ERTS.05	Tax Clearance Certificate	Issuance of Tax Clearance Certificate for various usages by the tax payer.	Certificate
ERTS.06	Issuance and renewal of License	Issuance of Licenses for Retailer Wine Shops by the Office of the Commissioner of Excise	License Issuance
ERTS.07	Issuance of various non-statutory certificates	Issuance of various non-statutory certificates such as no-objection certificate, tax clearance certificate, licenses, etc.	Certificate
ERTS.08	Payment of tax under VAT/CST	Tax Payers to pay the tax liability quarterly.	Tax Payment
ERTS.09	Filling of returns under GST	To be filed by Tax Payers under GST, monthly and quarterly.	Returns Filing
ERTS.10	Surcharge for Bars issuance	Accepting payment against Surcharge and issuing of Permits thereof to the Bars by the Office of the District Offices of the Superintendent of Excise	Tax Payment
ERTS.13	Confiscated Goods auction	Actioning of all confiscated goods from the concerned District Authority.	Auction
ERTS.15	Registration and Renewal of Brand	Companies have paid the security deposit before Registration of their brand and renewal fees should be paid annually.	Registration
ERTS.16	New Registration, Amendment and Renewal under GST	Registration under GST compulsory for Tax Payers with Threshold turnover of more than Rs20Lakh per annum. Voluntary GST Registration as and when required (no threshold limit).	Registration
ERTS.17	Cancellation of Registration under GST	Cancellation of Registration under GST in case the business is discontinued, transferred, amalgamated with other legal entity, change of constitution, or death of proprietor, or other reasons where the proper officer is satisfied that cancellation of the registration is warranted.	Registration
ERTS.18	Refund of Tax under VAT/CST	Refund of excess Tax paid or excess input tax credit to Tax Payers eligible for refund.	Refunds

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Service Code	Service Name	Service Description	Service Domain
ERTS.21	Filling of returns for CST	Tax Payers under CST to be file return quarterly.	Returns Filing
ERTS.22	Filling of returns for VAT	To be filed by all registered Tax Payers Quarterly and Annually.	Returns Filing
ERTS.23	Refunds of Tax under GST	Refund of Tax to eligible tax payers.	Refunds
ERTS.24	Issuing of statutory declaration forms	Issuing of declaration forms in Form C, F, H, E, etc under CST Act in connection with Inter-State trade and commerce.	Statutory Forms
ERTS.28	Cancellation of Registration under VAT/CST	Cancellation of Registration under VAT/CST in case business is discontinued.	Registration
ERTS.30	Retailer Permit for Wine Shops/Bars/Canteens	Issuance of Licenses for Retailer Wine Shops by the Office of the District Offices of the Superintendent of Excise	Pass & Permit
ERTS.33	Hologram issuance	Application of Hologram	Hologram Issuance
ERTS.34	Payment of License Fee	Payment of License Fee for different types of Licenses issued	Tax Payment
ERTS.35	Submission of Excise Statement	The returns of permits taken IMFL imported, excise duty payable, previous stock, consumed, permissible loses and stock left should be reported to department every month for reconciliation and compliance.	New Service
ERTS.36	Retail License Auction	Auction and allotment of Excise Retailer license every year	New Service

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9.10 Service Stakeholder Matrix

Service Code	Service Name	Service Type	Citizen/ Business/ Community/ NGO	Finance Department	Planning Department	ERTS Department	Government of India	Line Departments	AG/ CAG
PLA.01	Specific Projects Programme	G2C		Funding	Facilitates				
PLA.02	Sustainable Green Agriculture	G2C			Monitor				
PLA.04	Popularization of Science Programme	G2C			Provide Training				
PLA.05	Voluntary Action Fund Disbursement	G2B	Apply	Issuance of Sanction, LOA and Funds	Transfer of Funds				Audit
PLA.10	Promotion of Indigenous System of Medicine	G2C			Facilitates				
PLA.11	Statistical Reporting	G2G			Collect, Monitor, Provide Training				
PLA.12	Preparation of Development Expenditure Budget – Process	G2G			Process				
PLA.18	National Sample Survey (NSS)	G2G			Facilitates				
PLA.19	Convergence Programme	G2C			Monitor				
PLA.23	Formulation of policies and programmes on various aspects of Science & Technology	G2G			Facilitates				
PLA.27	Capacity training for the emerging technologies	G2C			Provide Training				
PLA.28	Remote Sensing Application Programme	G2C			Facilitates				
PLA.29	Advise the Government on matters relating to Planning and Development.	G2G			Facilitates				
PLA.30	Inventory preparation to investigate the possibilities of augmenting and	G2G			Facilitates				

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Service Code	Service Name	Service Type	Citizen/ Business/ Community/ NGO	Finance Department	Planning Department	ERTS Department	Government of India	Line Departments	AG/ CAG
	improving resources of the state								
PLA.31	Preparation of a Perspective Plan for the optimum and balanced utilization of the state's resources and indicate Plan priorities.	G2G			Facilitates				
PLA.32	Advice for Formulation of Annual Plans and five-year Plans	G2G			Facilitates				
PLA.33	Plan Schemes Monitoring process	G2G			Monitor				
PLA.35	Baseline Survey	G2C			Monitor				
PLA.36	EAP MLAMP	G2C			Approval of Proposal				
PLA.37	EAP CLLMP	G2C			Approval of Proposal				
PLA.38	Knowledge Resource Management	G2C			Facilitates				
PLA.41	Prioritization of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc – Process	G2G			Approval of Proposal				
PLA.43	S&T Oriented Entrepreneurship Development Programme (S&T EDP):	G2C			Provide Training				
PLA.44	Disbursement of Funds for schemes/projects under Development Expenditure Budget	G2G			Transfer of Funds				
PLA.45	To promote Science and Technology to the general public especially school children.	G2C			Provide Training				
PLA.52	Collection and compilation of IIP	G2G			Collect and Monitor				

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Service Code	Service Name	Service Type	Citizen/ Business/ Community/ NGO	Finance Department	Planning Department	ERTS Department	Government of India	Line Departments	AG/ CAG
ERTS.01	Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	G2B	Apply	Collect Payment		Approval and Issuance			
ERTS.02	New Registration, Amendment and Renewal under CST/VAT	G2B	Apply	Collect Payment		Approval and Issuance			
ERTS.04	Payment of Tax under GST for normal taxpayers	G2B	Payment			Reconciliation	Collects and Transfer to state		
ERTS.05	Tax Clearance Certificate	G2B	Apply			Approval and Issuance			
ERTS.06	Issuance and renewal of License	G2B	Apply			Approval and Issuance			
ERTS.07	Issuance of various non-statutory certificates	G2B	Apply			Approval and Issuance			
ERTS.08	Payment of tax under VAT/CST	G2B	Payment	Collect Payment		Reconciliation			
ERTS.09	Filling of returns under GST	G2B	Submission			Assessment and Audit	Facilitates		
ERTS.10	Surcharge for Bars issuance	G2B	Payment	Collect Payment		Reconciliation			
ERTS.13	Confiscated Goods auction	G2B		Collect Payment		Auction and Collection of Auction Money			
ERTS.15	Registration and Renewal of Brand	G2B	Apply			Approval and Issuance			
ERTS.16	New Registration, Amendment and Renewal under GST	G2B	Apply			Approval and Issuance	Facilitates		
ERTS.17	Cancellation of Registration under GST	G2B	Apply			Approval and Issuance	Facilitates		
ERTS.18	Refund of Tax under VAT/CST	G2B	Apply	Issue Refund		Approval and Issuance			
ERTS.21	Filling of returns for CST	G2B	Submission			Assessment and Audit			
ERTS.22	Filling of returns for VAT	G2B	Submission			Assessment and Audit			
ERTS.23	Refunds of Tax under GST	G2B	Apply			Approval and Issuance	Facilitates		
ERTS.24	Issuing of statutory declaration forms	G2B	Apply			Approval and Issuance			

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Service Code	Service Name	Service Type	Citizen/ Business/ Community/ NGO	Finance Department	Planning Department	ERTS Department	Government of India	Line Departments	AG/ CAG
ERTS.28	Cancellation of Registration under VAT/CST	G2B	Apply			Approval and Issuance			
ERTS.30	Retailer Permit for Wine Shops/Bars/Canteens	G2B	Apply	Collect Payment		Approval and Issuance			
ERTS.33	Hologram issuance	G2B	Apply			Approval and Issuance			
ERTS.34	Payment of License Fee	G2B	Payment	Collect Payment		Reconciliation			
PLA.46	Decentralized district progress evaluation	G2G			Monitor				
PLA.47	Industrial Statistical data collection under two categories: Organized factory sector and Unorganized non-factory sector.	G2B			Facilitates				
PLA.48	Monitoring, Marketing and Management of MeghEA	G2G			Monitor				
PLA.49	On-Demand Statistical Information	G2G			Facilitates				
ERTS.35	Submission of Excise Statement	G2B	Submission			Assessment and Audit			
ERTS.36	Retail License Auction	G2B	Apply	Collect Payment		Allocation			

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9.11 Service Application Module Mapping

Services	Register for Service/Service Resolution Application Module	Service Internal Processing Application Module	Additional System Application Module
Voluntary Action Fund Disbursement	Governance Pillar Portal	Funding Management	TreasuryNet
Statistical Reporting: • Publication & Reference • National Income(NI) • Land Use Statistics • Irrigation Statistics • Housing Statistics • Govt Employee Census • Crop Irrigated area • Vegetable Statistics • Agriculture Statistics Crop Report • Collection and compilation of Index of Industrial Production (IIP)	Governance Pillar Portal	• Survey • Data Collection	
Preparation of Development Expenditure Budget - Process	Governance Pillar Portal	Finance	iOBS
National Sample Survey (NSS)	Governance Pillar Portal	• Survey • Data Collection	
Capacity training for the emerging technologies	Governance Pillar Portal	LMS	
Inventory preparation to investigate the possibilities of augmenting and improving resources of the state	Governance Pillar Portal	Data Collection	
Plan Schemes Monitoring process	Governance Pillar Portal	Monitoring & Evaluation	

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Services	Register for Service/Service Resolution	Service Internal Processing	Additional System
	Application Module	Application Module	Application Module
EAP MLAMP	Governance Pillar Portal	Monitoring & Evaluation	
EAP CLLMP	Governance Pillar Portal	Monitoring & Evaluation	
Knowledge Resource Management	Governance Pillar Portal	Monitoring & Evaluation	
Prioritisation of projects for submission to Ministry of DoNER, NEC, NABARD, MoTA, EAP etc - Process	Governance Pillar Portal	Funding Management	
Disbursement of Funds for schemes/projects under Development Expenditure Budget	Governance Pillar Portal	Funding Management	
Issuance of Import/ Export Permit for IMFL/ Wine/ Beer/ ENA.	Governance Pillar Portal	License Management	
Issuance and renewal of License	Governance Pillar Portal	License Management	
Registration and Renewal of Brand	Governance Pillar Portal	Registration	
Refund of Tax under VAT/CST	Governance Pillar Portal	Refund	
Issuing of statutory declaration forms	Governance Pillar Portal	Forms Issuance	
Retailer Permit for Wine Shops/Bars/Canteens	Governance Pillar Portal	Pass & Permit	
Payment of License Fee	Governance Pillar Portal	Payments	
Decentralized district progress evaluation	Governance Pillar Portal	Monitoring & Evaluation	

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Services	Register for Service/Service Resolution	Service Internal Processing	Additional System
	Application Module	Application Module	Application Module
Industrial Statistical data collection under two categories: Organized factory sector and Unorganized non-factory sector.	Governance Pillar Portal	Monitoring & Evaluation	
Monitoring, Marketing and Management of MeghEA	Governance Pillar Portal	Monitoring & Evaluation	
On-Demand Statistical Information	Governance Pillar Portal	Monitoring & Evaluation	
Create or update department and/or agencies	Governance Pillar Portal		
Monitor State performance in SDG	Governance Pillar Portal	Monitoring & Evaluation	
Submission of Excise Statement	Governance Pillar Portal	Returns	
Retail License Auction	Governance Pillar Portal	Auction	

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9.12 MeghEA Meta Model

The MeghEA Meta Model describes the types of entities described in various architecture domains and the relationships between them. Entities are key subject areas that every reference model in IndEA framework focuses on (example: Business architecture focuses on Business services entities). The model illustrates the different types of entities, which are described by the MeghEA architecture domain such as entity types (the types of information described by the architecture domain example – Application), Relationships (connection between entity types within and across layers).

What to achieve: The **Goals** of the State-Sustainable Development Goals and its **indicator**, defined in the State SDG has been used to measure success of the service delivery in terms of measurable, smart and actionable goals. As a part of the **transformation** plan, it is important to measure success through real-time data measurement using a state-level **Monitoring & Evaluation** (M&E) dashboard.

How to achieve: The goals of the department would be realized by delivery of enhanced **services**. The services are grouped into types of output, termed as **service domains**. These services comprise of **process** steps which are executed by **stakeholders**. As a part of the **transformation** plan, it is imperative to transform the service through efficient and lean service processes, this change is termed as Business Process Re-engineering. As a critical impact, a **change management** needs to be carried out to ensure the planned transformation is smooth.

The Enablers: The above business services would be enabled by **application service** to deliver services, **department applications** and **common applications** facilitated by core platform would enable service delivery. As a part of the transformation plan, it is required to develop new **System** or **Modify** to enable the service delivery.

Where to store and how to retrieve Information: The applications facilitate processing of data, these data is designed as per the **Metadata**, that defines the **data entity type**. The State **Digital Registry** would enable identification of service beneficiary. The transformation plan includes a three-fold approach – enhancement of existing **data quality**, efficient **data life-cycle** management and planned **storage** along with efficient **retrieval**

The infrastructure: The applications and data would necessarily reside in the **IT infrastructure** in the state data center or cloud. To enable the above business transformation, it is necessary that infrastructure is modernized or **revamped,** and **network** is made available till the last mile

Building Block: An **architecture building block** is a package of functionality defined to meet business needs, in simple terms it is the transformation requirement. A **solution building block** is a component within the architecture building that represents a part or complete solution to the requirement

The diagram below illustrated the above explanation in a graphical manner:

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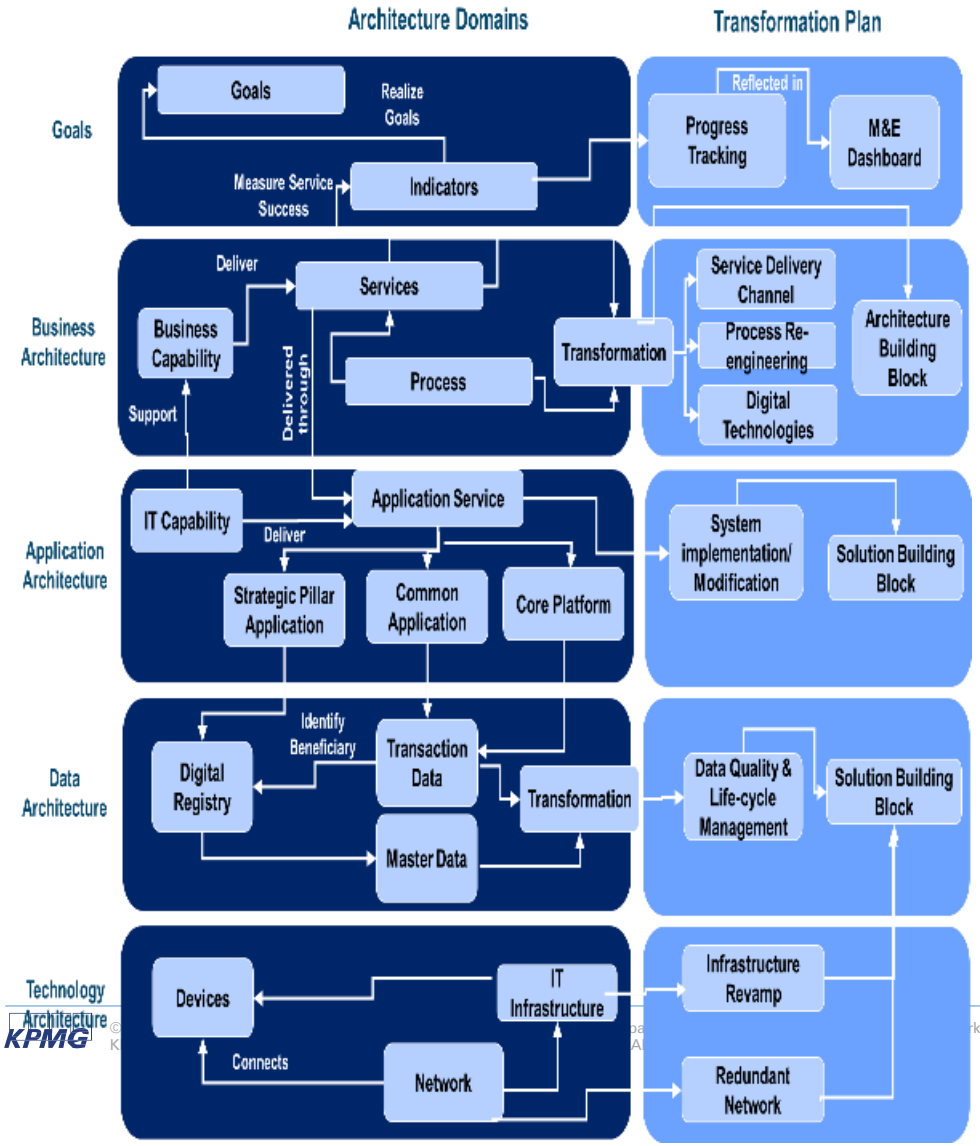
Architecture Domains
Transformation Plan
Goals
Goals
Realize Goals
Measure Service Success
Indicators
Reflected in
Progress Tracking
M&E Dashboard
Business Architecture
Deliver
Services
Business Capability
Support
Delivered through
Process
Transformation
Service Delivery Channel
Process Re-engineering
Digital Technologies
Architecture Building Block
Application Architecture
IT Capability
Deliver
Application Service
Strategic Pillar Application
Common Application
Core Platform
System implementation/ Modification
Solution Building Block
Data Architecture
Identify Beneficiary
Digital Registry
Transaction Data
Master Data
Transformation
Data Quality & Life-cycle Management
Solution Building Block
Technology Architecture
Devices
IT Infrastructure
Connects
Network
Infrastructure Revamp
Redundant Network

Figure 30: MeghEA Metamodel

The above MeghEA Meta model has been explained in below example for Governance Pillar:

Goal:

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Indicator:

Funds utilized vis-à-vis estimates.

Business Capability:

Beneficiary Management, Eligibility Management, Scheme Fund Management, Fund Distribution.

Service:

Voluntary Action Fund Disbursement.

Service Description:

Disbursement of fund to each district office for short term training and awareness programs conducted by NGOs.

Service Process:

As per need, NGO applies for the fund to District Planning Officer. Verification of application for correctness and scrutiny by district empowered committee. Committee approves the application and send for acceptance. NGO accepts the application approved amount. District planning officer prepared bill and submits for transfer of funds.

IT Capability:

Online Fund Transfer, Digital modes for Service Application, Workflow Based System, Learning Management System.

Application Service:

Apply Financial Assistance -> Planning Department -> Voluntary Action Fund

Core, Common, Pillar Application:

State Portal, Scheme Management, Financial Management, Governance Pillar Portal, Payment Gateway.

Digital Registry:

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Business ID, District ID

Master Data:

Business Database, Local Government Directory Master, Scheme Master

Devices:

Mobile Phones, Desktops

IT Infrastructure:

In premise/ Cloud Deployment Server.

Network:

Uninterupted Primary and Secondary network connectivity for officials and Internet for Businesses.

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9.13 Monitoring & Evaluation – SDG Dashboard

Below table illustrated the data source systems for all SDG Indicators from MeghEA Vision

S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
1	Correct responses on Learning Outcomes in Language, Mathematics and EVS for Class 5 students	Human Development	External System	National Achievement Survey	Data Extraction	2 years	NA
2	Dropout Rate at all level	Human Development	External System	National Sample Survey of Estimation of out-of-School	Data Extraction	4 years	NA
3	Participation rate at Board Examinations & Pass Percentage	Human Development	External System	MBOSE/ CBSE/ ICSE	Data Extraction	Annually	NA
4	Percentage correct responses on Learning Outcomes in Early Childhood Care, Education & Development institutes	Human Development	Governance	District onitoring-MOTHER app	API	Quarterly	
5	Literacy Rate Improvement for Meghalaya	Human Development	Database	SECC	Data Extraction	10 years	
6	Percentage of Children aged 3-6 years enrolled for non-formal preschool education in Anganwadi Centers.	Human Development	Database	ICDS	Data Extraction	Yearly	https://icds-wcd.nic.in/nnm/ICDS-CAS.htm/login/
7	Percentage of population having primary schooling facilities within 2 kms of reach and secondary schooling facilities within 5 kms of reach	Human Development	Human Development	Reports	Data Extraction	Yearly	https://scholgis.nic.in/
8	Improvement in Gross Enrolment in the State of Meghalaya	Human Development	External System	UDISE+	Data Extraction	Yearly	NA
9	Ratio of male to female students at various levels of education	Human Development	External System	UDISE+	Data Extraction	Yearly	NA

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
10	Correct responses on Learning Outcomes in Language, Mathematics, Science and Social Science for Class 8 students	Human Development	Governance	District onitoring-MOTHER app	API	Quarterly	
11	Percentage of primary and secondary schools with single-sex sanitation facilities	Human Development	External System	UDISE+	Data Extraction	Yearly	NA
12	Percentage of school teachers professionally qualified	Human Development	Governance	District onitoring-MOTHER app	API	Quarterly	
13	Amount of scholarship expenditure per student eligible under all scholarship schemes	Human Development	External System	National Scholarship Portal	Data Extraction	Yearly	NA
14	Percentage of elementary and secondary schools with Pupil-Teacher Ratio less than/equal to 30	Human Development	Human Development	Reports	API	Weekly	NA
15	Students male to female ratio in various levels of education	Human Development	External System	UDISE+	Data Extraction	Yearly	NA
16	Adjusted Net Enrolment Ratio at Elementary (Class 1-8) and Secondary (Class 9-10) school	Human Development	External System	UDISE+	Data Extraction	Yearly	NA
17	Children in the age group of 6-13 who are out of school	Human Development	External System	National Sample Survey of Estimation of out-of-School	Data Extraction	4 years	NA
18	Average Annual Drop-out rate at secondary level	Human Development	External System	UDISE+	Data Extraction	Yearly	NA
19	Number of Anganwadi Buildings for non-formal preschool education.	Human Development	External System	ICDS	Data Extraction	Yearly	https://www.icds-cas.gov.in/a/icds-cas/login/

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
20	Percentage share of expenditure in Industrial Research & Development to total GDP	Human Development	Governance	Financial Management(IFMS) & Data Collections - GSDP	Data Extraction	Yearly	
21	Number of regional centers of excellence in each District	Human Development		Department to update	Update process	Yearly	
22	Researchers (in full-time equivalent) per 10,000 inhabitants	Human Development		Department to update	Update process	Yearly	
23	Share of GVA (Gross Value Add) of research and development related activities in total GVA	Human Development	To be reviewed				
24	Share of GVA of Information and Computer related activities in total GVA of state	Human Development	To be reviewed				
25	Nos. of Police personnel trained	Human Development	To be reviewed	Out of Scope			
26	No. of Police training units/centers.	Human Development	To be reviewed	Out of Scope			
27	Percentage growth of GSDP due to skill	Human Development	To be reviewed	Department to update	Update process	Yearly	
28	Average income (Salaried, self-employed, Skilled, unskilled)	Human Development	To be reviewed	Data Collection & Survey	Data Extraction	Yearly	
29	Average unemployment rate per 1000 persons for males and females	Human Development	To be reviewed	Online Employement Exchange	API	Real-time	
30	Wages earned by male-female in regular / casual employment	Human Development	To be reviewed	Data Collection & Survey	Data Extraction	Yearly	

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
31	Number of youths trained in on-demand skills in the last year	Human Development	To be reviewed	Training Module	API	Yearly	
32	Number of youths trained and empowered for sustainable employment	Human Development	To be reviewed	Training Module	API	Yearly	
33	Ratio of Female Labour force participation to male Labour force participation rate	Human Development	To be reviewed	Data Collection & Survey	Data Extraction	Yearly	
34	Total employment in tourism sector	Human Development	To be reviewed	Department to update	Update process	Yearly	
35	No. of ITI per 10,000 of population	Human Development	To be reviewed	Department to update	Update process	Yearly	
36	Number of science and/or technology cooperation agreements and programs between departments and international agencies/ institutes/etc.	Human Development	To be reviewed				
37	Number of employed persons with disabilities in public services	Human Development	To be reviewed	MeghEIS	API	Yearly	
38	Number of trained Anganwadi Workers for preschool education.	Human Development	To be reviewed	ICDS	Data Extraction	Yearly	NA
39	Children under age 5 years who are stunted	Human Development	To be reviewed	NFHS	Data Extraction	3 years	NA
40	Percentage Reduction of children aged 6-59 months who are anemic.	Human Development	External System	NFHS	Data Extraction	3 years	NA
41	Children under age 5 years who are wasted	Human Development	External System	NFHS	Data Extraction	3 Years	NA
42	Pregnant women aged 15-49 years who are anemic (11.0 g/dl)	Human Development	External System	NFHS	Data Extraction	3 years	NA
43	Reduce maternal mortality ratio (MMR) per lakh	Human Development	External System	Ministry of Home Affairs	Data Extraction	Annually	NA
44	Percentage of mothers receiving antenatal care	Human Development	External System	NFHS	Data Extraction	3 years	NA

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
45	Percentage of mothers receiving postnatal care	Human Development	External System	NFHS	Data Extraction	3 years	NA
46	Percentage of home births compared to total number of births	Human Development	External System	NFHS	Data Extraction	3 years	NA
47	Percentage of children aged 12-23 months fully immunized (BCG, Measles, and three doses of pentavalent vaccine)	Human Development	External System	NFHS	Data Extraction	3 years	NA
48	Reduce Neonatal mortality rate per Lakh	Human Development	External System	NFHS	Data Extraction	3 years	NA
49	Number of new HIV infections as a percentage of total population by sex, age and districts	Human Development	External System	NFHS	Data Extraction	3 years	NA
50	Annual notification of TB patient per lakh population	Human Development	External System	Revised National Tuberculosis Control Program-Management Information System	Data Extraction	Annually	NA
51	Increase in Malaria infection cases as a percentage to last year	Human Development	External System	NFHS	Data Extraction	3 years	NA
52	Increase in Hepatitis B infection cases as a percentage to last year	Human Development	External System	NFHS	Data Extraction	3 years	NA
53	Increase in incidents of treatment for following diseases leprosy, lymphatic filariasis (LF), cysticercosis, and rabies (expressed as a percentage growth Y-o-Y)	Human Development	Governance	Data Collections & Survey- MOTHER app	API	Quarterly	
54	Mortality rate attributed to Cancer	Human Development	Governance	Data Collections & Survey- MOTHER app	API	Quarterly	
55	Percentage growth of suicide deaths reported	Human Development	Out of Scope	CCTNS	API	Quarterly	

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
56	Number of persons treated in de-addiction centers	Human Development	Governance	Data Collections & Survey- MOTHER app	API	Quarterly	
57	Percentage growth in per capita consumption of alcohol	Human Development	Governance	Data Collections & Survey- MOTHER app			
58	Percentage of pregnant women who have undertaken antenatal checkups as a total number of pregnant women in a time frame of a year	Human Development	Governance	Data Collections & Survey- MOTHER app	API	Quarterly	
59	Percentage of pregnant women under 19 years	Human Development	Governance	Data Collections & Survey- MOTHER app	API	Quarterly	
60	Total physicians, nurses and midwives per 10000 population	Human Development	Governance	Data Collections & Survey- MOTHER app	API	Monthly	
61	Percentage of families registered under Megha Health Insurance Scheme	Human Development	External System	PMJAY BIS	Data Extraction	Quarterly	NA
62	Percentage growth of death due to unintentional poisoning	Human Development	To be reviewed				
63	Percentage of households with access to Jan Ausadhi Medical Store within 5 kms of residence	Human Development	External System	HMIS	Data Extraction	Quarterly	NA
64	Per capita medical R&D expenditure	Human Development		Department to update	Update process	Annually	
65	Number of qualified doctors per 10000 of the population in rural and urban	Human Development	External System	HMIS	Data Extraction	Quarterly	NA

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
66	Number of AYUSH practioners per 10000 of the population in rural and urban	Human Development	External System	HMIS	Data Extraction	Quarterly	NA
67	Number of ASHA workers per 10000 of the population in rural and urban	Human Development	External System	HMIS	Data Extraction	Quarterly	NA
68	No. Of ambulances per 10,000 population	Human Development	External System	HMIS	Data Extraction	Quarterly	NA
69	No. Of trained disaster response personnel	Human Development	Out of Scope				
70	No. of persons covered in the training and mock drills	Human Development	Out of Scope				
71	Number of operational FRUs per 10,000 population	Human Development	External System	HMIS	Data Extraction	Quarterly	NA
72	Number of operational Blood Banks /Blood Storage Unit per 10,000 population	Human Development	External System	HMIS	Data Extraction	Annually	NA
73	Percentage population trained in emergency response (by gender and age)	Human Development	Out of Scope				
74	Proportion of the population (out of total eligible population) receiving total protection benefits under Maternity benefits	Human Development	External System	NFHS	Data Extraction	3 Years	NA
75	Mortality rate attributed to Diabetes	Human Development	Governance	Data Collections & Survey- MOTHER app	API	Quarterly	
76	Mortality rate attributed to Cardiovascular diseases including stroke	Human Development	Governance	Data Collections & Survey- MOTHER app	API	Quarterly	
77	Age-standardized prevalence of current tobacco use among persons aged 15 years and older	Human Development	Governance	Data Collection & Survey	Data Extraction	Annually	

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
78	Percentage of schools having access to safe drinking water facilities	Human Development	Infrastructure	Monitoring & Reporting	Data Extraction	Annually	
79	Percentage growth in number of deaths due to road accidents	Human Development	Infrastructure	Monitoring & Reporting	Data Extraction	Annually	
80	Palma ratio of Household Expenditure in Rural Meghalaya	Human Development	Governance	Data Collection & Survey	Data Extraction	Annually	
81	Providing 100 days of employment for every desirous household under MGNREGA	Human Development	External System	MDREGA Reports	API	Real-time	http://mnregaweb4.nic.in/netnrega/MISreport4.aspx
82	100% coverage of eligible beneficiaries under pension/Social Security programs	Human Development	To be reviewed				
83	Ratio of rural households covered under public distribution system to rural households where monthly income of highest-earning member is less than Rs.5,000	Human Development	External System	NFSA	Data Extraction	Annually	nfsa.gov.in
84	No. of State officials trained in climate adaptation planning	Human Development		Department to update	Update process	Annually	
85	Palma ratio of Household Expenditure in Urban Meghalaya	Human Development	Governance	Data Collection & Survey	Data Extraction	Annually	
86	Proportion of people living below 50 per cent of median household expenditure	Human Development	Governance	Data Collection & Survey	Data Extraction	Annually	
87	Percentage of financial assistance from Externally Aided funding institutions as a total of government expenditure (planned) in budget	Human Development	Governance	Funding Management	API	Annually	

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
88	Percentage of government expenditure in Education, Health and Social Protection	Human Development	Governance	Funding Management	API	Annually	
89	Percentage of government spending under following heads: Social Welfare Rural Development Women benefiting schemes Education scholarships for minority/marginalized community	Human Development	Governance	Funding Management	API	Annually	
90	Percentage of VEC (Village Employment Council) chaired by women	Human Development		Department to update	Update process	Annually	
91	Number of persons with disabilities enrolled under Chief Minister Social Assistance Schemes	Human Development	Human Development	Reports	API	Weekly	
92	Percentage increase in State per capita income of marginalized and BPL families	Human Development	To be reviewed				
93	Percentage of industries(17 category of highly polluting industries/grossly polluting industry/red category of industries) complying with waste water treatment as per CPCB (Central Pollution Control Board) norms.	Infrastructure	Infrastructure	MSPCB	Data Extraction	Monthly	http://megspcb.glensserver.com/#/publicPortal/categoryList
94	Percentage of smart phone users by: Female Male	Infrastructure	Governance	Data Collection & Survey	Data Extraction	Annually	NA
95	Number of internet subscriber per 10000 of population	Infrastructure	Governance	Data Collection & Survey	Data Extraction	Annually	NA
96	Number of Internet Subscribers per 100 population	Infrastructure	Governance	Data Collection & Survey	Data Extraction	Annually	NA

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
97	Percentage of households with uninterrupted power supply of 16 hours per day	Infrastructure	Database	SECC	Data Extraction	Quarterly	https://secc.gov.in/statemainSourceOfLightingUrban
98	Percentage of LPG subscriber to total number of households	Infrastructure	External System	National System - PMUY	Data Extraction	Quarterly	https://pmuy.gov.in/
99	Renewable energy generation as a percentage of total production	Infrastructure	Database	SECC	Data Extraction	Quarterly	https://www.esopb.gov.in/Static/PDF/GSDP/Statewise-Data/StateWiseData.pdf
100	Energy intensity measured in terms of primary energy and GDP, 2015-16 (in mega joules per rupee)	Infrastructure	State System	Meghalaya state Designated Agency	Data Extraction	Quarterly	https://msda.nic.in/sites/default/files/annual-year-booklet.pdf
101	Percentage growth in capital expenditure in funding solar energy initiatives	Infrastructure	Governance	Finance-TrasuryNET - Solar Power spending Scheme Code	API	Daily	Refer Finance Solution Architecture
102	Percentage of schools having uninterrupted electricity for more than 90% of school hours	Infrastructure	State System	MSERC	API	Monthly	http://mserc.gov.in/powerdata.html
103	Percentage of Rural Population provided with 70 or more LPCD (Liter per capita per day)	Infrastructure	Infrastructure	Monitoring & Reporting	API	Daily	Refer Infrastructure Pillar - DAR
104	Percentage of Urban Population provided with 70 or more LPCD	Infrastructure	Infrastructure	Monitoring & Reporting	API	Daily	Refer Infrastructure Pillar - DAR

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
105	Percentage of population having safe and adequate drinking water in rural areas	Infrastructure	Infrastructure	Monitoring & Reporting	API	Daily	Refer Infrastructure Pillar - DAR
106	Percentage of villages in ODF category	Infrastructure	External System	Swachh Bharat Mission Data	API	Daily	https://sbm.gov.in/sbmReport/State.aspx#
107	Percentage of sewage treated before discharge into surface water bodies	Infrastructure	Database	PHE-Sewage treatment & maintenance	Data Extraction	Quarterly	NA
108	Installed sewage treatment capacity as a proportion of sewage generated in urban areas	Infrastructure	Database	PHE-Sewage treatment & maintenance	Data Extraction	Quarterly	NA
109	Number of fully operational Laboratories at the State Level/ District Level/Sub Divisional Level for testing of water	Infrastructure	External System	National System - NABL	Data Extraction	Annually	NA
110	Number of Mobile Water Treatment Plant equipped with mobile laboratory	Infrastructure	Database	PHE - Water testing labs Monitoring	Data Extraction	Annually	http://megphed.gov.in/standards/WQTLabsGuidelines.pdf
111	Population covered by piped water supply	Infrastructure	Database	PHE - Water supply monitoring	Data Extraction	Monthly	http://megphed.gov.in/schemes/positu.htm
112	Percentage of targeted habitations connected by all-weather roads under Pradhan Mantra Gram Sadak Yojana	Infrastructure	External System	National System - PM GSY	API	Quarterly	http://omms.nic.in/
113	Proportion of Passenger and freight volumes, by mode of transport (passengers in number billion / freight in billion Ton)	Infrastructure	External System	MORTH Data	API	Monthly	https://vahan.parivahan.gov.in/vahan/vahan/ui/login/login.xhtml

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
114	Number of seats in public transport per 100 urban individuals	Infrastructure	External System	Vahan	Data Extraction	Quarterly	na
115	Percentage of Irrigation Potential Utilized (IPU) to Irrigation Potential Created (IPC)	Infrastructure	External System	National System-Jal Shakti	Data Extraction	Annually	http://mowr.gov.in/sites/default/files/5th-MICensusReport_0.pdf
116	No. of towns where Projects for sustainability of Sources has been completed	Infrastructure	Governance	Data Collection & Survey	Data Extraction	Quarterly	NA
117	Percentage ground water withdrawal against availability	Infrastructure	Governance	Data Collection & Survey	Data Extraction	Annually	http://megwaterresources.gov.in/programmes/Information%20on%20completed%20projects%20WR%20Department%20-%20DETAILED.pdf
118	Percentage of River Basins mapped	Infrastructure	Governance	Data Collection & Survey	Data Extraction	Annually	
119	Total number of water bodies restored compared to water bodies identified for restoration	Infrastructure		Department to update	Update process	Annually	http://megwaterresources.gov.in/programmes/AIBP.pdf
120	Farmers with surplus production to sell in the open market	Primary Sector	Governance	Data Collection & Survey	Data Extraction	Annually	

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
121	Distribution of soil health cards to 100% farmers by 2019	Primary Sector	External System	National System-Soil Health Cards	API	Daily	https://soilhealth.dac.gov.in/publicreports/ProgressDashboardpublicReport
122	Percentage increase in total production of fodder in the state	Primary Sector	Governance	Data Collection & Survey	Data Extraction	Quarterly	NA
123	Rice, wheat and coarse cereals produced annually per unit area (kg/Ha)	Primary Sector	Primary Sector	Stock Management	API	Daily	Primary Sector-Detailed Architecture
124	Percentage growth in average income of small-scale food producers, by sex and indigenous status	Primary Sector	Governance	Data Collection & Survey	Data Extraction	Annually	NA
125	Increase net cropping intensity (Cropping intensity refers to raising of a number of crops from the same field during one agricultural year; it can be expressed through a formula. Cropping Intensity = Gross Cropped Area / Net Sown Area x 100)	Primary Sector	Governance	Data Collection & Survey	Data Extraction	Annually	
126	Percentage of indigenous species under conservation	Primary Sector	Primary Sector	Stock Management	API	Daily	Primary Sector-Detailed Architecture
127	Increase in Agriculture orientation index	Primary Sector	Governance	Finance-TrasuryNET - Agriculture spending Governance-Survey & Data Collection	API	Daily	Data would be one year old

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
128	Growth (percentage) in gross Agriculture expenditure Y-o-Y	Primary Sector	Governance	Finance-TrasuryNET - Agriculture spending	API	Daily	
129	Percentage of growth of export subsidy to agriculture exports	Primary Sector	To be reviewed				
130	Gross Global Food Loss Index (GFLI) in metric tones	Primary Sector	Primary Sector	Stock Management	API	Daily	Primary Sector-Detailed Architecture
131	Ratio of chemical fertilizers sold to ratio of crop production	Primary Sector	Primary Sector	Stock Management	API	Daily	Primary Sector-Detailed Architecture
132	Per-capita milk yield per milk animal.	Primary Sector	Governance	Data Collection & Survey	Data Extraction	Annually	
133	Per capita meat production.	Primary Sector	Governance	Data Collection & Survey	Data Extraction	Annually	
134	Per capita egg production.	Primary Sector	Primary Sector	Stock Management	API	Daily	Primary Sector-Detailed Architecture
135	Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction	Primary Sector	Primary Sector	Stock Management	API	Daily	Primary Sector-Detailed Architecture
136	Ration of Maximum Sustainable Yield (MSY) in fishing to current yield	Primary Sector	Governance	Data Collection & Survey	Data Extraction	Annually	NA
137	Percentage increase in fish seed production	Primary Sector	Primary Sector	Stock Management	API	Daily	Primary Sector-Detailed Architecture

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
138	Consumer Price Index variation measured in Q-o-Q	Primary Sector	Primary Sector	Stock Management	API	Daily	Primary Sector- Detailed Architecture
139	Annual growth rate in agriculture sector	Entrepreneurship	Primary Sector	Stock Management	API	Daily	
140	Farmers with surplus crop production, enabled to be an entrepreneur	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	Annually	
141	Annual growth rate in services sector	Entrepreneurship	Entrepreneurship	C&I - Monitoring and Reporting			
142	Number of startups facilitated	Entrepreneurship	External System	National System - Startup India	API	Quarterly	https://www.startupindia.gov.in/content/sih/en/EventsCompetitions/startup_india_yatra/startup-Meghalaya-yatra.html
143	Gross Capital Formation by industry	Entrepreneurship	To be reviewed				
144	Percentage of employment in Manufacturing sector	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	Annually	http://megplanning.gov.in/statistics/Census-employees/2006.pdf
145	Output, value added from manufacturing industry in house hold sector	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	Annually	NA
146	Percentage/ Proportion of Credit flow to MSMEs (as a Percentage of Total Adjusted Net Bank Credit)	Entrepreneurship	External System	DCMSME Report	Data Extraction	Quarterly	Na

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
147	Percentage of population living below the National Poverty line	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	As per GOI Survey	
148	Percentage of deprived rural households that are covered under different poverty alleviation programs.	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	Annually	
149	Exclusive bank credit linked women SHGs (Self Help Groups)	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	Annually	NA
150	Increase in number of youth job card holder under MGNREGA, by gender	Entrepreneurship	External System	National MGNREGA Systems	Data Extraction	Annually	NA
151	Number of man days created under Mahatma Gandhi National Rural Employment Guarantee Act(MGNREGA)	Entrepreneurship	External System	National MGNREGA Systems	Data Extraction	Annually	NA
152	Growth rate of registered Micro, Small and Medium Size Enterprises	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	Quarterly	NA
153	Percentage increase in number of tourists	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	Annually	NA
154	Contribution of Tourism to GSDP (%)	Entrepreneurship	Governance	Data Collection & Survey	Data Extraction	Annually	na
155	Number of companies publishing sustainability reports	Environment Sustainability		Department to update	Update process	Annually	
156	Percentage of population benefitted under NSAP (National Social Assistance Programme)	Environment Sustainability	External System	NSAP- GOI System	API	Real-time	
157	Percentage of rural and urban households benefitted under PMAY-G(Pradhan Mantri Awaas Yojana-Gramin).	Environment Sustainability	External System	PMAY-G System	API	Real-time	https://pmayg.nic.in/netiay/writereaddata/Circulars/NiPFP_final_3rd_Report.pdf

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
158	Percentage of houses completed under Pradhan Mantri Awas Yojana (PMAY) to net demand assessed for houses	Environment Sustainability	External System	PMAY-G System	API	Real-time	https://pmayg.nic.in/netiay/writereaddata/Circulars/NiPFP_final_3rd_Report.pdf
159	Number of HH benefited from the PMAY-G houses constructed.	Environment Sustainability	External System	PMAY-G System	API	Real-time	https://pmayg.nic.in/netiay/writereaddata/Circulars/NiPFP_final_3rd_Report.pdf
160	Percentage of eligible households to have access to food security through National Food Security Act (NFSA) and the enhanced PDS system	Environment Sustainability	Human Development	Reports	API	Real-time	
161	CO2 equivalent emission per unit of manufacturing value added	Environment Sustainability	To be reviewed				
162	Percentage increase of Tree Outside Forest (TOF) in total forest cover	Environment Sustainability	To be reviewed				
163	Increase in area under afforestation / tree plantation	Environment Sustainability	To be reviewed				
164	Increase in Very Dense Forest cover	Environment Sustainability	To be reviewed				
165	Percentage of villages with JFMCs (Joint Forest Management Committee)	Environment Sustainability	To be reviewed				
166	Increase in Moderately Dense Forest	Environment Sustainability	To be reviewed				
167	Percentage of degraded area restored	Environment Sustainability	To be reviewed				
168	Increase in forest / vegetative cover in mountain areas	Environment Sustainability	To be reviewed				

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
169	Number of wild life offences booked	Environment Sustainability	To be reviewed				
170	Number of detections of offences and prevention measures for traded wildlife that was poached or illicitly trafficked	Environment Sustainability	Environment	Reports	API	Real-time	
171	Percentage of Urban poor household covered under housing schemes	Environment Sustainability	Out of Scope				
172	Number of urban Homeless under Shelter Homes	Environment Sustainability	Out of Scope				
173	Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	Environment Sustainability	Environment	Reports			
174	Increase/decrease in imposition of adequate Tax per unit of fossil fuel consumption.	Environment Sustainability	Environment	Reports			
175	Percentage of Priority Sector Advances to Total credit/Advance	Environment Sustainability	Environment	Reports			
176	Percentage of conservation expenditure of government to total expenditure (annually)	Environment Sustainability	To be reviewed				
177	Percentage of waste processed	Environment Sustainability		Department to update	Update process	Annually	
178	Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment	Environment Sustainability		Department to update			
179	Number of Community Mini Compost plants established	Environment Sustainability		Department to update			
180	Percentage of organic waste converted into compost	Environment Sustainability		Department to update			
181	Percentage of urban waste that has been segregated	Environment Sustainability		Department to update			
182	Number of deaths, missing persons and persons affected by disaster per 10,000 population	Environment Sustainability	Out of Scope				

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
183	Percentage of towns and Cities covered under the Disaster Reduction Risk Strategy	Environment Sustainability	Out of Scope				
184	Number of deaths, missing persons and directly affected persons attributed to disasters per 10,000 population	Environment Sustainability	Out of Scope				
185	Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools	Environment Sustainability		Department to update			
186	Number of urban poor having access to basic services	Environment Sustainability	Out of Scope				
187	Percentage of urban households living in slums	Environment Sustainability	Out of Scope				
188	Net Density (total urban population by total habitable land area)	Environment Sustainability	Out of Scope				
189	Percentage of collection and safe disposal of solid waste	Environment Sustainability	Out of Scope				
190	Percentage of wards with 100% door to door waste collection	Environment Sustainability	Out of Scope				
191	Number of impaired/ dead springs rejuvenated	Environment Sustainability	Out of Scope				
192	Percentage of increase in restoration of water bodies / stream in mountain areas	Environment Sustainability	Out of Scope				
193	EoDB ranking as per DIPP evaluation	Governance for the people	Governance	Data Collection & Survey	Data Extraction	Annually	NA
194	Socially engaged Population aged between 3 to 60	Governance for the people	Governance	Data Collection & Survey	Data Extraction	Annually	NA
195	Percentage of RTI queries responded	Governance for the people	Governance	Grievance Management System	API	Daily	RTI module needs to be implemented

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
196	Funds utilized vis-à-vis estimates	Governance for the people	Governance	Finance- Expenditure	API	Daily	Finance Solution Architecture
197	Number of employees in state government under physically handicapped category	Governance for the people	Governance	Finance- Employee Management	API	Daily	Finance Solution Architecture
198	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	Governance for the people	Human Development	Reporting	API	Daily	
199	Unsentenced detainees as a proportion of overall prison population	Governance for the people	Out of Scope				
200	Rate of crime against women and children per 100,000	Governance for the people	Out of Scope				
201	Percentage growth in marital violence registered in local police stations	Governance for the people	Out of Scope				
202	Number of Domestic Violence cases registered	Governance for the people	Out of Scope				
203	Number of cases registered and disposed off by Women Commission	Governance for the people	Out of Scope				
204	Proportion of sexual crimes against women and children to total crime against women and children	Governance for the people	Out of Scope				
205	Number of marriages reported with girls below the age of 18	Governance for the people	Out of Scope				
206	Number of crimes relating to human trafficking	Governance for the people	Out of Scope				
207	Number of children registered in Track the Missing Children Portal by all registered Child Care Institution	Governance for the people	Out of Scope				

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
208	Percentage growth in the number of sexual harassments cases reported	Governance for the people	Out of Scope				
209	Reported murders per 1 lakh population	Governance for the people	Out of Scope				
210	Number of victims of intentional homicide per 10,000 population	Governance for the people	Out of Scope				
211	Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months	Governance for the people	Out of Scope				
212	Reported cognizable crimes against children per 1 lakh population	Governance for the people	Out of Scope				
213	Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation	Governance for the people	Out of Scope				
214	Proportion of Crime Committed against Children during the year	Governance for the people	Out of Scope				
215	Percentage of Gram Panchayats covered under BharatNet	Governance for the people	Out of Scope				
216	Percentage of digital payments in government	Governance for the people	Governance	Finance - State DBT Finance - Expenditure	API	Daily	Finance Solution Architecture
217	Services available online	Governance for the people	Governance	Data Collection & Survey	Data Extraction	Annually	NA
218	Proportion of women subjected to dowry related offences to total crime against women	Governance for the people	Out of Scope				
219	Number of children referred to Child Welfare Committees and cases disposed off	Governance for the people	Out of Scope				
220	Number of children in Child Care Institutions	Governance for the people	Out of Scope				
221	Number of children declared free for Adoption by CWCs	Governance for the people	Out of Scope				

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
222	Number of children placed under Foster Care by SFCC	Governance for the people	Out of Scope				
223	Number of children provided Sponsorship by the Sponsorship and Foster Care Committee under ICPS scheme	Governance for the people	Out of Scope				
224	No. of NDPS and MACT cases in the State	Governance for the people	Out of Scope				
225	No. of POCSO cases in recent months/years	Governance for the people	Out of Scope				
226	Annual growth rate of GSDP per capita	Governance for the people	Governance	Data Collection & Survey	API	Annually	
227	Population satisfied with their last experience of public services	Governance for the people	Common System	Grievance Management System	API	Daily	
228	Proportion of domestic budget funded by domestic taxes	Governance for the people	Governance	Finance- Budget	API	Quarterly	Finance Solution Architecture
229	Total liability as a percentage of state GDP	Governance for the people	Governance	Finance- Reporting	API	Quarterly	Finance Solution Architecture
230	Percentage of population covered under Aadhaar	Governance for the people	External System	UIDAI Reports	API	Monthly	
231	Number of bank branches in Urban, Semi-urban and Rural areas	Governance for the people	Governance	Reports -Financial Inclusion (State Lead Bank Report)	Data Extraction	Quarterly	Refer SLB Data
232	Number of Business Correspondents (BCs) per branch	Governance for the people	Governance	Reports -Financial Inclusion (State Lead Bank Report)	Data Extraction	Quarterly	Refer SLB Data
233	Number of commercial bank branches and automated teller machines (ATMs) per 10,000 adults	Governance for the people	Governance	Reports -Financial Inclusion (State Lead Bank Report)	Data Extraction	Quarterly	Refer SLB Data

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S.No	Key indicators	Pillar	Data Source System	System Module	Mode of Integration	Frequency of data Sync	Reference
234	Percentage of accounts with Nil / 1-5/ more than 5 transactions annually	Governance for the people	Governance	Reports -Financial Inclusion (State Lead Bank Report)	Data Extraction	Quarterly	Refer SLB Data
235	Proportion of population having Bank accounts	Governance for the people	Governance	Reports -Financial Inclusion (State Lead Bank Report)	Data Extraction	Quarterly	Refer SLB Data

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9.14 Current State Business Interaction Matrix

In Scope Departments	Governance Pillar Departments	
	Planning	Excise Registration Taxation and Stamps
Agriculture & Farmers' Welfare	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval 4. Land Use Statistics 5. Vegetable Statistics 6. Crop Statistics	1. Raw Material Support
Animal Husbandry & Veterinary	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Fisheries	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Commerce and Industry	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval 4. Import Export Policy 5. Trade Policy	1. Registration Facilities 2. Revenue by way of Taxes
Community and Rural Development	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval 4. Housing Statistics	-
Education	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Excise Registration Taxation and Stamps	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	
Finance	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	1. Financial Receipts 2. Tax Collection Monitoring
Food Civil Supplies and Consumers Affairs	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Forest and Environment	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Health and Family Welfare	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	1. Inputs for Drugs
Labour	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	1. Job Opportunities 2. Manpower based on Skills
Mining and Geology	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Planning		-

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In Scope Departments	Governance Pillar Departments	
	Planning	Excise Registration Taxation and Stamps
Public Health Engineering	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Social Welfare	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Tourism	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-
Transport	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	1. Supply Chain 2. Transportation Regulations
Textiles	1. Scheme monitoring and Evaluation 2. Sectoral strategy and Planning 3. Scheme Approval	-

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9.15 Future State Business Interaction Matrix

Providing Business Services	Consuming Business Services					
	Primary Sector	Human Development	Infrastructure Development	Environment	Entrepreneurship	Governance
Primary						1. Funding request for new schemes 2. Budget Outlay for departments 3. Agriculture statistics 4. Scheme Expenditure and progress 5. SDG indicator data from blocks, districts
Human Development						1. Funding request for new schemes 2. Budget Outlay for departments 3. Health , SW, and Education related statistics 4. Scheme Expenditure and progress – Health schemes 5. SDG indicator data from blocks, districts
Infrastructure Development						1. Funding request for new schemes 2. Budget Outlay for departments 3. Road development, , Government infrastructure development statistics 4. Scheme Expenditure and progress 5. SDG indicator data from blocks, districts

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Providing Business Services	Consuming Business Services					
	Primary Sector	Human Development	Infrastructure Development	Environment	Entreprene urship	Governance
Environment						1. Funding request for new schemes 2. Budget Outlay for departments 3. Forest cover statistics 4. Scheme Expenditure and progress 5. Mining revenue collection data 6. SDG indicator data from blocks, districts
Entrepreneur ship						1. Funding request for new schemes 2. Budget Outlay for departments 3. Job and employment statistics 4. DBT update 5. Scheme Expenditure and progress 6. SDG indicator data from blocks, districts 7. Tourism related statistics
Governance	1. Scheme approval 2. Scheme planning inputs 3. State resource outlay	1. Scheme approval 2. Scheme planning inputs 3. State resource outlay 4. SDG Targets	1. Scheme approval 2. Scheme planning inputs 3. State resource outlay 4. SDG Targets	1. Scheme approval 2. Target revenue for quarter and year 3. Scheme planning inputs	Scheme approval 2. Scheme planning inputs 3. State resource outlay 4. SDG Targets	

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Providing Business Services	Consuming Business Services					
	Primary Sector	Human Development	Infrastructure Development	Environment	Entrepreneurship	Governance
	SDG Targets from blocks, districts u			4. State resource outlay 5. SDG Targets		

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9.16 Data Entities

9.16.1 Current State Data Entities

Data Entity	Key IT System	Stakeholder Usage
Ministry	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director)
Department	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director)
Programme	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director)
Plan Type	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer
Sub Plan Type	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer
Agency	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer
Sector	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer
Head of accounts	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer
User	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer • System Administrator
District	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer
Scheme	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer
Sanctions	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer • Planning Dept. – UDA/LDA • Planning Dept. – Computer Officer •
Central Assistance	Planning MIS	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director)
Pregnant Mother	Mother App	• Health Department – Medical Officer • Health Department – Asha Officer • Health Department – Field Officer • Health Department – Leadership
Health Officers	Mother App	• Health Department – Leadership

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Data Entity	Key IT System	Stakeholder Usage
Medical Facility	Mother App	• Health Department – Medical Officer • Health Department – Asha Officer • Health Department – Field Officer • Health Department – Leadership
Taxpayer	VAT e-Registration	• All departments
Tax Amount	VAT e-Refund	• ERTS – Excise Officer
Commodity	VAT e-Registration	• All departments
Rates	VAT e-Refund	• ERTS – Tax Officer
Waybill	e-waybill	• ERTS – Tax Officer
Land Details	Land Records System	• All departments
Land Registration	Land Records System	• ERTS – Land Register

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9.16.2 Future State – Data Entities

New Data Entity	Key IT System	Stakeholder Usage
SDG Goal	M&E – SDG Monitoring Module	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • All departments
Indicators	M&E – SDG Monitoring Module	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • All departments
Target State	M&E – SDG Monitoring Module	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • All departments
Current State	M&E – SDG Monitoring Module	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • All departments
Project	M&E – Strategic Project Module	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • Planning Dept. – Research Officer
District Monitoring KPIs	M&E – District Monitoring	• Planning Dept. – Leadership (Secretary/Jt. Secretary/Director) • All departments
License	Governance- Services Module	• ERTS – Excise Officers
Permit	Governance- Services Module	• ERTS – Excise Officers
Excise Statement	Governance- Services Module	• ERTS – Excise Officers
Hologram	Governance- Services Module	• ERTS – Excise Officers
Payment	Governance- Services Module	• ERTS – Excise Officers

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