



75
आज़ादी का
अमृत महोत्सव



PM GatiShakti National Master Plan & National Logistics Policy

Digital Governance: Strengthening Foundations and Exploring Frontiers




Working in Silos





- **Whole of Government approach**
- **Next generation infrastructure development for *AmritKaal*.**
- **Seamless multimodal connectivity for goods, people and services.**
- **Ease of living.**

PM GatiShakti – Addressing the Problems

- Complex coordination issues.
 - Lack of visibility and information.
 - Delay in land acquisition and other clearances.
 - Constrained planning and decision making.
- 
- Institutional Arrangement at Central and State level.
 - Pan India level GIS based digital platform – National Master Plan.
 - Project Monitoring Group portal.
 - Customized decision making and planning support tools.



PM GatiShakti

Transformative approach for reducing logistics cost and improving logistics efficiency.

National Master Plan

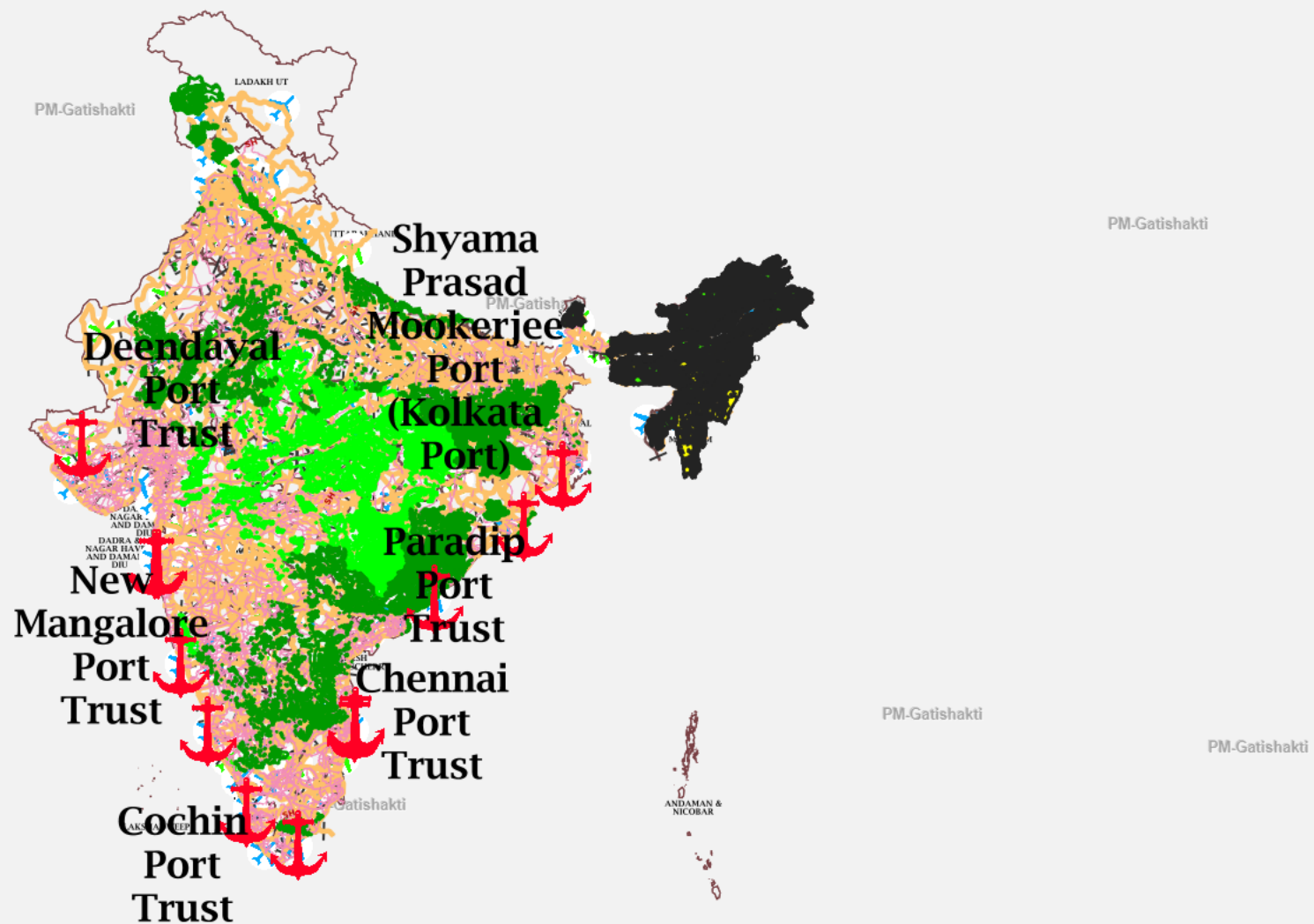
For integrated infrastructure and network planning.

National Logistics Policy

For efficiency in services and human resource

PM GatiShakti National Master Plan (NMP)

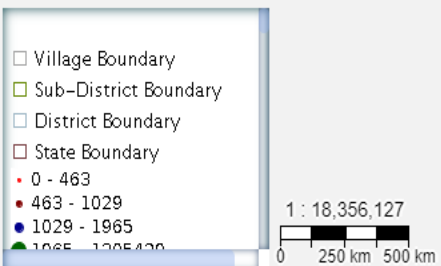
- GIS based platform for visibility and decision making
- 2D/3D/4D visualizations available
- Standardized and Authenticated data
- Compatible with different digital systems – seamless integration
- Resource Ownership Level (Individual /Group /Community)



Legend

- > High Resolution Image
- > Administrative Boundary
- > Ministry Wise High Impact
- > Amrit Sarovar
- > Logistics
- > Specific Action Plan
- > Census 2011
- > Economic Zones
- > Infrastructure
- > Utilities
- > Multimodal Project
- > Network of Logistics Parks
- > Others
- > Noida
- > Up Comming Project
- > Gap Analysis

- Village Boundary
- Sub-District Boundary
- District Boundary
- State Boundary
- ✈ airports_2014
- ✈ airports_2020
- ⚓ Major Port Location



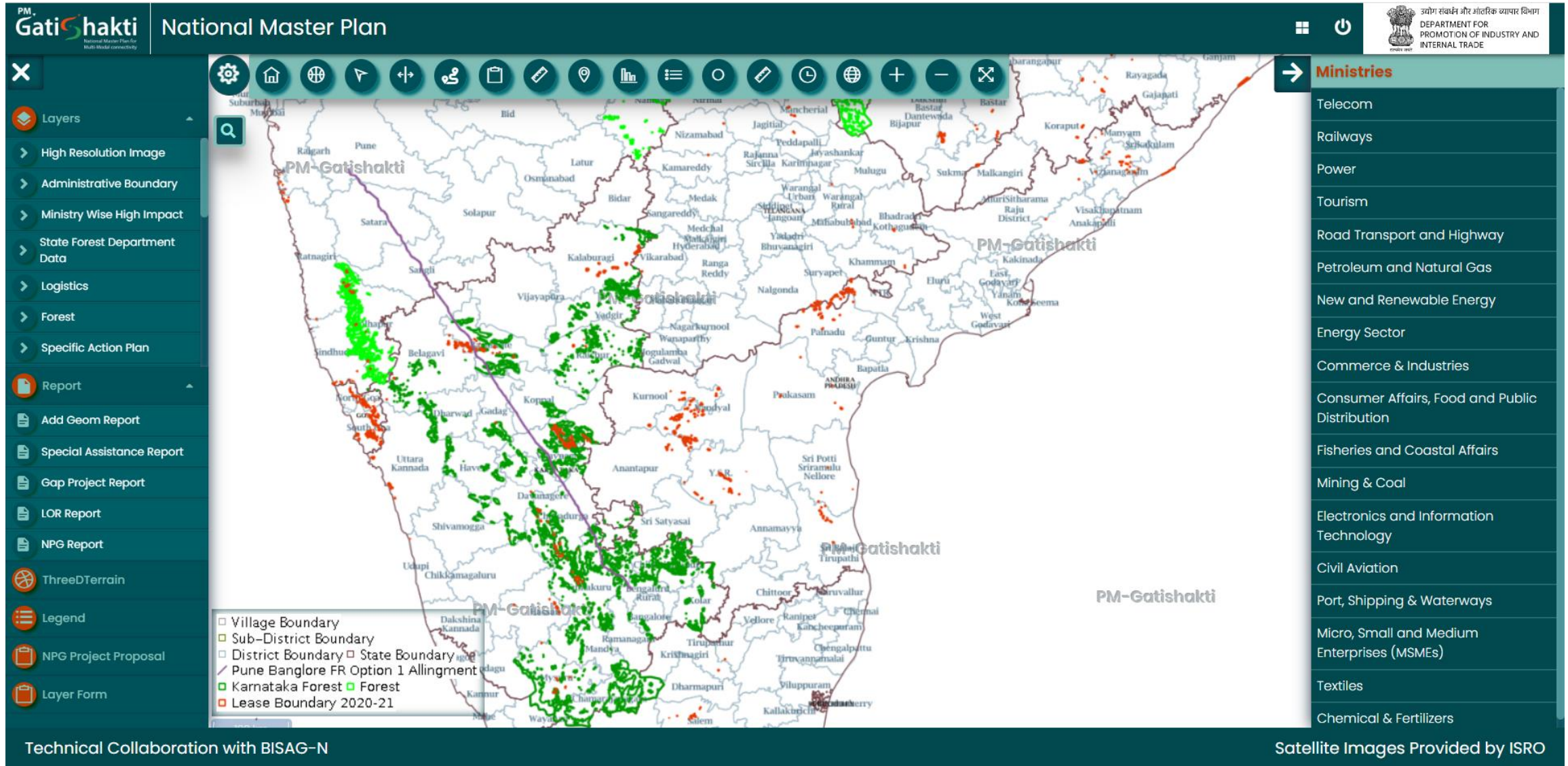
CRZ IV B

- ## Labour and Employment

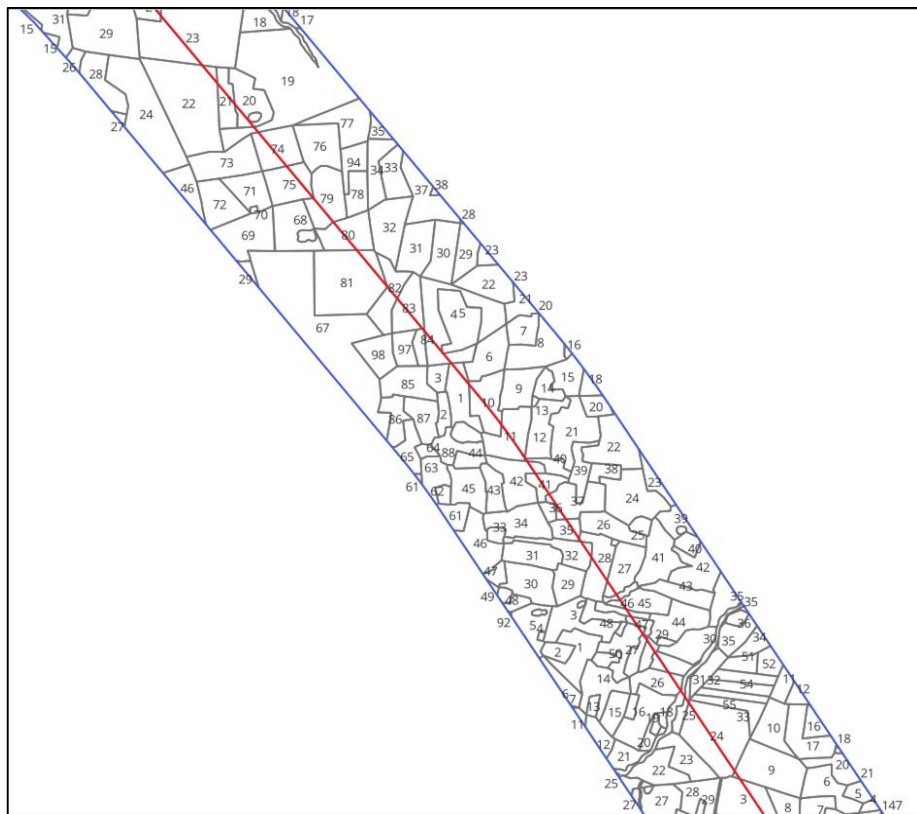
Benefits of NMP

#	Before NMP	After NMP
1	Pre alignment finalization - 3-4 months.	Time reduced - ~ 1 month
2	Visibility of intersections - limited.	GIS based layers visible on NMP.
4	NOC approvals - not integrated, manual.	NOC approvals – digitized & integrated.
5	Discrepancies between Land Acquisition plan and ground realities	Khasra no. wise land details available – accuracy in alignment planning
6	Social sector planning disjointed	Integrated & holistic Planning of social infra and economic infra.

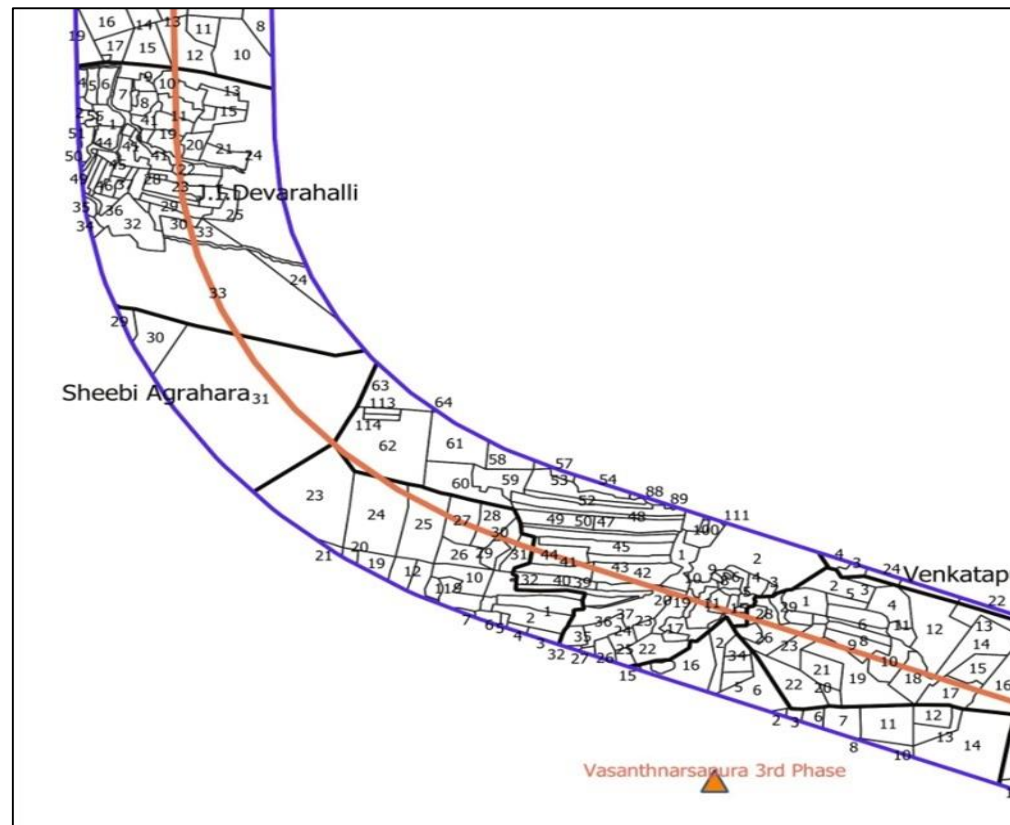
Pune - Bengaluru Expressway – Pre-alignment using NMP



GIS-based Land Records in NMP

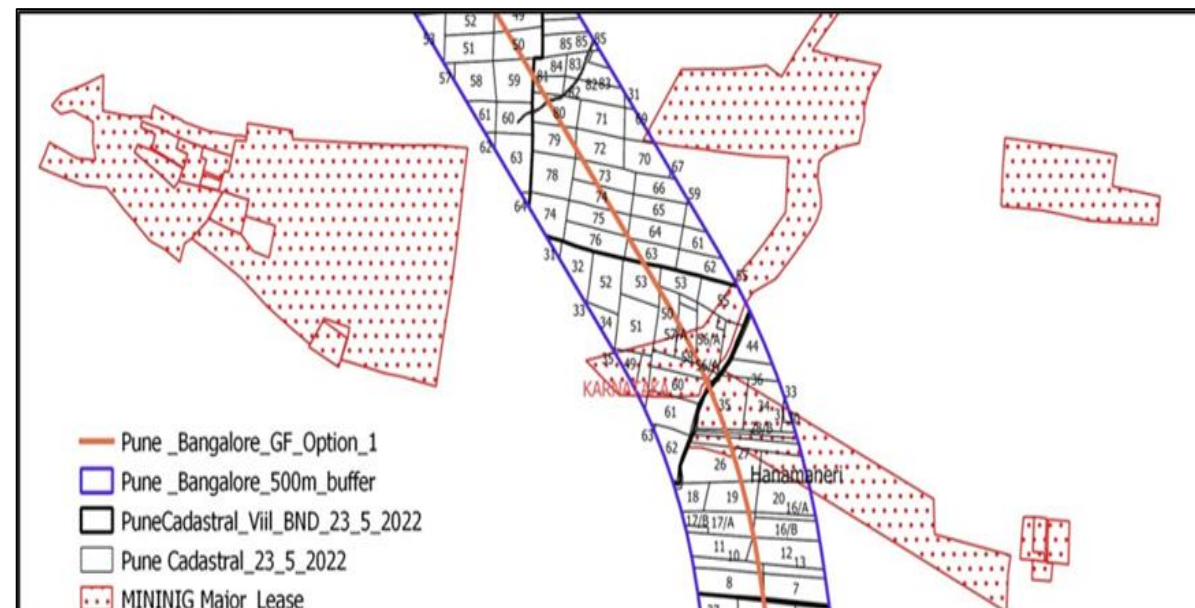
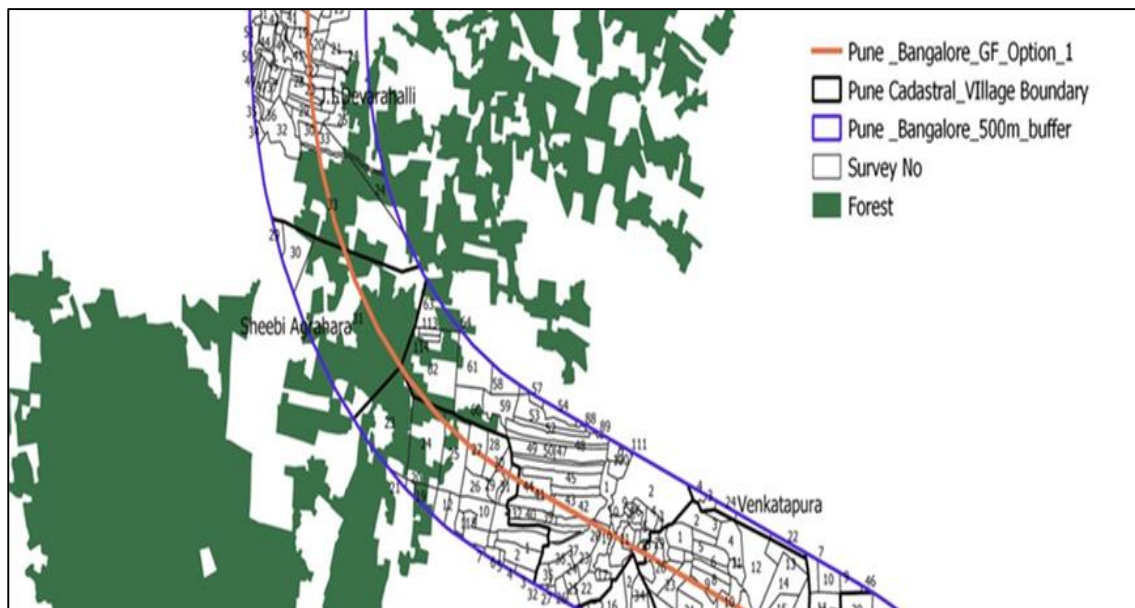


– **Khasra-wise land requirement for ROW**



– Alignment drawn to ensure **proximity to economic nodes & industrial clusters**

Intersection with Forest Boundary and Mining Land



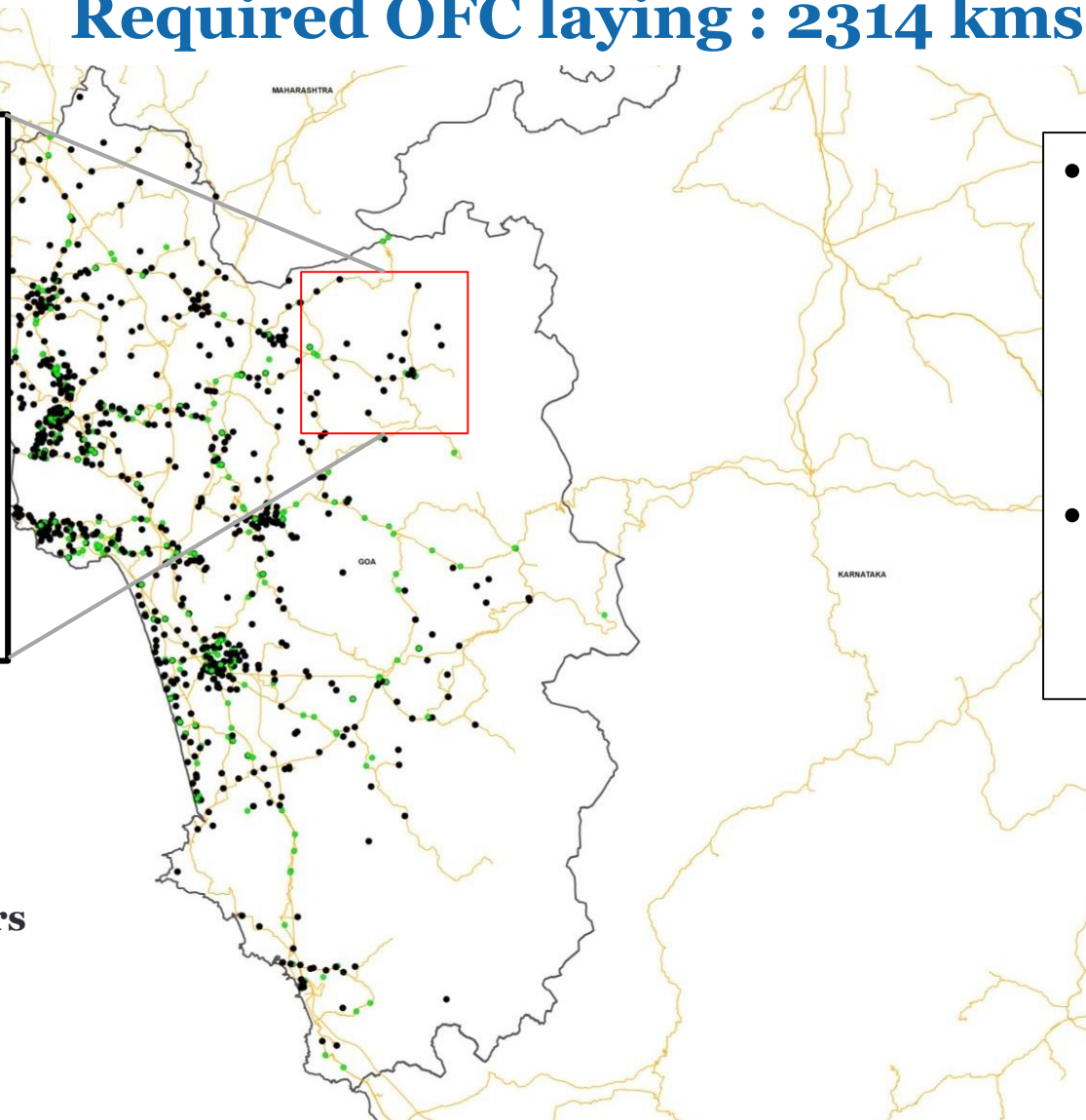
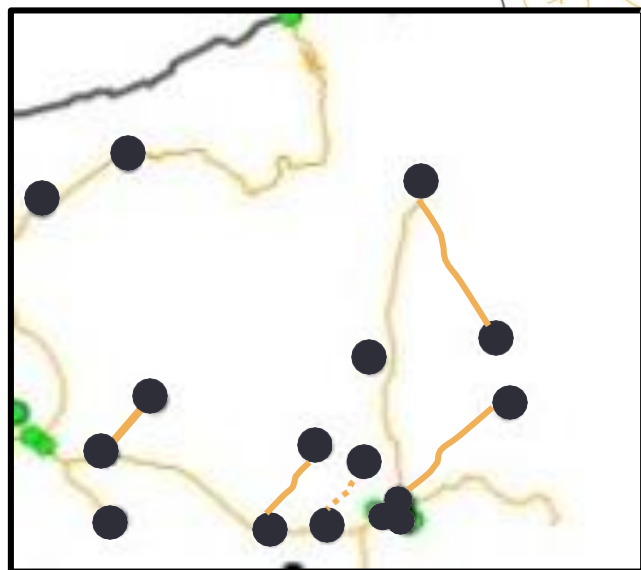
- Forest intersection **area minimize to ~170ha** using NMP.
- **Alignment optimization to be taken up post validation** through topographical survey and site inspection.

Report on NOC/Approvals required

Particulars	Maharashtra	Karnataka
Length	259.591 km	494.008 km
No. of Districts	3	9
No. of Villages	107	213
Area of Land Acquisition	2508.77 Ha	4969.59 Ha
No. of Railway Crossings	2	7
No. of River Crossings	5,+1	17
No. of Canal crossings	14	2
No. of NOC Required	90	110
No. of Utility Shifting	Power - 22 OFC - 65	Power - 44 OFC - 59
No. of Industrial Clusters in 10 km	15	5
No. of Sanctuaries & National Parks in 5 km	WLS - 0 Forest - 3	WLS - 0 Forest - 6

Required OFC to connect Non-Fiberized Towers

Required OFC laying : 2314 kms



- Non fiberized towers and existing OFC Network mapped on NMP.
- Tool provides length of required OFC and cost of OFC Laying.

- Required OFC Network
- Existing OFC Network
- Non-Fiberized Mobile Towers
- Fiberized Mobile Towers

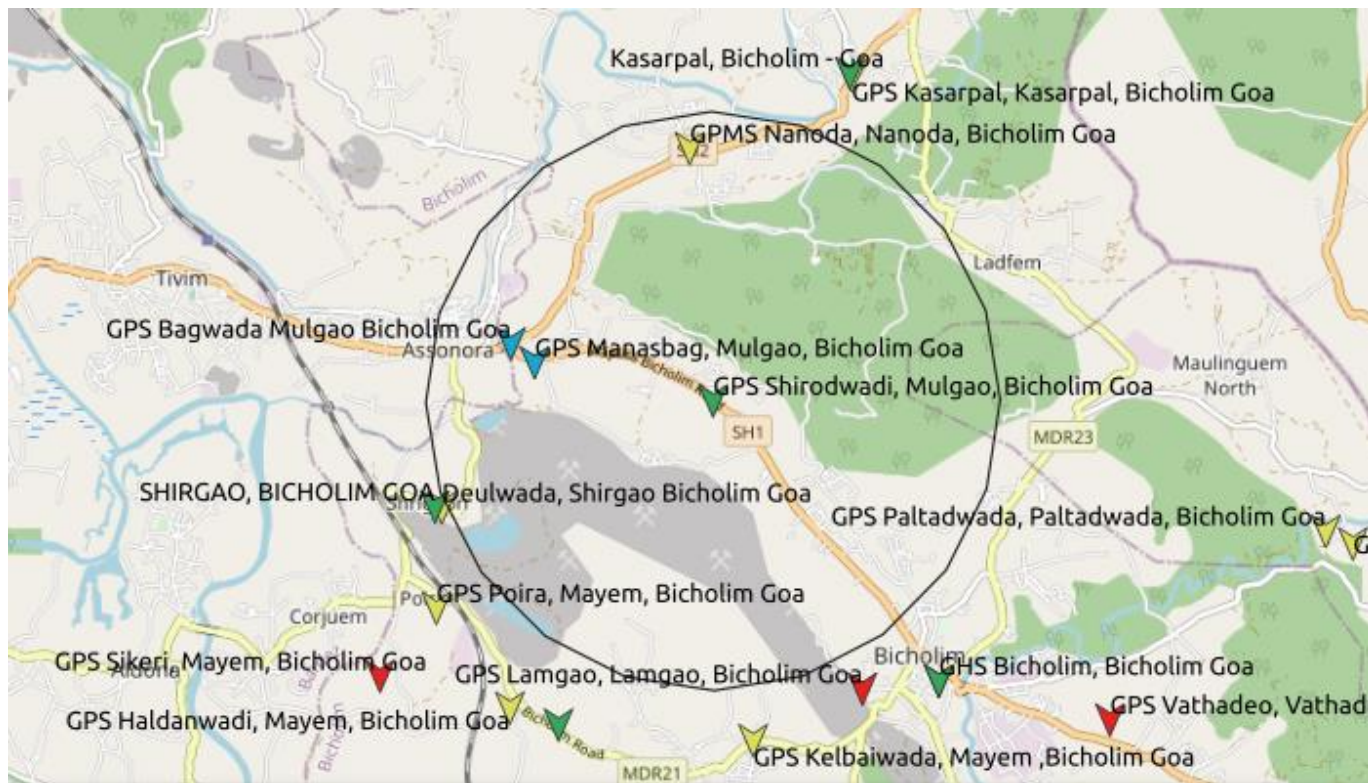
Use of PM GatiShakti for Project Planning by States

Projects planned using State Master Plan-Goa

Merger of Government Schools

Problem Statement

1. Uneven distribution of schools
2. Schools having good infrastructure but lower number of students
3. Need to prove teacher pupil ratio



Solution

1. State Education department mapped 718 Government schools of the state on the GIS platform.
2. Using the GIS buffer tool of GatiShakti 2-5km radius was analyzed along with identified parameters of no of students, level of infrastructure and teacher count
3. Plan is proposed to merge 529 schools to ensure better teacher-pupil ratio, complete elimination of single-teacher schools and good infrastructure for every student

Projects planned using State Master Plan-Goa

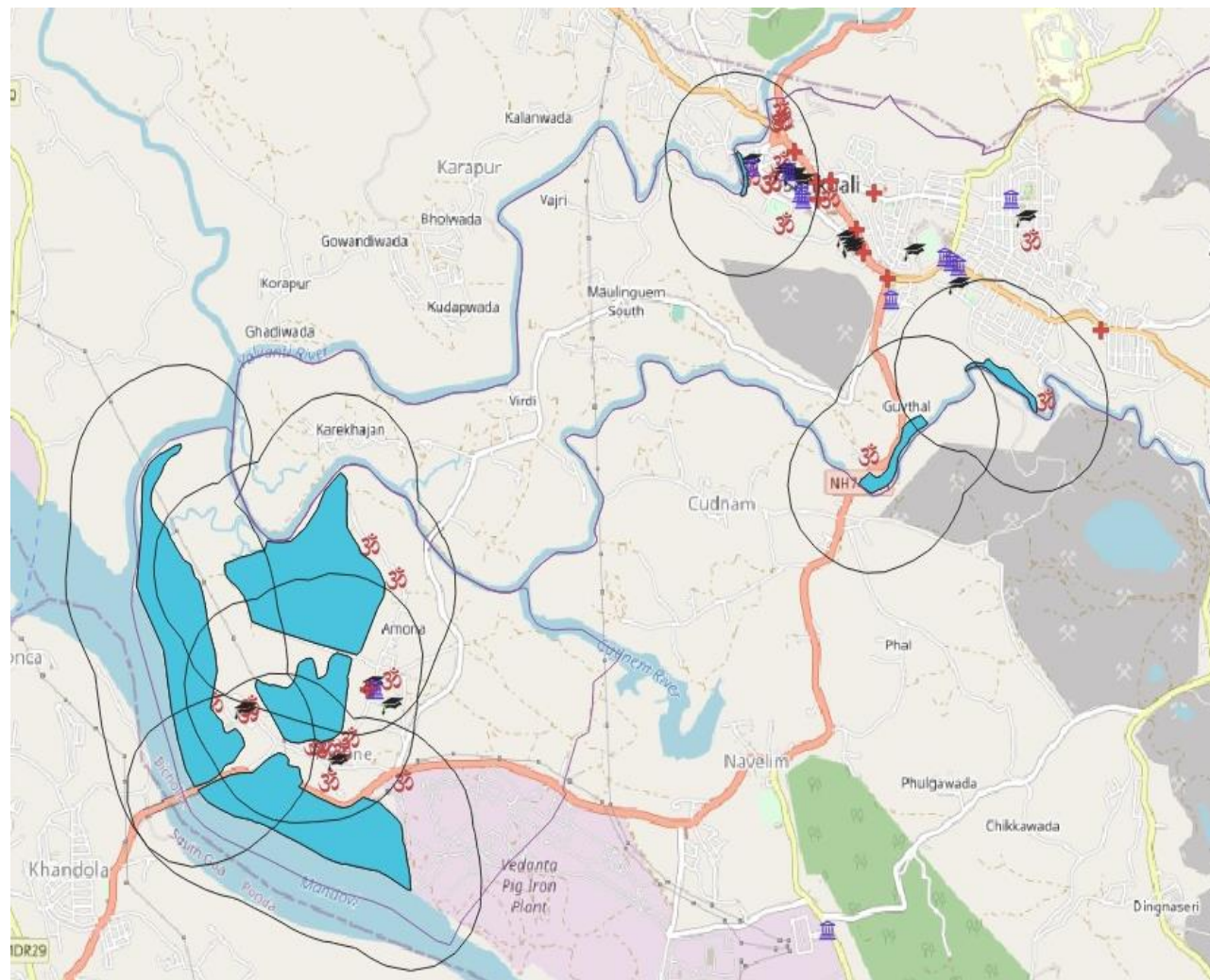
Disaster Management Plan

Problem Statement

Evacuation plan for disasters flood prone regions of Sanquelim and Amona along Amona river.

Solution

1. Mapped the entire flood prone zone of Amona and Sanquelim
2. Mapped key assets such as Government buildings, schools, places of worship and hospitals.
3. GIS Buffer tool used to plan evacuation to the nearby key assets
4. Using the routing tools planned shortest distance to reach these locations in case of emergency

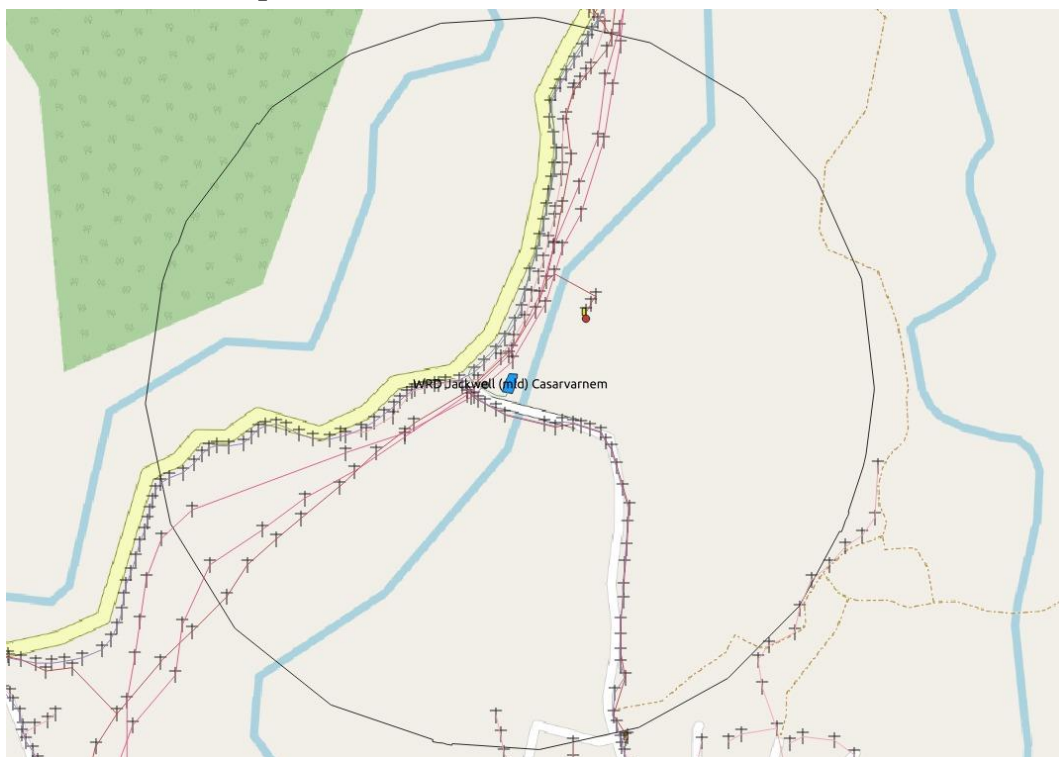


Projects planned using State Master Plan-Goa

Infrastructure Planning

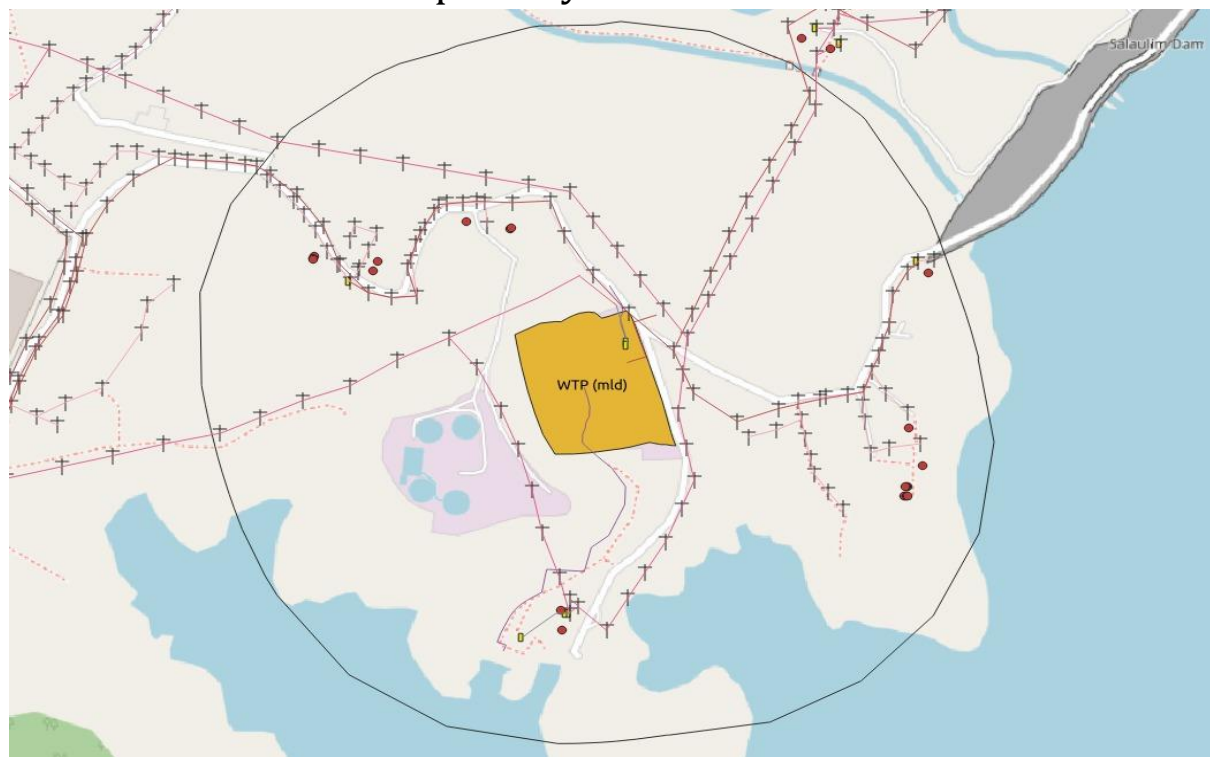
WRD using PM Gati shakti portal to plan the Jackwell pump house along the banks of kalna river

To overcome the shortage of water supply to water treatment plant at Chandel, Mopa International Airport and for drinking, agricultural & industrial purpose during maintenance period from October to December,



PWD using PM Ghati Shakti portal to plan the development activities of the 300 mld water treatment plant and the proposed pipeline from Verna to Dabolim

The State also plans to use the Gatishakti portal for some of its major infra projects like laying of Pipeline from Verna to Dabolim and a 300mld water treatment plant by PWD





Ladakh Power Department Mobile Application

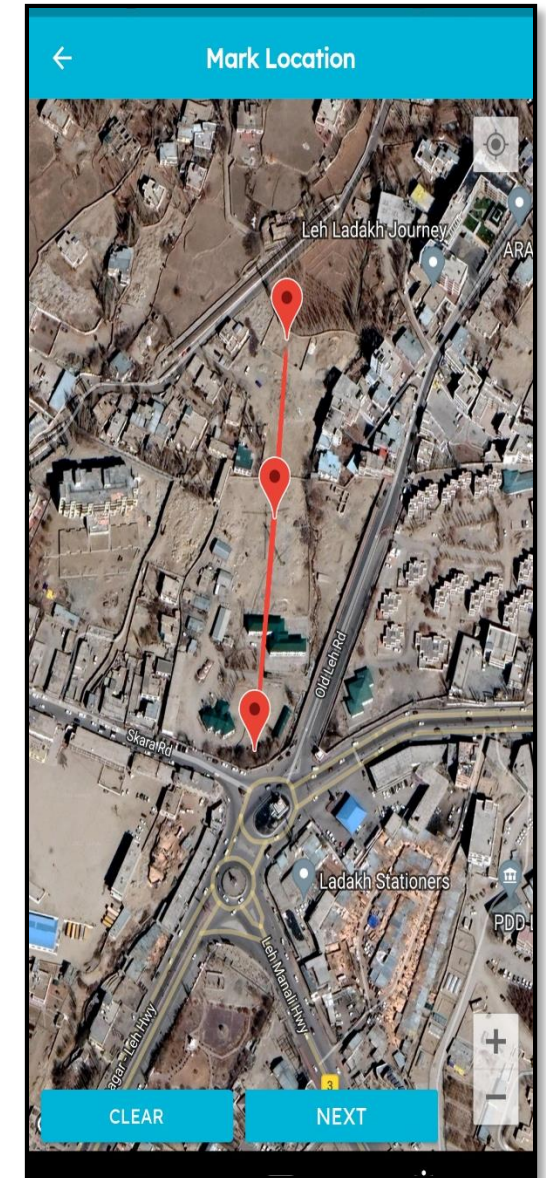
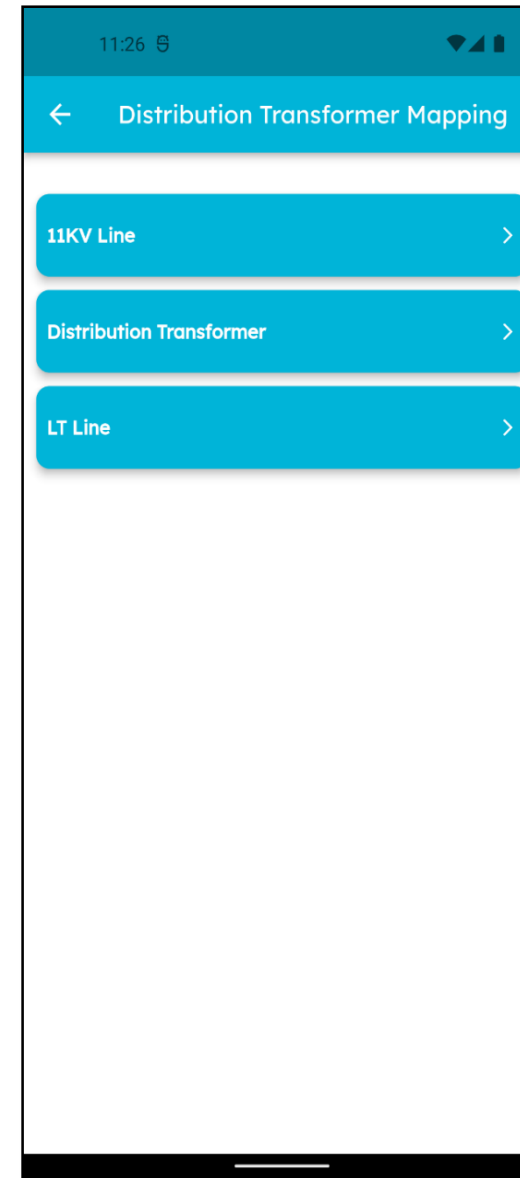
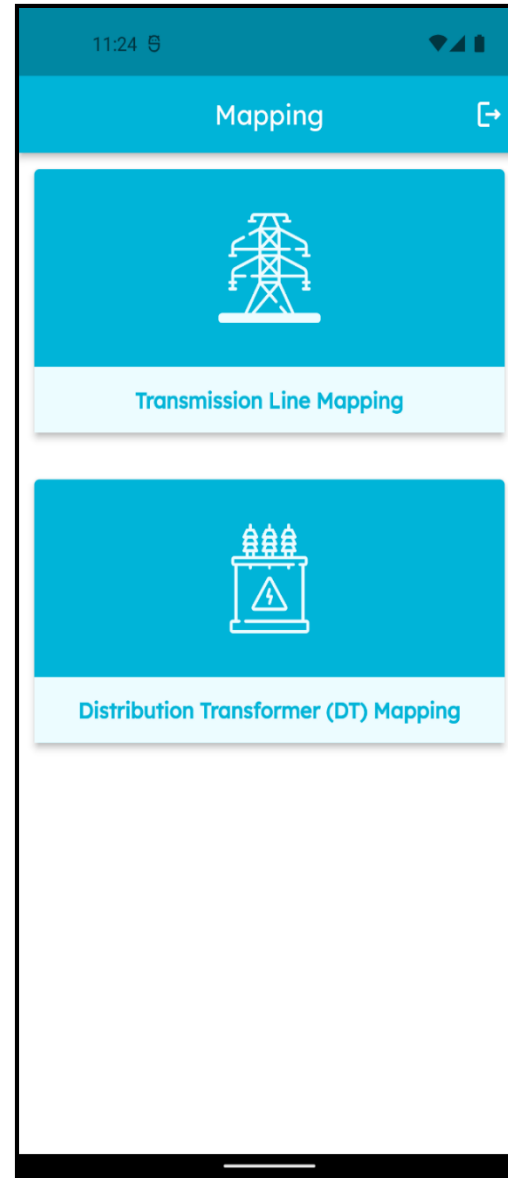
Mobile application for Power Network mapping

Existing Scenario:

- Lack of digitization of Power Transmission and Distribution network.

Technological Solution by BISAG-N: Mobile application developed for digitization of Transmission and Distribution network including:

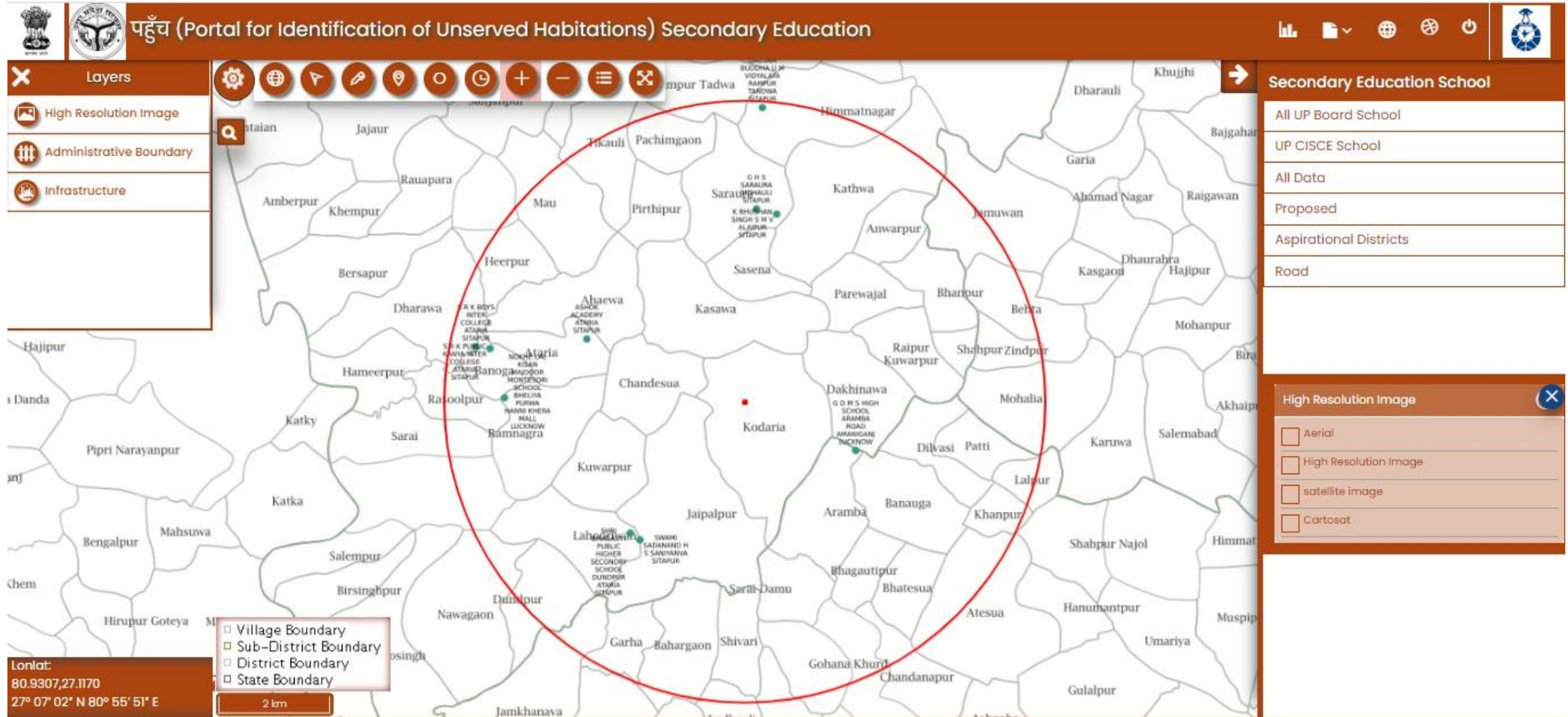
- LT Lines
- Distribution Transformer
- 11 KV Line





Use of PM GatiShakti in Social Sector Planning in Uttar Pradesh

Buffer Tool to Visualise Schools within a set radius from Habitation



Report generated - Schools within 5 km

Buffer Report

Click on Village - KONDARIYA And Buffer = 5km

CSV

Search:

School District ^	School Tehsil Name ^	Village ^	BlockName ^	School Name ^	School Type ^	School Level ^	Nearest Distance from Village to School ^
LUCKNOW	1-Bkshi katalab	Aramba	1-Bakshi katalab	G D M S HIGH SCHOOL ARAMBA ROAD AMANIGANJ LUCKNOW	UN-AIDED	10TH	4.32
LUCKNOW	2-malihabad	Ramnagra	2-Mall	NOKHE LAL KISAN MAJDOOR MONTESORI SCHOOL BHELIYA PURWA HANNI KHERA MALL LUCKNOW	UN-AIDED	10TH	8.71
SITAPUR	6-Sitapur	Himmatnagar	1-Aelia	TATHAGAT GAUTAM BUDDHA U M VIDYALAYA RAMPUR TANDWA SITAPUR	UN-AIDED	10TH	9.49
SITAPUR	1-Bisanwa	Jaipalpur	1-Aelia	SWAMI SADANAND H S SANIYANVA SITAPUR	UN-AIDED	10TH	5.87
SITAPUR	6-Sitapur	Banoga	1-Aelia	S R K PUBLIC KANYA INTER COLLEGE ATARIA SITAPUR	UN-AIDED	12TH	9.39
SITAPUR	5-Sidhauli	Banoga	2-Sidhauli	S R K BOYS INTER COLLEGE ATARIA SITAPUR	UN-AIDED	12TH	9.90

Advance query builder to identify unserved villages



पहुँच (Portal for Identification of Unserved Habitations) Secondary Education



Road Distance : (In KM)

School Type :

☒ Government ☐ Aided
☐ Unaided

School

Level :

☒ High school
☐ Intermediate

District :

Search :

Search

Road Distance = 5km & School Type = Government & School Level = High school

PDF

10

Total Unserved Village : 9392

CSV

Excel

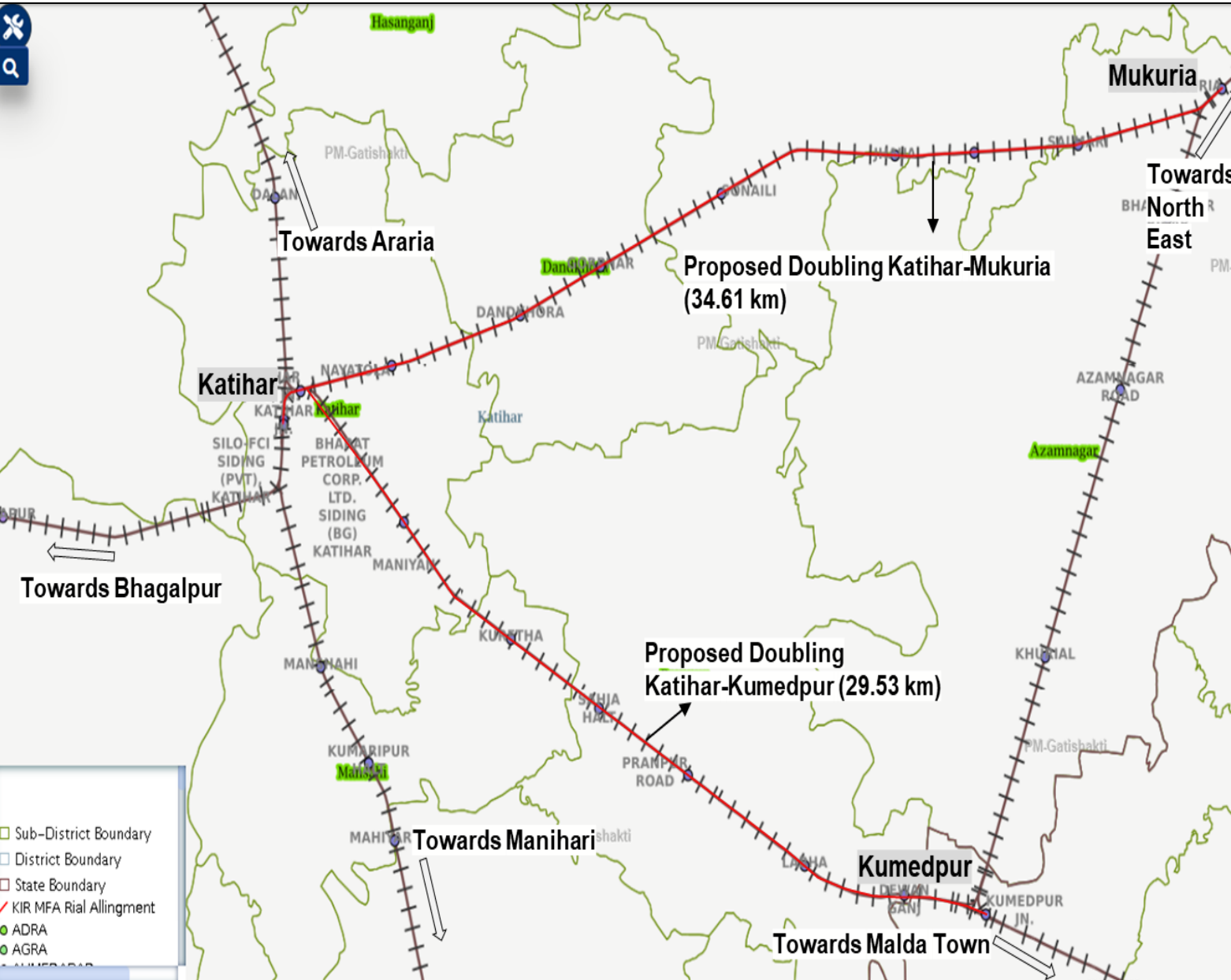
Sr.No.	District Name	Tahsil Name	Block Name	Unserved Village Name	School name	School Level	Distance from Village to School	Population	Male	Female	Literate	Illiterate	Action
1	AGRA	2-Etmadpur	2-Khan DAULI	Rahan Kalan	SMT ISHWARI DEVI INTER COLLEGE RAHANKALAN ETMADPUR AGRA	12TH	8.58	6575	3535	3040	3883	2692	View on Map
2	AGRA	1-Agra	1-Akola	Karahara	HEERA RATAN INTER COLLEGE KARAHARA	12TH	19.5	4574	2428	2146	2973	1601	View on Map



Examples of Projects examined on PM GatiShakti

Doubling of Katihar- Mukuria, Katihar –Kumdepur

[Back](#)



Project Highlights

- Rajdhani route, connect Northern part (UP, Bihar) to North East
- Doubling length- 64.14 Km
- Cost- Rs. 942.64 Cr (including land)
Rs. 915.88 Cr (excluding land)
- Doubling of section will provide more number of passenger, goods train benefitting logistics efficiency

Recommendations by NPG

- Suggested MoR to examine possibility of building railway bridge on line or region.
- Bridge will assist aggregates movement from Dumka and Sahibganj region.
- In 400 km of ganga stretch in Bihar there are 3 rail cum road bridges while 13 road bridges.
- Suggested fostering of transition infrastructure which can be made part of railway project of might be executed by concerned department or state

Doubling of Agthori – Kamakhya including 2nd Rail Bridge at Saraighat

[Back](#)



Project Highlight

- BG track from Agthori to Kamakhya with construction of new 7 km long rail cum road bridge at Saraighat over river Brahmaputra
- Total Cost- 1473.77 Cr
- Length- 7.062 km, 1.29 km Bridge
- Line will connect North Guwahati to Dispur and rest of India.

Recommendations by NPG

- NPG recommended the project.
- The bridge will be constructed on inland water way 2, so necessary clearance from inland waterway may be ascertained.
- The technical aspect of transition area where the road will be merging/diverging to other existing road on either side of bridge may be taken care.

PM GatiShakti NMP - Progress

- Institutional framework (EGoS, NPG) operational at Center and State level.
- Over 1600 data layers of Central Ministries & States/UTs mapped on NMP
- Individual portals for Central ministries (22) and State/UT (36) developed.
- Tools for planning, NOC/approvals/clearances, DPR preparation, land parcel valuation.
- Integrated Project Planning - 42 Greenfield projects examined by NPG.
- 197 Critical infrastructure gap projects identified
- Over 1500 Inter-ministerial issues resolved for time-bound implementation.



सत्यमेव जयते

Existing systems for Monitoring Infra Projects Integrated

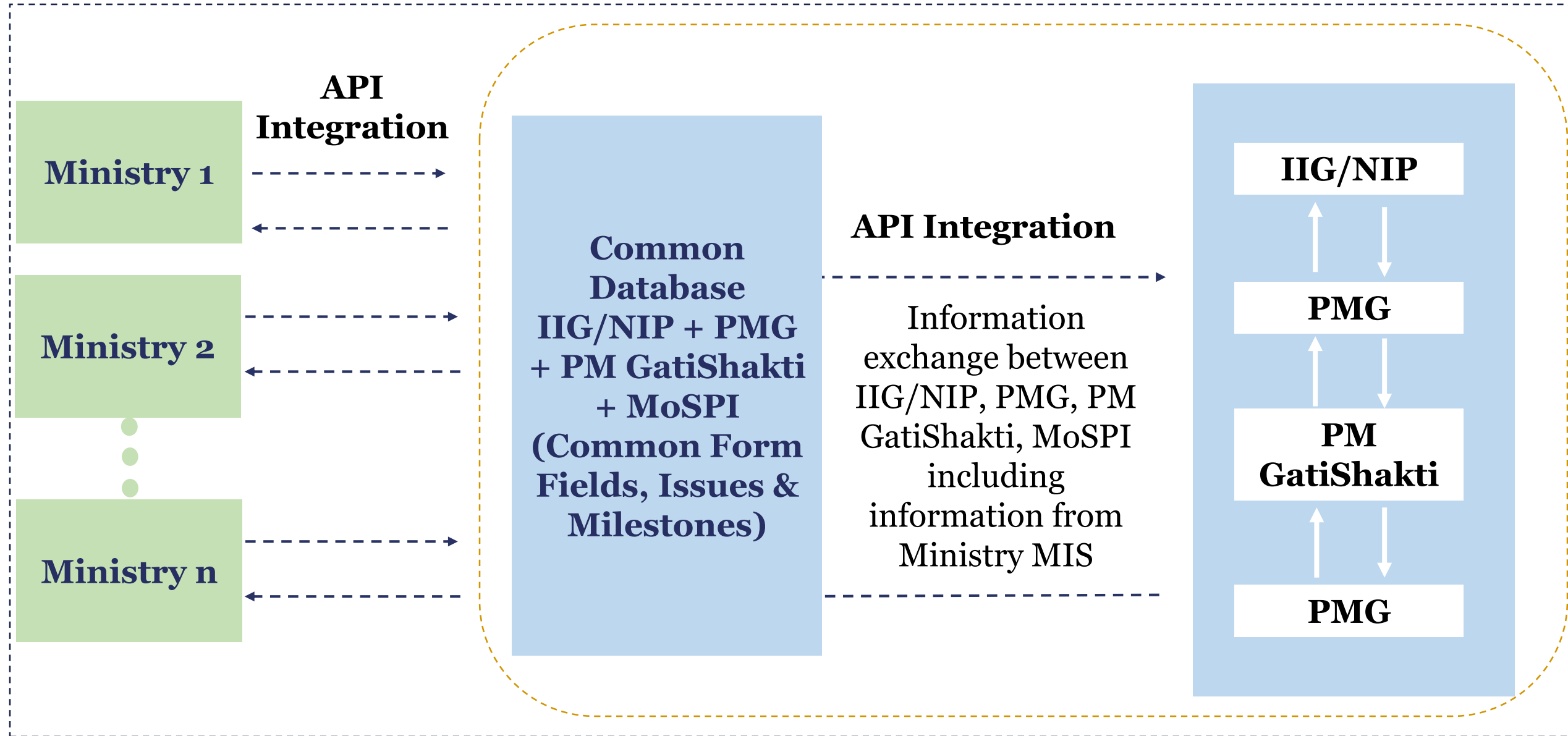


Overview: Various Project Monitoring Mechanisms

Categories	IIG/NIP	PMG	GatiShakti	MoSPI
Objective	Capex monitoring and Investment Promotion	Issue resolution /Monitoring of implementation	Integrated planning for multimodal connectivity	Statistics data reporting
Stakeholders	<ul style="list-style-type: none"> NIP - 22 Infra Ministries IIG - All ministries 	All Ministries	07 Infra Ministries 16+ User Ministries	All Ministries
	All States & UTs	All States & UTs	All States & UTs	-
Stages Covered	<ul style="list-style-type: none"> Conceptualization Development/Planning Implementation 	<ul style="list-style-type: none"> Planning Implementation 	<ul style="list-style-type: none"> Planning Implementation 	<ul style="list-style-type: none"> Implementation
Criteria	INR 100 Cr+ for NIP	INR 500 Cr+	INR 500 Cr+ & other critical projects	INR 150 Cr+
Project Database	16300+ (9200+ NIP)	1900+	239	1600+



Integration Approach





Ministry wise target/achievements under PM GatiShakti (1/2)

Ministry	Sectors	2014-15	2020-21	2021-22	Target by 2024-25
MORTH	Total length of NH (in kms)	91,287	1,33,608	1,41,190	2,00,000
M/o Railways	Cargo handled (in million tonnes)	1053	1,210	1410	1,600
M/o Civil Aviation	No. of Airports/Heliports/Water Aerodromes/UDAN	74	111	140	220
M/o Ports, Shipping & Waterways	Cargo handled at Ports (in MMTPA)	1051	1282	1189	1759



Ministry wise target/achievements under PM GatiShakti (2/2)

Ministry	Sectors	2014-15	2020-21	2021-22	Target by 2024-25
M/o Petroleum and Natural Gas	Length (in Kms)	15,000	17,500	20,000	34,500
M/o Power	Transmission Network (in circuit kms)	3,02,550	4,25,500	4,54,540	4,54,200
M/o New and Renewable Energy	Capacity (in GW)	35.5	87.7	87.7	225
D/o Telecommunication	No. of Gram panchayats connected with OFC	60	1,51,721	1,75,827	~2,60,000

National Logistics Policy (NLP)

- Policy complements PM GatiShakti NMP; **approved by Union Cabinet on 21.09.2022.**
- **Targets:**
 - (i) to reduce cost of logistics in India to be comparable to global benchmarks by 2030,
 - (ii) improve the Logistics Performance Index ranking, to be among top 25 countries by 2030,
 - (iii) create data driven decision support mechanism for an efficient logistics ecosystem
- Clear action agenda for immediate on ground implementation.

More information on PM GatiShakti NMP

- Training module on PM GatiShakti available at:

https://portal.igotkarmayogi.gov.in/app/toc/do_1136238739591168001278/overview?batchId=0136239783097384966

Contact person:

1. Dr Jivisha Joshi, DS, DPIIT, jivisha.g@gov.in



Thank You