



PROGRESS REVIEW OF PRADHAN MANTRI GRAM SADAK YOJANA

गुणवत्ता, जोड़ प्रदान करना, प्रवेश और सुरक्षा को सुनिश्चित करना और सभी पात्रों को सुरक्षित और सुखद यात्रा प्रदान करना।

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अध्यक्ष, राष्ट्रीय राजमार्ग निगम, भारत सरकार, नई दिल्ली।

गुणवत्ता, जोड़ प्रदान करना
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और सभी पात्रों को सुरक्षित और सुखद यात्रा प्रदान करना।

17th December, 2019

1

- PMGSY- Journey So far major achievement

2

- Major Challenges- Maintenance
- Asset Management

3

- Moving Forward
- PMGSY-III
- Use of GIS and advanced IT Tools for planning and implementation

PRADHAN MANTRI GRAM SADAK YOJANA- IN OPERATION

PMGSY-I

Completion date-March 2019

1,78,184 habitations (Targets)

100% sanctions

100-249 (LWE)

Completion by March 2020

6,394 habitations sanctioned

100% sanctions

PMGSY-II

Completion by March 2020

50,000 kms upgradation

98.63% sanctioned

RCPLWE

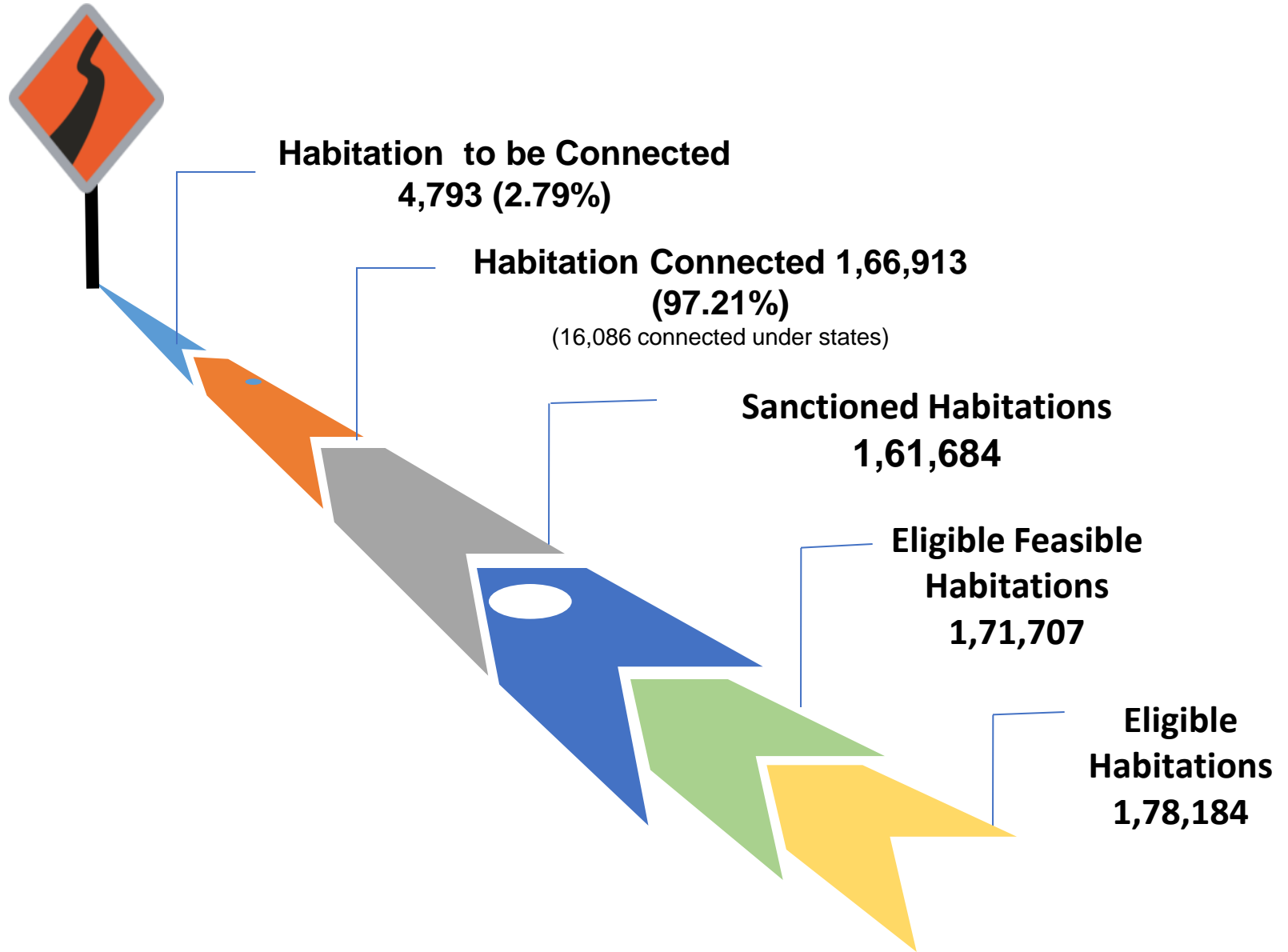
Completion by March 2020

6,381 km sanctioned

100% sanctions of Phase 1

1,195 km sanctioned under Phase 2

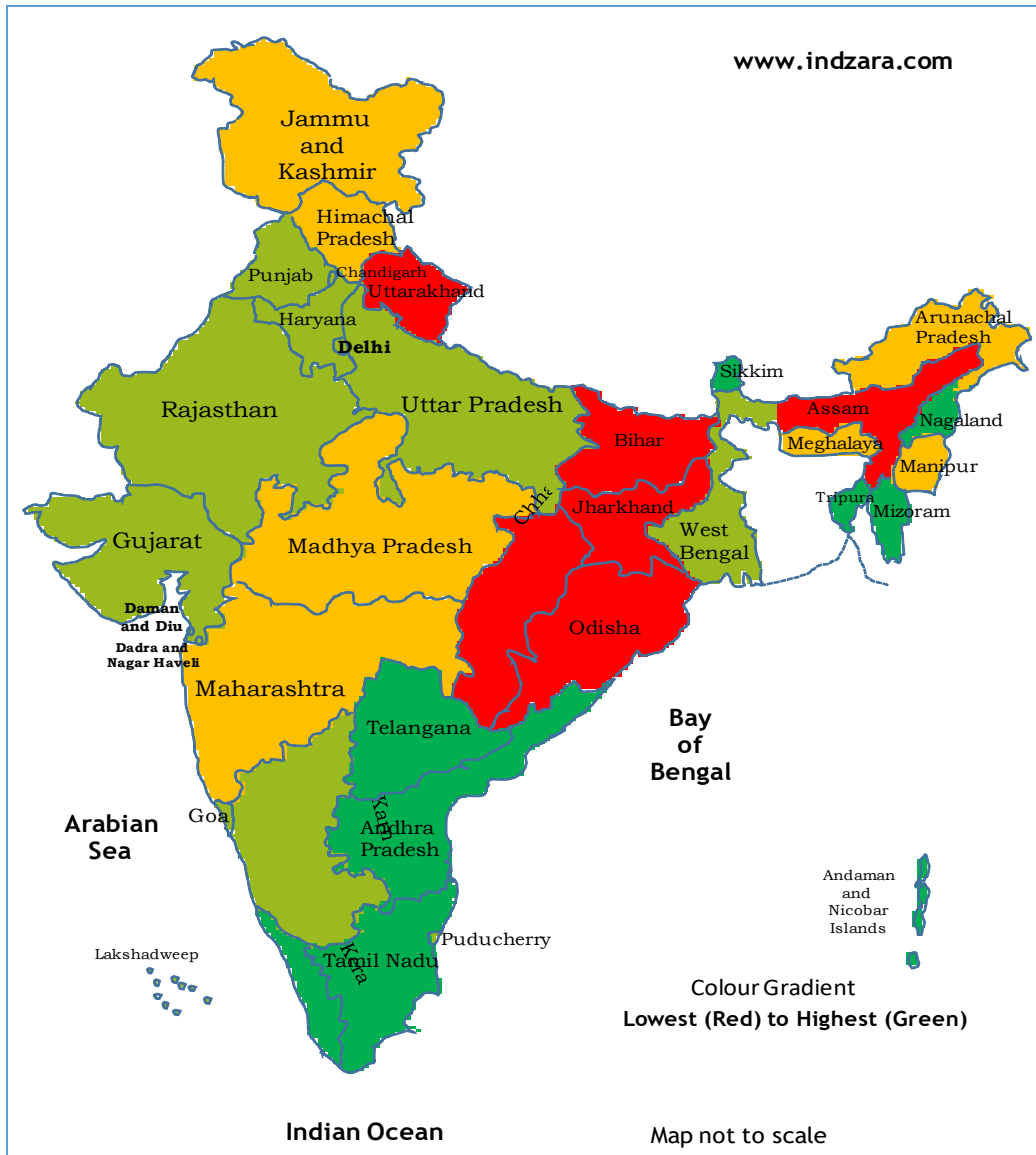
PMGSY –THE JOURNEY SO FAR



PMGSY-THE JOURNEY SO FAR

HABITATIONS CONNECTIVITY

www.indzara.com



More Than 500 Nos

AS	2740
BR	2095
OR	1098
JH	798
CG	640
UT	507

500 to 100

J&K	467
MP	250
MG	227
AR	204
HP	115
MH	130
MN	101

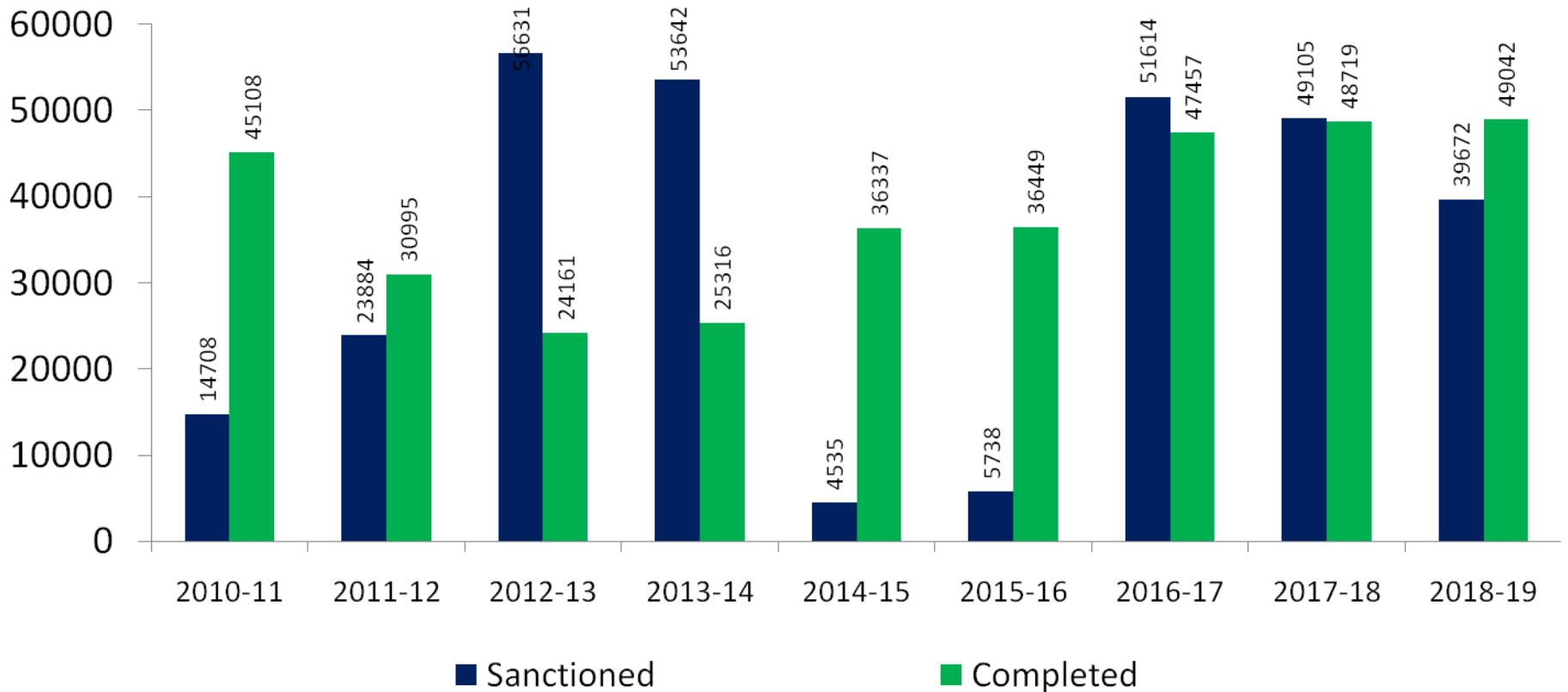
Less Than 100

TG	90
TR	87
MZ	68
AP	45
SK	35
NG	12
A&N	7
TN	3
KE	2

Goa, GJ, HR, KN, PB, RJ, UP and WB – No
Habitations Target

PMGSY – THE JOURNEY SO FAR

Last 10 years – Sanctioned and Completed Road Length



Average Speed of construction increased from 73 km per day to 135 km per day in last three years

Source: Briefing Book and Annual Report of MoRD.

PHYSICAL PROGRESS 2019-20

ROAD LENGTH CONSTRUCTED (Km)

State	Target Length	Completed Length	% Achievement
JK	3,000	1,231	41%
MP	2,400	1,073	45%
OR	8,200	796	10%
WB	2,600	765	29%
HP	3,015	746	25%
UT	2,500	731	29%
AS	5,230	681	13%
TN	1,500	551	37%
JH	2,700	312	12%
BH	4,300	305	7%
CG	2,500	298	12%
UP	1,000	286	29%
MZ	600	212	35%
AR	3,500	197	6%

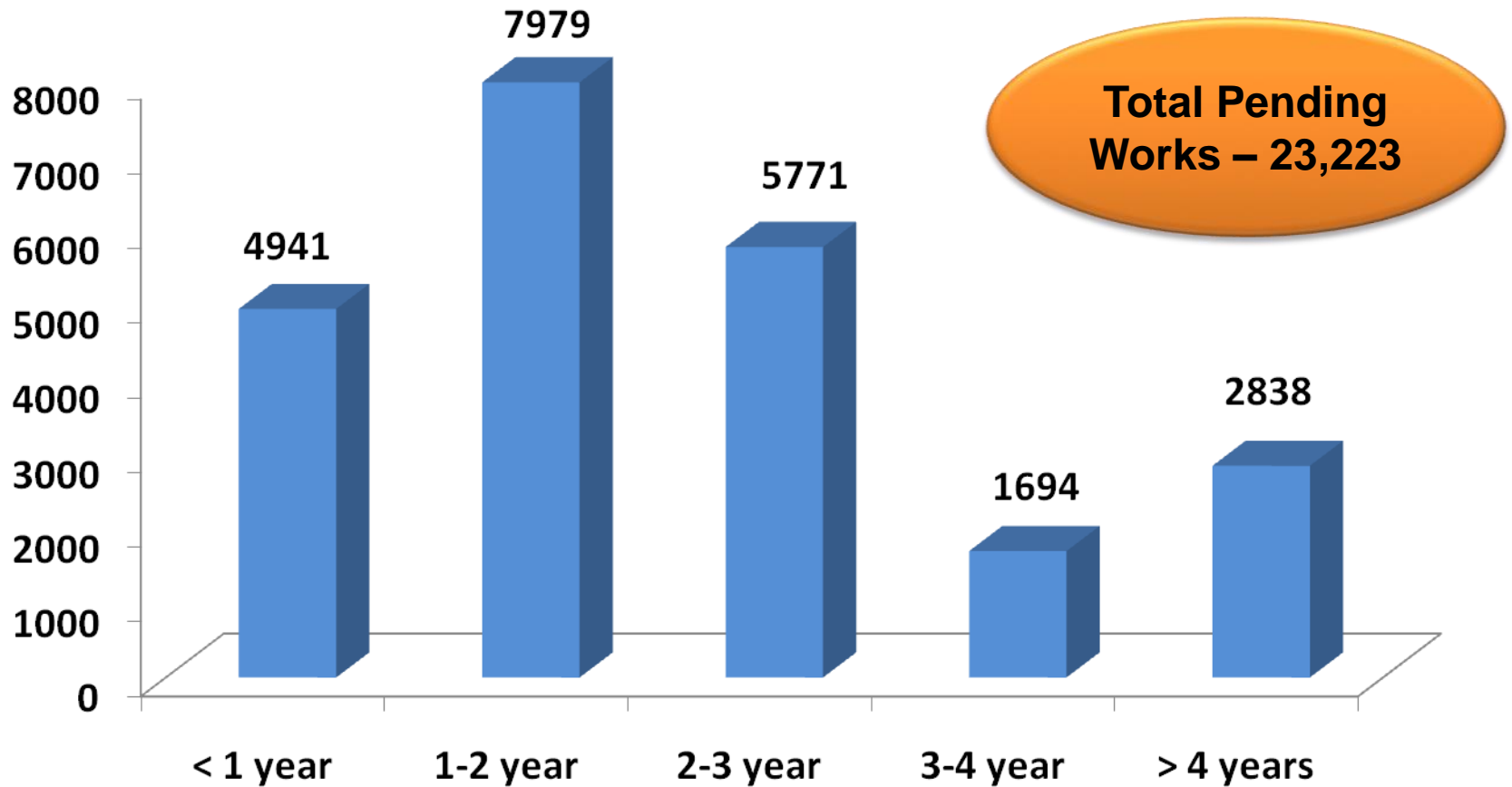
State	Target Length	Completed Length	% achievement
MN	2,000	175	9%
AP	800	173	22%
NG	400	71	18%
KE	266	61	23%
MG	1,000	59	6%
RJ	150	53	36%
TG	600	46	8%
TR	450	29	7%
PB	50	29	58%
SK	800	28	4%
MH	500	21	4%
A&N	36	0	0%

**Total Length
Targets –
50,097 km**

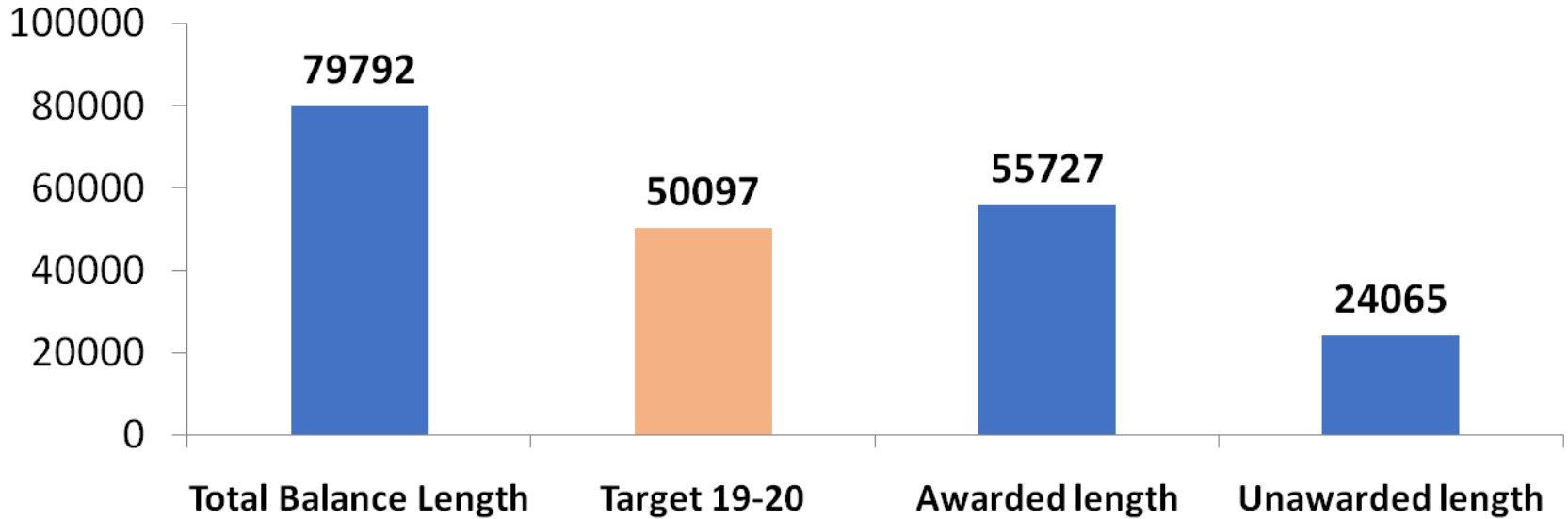
**Total Length
Constructed –
8,935 km**

**20,389 km length
constructed FY
18-19 upto Dec**

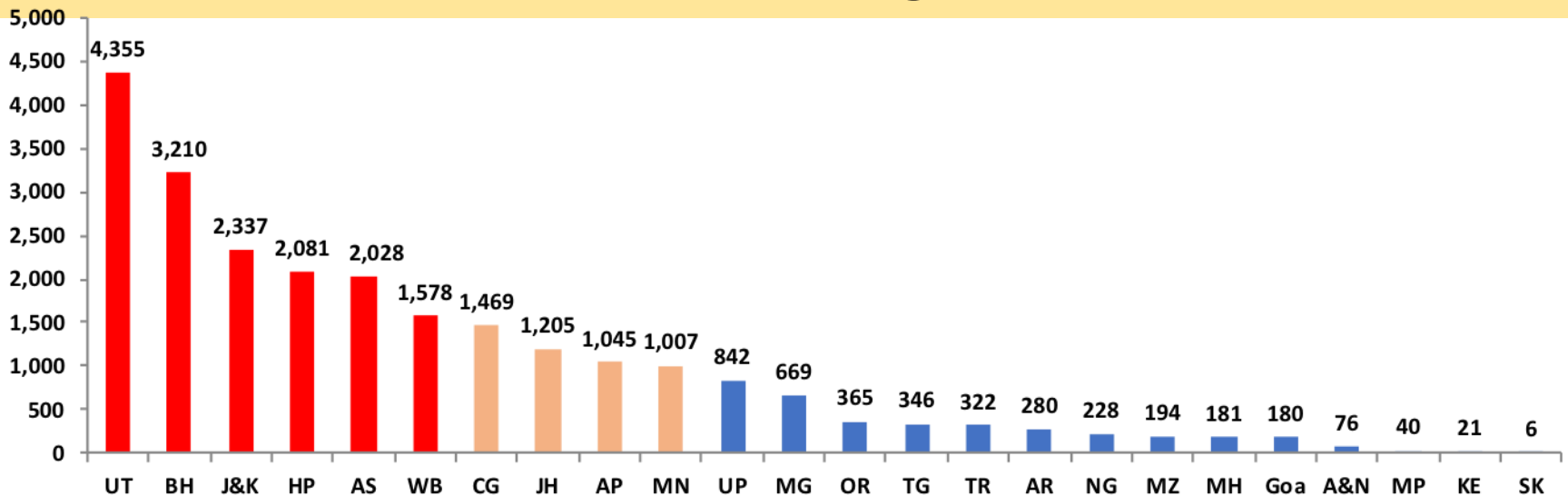
AGE WISE ANALYSIS OF PENDING WORKS (ROADS & LSBS)



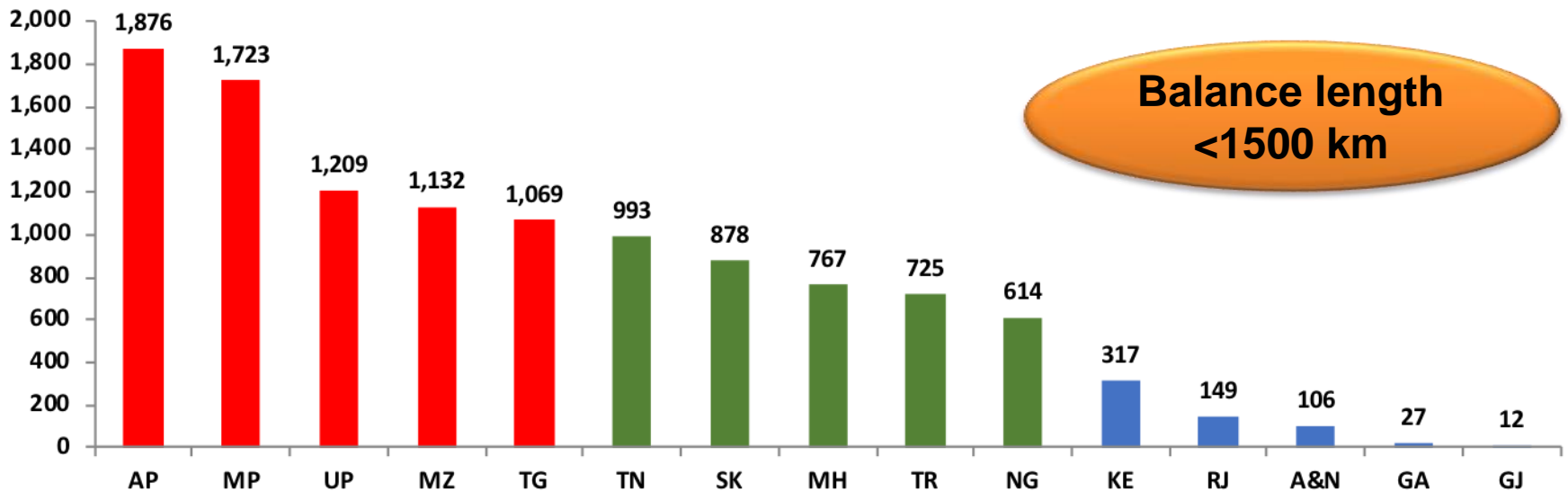
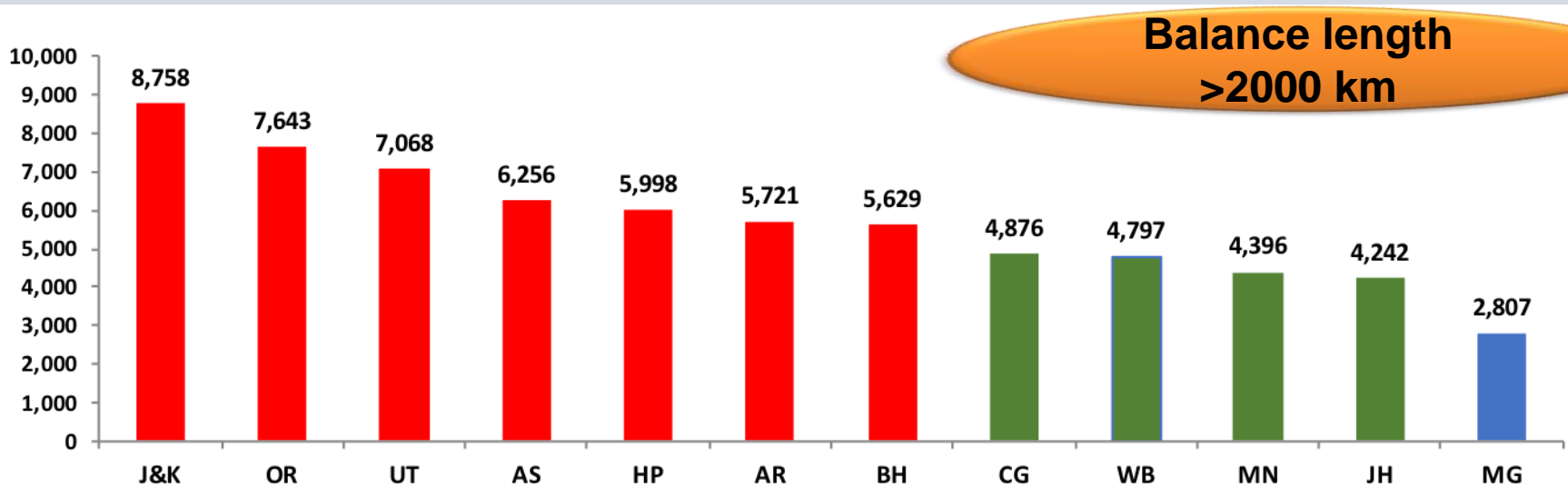
Awards Status



Unawarded Length (km)



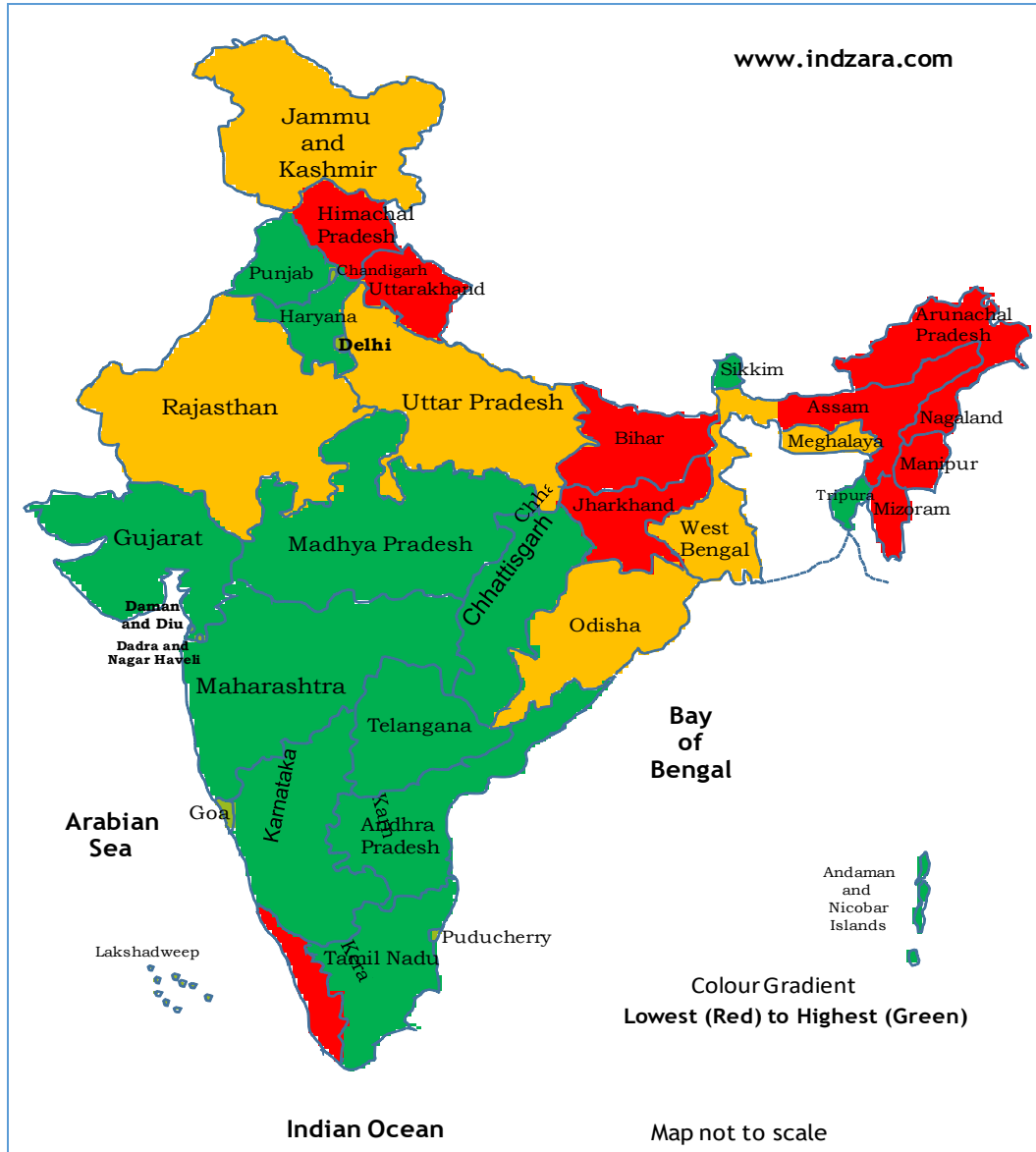
States needing more focus



Total Balance Length – 79,792 km

UNSATISFACTORY GRADING IN COMPLETED WORKS (Original)

Based on NQM inspection from April 2016 to November 2019 (last 03 years & current year average)



Present National Average U % - 7.35 %

Targeted U % (2019-20) – 4 % (NITI Aayog)

States with U % < targeted 4%

AP	0.00%	SK	0.00%
GJ	0.00%	TEL	0.00%
HR	0.00%	MP	1.26%
KN	0.00%	TN	2.96%
MH	0.00%	TR	3.23%
PB	0.00%	CG	3.77%

States with U % between targeted and National Average (4 % -7.35 %)

UP	5.04%	MG	6.25%
RJ	5.72%	WB	6.35%
JK	6.25%	OR	7.16%

States with U % > National Average of 7.35%

UK	8.89%	KR	12.96%
JH	9.36%	MN	19.44%
HP	9.78%	AR	21.43%
AS	9.86%	MZ	22.22%
BR	12.24%	NG	33.33%

STATUS OF FUNDS RELEASE FY 2019-20

Not proposed for release of funds	First Instalment released/proposed	Second Instalment released /proposed	Third Instalment demanded
Andaman and Nicobar Bihar Jharkhand Sikkim Odisha Maharashtra Nagaland Tripura Uttar Pradesh Arunachal Pradesh RCPLWE Chattisgarh RCPLWE Maharashtra	Meghalaya Tamil Nadu Kerala Andhra Pradesh Uttarakhand West Bengal Manipur Arunachal Pradesh RCPLWE Bihar RCPLWE Uttar Pradesh RCPLWE Jharkhand RCPLWE Odisha RCPLWE Andhra Pradesh RCPLWE Telangana	Mizoram Chattisgarh Jammu and Kashmir RCPLWE Madhya Pradesh	Himachal Pradesh Madhya Pradesh Assam

CHALLENGES

Maintenance of roads-a challenge

DLP maintenance cost being borne by states

Maintenance policy in 27 states ineffective for post 5 year maintenance in most states
Only 14% roads have been renewed

Initiatives

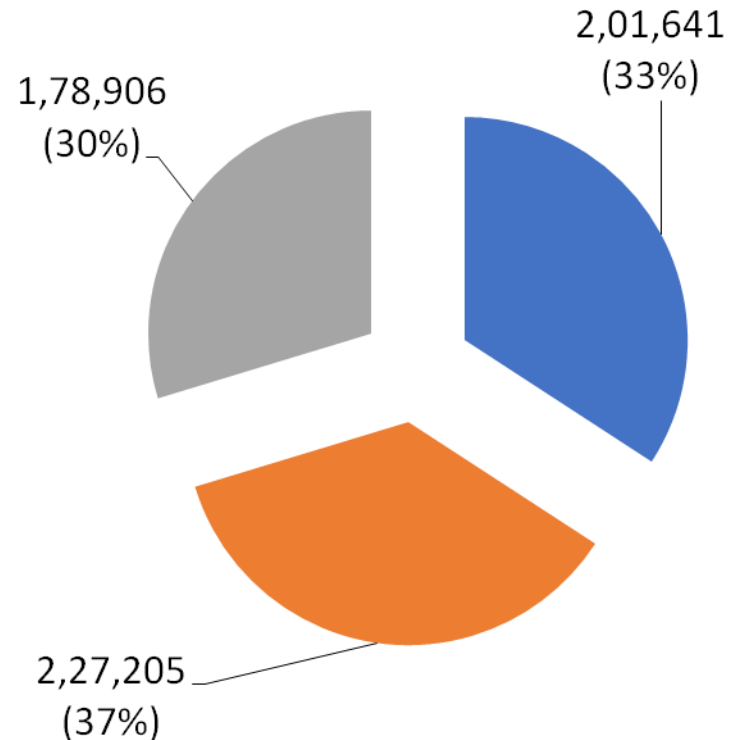
Advocacy with states to provide adequate **funds for post 5 year maintenance** separately.

Financial incentives to better performing states for maintenance of rural roads.

MOU with states for maintenance under PMGSY III

AGE PROFILE OF PMGSY ROADS

■ Pre 5 years ■ Post 10 years ■ Post 5 years

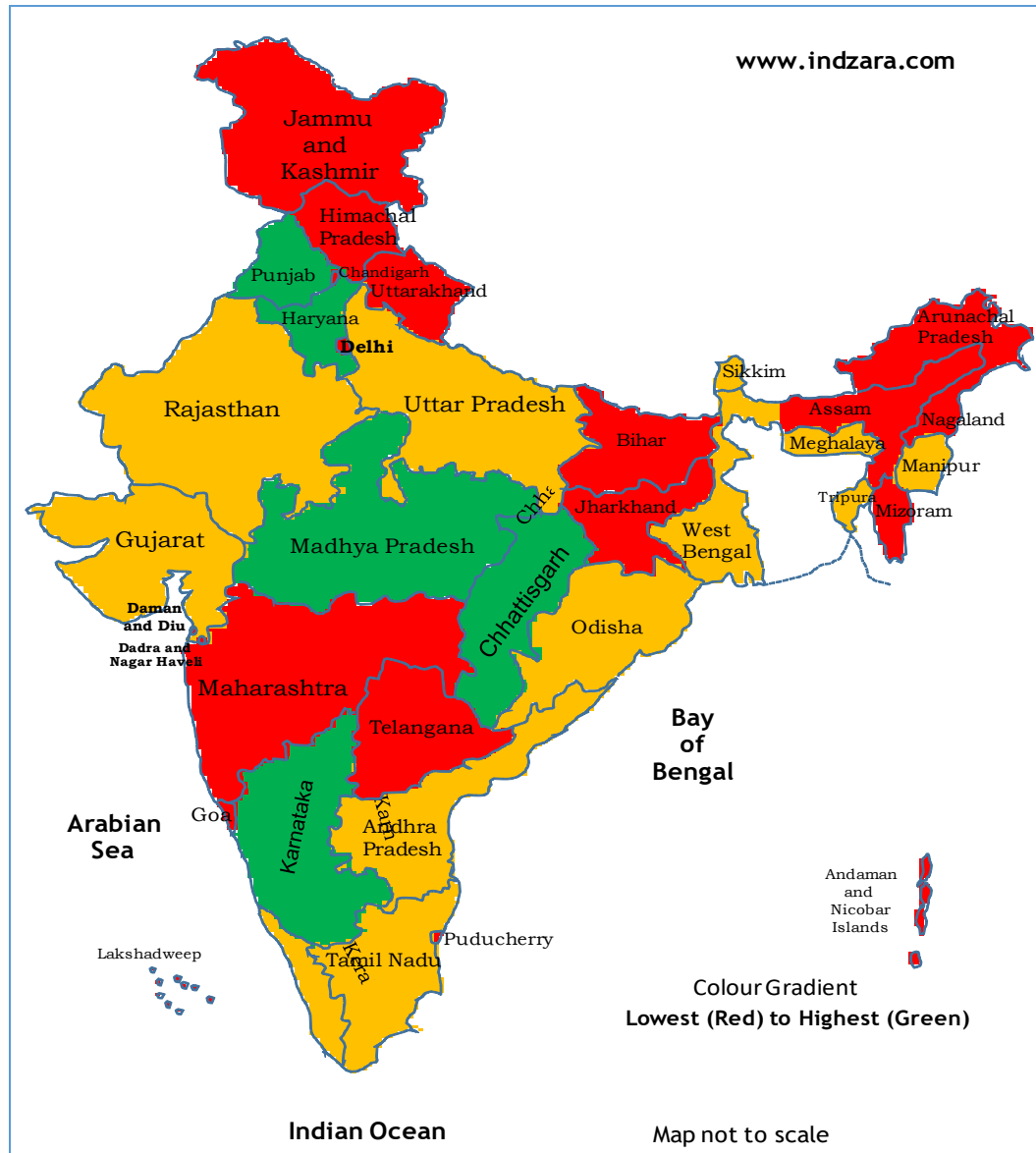


67% OF ROADS OUT OF DEFECT LIABILITY PERIOD

- Value of assets created : Rs. 3,03,876 Cr (@ Rs 50 lakh/km)

UNSATISFACTORY GRADING IN MAINTENANCE WORKS (Original)

Based on NQM inspection from April 2016 to November 2019 (last 03 years & current year average)



Present National Average U % - 26.39 %

Targeted U % (2019-20) – 15 % (NITI Aayog)

States with U % < targeted 15%

MP	5.41%	CG	10.75%
PB	6.36%	KN	13.33%
HR	6.67%		

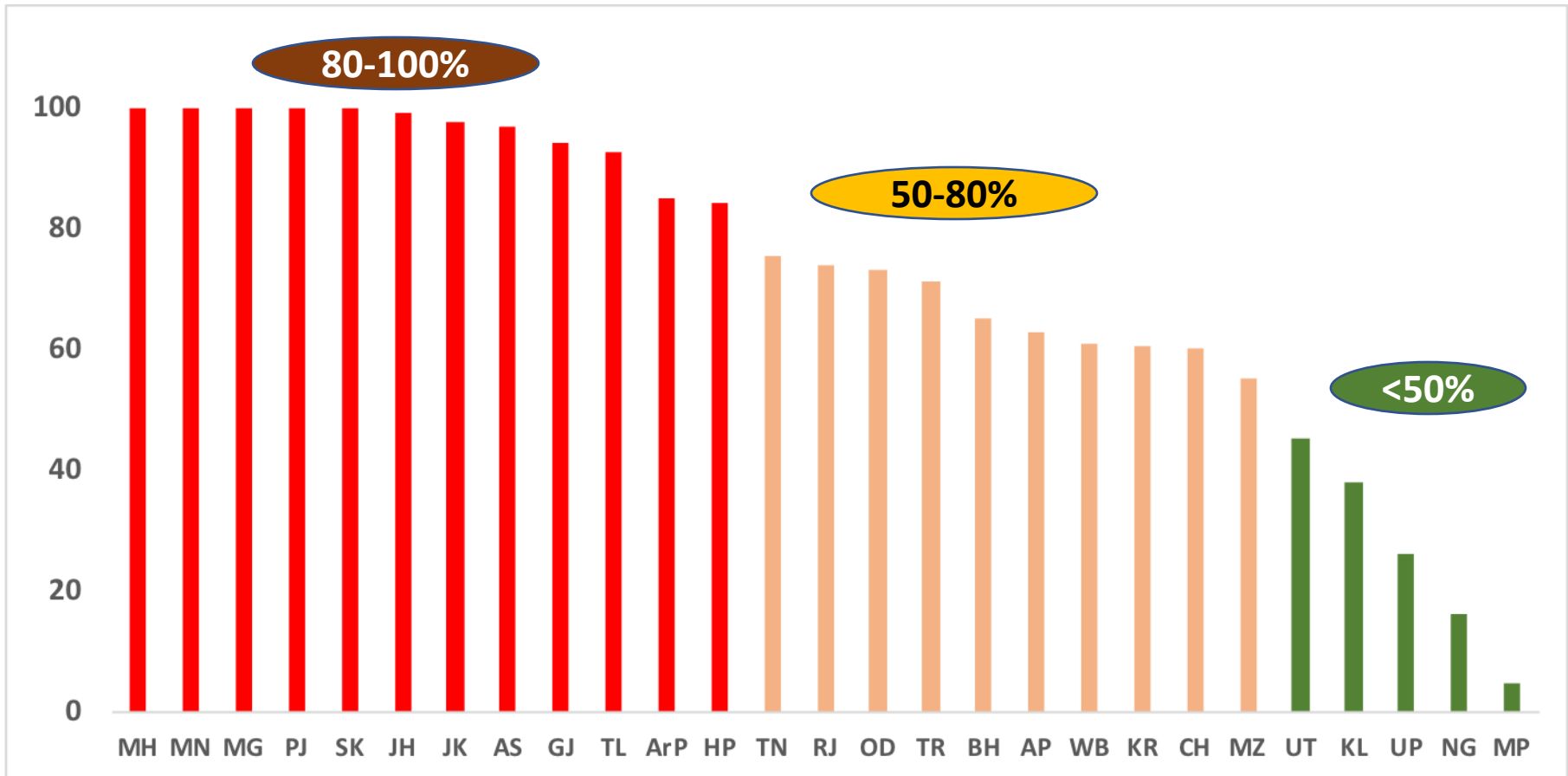
States with U % between targeted and National Average (15 % - 26.39 %)

AP	15.65%	GJ	22.41%
TN	17.43%	OR	24.22%
KR	18.66%	UP	24.42%
MG	19.35%	MN	25.29%
TR	19.62%	SK	25.53%
RJ	21.96%	WB	25.54%

States with U % > National Average of 26.39 %

TEL	29.44%	UK	47.16%
MH	30.45%	AS	47.33%
HP	35.29%	NG	52.27%
JH	37.39%	MZ	58.82%
BR	42.03%	AR	73.39%
JK	44.16%		

Percentage Roads under DLP with Zero Expenditure on Maintenance (2018-19)



National Average:
64% of within 5 years as in 2018-19, roads have zero expenditure on routine maintenance

What can be done to preserve the assets created

- States to have functional asset management plans
- Adequate budget
 - States to identify dedicated source of funding
- Finance Commission grants for maintenance
- eMarg for maintenance supervision
- PBMC Model for payment
- Cost effective Mechanization for maintenance
- SHGs involvement – for quicker response time and better ownership of assets

SHGs/MMDs for maintenance of Rural Roads

Particulars	UK	MP
No. of Rural Roads for maintenance through SHGs	29	16
Length (Km) undertaken	194.02	83
No. of Districts involved	09	4
No. of PIUs involved	17	
No. of SHGs/MMDs involved	38	
No. of Members involved	1706	

One road work covering a length of 11.70 km in Ferozepur district of Punjab, off carriage work of routine maintenance through community contracting has been done involving 20 percent women.



eMARG

- IT System for performance based maintenance of PMGSY Roads.
- PIU level training in 14 states (**Assam, Chhattisgarh, Haryana, Kerala, Manipur, Meghalaya, Nagaland, Odisha, Punjab, Sikkim, Tamil Nadu, Telangana, Uttar Pradesh**)
- 4 States have initiated payments through eMARG:

S.No	STATE	Total Amount (In Lakhs)
1	Chhattisgarh	677381
2	Kerala	121228
3	Tamil Nadu	139727
4	Uttar Pradesh	151188
TOTAL:		1089524

Complete roll out February 2020 and all maintenance payments from April 2020

Moving Forward New Initiatives

PMGSY III

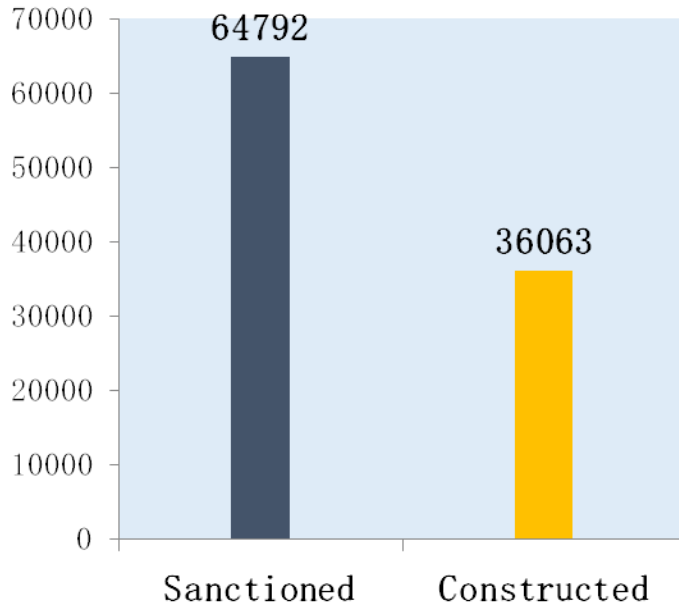
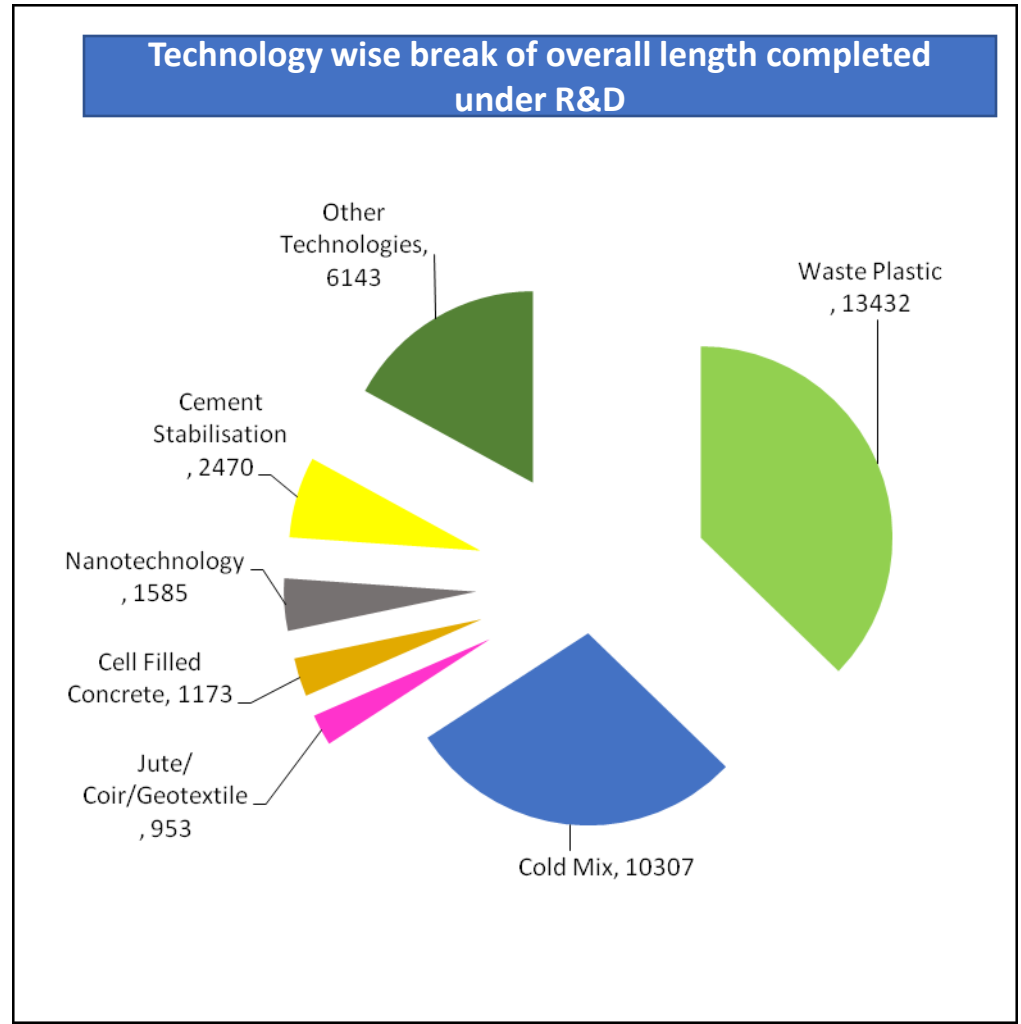
Features

- Up-gradation of 1,25,000 existing Through Routes (TR) and Major Rural Links (MRL)
- Build efficient networks to connect facilities like :
 - Agricultural and Rural Markets (GrAMs)
 - Educational facilities)
 - Health facilities
- 20% road length for riding quality improvement
- Geo spatial planning with traffic simulation algorithms to identify candidate roads
- Facility mapping through GEO PMGSY MAP for building efficient road networks
- MOU with states for adequate budget allocation for roads maintenance

**23 States eligible for PMGSY III,
14 States in readiness for sanctions in current FY.
EC for MP, AP, CG done**

GREEN TECHNOLOGY ROADS CONSTRUCTION

TOP PERFORMING STATES	ACHIEVEMENT IN KM
MADHYA PRADESH	7109
ODISHA	4722
ASSAM	2940
BIHAR	2409
WEST BENGAL	2250
JHARKHAND	2099



Mandate to construct 15% roads using new and accredited technology since 2013-14.

Possibilities of convergence

MGNREGS

- Use of MGNREGS Funds for plantation
- Shoulder maintenance using MGNREGS funds in post five year maintenance phase
- Connectivity to unconnected habitations using soil stabilization and nano technology
- AP model of convergence using MGNREGS funds to prepare sub base

SHGs

- SHGs for off carriage way maintenance
- Evolve cadres for roads maintenance
- Credit linkage for hiring/ purchase of low cost machinery
- SHGs to be involved in collection and processing of waste plastic.



Thousands of engineers and workers are working towards making a better Rural India



THANK YOU

Balance Road Length available with States

>2000 km

Sr.No.	State Name	Balanced Road Length (km)
1	Jammu And Kashmir	7,976.41
2	Odisha	7,675.77
3	Uttarakhand	7,199.68
4	Assam	6,259.56
5	Arunachal Pradesh	5,720.97
6	Bihar	5,629.52
7	Chhattisgarh	4,893.55
8	West Bengal	4,799.16
9	Himachal Pradesh	4,749.21
10	Manipur	4,396.49
11	Jharkhand	4,276.90
12	Meghalaya	2,807.44

<1500 km

Sr.No.	State Name	Balanced Road Length (km)
13	Andhra Pradesh	1,880.18
14	Madhya Pradesh	1,732.09
15	Mizoram	1,132.12
16	Tamilnadu	992.67
17	Uttar Pradesh	921.34
18	Sikkim	878.23
19	Telangana	819.81
20	Maharashtra	779.13
21	Tripura	724.79
22	Nagaland	613.79
23	Kerala	316.66
24	Rajasthan	149.11
25	Andaman And Nicobar Islands	105.78
26	Goa	26.89
27	Gujarat	11.91
28	Punjab	3.77
29	Karnataka	0.48

Total Balance Length – 77,473 km

Maintenance

- Observed in CRM: states not serious about maintenance and quality
- 69% roads in post 5 year maintenance period
- Only 14% roads renewed
- Goa and Jammu & Kashmir do not have state rural roads maintenance policy
- Dedicated funds: routine and periodic maintenance
- Advocacy for consolidated Maintenance Policy for PBMC
- SHGs for routine maintenance
- EMARG under-development to support the above policy

Maintenance within 5 years

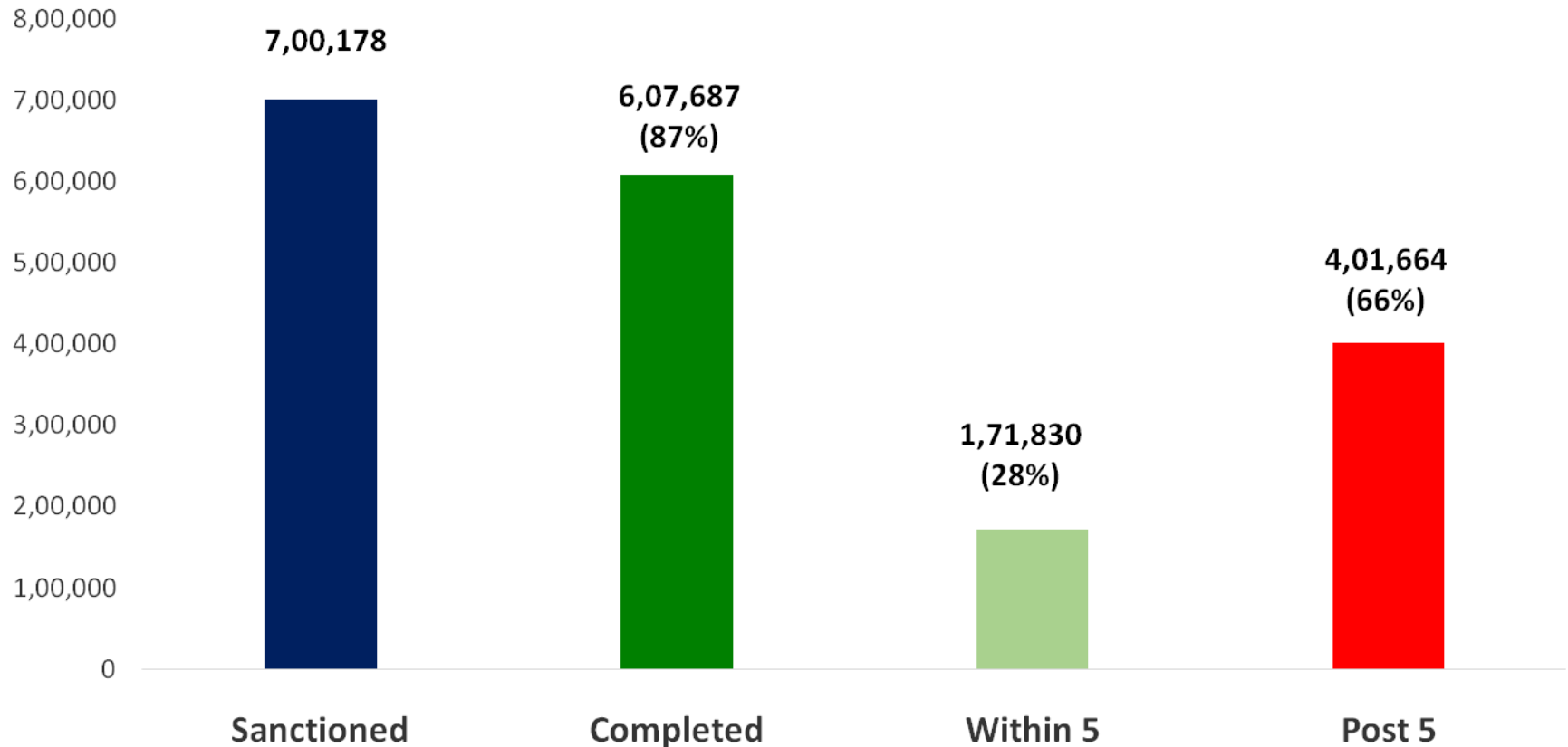
- 62% roads have zero payments (in last 5 years)
- No monitoring of maintenance and payment to contractors
- 5 States have not credited maintenance funds (AS, GJ, RJ, SK & TL) in 2018-19.
- 57% credited against required for 2018-19
- 38% expenditure against requirement
- 26% roads found to be “U” in Pre 5 yr Maintenance.

Strategy for New India @75 – last mile connectivity

Proposed strategy

- PMGSY III for consolidation and upgradation of roads connecting rural markets
- Black top connectivity for habitations 250+ for plain areas/ 100+ for hilly regions (census 2011)
- Habitations below 100 to be taken up under MGNREGA/ 15th Finance commission/ state budget
- Use of local and sustainable materials to build low volume roads
 - use of new technology; soil stabilization/ Nano technology
 - MGNREGA guidelines need to be revised for roads typologies
- Action Plan by August 2019.
- States to allocate separate funds for rural roads maintenance

Age profile of PMGSY roads



With time, assets will slip into adjacent category and liabilities will increase

PHYSICAL PROGRESS-PMGSY-I

**6,47,056 km sanctioned in PMGSY-I including LWE
5,75,916 km completed**

1,78,184 eligible habitations

**4,168 not feasible/ dropped habitations
+
2,309 sanctioned habitations held up
due to FC/court cases/land issues**

1,71,707 eligible and feasible habitations

**Total 1,66,908 habitations connected
(i/c 16086 connected by States)
(97.20%) of eligible and feasible**

4,798 balance habitations to be connected

PHYSICAL PROGRESS- LWE

8,242 eligible habitations

480 non feasible/ dropped habitations

7,762 eligible and feasible habitations

5,733 habitations connected under PMGSY-I i/c 1,366 habitations connected by states (74%) of eligible and feasible

2,027 balance habitations to be connected

PHYSICAL PROGRESS

PMGSY-II

50,000 km target length

47,282 km sanctioned

30,647 km completed

2,718 km balance to be sanctioned

16,319 km balance to be completed

3 States & UTs yet to transit to PMGSY-II

Himachal Pradesh – EC held on 25.11.2019

Arunachal Pradesh – EC held on 11.12.2019

Jammu & Kashmir – EC held on 25.11.2019

UTs

PHYSICAL PROGRESS

RCPLWE

5,412 km (approved by cabinet)

5,840 km sanctioned (684 works)

1,166 km completed (25 works)

4,669 km balance to be completed

Phase I 100% sanctioned

Awarded 73%

Outlay approved by CCEA:- Rs 11,725 crore

Value of sanctioned work :- Rs 5,821 crore

Savings :- Rs 5,094 crore

Phase-II:- Additional proposal of 752 Roads and 29

Bridges (6,043 km) recommended by MHA.

19 works 50 Kms sanctioned to Andhra Pradesh and 4

works 29 km to Madhya Pradesh

Current works in hand

- Pending works -77,717 km road length
 - 7,133 km works more than four years
- 22,481 km works yet to be awarded
 - 7,149 km unawarded works more than 4 years
- Pending bridge works
 - 440 bridges more than 4 years old

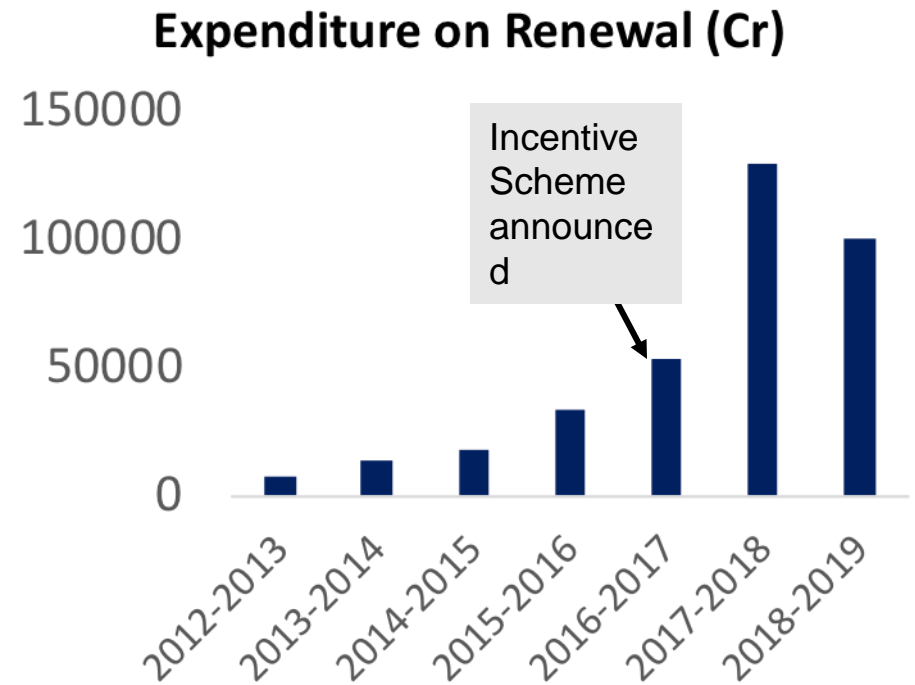
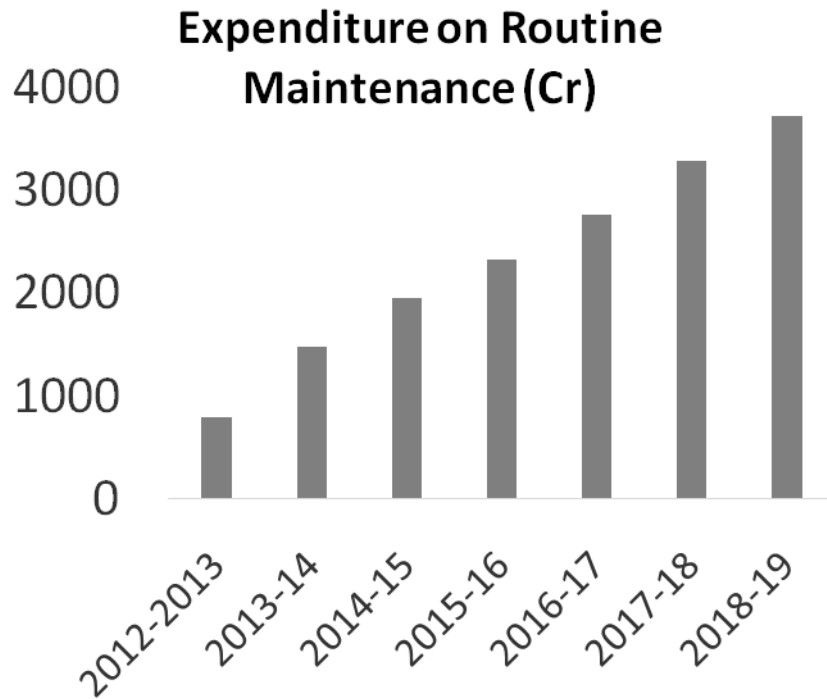
eMARG- Status of On-Boarding

#	State Name	User Registration						Package Verification			Contractor's Registration			DSC Enrolments	
		State-level			District-level			Total Packages	Total Workable Packages	Total Pending Packages	Pending at PIU	Pending at Admin (ITNO)	Approved by Admin	Total No. of Districts	No. of Successful Enrollments
		Admin	Coordinator (NMO)	Others	PIU Incharge	Others	Total								
1	AP	1	1	99	20	411	532	546	452	2	6	0	96	14	12
2	AR	1	2	1	30	118	152	19	12	7	2	0	1	25	0
3	AS	1	1	51	57	1156	1266	444	413	86	3	0	15	26	1
4	BH	1	2	21	100	822	946	5781	5305	364	164	24	20	38	2
5	CG	1	1	81	42	362	487	475	359	0	11	0	80	27	27
6	GJ	1	2	4	27	316	350	84	45	11	3	0	4	26	0
7	HR	1	1	9	30	155	196	88	85	4	5	0	7	22	6
8	HP	1	2	5	75	644	727	128	44	34	2	0	4	12	1
9	J&K	1	2	0	22	245	270	123	94	66	0	0	0	14	0
10	JH	1	5	16	25	298	345	1040	994	787	2	0	4	24	0
11	KN	1	1	0	35	265	302	293	124	6	0	0	0	30	0
12	KE	1	1	19	14	65	100	406	394	363	6	0	15	14	13
13	MH	1	1	7	38	459	506	32	30	29	0	0	0	34	0

eMARG- Status of On-Boarding

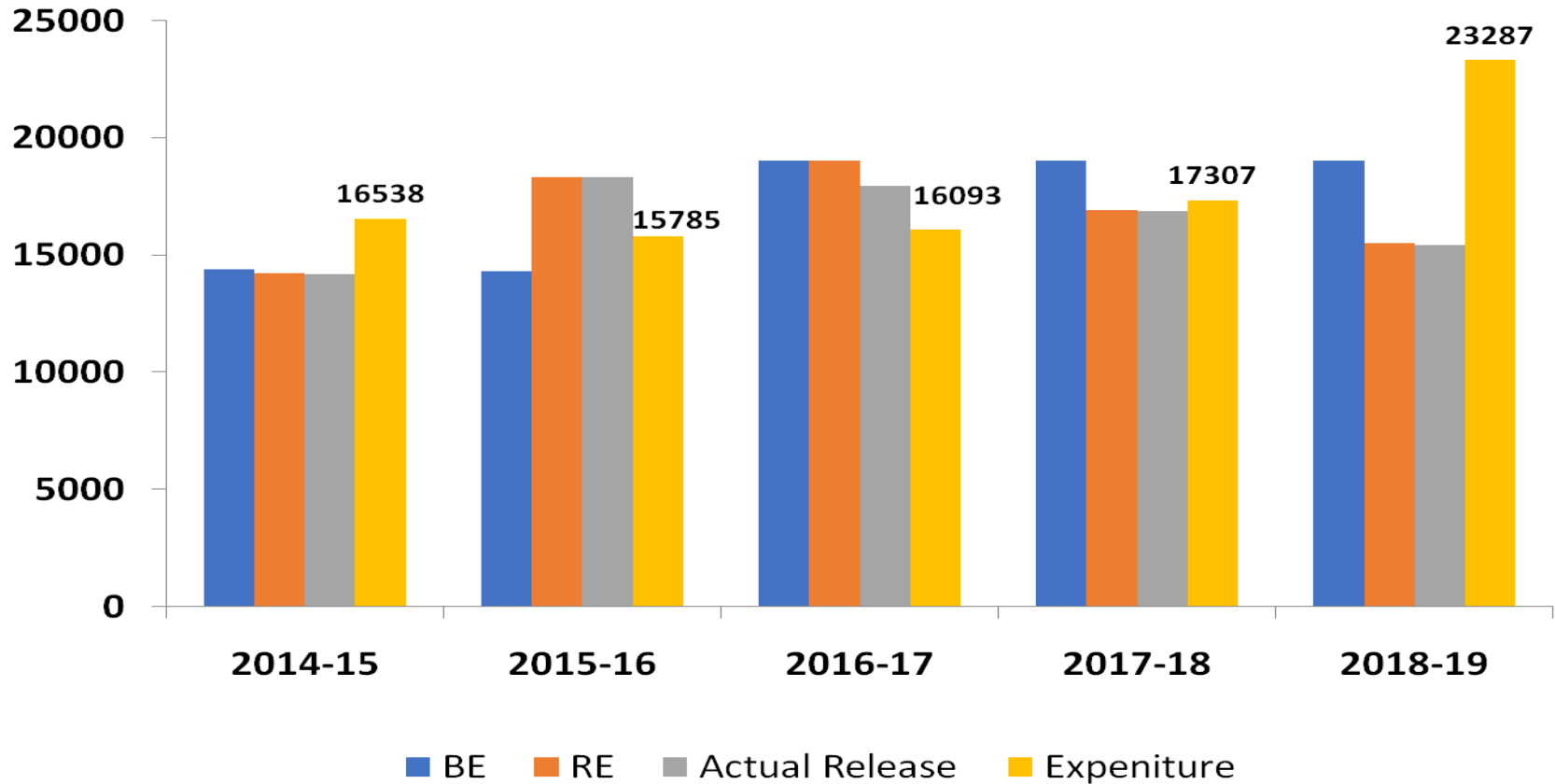
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		Admin	Coordinator (NMO)	Others	PIU Incharge	Others									
14	MN	1	1	4	23	24	53	80	64	0	2	0	4	9	9
15	MG	1	1	0	27	160	189	72	71	2	1	0	0	7	0
16	MZ	1	1	0	5	12	19	18	13	13	0	0	0	8	0
17	NG	1	1	2	11	1	16	27	14	0	0	0	0	11	11
18	OR	1	3	91	92	1006	1193	4815	4656	335	289	108	91	30	2
19	PB	1	1	23	54	293	372	180	144	1	32	3	18	22	7
20	RJ	1	1	47	160	441	650	639	466	2	24	4	45	33	14
21	SK	1	1	0	8	12	22	6	4	0	0	0	0	4	0
22	TN	1	1	440	50	1012	1504	1570	1460	76	25	6	436	32	14
23	TG	1	1	13	26	189	230	113	32	0	9	1	12	30	13
24	TR	1	3	3	4	33	44	160	149	46	1	0	3	8	0
25	UP	1	5	94	85	735	920	1738	1377	18	131	13	92	75	5
26	UT	1	1	16	63	385	466	184	111	0	15	0	16	13	13
27	WB	1	2	3	26	293	325	1779	1607	1607	0	0	0	24	0

Total Expenditure YoY on Routine Maintenance



Source: OMMAS

Financial Progress(In Crores)



For 2019-20

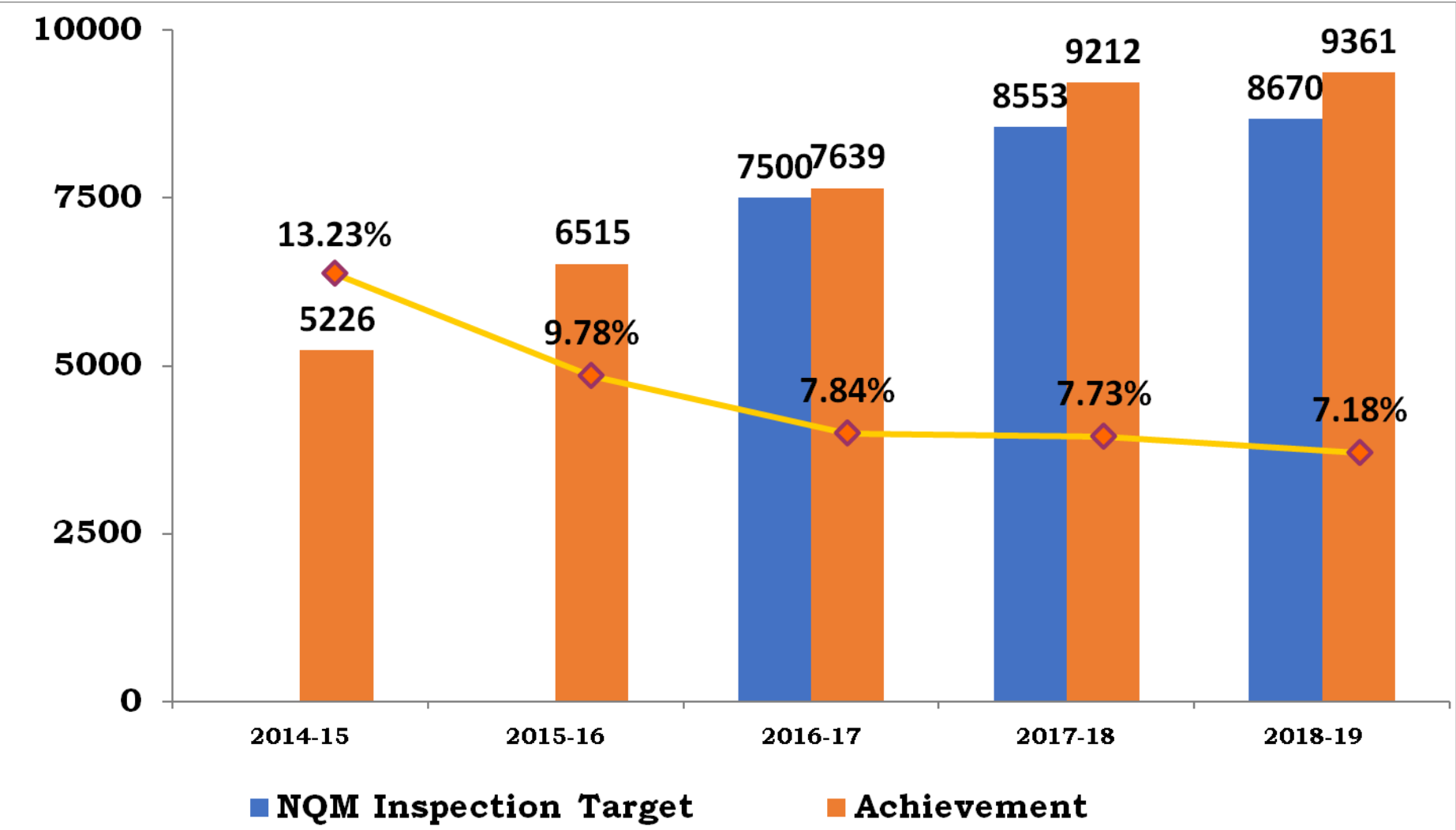
RE – Rs. 19,000 Cr.

Actual Release – Rs 6,277.29 Cr

Expenditure – Rs. 11,910 Cr

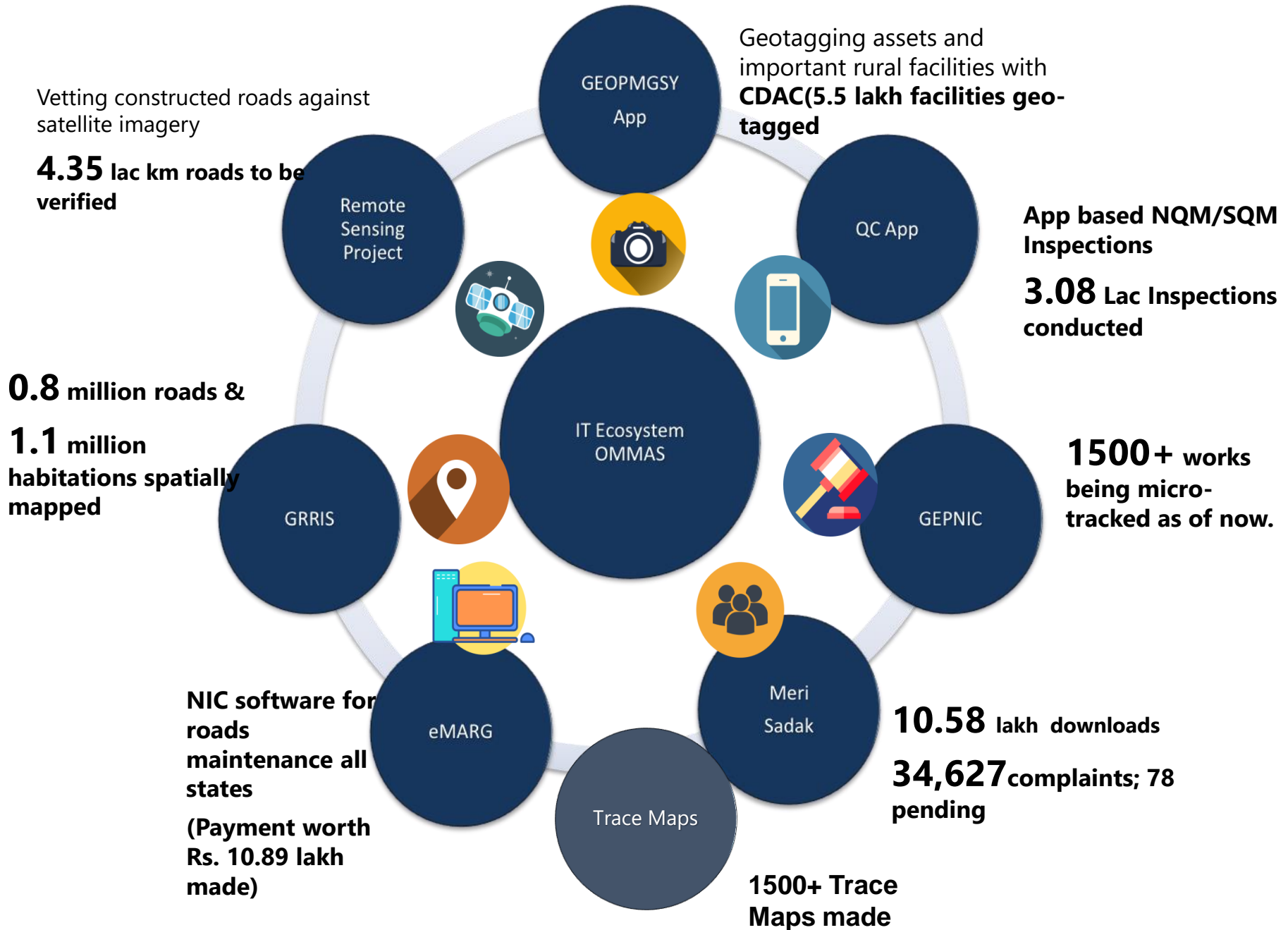
All states on PFMS

Improvement in quality of completed projects



— Av. Unsatisfactory Grading (Original) of Completed Work in Last 3 Years

Comprehensive IT interphase – GIS based planning, and monitoring



eMARG

- IT System for performance based maintenance of PMGSY Roads.
- Final Roll out training to following states have been conducted by NRRDA and NIC: (**Assam, Chhattisgarh, Haryana, Kerala, Manipur, Meghalaya, Nagaland, Odisha, Punjab, Sikkim, Tamil Nadu, Telangana, Uttar Pradesh**)
- States which have done payment through eMARG:

S.No	STATE	Total Amount (In Lakhs)
1	Chhattisgarh	677381
2	Kerala	121228
3	Tamil Nadu	139727
4	Uttar Pradesh	151188
TOTAL:		1089524

- A total of 950 Routine Inspections(RI) and 140 Performance Evaluation (PE) has been done by the following states:

S.No	STATE	No. of RI	No. of PE
1	CG	747	59
2	HR	22	14
3	HP	10	0
4	KE	32	8

S.No	STATE	No. of RI	No. of PE
5	PB	1	0
6	TN	74	44
7	TG	3	0
8	UP	61	15

Green Technology: Impact evaluation

Waste Plastic

- 5120.6 ton of waste plastic used – saving in bitumin
- 7680.9 ton of CO₂ emissions saved
- Estimates based on **WHO** document

Cold mix Technology

- **Results from Evaluation by TERI (2017)**
- “Energy savings and less CO₂ emissions over the life span of rural road on use of Cold Mix Technology”
- “Cold Mix does not require periodic maintenance for a longer period”
- **Savings Achieved– Cold Mix**
- 11.2 million litres of fuel saved
- 33642 ton of CO₂ emissions saved
- Estimates based on studies by CRRRI