



The Pradhan Mantri Gram Sadak Yojana, Program for Rural Roads Development in India

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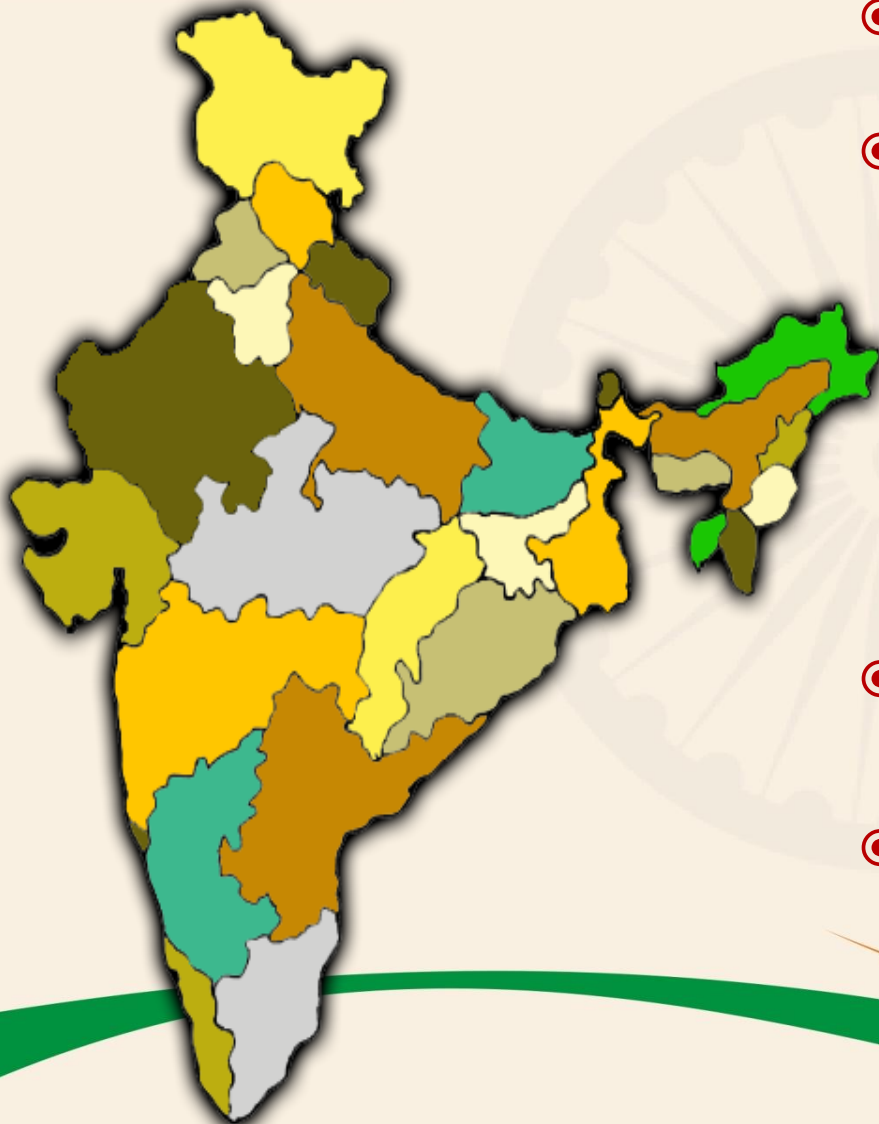
27th September, 2011

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India Fact Sheet



- ◎ **India is a Union of 28 States**
- ◎ **Population of India 1.027 billion (2001 Census)**
 - 531.27 million males - 495.73 million females
 - Rural population is 741.66 million;
 - Urban population is 285.35 million i.e., 27.78%
- ◎ **Population density - 324 per sq. km**
- ◎ **Decennial growth rate 1981-91 - 23.86, for 1991-00 - 21.34**

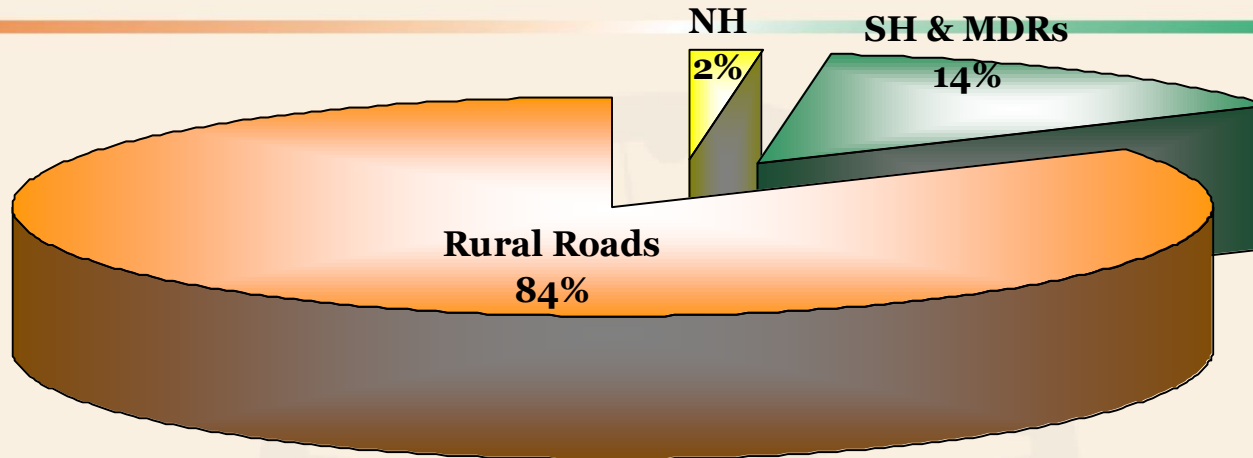


Rationale for Rural Connectivity Programme

- Investments in rural infrastructure are more effective than safety nets which reduce the vigour of rural poverty but may not remove it.
- Rural infrastructure programmes have a lasting impact on rural development, creating both on-farm and off-farm employment.
- Properly supplemented by policies enabling the rural poor to take advantage of new opportunities, investments in creation of rural infrastructure help in poverty alleviation.
- Hence the Prime Minister's Rural Roads Programme - PMGSY in India.



Status of Road Network in India



Total length of road network in India : 3.3 million km

National Highways (NH) : 77,500 Km

**State Highways & Major District Roads (SH & MDRs) :
598,662 Km**

Rural Roads : 2.65 million Km

80 % of Rural Roads un-surfaced

*342 thousand habitations (39%) out of 888 thousand rural habitations
lacked all-weather connectivity in the year 2000.*



Prime Minister's Rural Roads Programme



Objective

- Provision of all-weather road connectivity to all the habitations with population of 500 or more
- For Hill States, Tribal and Desert Areas minimum population limit is 250 persons
- Up gradation of existing Through Routes for full farm to market connectivity





Programme Targets

Activity	Total Eligible Programme Targets
Habitations for New Connectivity (Nos.)	166,938
Length of New Connectivity Roads (km.)	365,278
Length of Upgradation Roads (km.)	368,000
Estimated Cost	` 250 thousand Cr. (USD 52.10 b)



Funding

- ⦿ Budgetary Support from Government of India.
- ⦿ Fuel Cess – `4800 Crore (USD 1b) a year.
- ⦿ Internal Borrowings – Fuel Cess leveraging – NABARD Loans.
- ⦿ Externally Aided Projects
 - ⦿ ADB – USD 750 m
 - ⦿ World Bank – USD 1 b
- ⦿ Further World Bank Loan of about USD 1.5 b being negotiated.



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Achievements

- About 109 thousand habitations covered requiring construction/ upgradation of over 419 thousand km of roads with an investment of about (INR) ` 1170 billion (USD 24.4 b).
- About 329 thousand km of roads completed benefiting about 80 thousand habitations.
- Over ` 890 billion (USD 20 b) released to the States and utilized.



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Transforming Rural Lives



Increased access to market, health and education
Investment of One Million Rupees enables 165 poor people to move above poverty line

Source: IFPRI, Research Report 110, 1999



Quality – The Basic Management Policy

- Based on careful analysis of experience gathered in implementation of Rural Roads programmes in the past, programme management systems in PMGSY have been developed.
- Management strategy aimed at embedding quality awareness in all processes of implementation has been put in place.
- Implementation process beginning from planning and up to maintenance management has been developed.



Special Features of PMGSY

- Full funding of construction cost by the Central Govt.
- Maintenance funding by State Govt.
- Implementation responsibility with the States.
- National Rural Roads Development Agency (NRRDA) for Technical and Operational management support.
- Dedicated implementing apparatus at State & district level.
- Ensuring Quality Standards in construction
- Five year defect liability



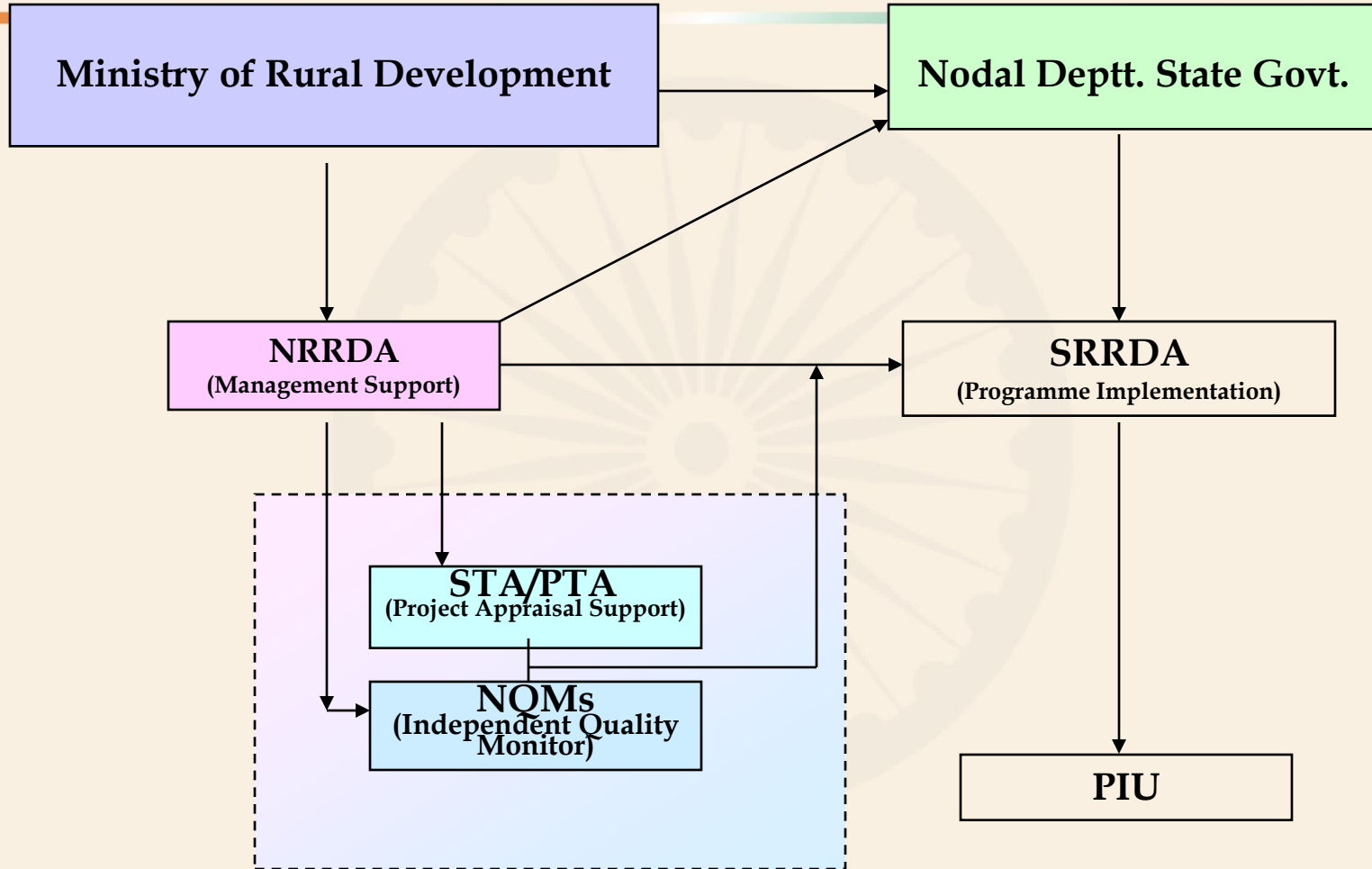
Management Strategy

Management strategy aimed at embedding quality awareness in all processes of implementation put in place for PMGSY.

- ⦿ Appropriate Institutional Architecture
- ⦿ Systematic Network Planning
- ⦿ Structured Project Preparation and Selection Process
- ⦿ Setting Standards and Specifications
- ⦿ Standardization of Bidding Process
- ⦿ Rigorous Quality Monitoring
- ⦿ Need Based Training, R & D
- ⦿ Web based Monitoring Mechanism.



Institutional Architecture

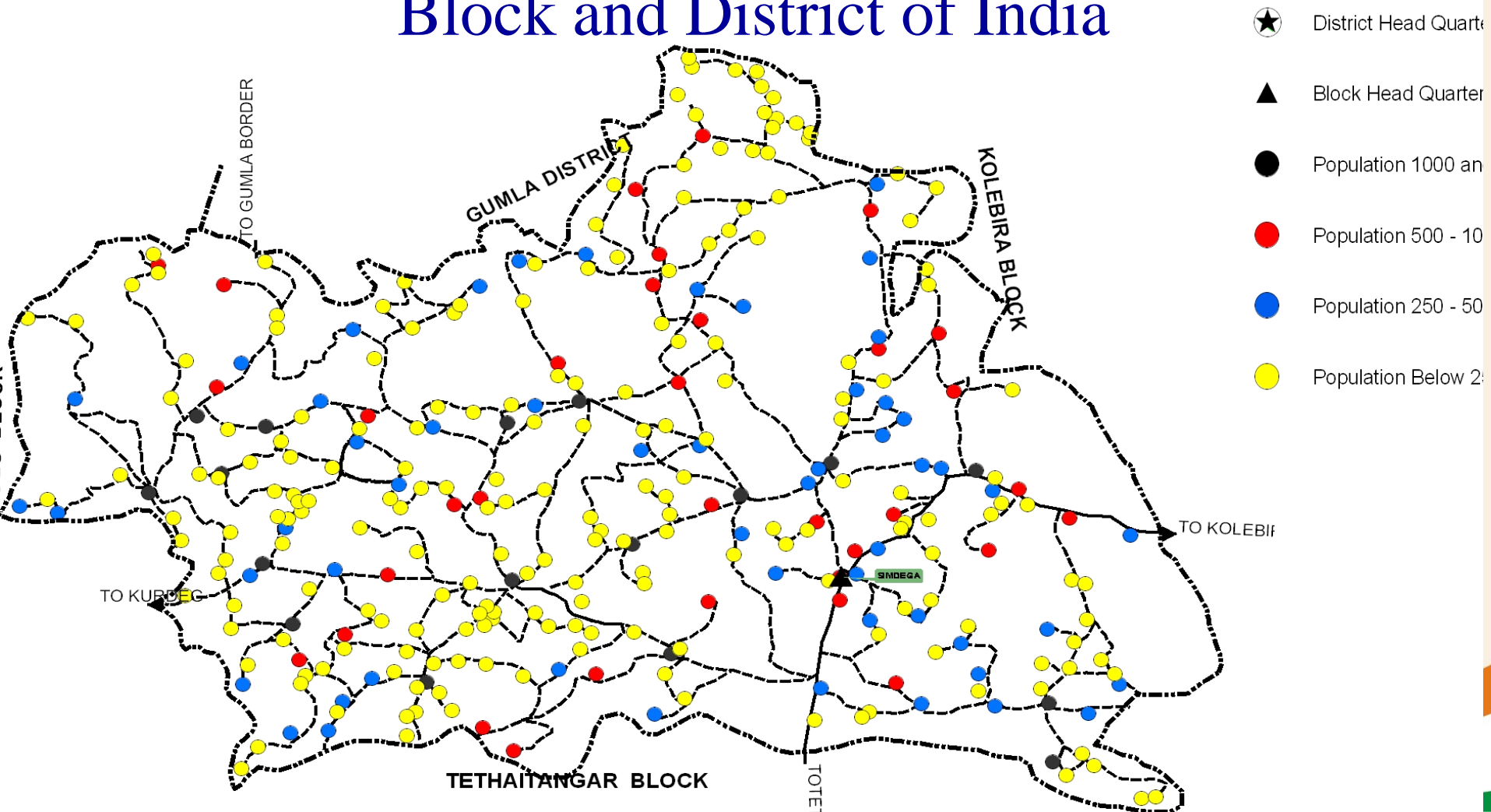


NRRDA: National Rural roads Development Agency, SRRDA: State Rural Road Development Agency, STA: State Technical Agency, PTA: Principal Technical Agency, NQM: National Quality Monitor, PIU: Programme Implementation Unit



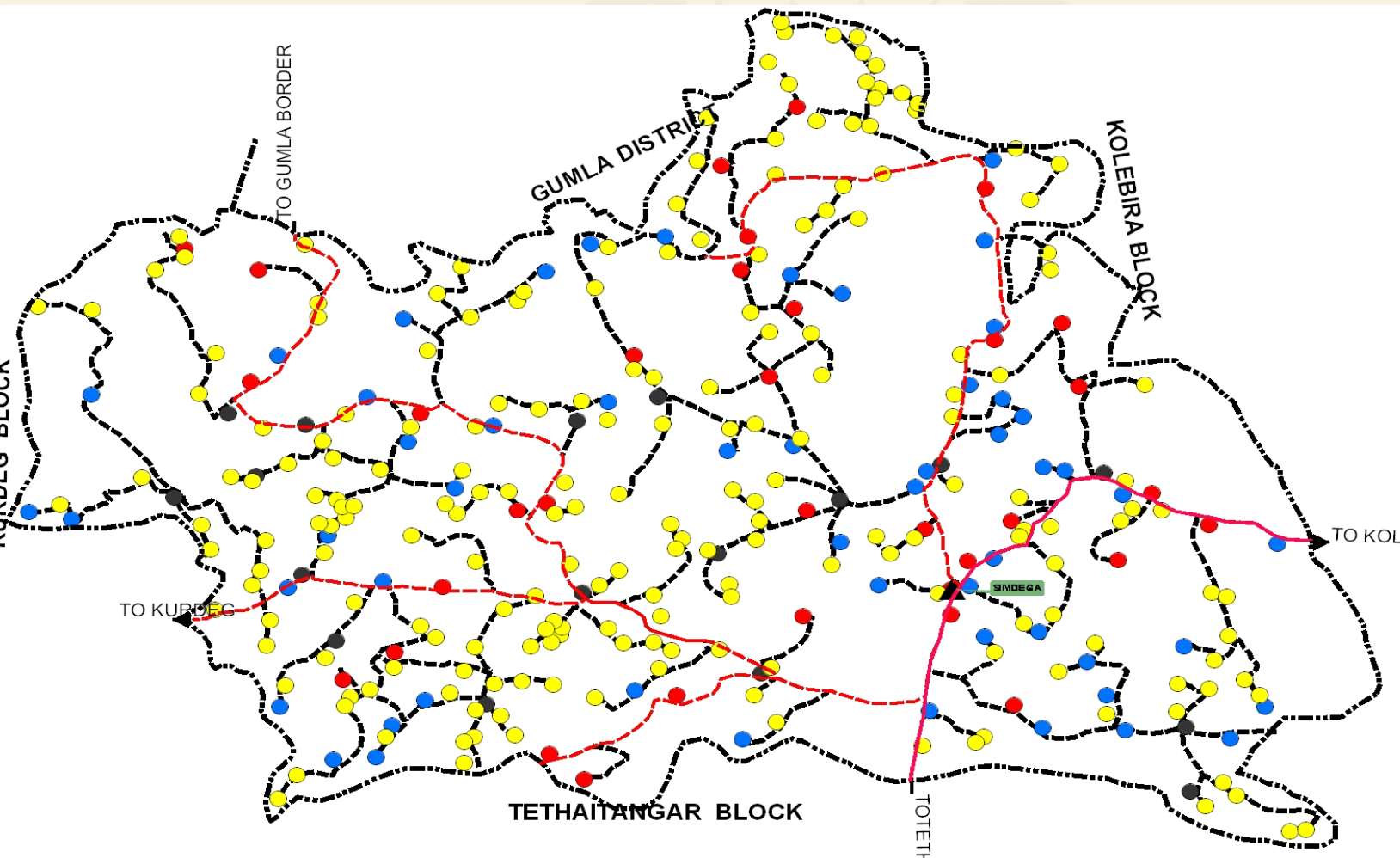
Systematic Network Planning

◎ A District Rural Road Plan (DRRP) for every Block and District of India



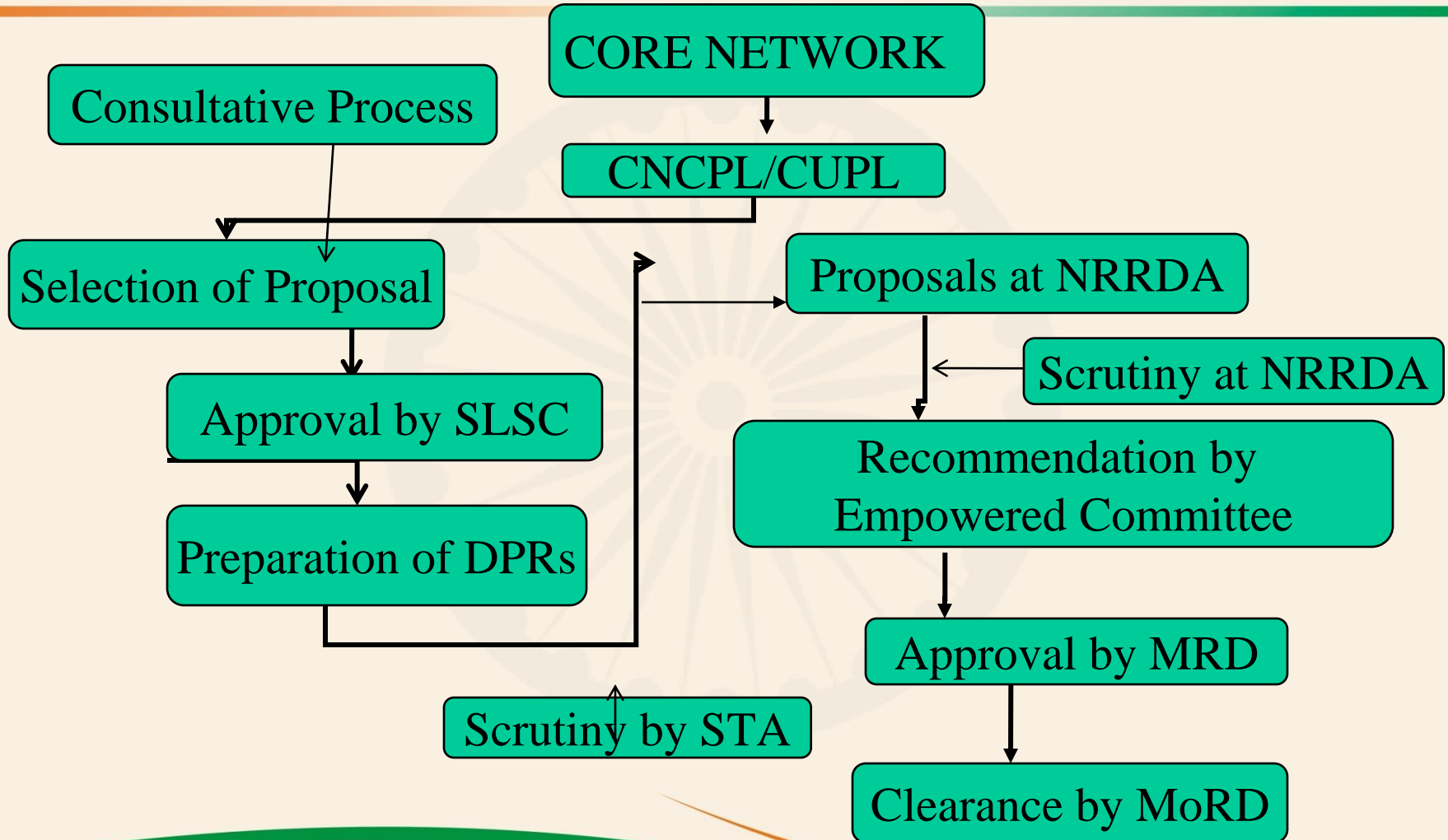
Systematic Network Planning

○ and a Core Network.





Detailed Project Reports & Clearance



Design and Estimates based on detailed field surveys and soil tests and independent scrutiny by the State Technical Agencies (IITs/ NITs etc).



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Setting Technical Standards & Specifications

Standards setting with help of Indian Roads Congress:

- Rural Roads Manual prepared in 2002.
- Standard Data Book and Specifications for Rural Roads published in 2004.
- Operational Manual in 2005.
- Design of flexible and rigid pavements for low volume roads.
- Gravel Road Manual.
- Standards for Steel Bridges.
- Quality Assurance Handbooks.





Standard & Transparent Procurement Process

- Transparent bidding through Standard Bidding Document developed for PMGSY.
- E-Procurement of works already institutionalized
- Quick Impact Assessment of E-Procurement has shown better participation of contractors leading to competitive cost -savings.





A Symbol of Quality & Sustainability

Quality Assurance

- A three tier quality management mechanism institutionalized under PMGSY.
 - First tier- Quality control at Programme Implementation Unit (PIU) level. Objective - process control through mandatory tests on material and workmanship at the field laboratory.
 - Second tier- Regular and structured independent quality monitoring at State level.
 - Third tier- Independent National Quality Monitors deployed for inspection at random. Objective-guidance and monitoring of quality by a senior independent professional.
- For better results and sustainable quality, quality mechanism is continuously reviewed and refined.



Field Laboratories



Machinery & Equipments in PMGSY





Field Quality Checks



Before



After



Madhya Pradesh



Earth Work in Plain Terrain

Madhya Pradesh



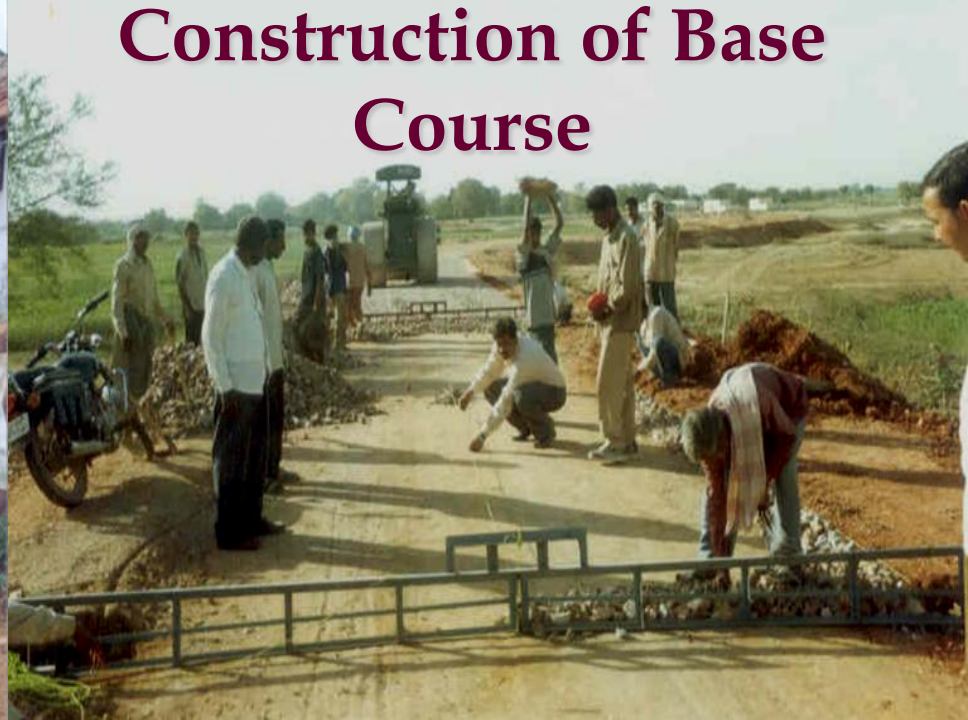
Shivpuri Pohri Road to AB Road,
Length 36.12 Km, Cost 596.16 Lakhs, Phase 2



Hill Cutting in difficult terrains of Arunachal Pradesh



Construction of Base Course





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Bituminous Layer Construction





Online Monitoring System

⊙ A Web-based online monitoring system.

⊙ Embedded Decision support systems.

⊙ Data Base in Citizen's domain.

Address <http://omms.nic.in/government/security/login/dologin.asp> Go

PRADHAN MANTRI GRAM SADAK YOJANA PMGSY

PMGSY NRRDA Quality Agencies Circulars Tenders News Feedback More... Search

The Pradhan Mantri Gram Sadak Yojana (PMGSY), was launched by the Govt. of India to provide connectivity to unconnected rural Habitations as part of a poverty reduction strategy. Government of India is endeavoring to set high and uniform technical and management standards and facilitating policy development and planning at State level in order to ensure sustainable management of the rural roads network. In the first phase, habitations (hamlets) of population of 1000 (500 in the case of Hill States, tribal and Desert areas) and above will be covered. In the second phase habitations of population of 500(250 in the case of Hill States, tribal and Desert areas) will be covered. About 368,000 km of new road construction and 370,000 km of upgradation/renewal is expected to be done at a cost of about \$26 billion.

For more Information Guidelines, Policies etc. visit <http://www.pmgys.nic.in> No. of Road Works Cleared: **51722**, New Connect

Search Your Habitation

National Reports

- ▼ State Reports
- ▼ District Reports
- ▼ Quality Monitoring
- ▼ Tendering
- ▼ Core Network Reports
- ▼ Maintenance
- ▼ Analysis
- ▼ Contacts
- ▼ Other Links
- ▼ Data Gaps
- ▼ For Data Entry Only

NCH: Habitation Coverage
 SP: Sanctioned Projects
 NPP: Pending Proposals
 NCW: Completion of Packages
 NPFS: Physical and Financial Projects Summary
 NPW: Physical Progress of Works
 NFP1: Financial Progress of Works
 NFP2: Financial Progress As Per Accounts Module
 NSP: State Profile
 NPS: National Projects Summary
 NCP: Per Kilometer Cost
 BN: Bharat Nirman



 **Best Packaged Application 2002, Runner Up**

Visitor No **3 5 1 6 0 0 1**

Best viewed in 800 x 600 pixels - I.E. 4.x.
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Transparency & Community Participation

- Citizen Information Board in local language showing Quantity of material in each layer.
- Provision for periodic joint inspection of field level officers and public representatives.



Tamil Nadu

20 5 2005

Bihar



Impact of PMGSY - 2004 Study

◉ Quick impact assessment for 9 States in 2004 revealed the following:

➤ **Agriculture and Local Industry:**

- Improved access is leading use of motorized equipment like tractor in agriculture on the one hand and diversification of cropping pattern through easier availability of inputs and access to markets
- Easier access to raw-materials and commercial vehicles has benefited existing local industries including pottery and brick-making and cottage and handloom industries
- Market for home-made products like pickles, etc., in neighboring towns has increased and both on-farm and off-farm employment opportunities have improved



Impact of PMGSY - 2004 Study

➤ Health and Education:

- Improvement in ante-natal care institutional delivery and post-natal care has been observed
- Increase enrolment in schools particularly of girls has been noticed and more regular attendance of teachers

➤ Social and Others:

- Increased use of consumer durables like, television, electrical gadgets, etc., has been noticed.
- Increase in visits of Government officials and grass-roots level functionaries
- Social network area has increased including radius of marriage alliance.

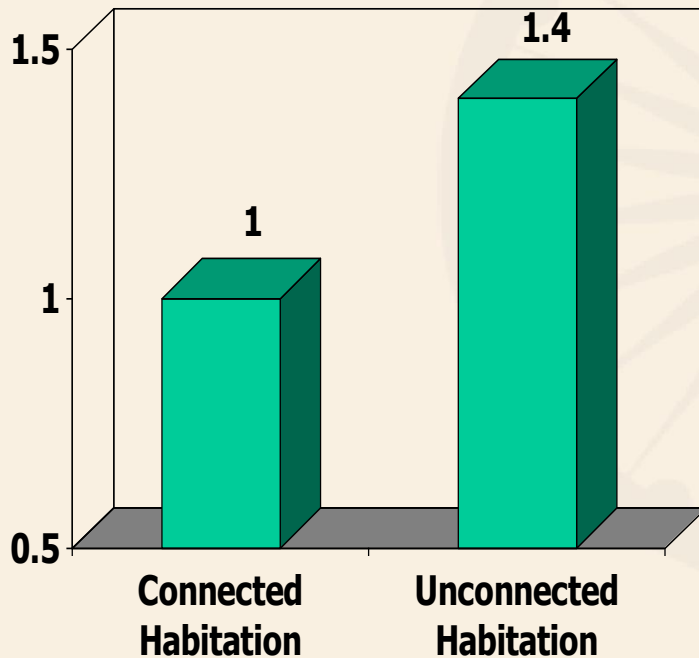


Findings of Socio-Economic Impact of PMGSY

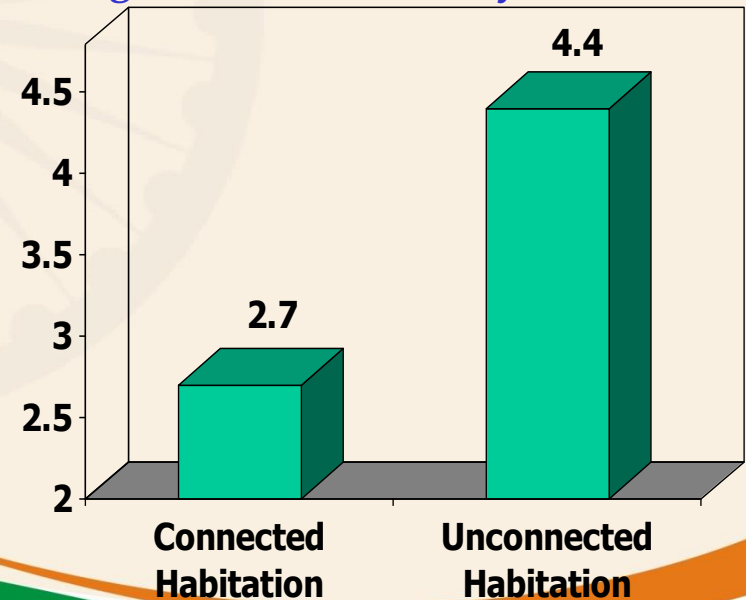
Salient Findings

1. Saving in Travel Expenditure

Average expenditure to travel a unit distance is lower in connected habitations



Graph1: Travel expenditure to travel a kilometer to agriculture market by minibus



Graph 2: Travel expenditure to travel a kilometer to school by 2-wheeler



Findings of Socio-Economic Impact of PMGSY

2. Farm and Non-Farm Employment

- **30% more likelihood of non-farm employment in connected habitations (case of Karnataka)**
 - *Source: Binary Logistic Regression Results, PMGSY Socio-Economic Impact Assessment Study- 2009*
- **13% less likelihood of farm employment and 16% more likelihood of non-farm employment in connected habitations (All 10 States)**
 - *Source: Binary Logistic Regression Results, PMGSY Socio-Economic Impact Assessment Study-*

Findings of Socio-Economic Impact of PMGSY



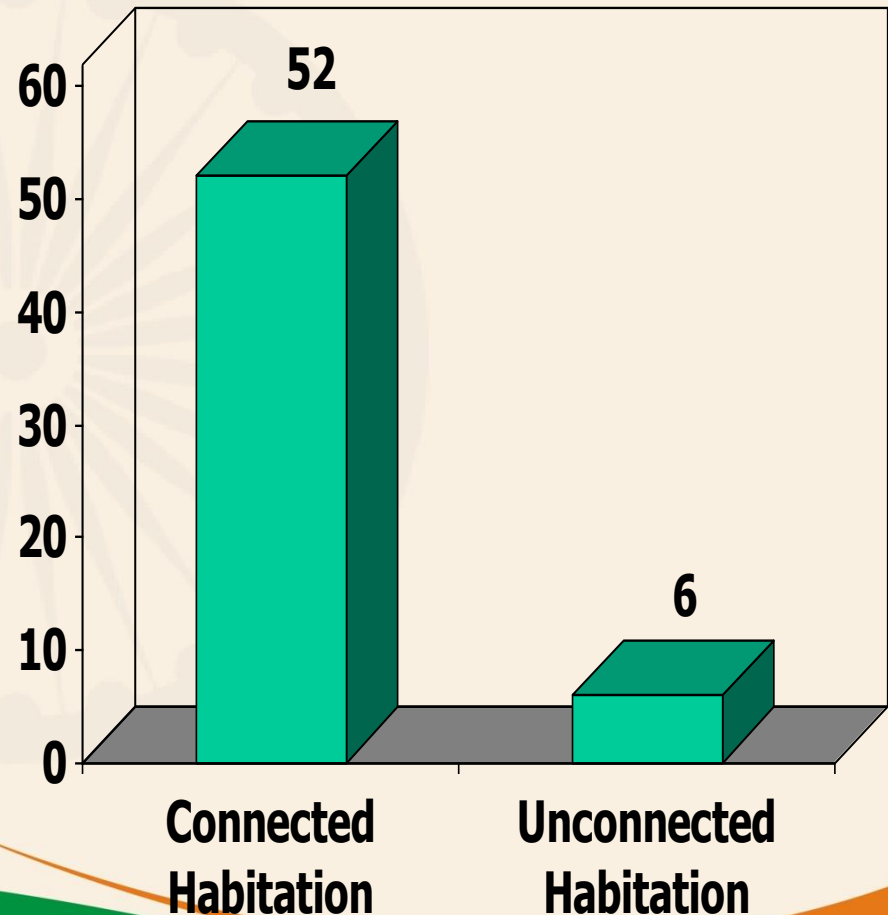
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3. Association between connectivity & occupation

Temporal Effect (2007-2009)

- Trade/business as an occupation increased by 52% in connected habitations where as the same increased by 6% in unconnected habitations (case of Assam)

- *Source: PMGSY Socio-Economic Impact Assessment Study- 2009 & 2007*

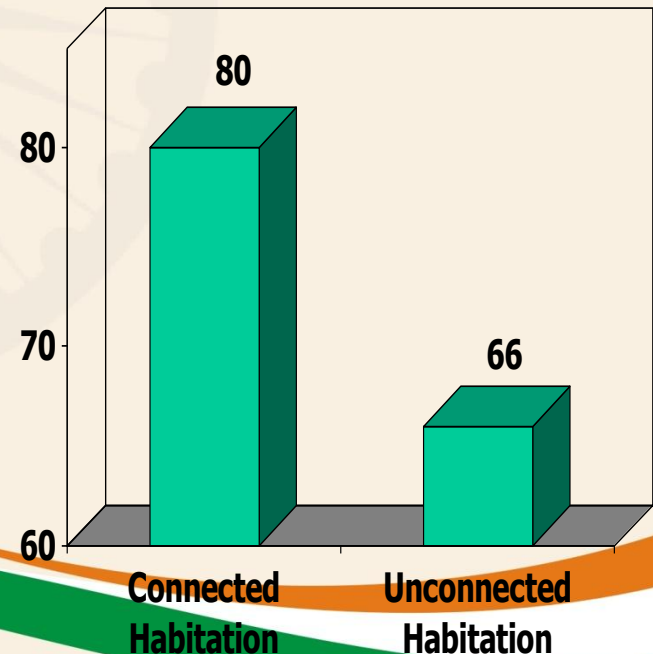




Observations on User Satisfaction

1. Agriculture

- Better yield from regular use of fertilizers / pesticides due to improved connectivity
- Increased income from the agriculture activity
 - Chhupari village, Shimla, HP
- Easy transport of Agriculture produce to Market centers by Tractor
- Increased gains from better road conditions due to low maintenance costs of carriage vehicles
 - Makkalgiri village, Belgaum, Karnataka
 - Jalameripali village, Ganjam, Orissa
- Construction labour as an occupation increased by 80% in connected habitations where as the same increased by 66% in unconnected habitations (case of UP)



- Source: PMGSY Socio-Economic Impact Assessment Study- 2009 & 2007



Observations on User Satisfaction

◎ Quality of Life

- Good connectivity enabled regular travel to home from work place
- Increased attention to family matters and children's education
 - Supana Village, Muzaffarpur, Bihar



- Direct employment in road construction
- Improved income and skill level

- Baghadanga Village, Burdhan, WB



Observations on User Satisfaction

◎ Employment Avenues

- Small farmer / agricultural labourer shift to non-farm employment
- Earning higher income compared to that of farming activities earlier
 - Alampur village, Burdhan, WB
 - Makkalgeri village, Belgaum, Karnataka



- Construction labourer earns supplementary income from temporary shops

- Loni village, Dhar, MP



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Maharashtra

Increased Market Access for Farmers



Tamil Nadu

Gujarat



Bihar



Improved Transport Services

Assam





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Improved Access to Schools

Andhra Pradesh



Assam⁰⁶



Improved Access to Health Care



Creating Livelihoods

Gujarat

Roads Built in Forest Areas



Orissa

21 6 2006



MP



Nagaland



Mizoram

11 9 2006

A long, multi-span concrete bridge crosses a wide river. A red tractor is driving across the bridge, and a person stands on the right side. The background shows a dry, hilly landscape with some trees and a white building on a hill. The text 'Thank You' is overlaid in large yellow letters.

Thank You

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