

**Presentation
on
Infrastructure Development
in North-East States**

**Conference of Chief Ministers of North
Eastern Region**



**Planning Commission
New Delhi
20 January, 2014**

Growth in SDP (1992–2012)

(Rs. in Crores)

State	8 th Plan (1992- 97)	9 th Plan (1997-02)	10 th Plan (2002-07)	11 th Plan (2007-12)
Arunachal Pradesh	5.1	4.4	6.5	9.4
Assam	2.8	2.1	5.3	6.9
Manipur	4.6	6.4	5.7	6.5
Meghalaya	3.8	6.2	6.4	8.1
Mizoram	-	-	5.7	11.0
Nagaland	8.9	2.6	5.9	6.2
Sikkim	5.3	8.3	7.8	22.8
Tripura	6.6	7.4	6.4	8.7
Average NE	5.3	5.3	6.2	9.95
All India GDP	7.5	5.5	7.8	8.0

- GDP Growth accelerated in all NE States during 11th Plan (2007-12). Average growth 9.95% against 8% at National level
- Growth supported by good agriculture sector performance, incl. horticulture, floriculture, fisheries, rubber & oil palm

Plan Size & Central Assistance

(Rs. in Crores)

Sl. No	State	Plan Expenditure (as % of GSDP)		Total Central Assistance incl. NCA, ACA, SCA & SPA	
		2004-05	2012-13	10 th Plan	11 th Plan
1.	Arunachal Pradesh	27.35	33.01	3,791	9,608
2.	Assam	5.60	7.37	12,115	22,673
3.	Manipur	15.50	34.73	4,231	8,802
4.	Meghalaya	11.34	24.03	2,792	6,678
5.	Mizoram	32.62	21.07	2,994	6,112
6.	Nagaland	11.50	20.51	2,948	7,051
7.	Sikkim	34.02	25.41	1,909	4,288
8.	Tripura	10.23	15.10	3,984	8,161
Total NE				34,764	73,374

- Plan Expenditure has grown in all States as share of GSDP
- Sharp increase in Plan Central Assistance

Infrastructure Development

- Central Ministries have focussed on development of infrastructure, incl. Railways, Roads, Airports, Telecom & Power
- Plan resources have helped development of infrastructure for Governance. Major developments include:
 - Construction of new Assembly and High Court buildings in Manipur and Tripura. Civil Secretariat in these and Arunachal under construction
 - Under PM's package, construction of districts and block headquarter buildings in Manipur and Arunachal. Roads, water supply and micro-hydel projects also taken up in Arunachal
 - Construction undertaken in Nagaland, Tripura and other States for strengthening district and block level offices
- Major irrigation projects pending since 5th & 6th Plans completed or near completion
 - Khuga major irrigation project in Manipur completed. Channel development work remains (TDC March 2014). Work underway on Dolaithabi (TDC March 2015) and Thoubal (March 2016)
 - In Tripura, work on Gomti, Khowai and Manu irrigation projects completed except for some marginal works

Railways : On-going Projects in NE (2013-14)

	New Line	Gauge Conversion	Doubling	Total
Projects in progress (Nos.)	14	4	2	20
Of which, National Projects (Nos.)	8	2	-	10
Throw forward (Rs. Crore) as on 1.4.2013	21,689	2,071	2,044	25,806
Of which, National Projects (Rs. Crore)	16,354	1,586	-	17,940

- Annual resources for the 10 National Projects in 2013-14: Rs.1,893 crore, Additional Rs.600 crore provided after PM's Review (in July) for identified projects to ensure early completion
- Further resources required of Rs.1,000 crore (2013-14) & Rs.4,500 crore p.a. during 12th Plan. Projects may be delayed by 3-5 years in absence of adequate funds

Progress of Railway Projects - I

- Additional financial resources (Rs.314 crore in 2013-14) have helped early completion of the following:
 - Rangiya-Rangapara – North Dekargaon (Tezpur) (186 km) completed & operationalized on 4th January 2014
 - Rangapara (N)–North Lakhimpur (172 km) – Target Completion: Mar. 2014. Test runs being undertaken
 - North Lakhimpur-Murkongselek (154 km) – TDC: Dec. 2014. Requires additional Rs.250 crore in the current year
- Lumding-Silchar (421 km) and branch lines - Gauge Conversion expected Mar. 2015 for Main Line/June 16 for branch lines. Addl. Rs.100 crore provided in current year to step up pace of work
- Bogibeel Rail-cum-Road Bridge (across Brahmaputra) with 73 km link lines to be completed by Dec. 2016. Addl. Rs.100 crore provided
- New Broadgauge line of Dudhnoi-Mendipathar (19.75 km): first connectivity to Meghalaya (10 km) – TDC: March. 2014. Addl. Rs.60 crore provided
- New Broadgauge line of Harmuti-Naharlagun (21.75 km): first connectivity to Arunachal Pradesh. TDC: March. 2014. Addl. Rs.26 crore provided

Progress of National Railway Projects - 2

Name of Project	Cost (Rs. Crore)	Progress (%)	TDC
Rangiya-Murkongselek with linked fingers (520 km) (Assam)	3,000	84%	Dec. 14
Lumding-Silchar, incl. Branch (GC) lines & MMs (421 km) (Assam, Manipur, Mizoram, Tripura)	5,000	81%	Mar. 15/ June. 16
Tetelia-Byrnihat (21.50 km) (Meghalaya)	385	13%	Mar.15
Jiribam- Tupul -Imphal (111km) (Manipur)	5,996	30%	Mar. 16/ Mar.18
Kumarghat – Agartala (109 km) (Tripura)	1,151	82%	June. 16
Agartala - Sabroom (112 km) (Tripura)	1,741	30%	June.16
Bogibeel Bridge with linking lines (73 km) (Assam)	5,000	61%	Dec.16
Bhairabi-Sairang (51.38 km) (Mizoram)	2,393	4%	Not fixed
Sivok-Rangpo (44.39 km) (Sikkim)	3,380	2%	Not fixed
Dimapur-Zubza (Kohima) (88 km) (Nagaland)	2,441	1%	Not fixed
Byrnihat-Shillong (108.40 km) (Meghalaya)	4,083	1%	Not fixed

Railway Projects: Major Thrust in the 12th Plan

- 7 National Projects will be completed during the 12th 5 Year Plan
- This will Enable Up-gradation of Rail Network in Major parts of North East
 - North Bank of Brahmaputra Upgraded to BG
 - Main Arterial Route in form of Luming – Silchar upgraded to BG which will provide Trunk Route for Capital Connectivity
- To Achieve the Above, apart from Funds, Land and Other Issues Require Resolution with help of State Governments
 - Progress in Tetelia – Byrnihat and Byrnihat–Shillong affected due to non-availability of land and Khasi students’ agitation (Meghalaya)
 - Land Issue between Revenue and Forest in Jiribam – Imphal Project (Manipur)
 - Land acquisition in Sivok – Rangpo (Assam & Sikkim)
 - Land acquisition in Agartala – Sabroom (Tripura)

Roads

➤ **East West Corridor (NHAI)**

Completed length is 500 km (81%)

Likely completion date : Dec. 2014

Critical issues:

- **Land availability. Likely to be resolved by State Govt.**
 - Guwahati–Nalbari (14 km) (Assam)
 - Maibong–Harangajao (16 km) (Assam)
- **Clearance for extraction of Mines & Minerals (State Govts.)**

➤ **SARDP-NE (MoRTH, State PWDs, BRO)**

- Phase ‘A’ – 4,099 km (Project cost Rs.21,000 crore)
- Phase ‘B’ – 3,723 km (Only DPR approved)

➤ **Arunachal Package (MoRTH, Arunachal PWD and BRO)**

- 2,319 km (Rs.11,919 crore)

Progress of Phase 'A' and Arunachal Package

(In Kms)

Item	Total Length Target	Work Sanctioned/ Awarded	Roads Completed	Targeted/Expected Date for Completion
Phase 'A'	4,099	2,505	1,214	June, 2015/March2017
Arunachal Package	2,319	1,341 (58%)	113 (5%)	June, 2016/March2018
Total	6,418	3,846 (60%)	1,327 (21%)	

- Work Sanctioned and Awarded Likely to be 5800 Km (84%) by March 2014.
- Steps taken to strengthen project execution:
 - ADG (1), CE (3) at Guwahati, Agartala & Itanagar posted.
 - Tripura PWD Engineers (7) seconded to Ministry for NH-44 work at Agartala
 - PIU (2) at Guwahati, PIU (2) at Itanagar and PIU (1) at Agartala
 - PIU (1) at Imphal to look after work of NH-53 & construction of 2 bridges – Barak and Makru
 - Non-strategic roads off-loaded from BRO

Agency-wise Re-Distribution of Road Lengths under SARDP-NE & Arunachal Package

Agency	Original			Modified		
	Phase 'A'	Ar. Package	Total	Phase 'A'	Ar. Package	Total
BRO	1247	812	2059	578	558	1136
<u>PWD</u> Ar. Pradesh	52	633	685	52	887	939
Assam	745	98	843	984	98	1082
Manipur	-	-	-	58	-	58
Meghalaya	609	-	609	609	-	609
Mizoram	299	-	299	299	-	299
Nagaland	342	-	342	342	-	342
Sikkim	207	-	207	304	-	304
Tripura	0	-	-	130	-	130
NHAI	394	-	394	539	-	539
MoRTH	204	776	980	204	776	980
Total	4099	2319	6418	4099	2319	6418

Road Sector Issues

- **Need for special focus on:**

- Work on connecting Sikkim (NH-31A, Sivok-Gangtok-Nathula by BRO) has progressed at a slow pace. New TDC March 2016
- Work on NH-44 has been stalled for quite some time. Need for fast pace after the re-distribution & being taken up by State PWD
- Work on NH-53 (Jiribam-Imphal) critical. Needs early completion
- Silchar Bridge being replaced with support from M/o DONER. Need for early completion of project
- Dhola Sadiya Bridge (river Brahmaputra) targeted for completion in 2015. Work going on well
- Road to Vijaynagar from Miao needs early sanction
- Construction of Bridge over Feni river (Tripura) connecting Bangladesh taken up with MEA support. Work should start early
- Replacement of all semi-permanent timber bridges in the region. Special focus and be funded by State Govts., along with Central assistance under SPA over next 3 years. A special scheme needs to be launched to complete this

Power – Current Status

	Present	Under Development	Untapped Potential
Hydro (MW)	1,911	5,132	55,561
Thermal (MW)	1,499	1,678	-
Renewable (MW)	670	-	-
Total (MW)	4,080	6,810	55,561

- Need for expeditious Environmental Clearances of hydro projects. Delays primarily due to land acquisition, Basin studies and poor road communication
- Arunachal Pradesh needs Rs.13,000 crore for its share of equity in 30,000 MW Hydropower projects. Needs early resolution
- Power projects development will lead to surplus power in the region, which will need to be evacuated. Problems compounded by limited access from 27 km. wide Siliguri corridor & phasing of hydro projects over a length of time
- Power Evacuation Plan prepared by PGCIL, along with intra-State investments in Transmission Lines. Funding arranged from World Bank & NLCPR / MoP

Status of Development of Hydro Potential

State	Identified Capacity as per Reassessment Study	Capacity Developed		Capacity under Development		Capacity Yet to be Developed	
	Total (MW)	(MW)	% of Total	(MW)	% of Total	(MW)	% of Total
Aru. Pradesh	50,328	405	0.8	2,710	5.4	47,213	93.8
Assam	680	375	55.1	0	0.0	305	44.9
Manipur	1,784	105	5.9	0	0.0	1,679	94.1
Meghalaya	2,394	282	11.8	40	1.7	2,072	86.5
Mizoram	2,196	0	0.0	60	2.7	2,136	97.3
Nagaland	1,574	75	4.8	0	0.0	1,499	95.2
Sikkim	4,286	669	15.6	2,322	54.2	1,295	30.2
Tripura	15	0	0.0	0	0.0	15	100.0
Total (NER)	63,257	1,911	3.0	5,132	8.1	56,214	88.9

- 89% Hydropower capacity yet to be developed

Issues in Power Projects

- **Hydro Projects**

- Effective resolution of issues on Environment & Forest Clearances. MoE&F has issued fresh guidelines (28 May 2013)
- CCI mechanism to clear stalled projects. Dibang HEP (3,000 MW) - Forest Clearance approved by CCI (9 Dec. 2013)
- Lower Subansiri Project (2000 MW) stalled. Follow up on Thatte Committee Report being undertaken by MoP & Govt. of Assam. Experts Group has met twice (Dec. 2013). Next meeting scheduled in February 2014

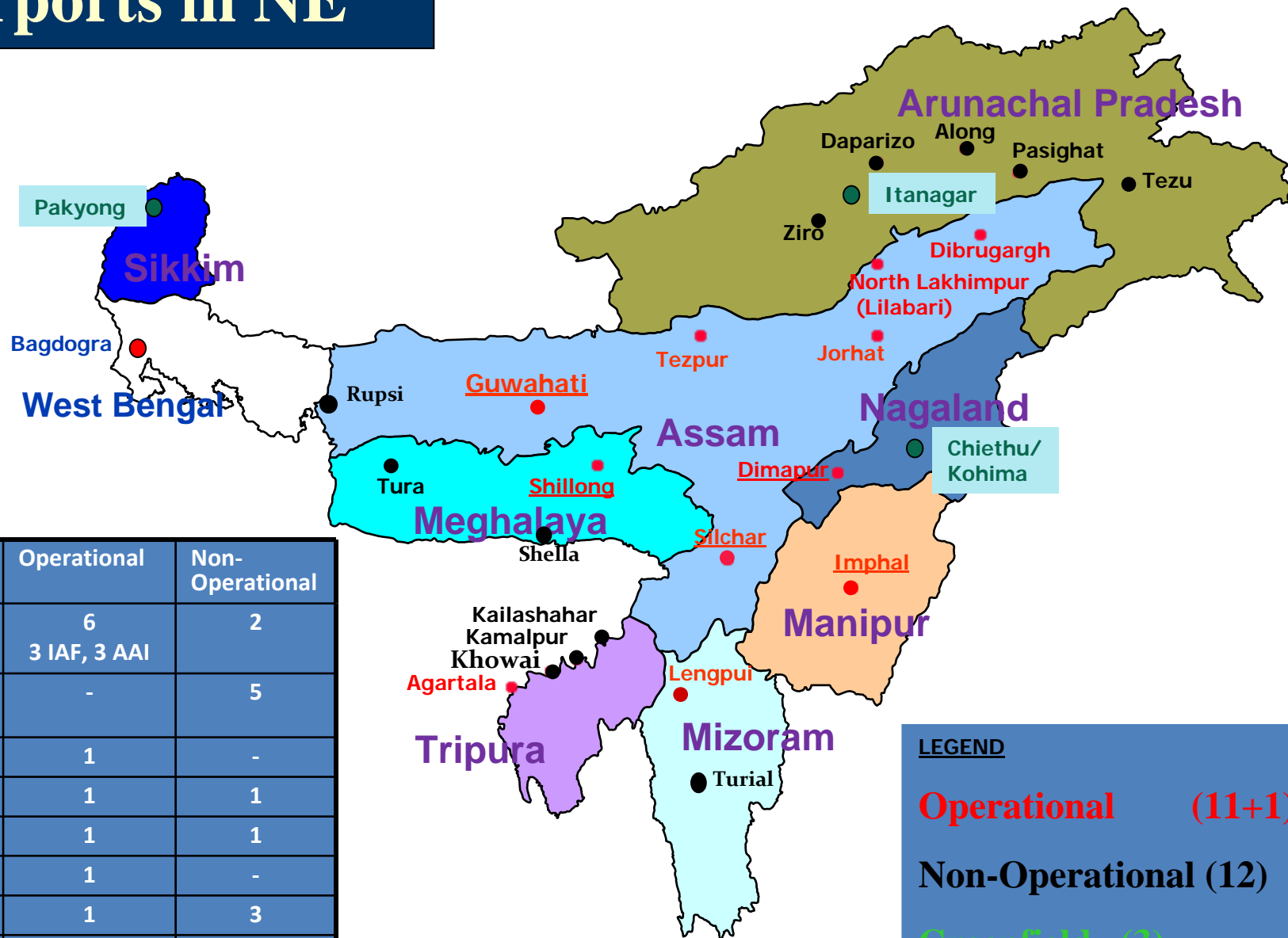
- **Gas Projects**

- 726 MW Palatana gas-based project (Tripura) – First Unit commissioned (Dec. 2013) & Second Unit likely by Jan. 2014
- Transmission Network for evacuating this power facing problems because of delay in land acquisition by MeSEB. Issue needs to be resolved early

- Intra-State Transmission Line network for Arunachal & Sikkim taken up under NLCPR (Central). EFC Note circulated on 27 Dec. 2013

- Project for evacuation of power prepared by PGCIL for Inter-State Transmission Line Network from States of NE (except Arunachal & Sikkim). World Bank funding 50% and balance by MoP

Airports in NE



LEGEND

Operational (11+1)

Non-Operational (12)

Greenfield (3)

* Bagdogra Airport, although in Eastern Region, is included as it is the gateway to North-East including Sikkim State

State	Operational	Non-Operational
Assam	6 3 IAF, 3 AAI	2
Arunachal Pradesh	-	5
Manipur	1	-
Meghalaya	1	1
Mizoram	1	1
Nagaland	1	-
Tripura	1	3
Sikkim	-	-
West Bengal	1*	-
Total	11+1	12

Airports Development (2012-17) - I

- Development of Airports at
 - Pakyong – New TDC: Dec. 2014. Need resolution of land acquisition for AAI Colony, shifting of 16 local residences and approach road from Pakyong to Gangtok
 - Itanagar – State Govt. to provide land acquisition (1,037 acres), Rehabilitation, Compound Wall, Approach Road, Electricity/Water supply. PIL challenging site before Guwahati High Court
 - Cheithu – Alternative site needs to be selected by State Government
- Modernize selected Airports by AAI
 - Guwahati– Construction of 3 hangars for A-321. TDC – Sep. 2014
 - Dibrugarh – Runway extension (32 acres land acquisition)
 - Jorhat - Apron extension completed (30 Nov. 2013). New Terminal Building planned
 - Shillong – Upgradation at Barapani taken up. 32 acres defence land required. Work stopped (August 2012) due to local agitation
 - Imphal : Notified international airport (14 Nov. 2013) with connectivity to South/East Asian countries. Extension of Apron & Boundary Wall Work going on
 - Agartala – New Terminal building in planning stage

Airports Development - II

- Airports in **Arunachal Pradesh & Meghalaya** (Non-operational)
 - Operationalize Along, Daparizo, Passighat, Tezu, Ziro (**Arunachal Pradesh**)
 - Daparijo (**Arunachal Pradesh** to sort out Land Acquisition Issues)
 - Greenfield Airport in Tawang (**Arunachal Pradesh**) – to be finalized after NOC from MoD
 - Tura (**Meghalaya**) land acquisition issues.
- Average no. of departures per week from NE Airports increased sharply.

<u>2001</u>	<u>2011</u>	<u>2012</u>
226	581	497
- Larger and more regular air connectivity to NER, specifically within the region necessary.
 - Guwahati being developed as a regional hub (Sept. 2014). Will help improve connectivity
 - Intra-regional network in NE is weak and needs to be developed. NEC has invited bids (with VGF support) with little success so far
 - Need to approve recommendations of Committee under Member (NE), PC on issues relating to air connectivity by Alliance Air. Shillong-Kolkata services resumed since 10 Jul. 2013, may be discontinued again by Alliance Air

Inland Water Transport in the NE Region

- 891 Km National Waterway-2 on River Brahmaputra along with Indo-Bangladesh Protocol Route provides safe, cheap and eco-friendly route for carriage of commodities
 - Navigability of 2.0-2.5 meter depth along with navigation aids and ten floating terminals maintained by IWAI
 - 16 Floating terminals for passengers funded by MoS will be commissioned by March 2014. 4 already operational
- Inland Water Port at Pandu developed with high level and low level jetties, two warehouses, Railway siding and open storage: Land for Connecting Road needs resolution with NFR/Govt. of Assam
- IWAI is developing:
 - Ro-Ro facility at Dhubri and Hatsingimari (opposite bank of Brahmaputra) to reduce travel time of vehicles between Meghalaya and Dhubri in Assam which now have to go over Jogighopa bridge covering a distance of 220 km
 - Vessel repair facility at Pandu (Guwahati). Assam Govt. to expedite transfer of land

Status of Existing Telecom Network

Tele-density	Assam		NE (Except Assam)		All India	
	Sep-10	Oct-13	Sep-10	Oct-13	Sep-10	Oct-13
Rural	21.26	32.72	28.55	41.93	28.42	42.04
Urban	111.05	127.65	115.57	156.12	137.25	143.96
Overall	34.61	47.48	49.42	70.07	60.99	73.32

- Poor viability of service provision due to low population density and difficult terrain constrains further expansion
- OFC connectivity from SHQs to DHQs and SDHQs is unreliable – frequent cutting of OFC affecting quality of service
- Comprehensive telecom development plan proposed to address issues of expansion of coverage and reliability of service

Telecom – Mobile Coverage (NE-I, II & Assam)

State	DHQs		SDHQs		Villages		
	Total	Uncovered	Total	Uncovered	Total Inhabited (Census2011)	Uncovered	% uncovered Villages
Arunachal Pradesh	16	0	188	70	5,260	2,886	54.87
Assam	27	0	153	0	25,496	2,885	11.32
Manipur	9	0	38	1	2,547	610	23.95
Meghalaya	11	0	39	0	6,471	2,389	36.92
Mizoram	8	0	26	0	704	258	36.65
Nagaland	11	0	114	4	1,407	137	9.74
Sikkim	4	0	9	0	426	23	5.40
Tripura	8	0	40	0	889	2	0.22
TOTAL	94	0	607	75	43,200	9,190	21.27

- All DHQs covered; except Arunachal Pradesh – SDHQs almost fully covered in all other States
- Inhabited villages without mobile connectivity declined to 9,190 (21.27%) in Oct. 2013). It was 27% in 2012
- Need to provide mobile connectivity to still uncovered villages

Enhancing Telecom Services within North-East

- TRAI recommended Comprehensive Telecom Development Plan for NE which was approved by Telecom Commission. To be implemented in the 12th Plan with investment of Rs.2,320.70 crores. It includes
 - Mobile coverage of all uncovered SDHQs and uncovered villages. Work being undertaken by NE Space Application Centre in association with DoT, supported by new innovative technology
 - Mobile coverage to all uncovered portions along National Highways
 - Augmenting bandwidth capacity to meet future requirements up to district headquarters
 - Covering all DHQs with OFC ring or satellite media where OFC ring is infeasible
- Complete expeditiously OFC connectivity from District to Block (USOF) (TDC Dec. 2014) and from Block to Panchayat/Village Council (NOFN) (TDC Sept. 2015)
- Covering remote, border areas through microwave network and satellite media – Transponder Lease charges (Rs.5 crore) and Satellite bandwidth charges may be paid by DONER annually for 12th Plan

Enhancing Connectivity of North-East With Rest of India

- Sharing of OFC infrastructure created by PGCIL to improve connectivity with broad contours of sharing arrangement having been worked out for 4x10 Gbps bandwidth at 21 locations
- To improve connectivity in NER, alternate telecom routing through Akhaura (Bangladesh) to Agartala explored. Proposal being finalized in consultation with MEA
- Utility ducts along Highways for protecting OFC network being developed. First pilot project agreed between MoRT&H and DoT
- States to provide free Right of Way for OFC infrastructure and use of electricity network for carrying OFC cable
- Sharing of OFC infrastructure cost carried on electricity transmission network between State Power Utilites and telecom service providers for mutual benefit

NE Infrastructure: Way Forward

- Expansion of infrastructure needs strong follow-up measures
 - **Financial support for Railway Projects:** Rs. 4,500 cr per annum during 12th Plan. During 2013-14, Rs. 600 cr. For Jiribam-Tupul and Rs.250 cr. for Rangiya-Murkongselek projects
 - **Monitoring:** Close monitoring of reorganization of Road projects as planned. Capacity building in States crucial for its success
 - **AAI Investments:** Investments in Airport modernization by AAI in NE need to be increased. Converting Guwahati into Regional Hub will help expansion of air network in NER. Need for promoting low-cost intra-NE airline
 - **Speedy Clearance for Hydro power and Transmission Evacuation:** Environmental Clearances for Hydropower projects, with support from CCI on stalled projects, will ensure effective execution. Large untapped potential critical for growth in the region. Implementing power evacuation & transmission plan crucial. These will need close monitoring
 - **OFC:** Expeditious completion of laying Optical Fibre Cable Network (USOF & NOFN) and early implementation of TRAI recommendations
 - **Alternate Telecom Connectivity:** Alternate connectivity through Bangladesh, financial support to microwave networks & satellite transponders required. Effective coordination between State Electricity Departments & Telecom will help optimum utilization of resources
- A Monitoring Committee has been set up to monitor progress on above issues and present before PM every 3 months. States may also be represented in the Committee to ensure expeditious land acquisition & forest clearances
- A GOM for Hydropower projects be set up to ensure resolution of all problems relating to the sector in view of criticality of hydropower of the region. Refer Unresolved Issues to CCI

THANK YOU

