

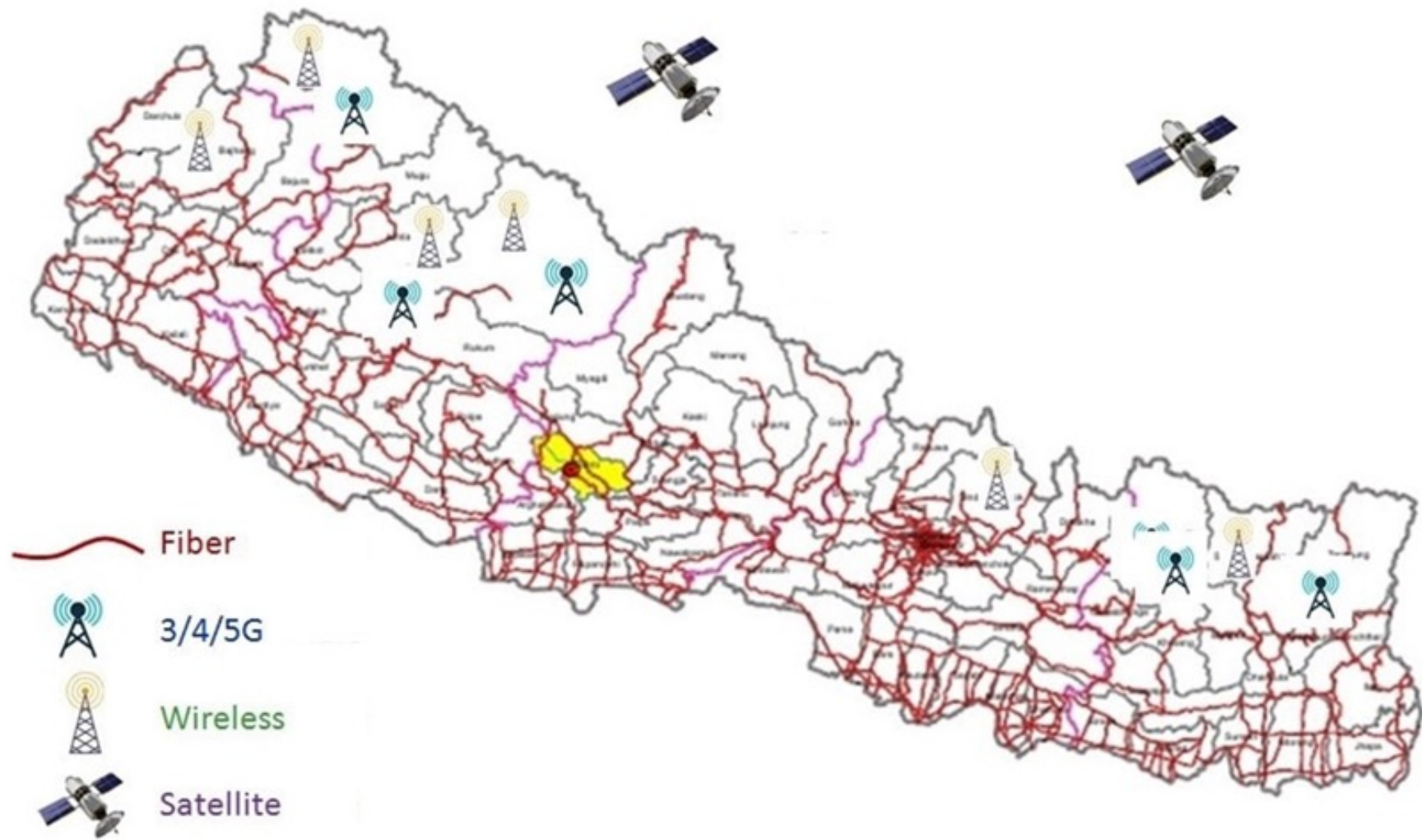
Fiber Infrastructure Deployment and challenges in Nepal

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Topics

- ❖ NT Backbone/Edge/Access infrastructure
- ❖ Fiber Network Deployment Status (RTDF)
- ❖ Fiber Network Deployment and Operational Challenges
- ❖ Conclusions

Telecom Network Connectivity



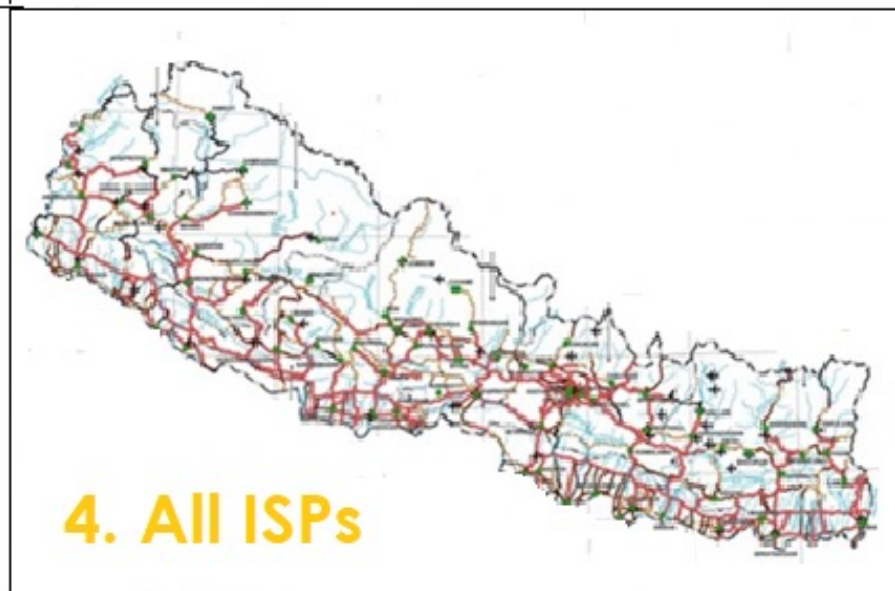
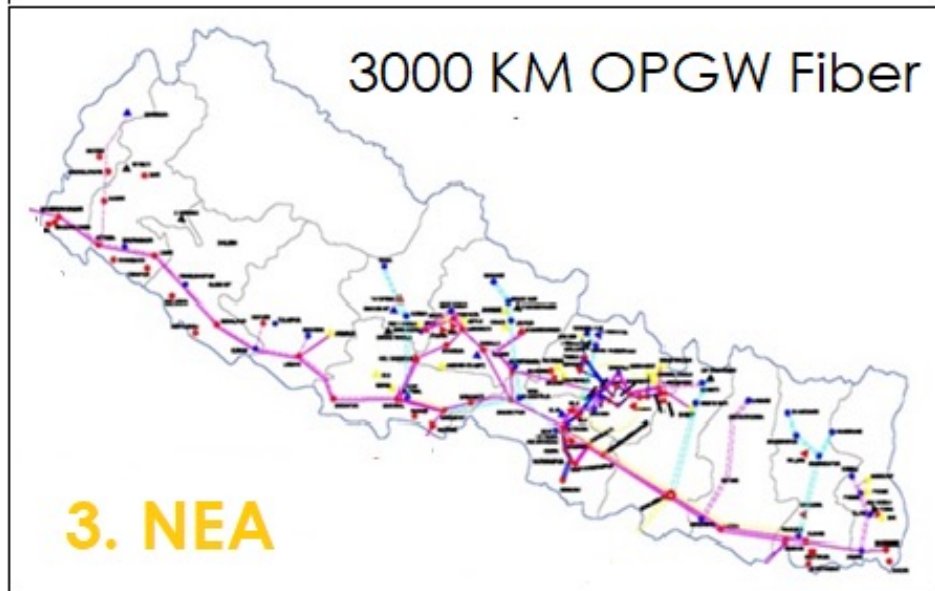
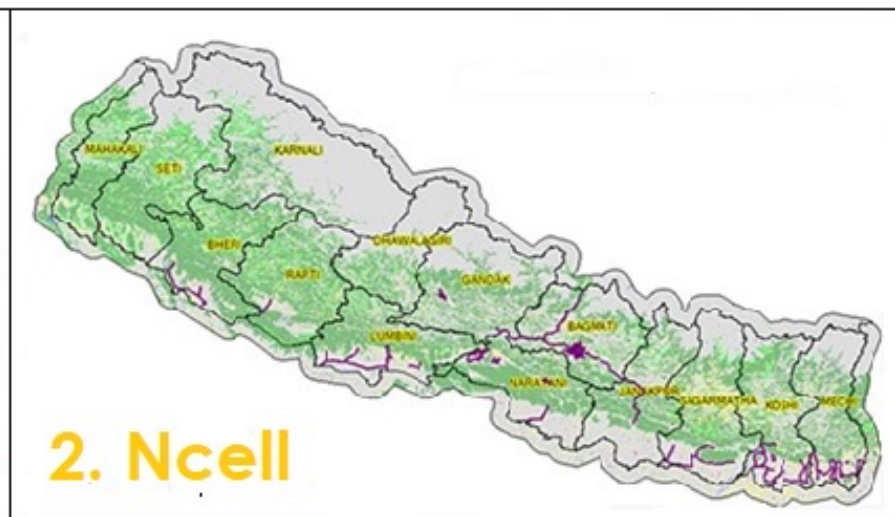
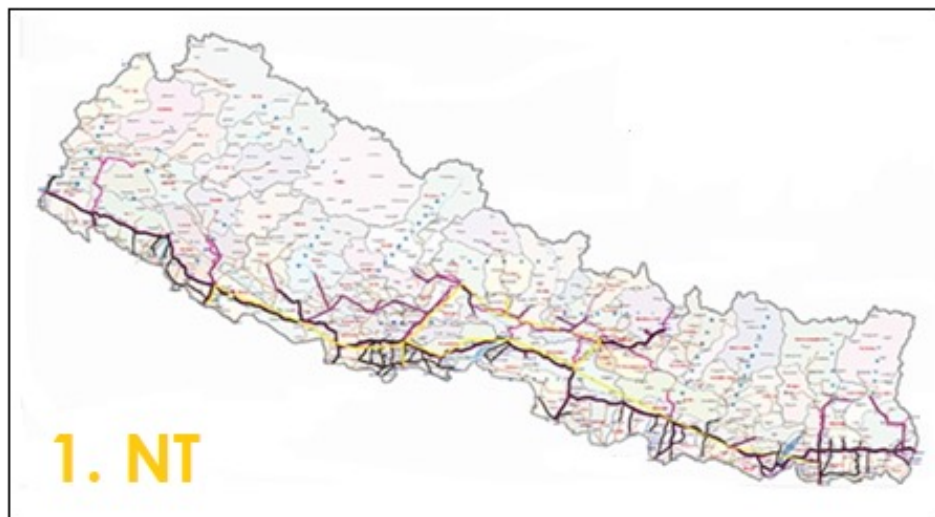


- **Backbone/Core (UG/OPGW/ADSS)**
 - Under ground (UG)-3270 Km
 - 7th Telecom Development Project-2326 Km
 - OPGW -4616 Km Single core
 - ADSS- 860 Km
- **Aggregation/Edge (UG/ADSS/Aerial)**
 - UG-944 Km
 - ADSS-2185 km
- **Access (UG/Aerial/MW)**
 - UG-2000Km and Aerial-10000Km

RTDF OFC Status

- RTDF Funded Infrastructure Projects
 - Mid-Hill Information Super Highway (UG/ADSS)
- 7 provinces divided into 3 segments
 - Province-1,2,3 -2376 Km
 - Province-4,5-2147 Km
 - Province-6,7- 2512 Km-
- 72 district head quarters connected
 - Broadband Access Network- Approx-16 K
 - Community School, VDC offices, Municipalities, Health post

OFC Connectivity



OFC Deployment/Operational Challenges

Planning and network design, construction and operation

- Technical Challenge

- 75% of terrain- hilly area
- unprovisioned of common utility corridors under Road
- No Policy and guidelines for use of RoW
- Frequent Fiber cut (Excavation, Pole erection, Natural Disaster, sharing of RoW)

- Regulatory Challenge

- Policy framework and Guidelines for deployment and management of OFC
- National Broadband Network infrastructure sharing company

OFC Deployment/Operational Challenges

- Administrative challenges
 - NEA- OPGW under monopoly with unregulated tariff
 - Permission for use of RoW
 - Permission from National Park and wildlife conservation

Recommendation

We Need:

- Resilient, redundant and widespread network with reliable power throughout the nation

NEA:

- To be integrated at the policy and regulation level

NTA:

- Infrastructure Sharing company
- OFC Medium Tariff regulations
- Make new guidelines and laws on infrastructure, backbone and last mile
- Provision of utility duct for communication under Road Project
- Policy and guideline for use of RoW

Thank You!