

USAID-Funded Nepal Hydropower Development Project (NHDP)

Key Challenges for Electricity Related Infrastructures in Nepal

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NHDP

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Electricity Development in Nepal : Snapshot of Past Present and Future

Are we prepared to achieve the national targets by 2028?



White paper by MoEWRI (1.1 GW)

- Hydroelectricity: 1016 MW
- diesel/multi fuel: 54 MW
- solar power: 2.68 MW
- Under construction; 4642 MW
- Renewable energy: 55 MW



5 GW in 5 years and 15 GW in 10 years



500 kW Pharping hydropower, 1911



144 MW Kaligandaki 2002



60 + 32 MW Kulekhani, 1981



1200 MW Budhigandaki (planned)

Some of the Major Issues in Electricity Related Infrastructures – for today's discussion

- Land related issues (e.g. land acquisition and land ceiling approval)
- Issues of Right of Way in transmission lines
- Issues of forest clearance (including some administrative issues)
- Local issues (e.g. requests for alignment change in transmission lines, local demands for benefit sharing)



Land Issues

Current Land Acquisition Issues

- Conflict and disagreements with the locals over the distribution of compensation for land
- Difficulty in acquiring land due to land ceiling and lengthy bureaucratic process contributing to disputes on valuation
- Land acquisition process not preferred by the private developers



Issue of Land valuation:

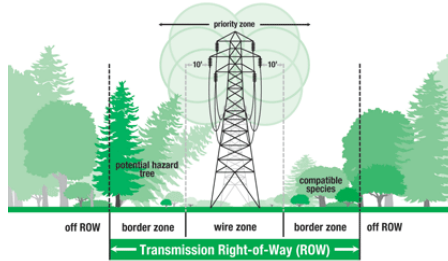
- Difference in book value and the market value
- Increasing land price with subsequent land purchases by private developers
- In large projects in multiple districts, e.g. storage or transmission projects, there is potential difference between land valuation in different districts.
- Differences in compensation and social safeguards between projects facilitated by IBN and other projects



Issue of Right of Way

Current Status

- Width and height for RoW is based on general practice
 - ✓ 9-9m for 132 KV; 15-15m for 220 KV; 23-23m for 400 KV lines
- Land not acquired
- Compensation given for restriction on land use, i.e. Generally 10% of the land valuation by the CDC, but is more in some cases depending upon location



Major Issue:

- Land under RoW is not bankable. People do not get any economic returns other than some agricultural use



Local Issues



- Local demands and benefit sharing
 - ✓ Hindrance in environmental approvals
 - ✓ Letters for local taxes
 - ✓ Demands of benefit sharing
- Disagreements over alignment of transmission lines
 - ✓ Conflicting interests of local governments and NEA
 - ✓ Issues of indigenous communities
 - ✓ Claims of electromagnetic radiation



Issues Forest Clearance

Challenge:

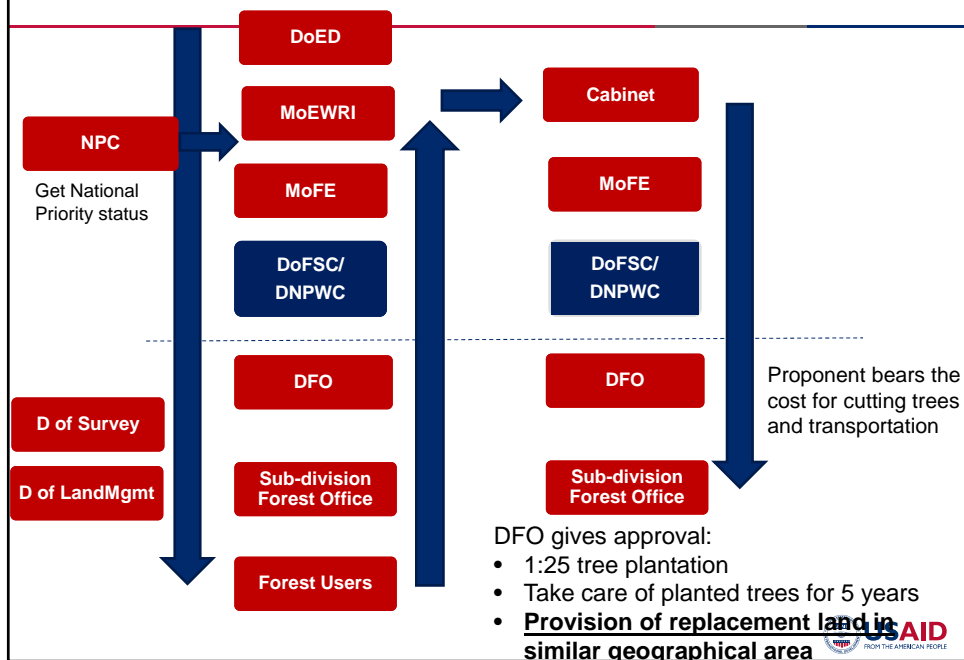
- Maintaining 40% forest cover (Forest Policy 2071) vs. use of forest land for infrastructure projects
- Forest land is allowed only for national priority projects -Use of Forest land for National priority projects – 2074
 - ✓ (all hydropower projects and transmission lines are national priority projects !)
- Use of forest land allowed only if it cannot be avoided and if the infrastructure does not have significant environmental impact.

Major Issues:

- Long bureaucratic process to get approval
- Difficulty for proponents to buy replacement land in similar geographic location for forestation
- What happens to rights of community forest users?

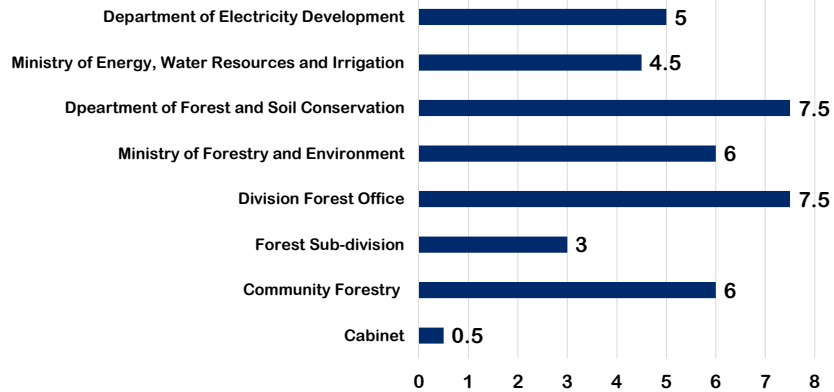


Forest Clearance Process for use of public forest

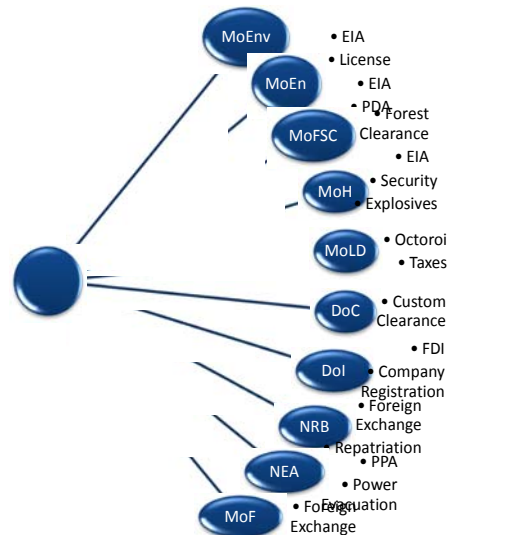


Time for Forest Clearance Approval

Time for forest clearance approval
(40 months approx.)



Hydropower Development Cycle



6-7 Ministries
23 Departments
36 Laws

Forest Clearance is just one of the many processes that the developers have to go through



Source: IPPAN



Starting questions for discussion

- **How do developers perceive the current problems in development of generation and transmission infrastructures?**
- **What is the government of Nepal doing to address the current issues in energy infrastructures?**
- **What are some potential solutions to addressing the problems in energy infrastructure?**



THANK YOU!

**USAID's Nepal Hydropower Development Project
Baluwatar, Kathmandu, Nepal**