

Alternative Energy Promotion Centre

Making Renewable Energy Mainstream Supply to Rural Nepal



Government Policies on Micro/ Mini Hydro Power Development in Nepal

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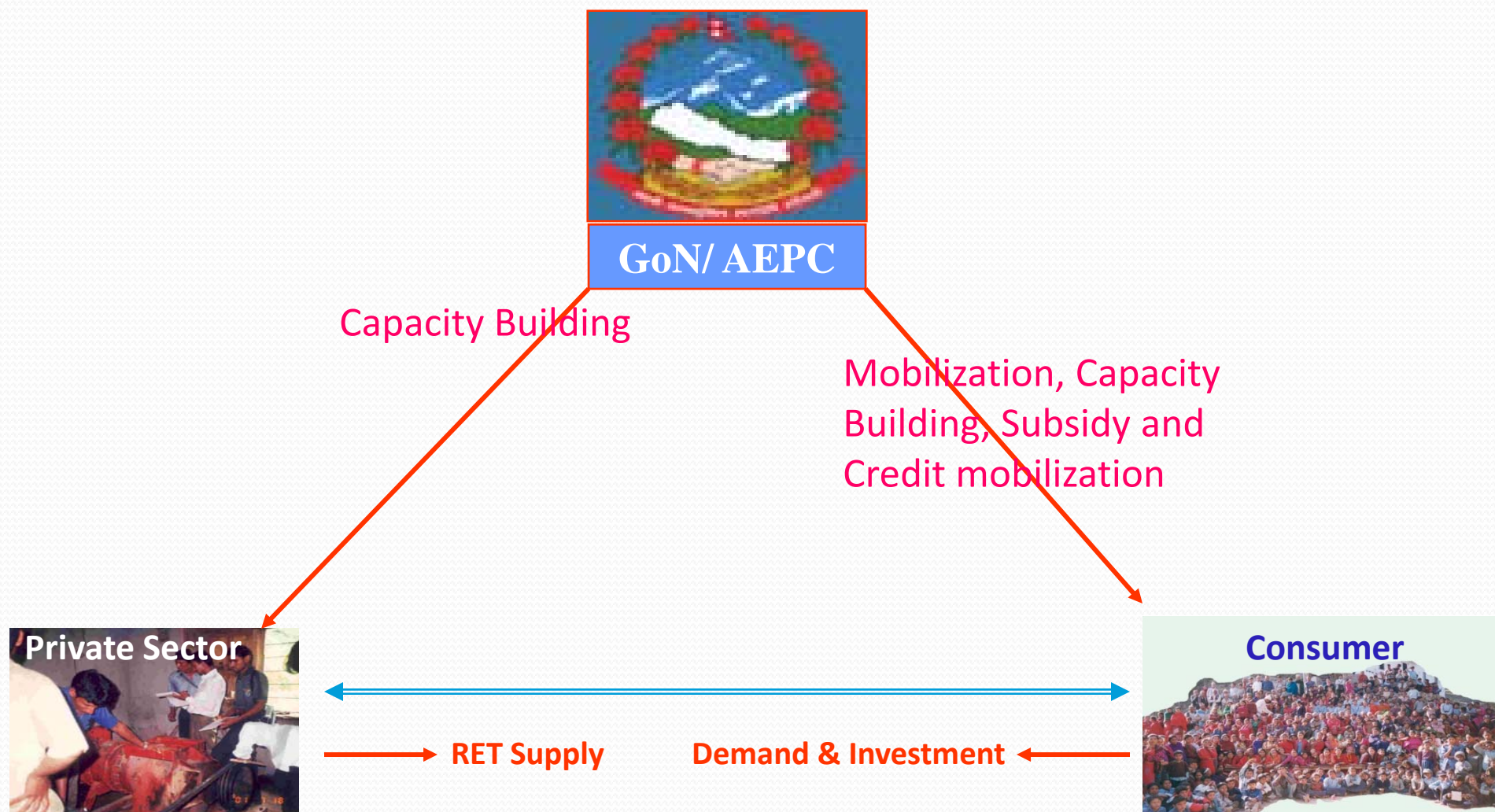


Introduction of AEPC

- **AEPC** - established in November 3, 1996
- **National Executing Agency** – Renewable energy programmes and projects.
- **Government Institution under Ministry of Environment** - semi autonomous status.
- **Mandate:** policy and plan formulation, resource mobilisation, technical support, M & E, quality assurance and coordination.



AEPC's Implementation Modality



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Major AEPC's MH Programs



- Energy Sector Assistance Program
- Support from Denmark and Norway Governments



REDP

Rural Energy Development Programme

- Rural Energy Development Program
- Supports from UNDP and The World Bank



Hydro Power Categorization in Nepal

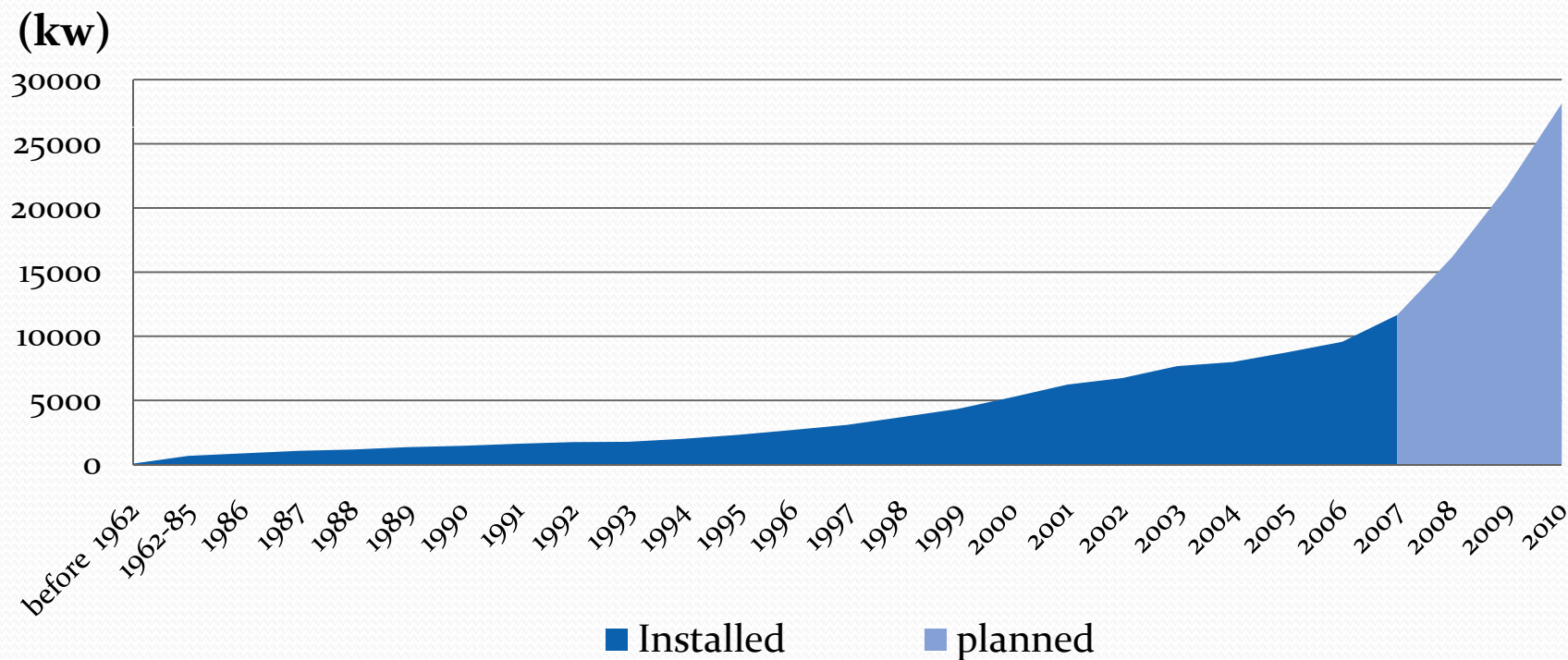


Category	Capacity
Pico Hydro	< 5 kW
Micro Hydro	5kW to 100 kW
Mini Hydro	>100kW to 1 MW
Small Hydro	>1 MW to 10 MW
Large Hydro	>10 MW

Most of Mini/Micro hydro run on Isolated Mode



Micro Hydropower Development- Trend





Micro Hydro in Government's Periodic Plans

- **5th five year Plan (1975-80)**-Beginning of Governments commitment on development of micro Hydro Plants
- **6th Plan (1980-85)**-Agriculture Development Bank (ADB) launched the Rural Electrification Project:
 - ❖ Waived licensing requirement for Micro Hydro
 - ❖ Deregulated Micro Hydro electricity price
 - ❖ Subsidy of 50-75% for add on electrification
 - ❖ Waived Income Tax for Micro Hydro projects



Micro Hydro in Periodic Plans...

- **7th Plan (1985-90)**-Micro/Mini Hydro defined as a tool for agriculture development and cottage and small scale industries
 - Importance of Alternative Energy Technologies was recognized
- **8th Plan (1992-97)**-Special priority to Energy Sector :
 - The development of the Energy Sector was given special priority
 - Objective was to reduce the growing gap between urban and rural areas.
 - **Hydropower Policy 1992 put in Place**
 - **Establishment of AEPC as Government Body**
 - **Rural Energy Development Program (REDP) initiated**



Micro Hydro in Periodic Plans...

- **9th Plan (1997-2002)**- Emphasized the need of micro/mini hydro for economic development and environment protection with policy formulation directives and targets.
 - Energy Sector Assistance Program with the support from Danish Govt launched



Micro Hydro in Periodic Plans....

- **10th Plan (2002-07)**-Set targets alternative energy including rural electrification
 - Provide electricity services to 12% of the rural people (existing 7%)
 - Install MH capacity equivalent to 10 MW in 47 districts



Micro Hydro in Periodic Plans...

- **Interim Plan for 3 years (2007-2010)**
 - Access to electricity to additional ~5 % population by alternative energy (mainly mini/micro and SHS)
 - Installation of mini/micro hydro power of 11.5 MW in 54 districts of Nepal
 - Set up Energy and Environment Unit in all districts to coordinate RET activities
 - Promotion of Micro/mini hydro CDM projects



Micro/Mini hydro related Legal Provisions

- **Water Resource Act 1992**
- **Hydropower Development Policy 2001**
- **Electricity Act 1992**
- **Rural Energy Policy 2006**
- **Renewable Energy Subsidy Arrangement 2000/2006/2008/2009**
- **Subsidy Delivery Mechanism 2000/2006/2008/2009**



Rural Energy Policy 2006

- **Goal**

The overall goal of this *policy* is to contribute to rural poverty reduction and environmental conservation by ensuring access to clean, reliable and appropriate energy in the rural areas

- **Rationale**

It is necessary to create *conducive environment* that will self motivate and mobilize local institutions, rural energy users groups, non-government organizations, cooperatives, and private sector organizations for the development and expansion of rural energy resources.



Rural Energy Policy 2006

- **Objectives**

1. To reduce dependency on traditional energy and conserve environment by increasing access to clean and cost effective energy in the rural areas
2. To increase employment and productivity through the development of rural energy resources
3. To increase the living standards of the rural population by integrating rural energy with social and economic activities



Highlights of Rural Energy Policy 2006

- Participation of local bodies (DDCs/VDCs) is mandatory
- Creation of Central, District and Village level Rural Energy Fund for subsidy mobilization
- Encourage community based energy development initiative
- Encourage social mobilisation for dissemination and development of rural energy
- Focus on energy poverty linkages
- Promote private sector for the supply of RETs



Highlights of RE Subsidy Policy 2006

- **Social Equity**
 - Targeted to low income households
 - Payment mechanism transparent
 - Transportation Subsidy maximum of NRs 3,000/HH
- **Cost Effectiveness**
 - Market expansion
 - Least cost solution
- **Commercial Market Structure Compatibility**
 - Discourage dependence on excessive subsidy
 - Encourage financing institutions to invest in RETs
 - Establish mechanism to promote productive end uses

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Rural(Renewable) Energy Subsidy Arrangement 2009



Rural(Renewable) Energy Subsidy Arrangement 2009

- **Objectives:**

- To maximize the service delivery and increase service efficiency
- To support rural electrification reduce the growing gap of between rural and urban areas.
- To make the use of grant assistance in a more effective and objective oriented way and thereby attract additional donors and other investor in RETs sector.
- To support development and extension of RET market by attracting private sector entrepreneurs.
- To support to the envisaged long-term targets of GON in providing rural electrification and energy services.



RE Subsidy Arrangement for MH

1. Project Investment Supports

	Upto 5 kW	5 to 500 kW	IWM Electrification
Per HH	Rs. 12000	Rs. 15,000	Rs. 6,000
Per kW	Rs. 97,500	Rs. 125,500	Rs. 60,000

2. Equipment Transportation Supports

The transportation subsidy of NPR 500 per kilometer per kW will be provided based on distance travelled by porter from the nearest road head to MHP project site located at more than 10 kilometers from road head

3. Supports for End Use Promotion

Based on the business plan, NPR 10,000 per kW but not exceeding NPR 250,000 per project will be provided

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Thank you!

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