

# ASIA CLEAN ENERGY FORUM 2017

## National Energy Access Policies and Plans: Government-Led Efforts



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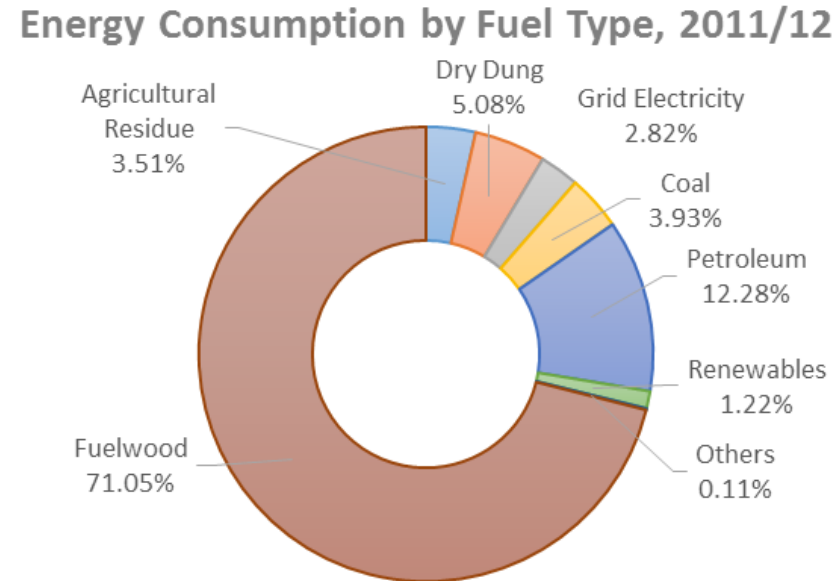
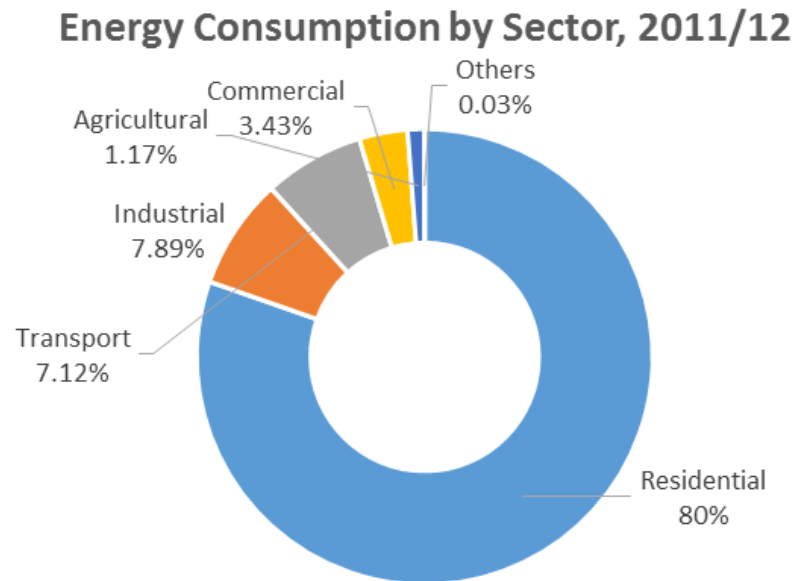
**NEPAL**

# Country Background

- Population ~ 28.5 million (81% in rural areas)
- Total households ~ 5.66 million

## Energy situation

- Total consumption ~ 376.3 million GJ



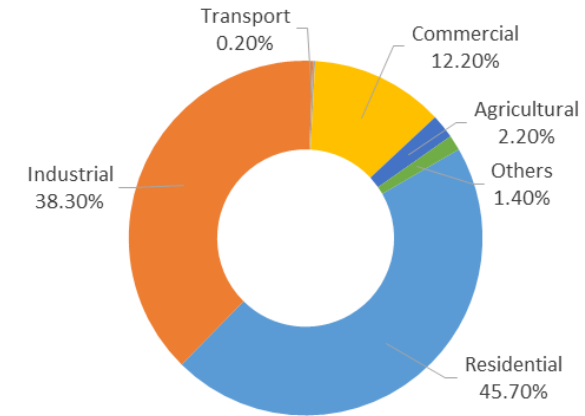
Source: Energy Data Sheet. WECS, 2014

# Electrification Status

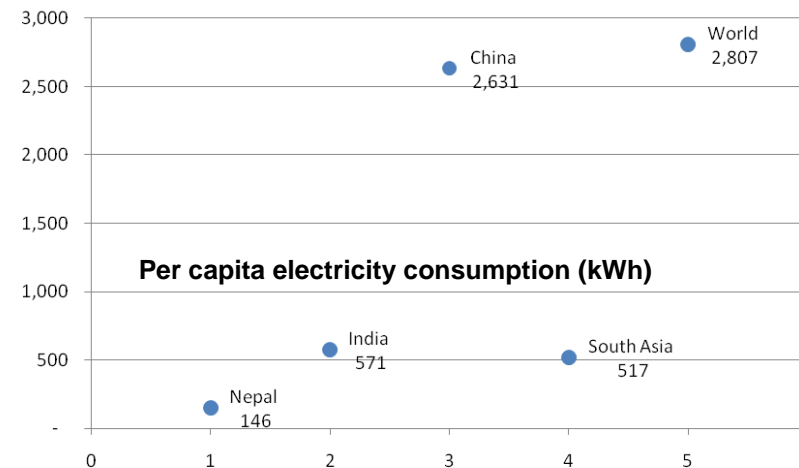
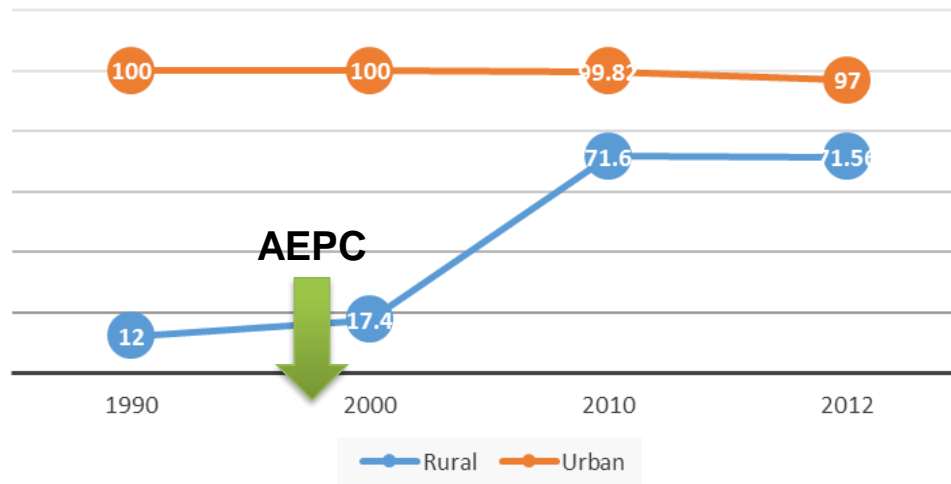
Source	Capacity (MW)
Small, medium and large hydro	762.03
Mini/micro/pico hydro	37.78
Thermal plants	53
Solar PV systems	7.45
<b>Total</b>	<b>860.26</b>

**76.3%** of population have access to electricity - unreliable

Grid Electricity by Sector, 2011/12



Access to electricity , historical trend



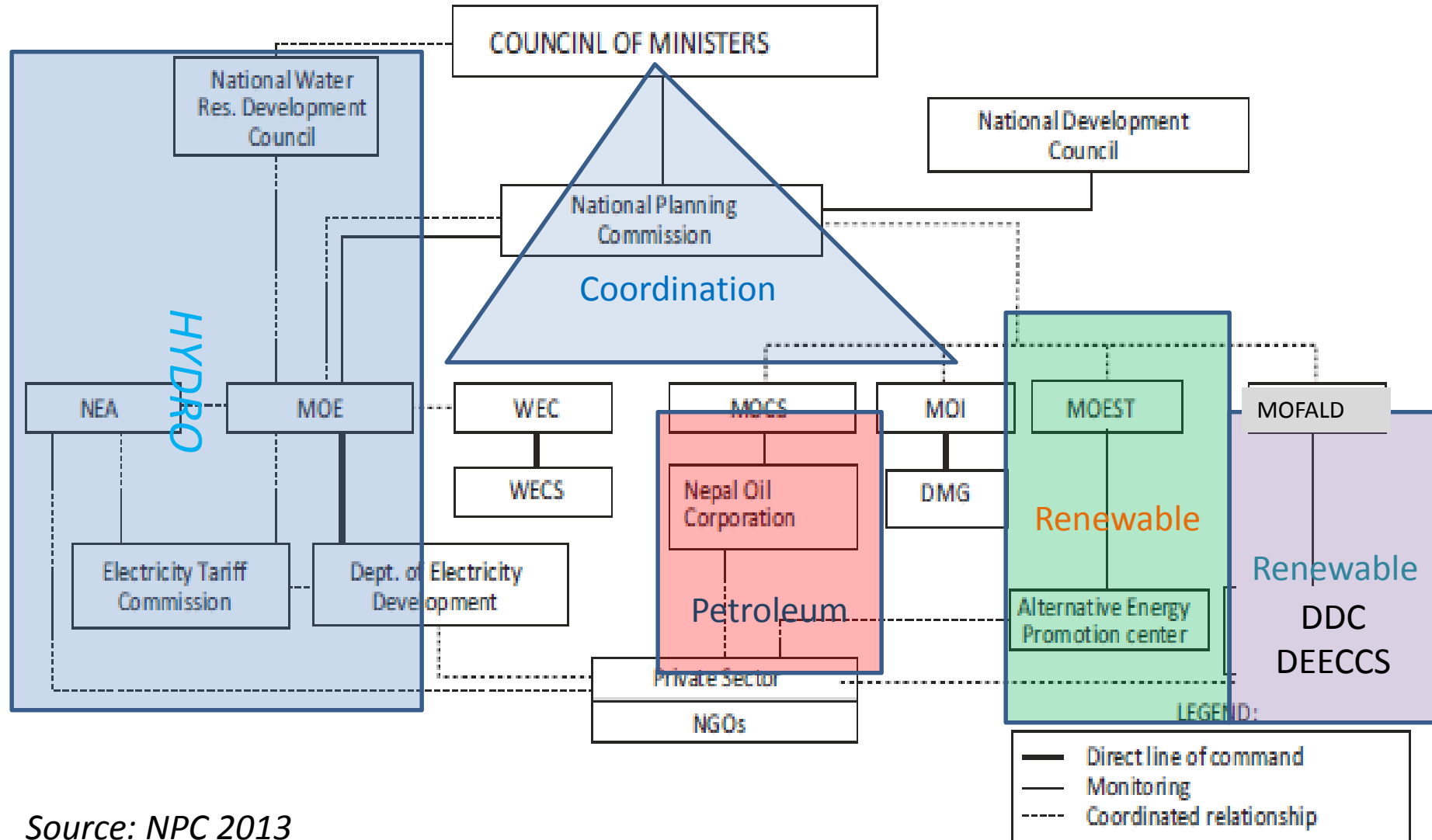
# Government Priorities on RE

- “Clean Cooking Solutions for All by 2017 (CCS4ALL)” mission: announced in Jan 2013 & incorporated in 13<sup>th</sup> plan (2013/14 - 2015/16)
- “Every household in Nepal to be made indoor air pollution free bright household in 3 years (CCLS4ALL)”: announced through GoN Policy & Program for FY 2014/15
- High RE targets in 14th Plan (2016/17 - 2018/19) and in GoN Policy & Program 2016/17 & Budget for FY 2016/17
- RE for addressing power crisis and waste management (W2E)
- Close linkage with GoN goal to graduate from least developed to developing country by 2022

# National Energy Targets

- Energy access targets
  - commitment to meeting **SDG-7** to provide affordable, reliable, sustainable and modern energy for all
  - By 2030,
    - 99% of households with access to electricity
    - Only 10% households using firewood for cooking
    - Generation of at least 10,000 MW electricity
    - Decreasing energy intensity of GDP by 0.8% per annum
- Renewable energy targets
  - RE for combating energy crisis (urban solar, solar street lighting)
  - Clean cooking and lighting solutions to all by 2017
  - By 2020,
    - Increase share of renewable energy from lowly less than 1% to 10% of total energy supply
    - Increase access to electricity from alternative energy sources from 10% to 30%
    - Invest USD 1,076 million (government revenue, support from development partners, loan financing from financial institutions and private equity) in renewable energy

# Energy Sector Institutional Overview



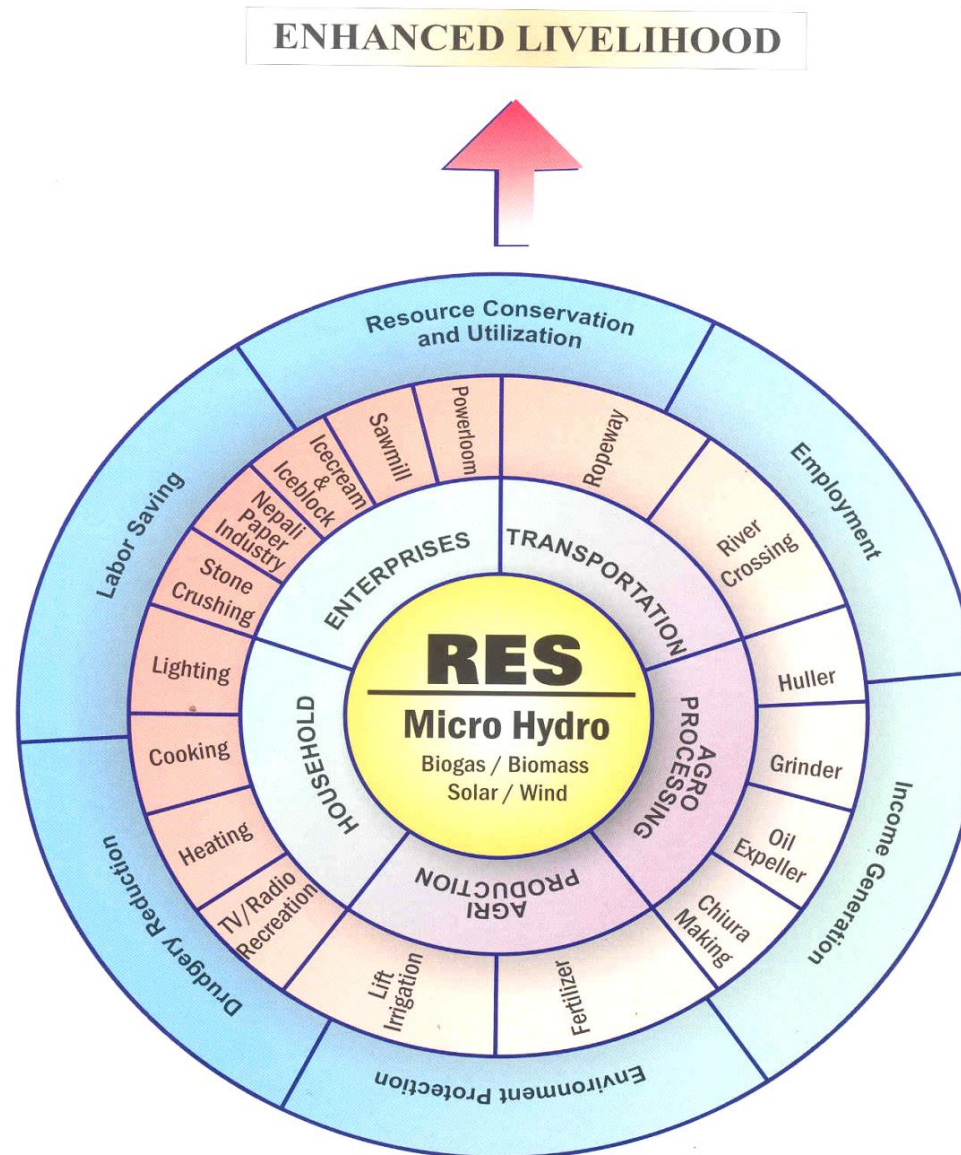
Source: NPC 2013

# Alternative Energy Promotion Centre

- **AEPC** - established in November 3, 1996
- **National Executing Agency** – Renewable energy programmes and projects.
- **Government Institution under Ministry of Population and Environment** - semi autonomous status.
- **Mandate:** policy and plan formulation, resource mobilisation, technical support, M & E, quality assurance and coordination in promotion of RETs.
- **Objective:** Improving people's livelihoods and protecting environment through RET promotion

# Institutional and Policy Frameworks

## RE Vision





# Working Principle

## Strategy

- Development of larger hydro
  - Grid extension
  - Private sector involvement
- Promotion of RETs
  - Grid connection
  - Scaling up of technology
  - Sustainability

## For

- Energy mix
- Energy security
- Socio-economic growth

**Complementarity Approach**

# Policy Direction for RE Promotion

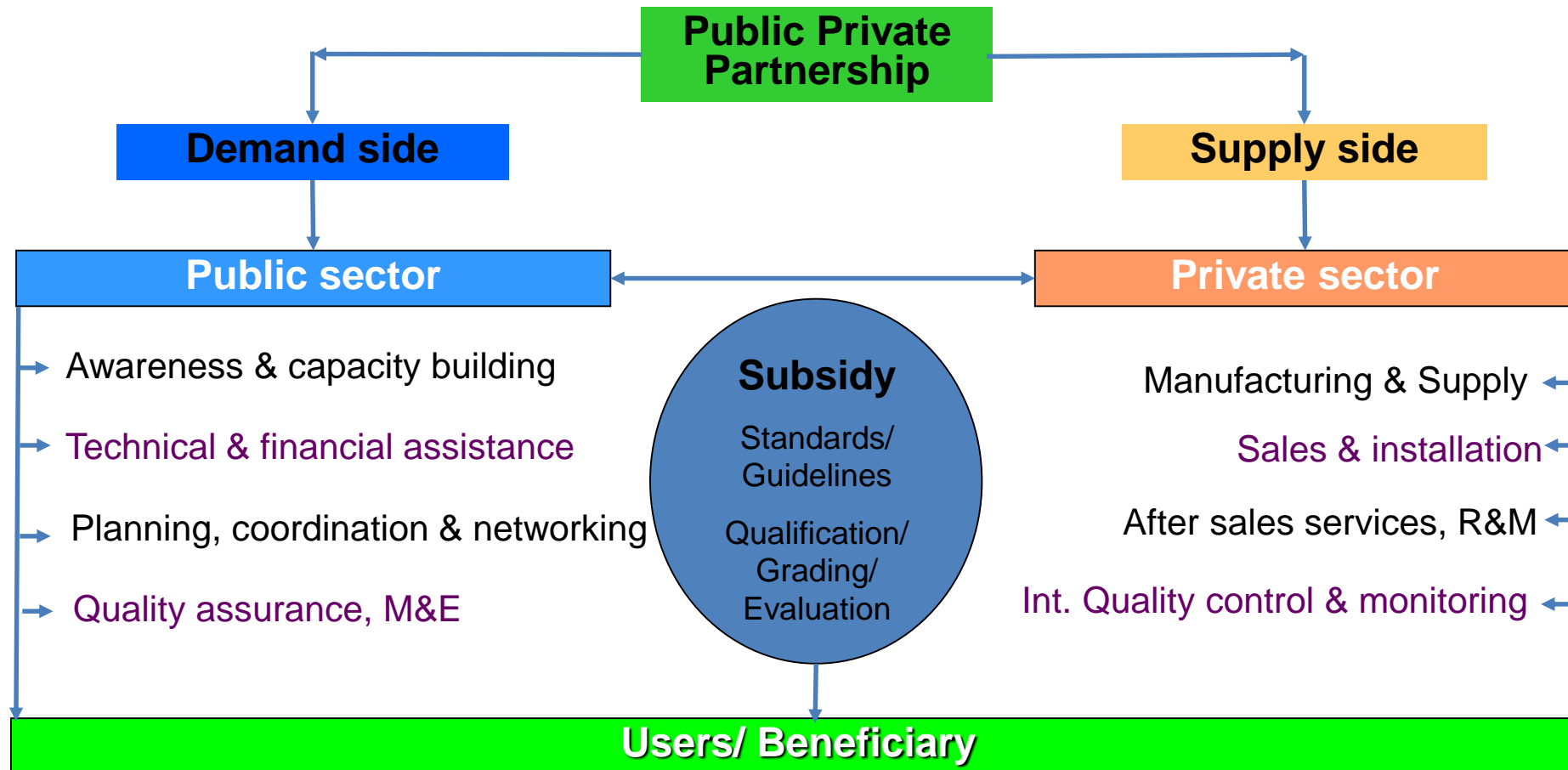
- Financing energy services not only energy products
- Eventually replacing subsidy with credit
- Increase private sector investment
- Bring professionalism into the sector for operating and managing the RE systems
- Up-scaling of technology
- Promotion of 'most economic' Best Available Technology (BAT)
- Improve utilization of RE systems
- Mini-grid and grid connection

# Existing and Future Policies in RE

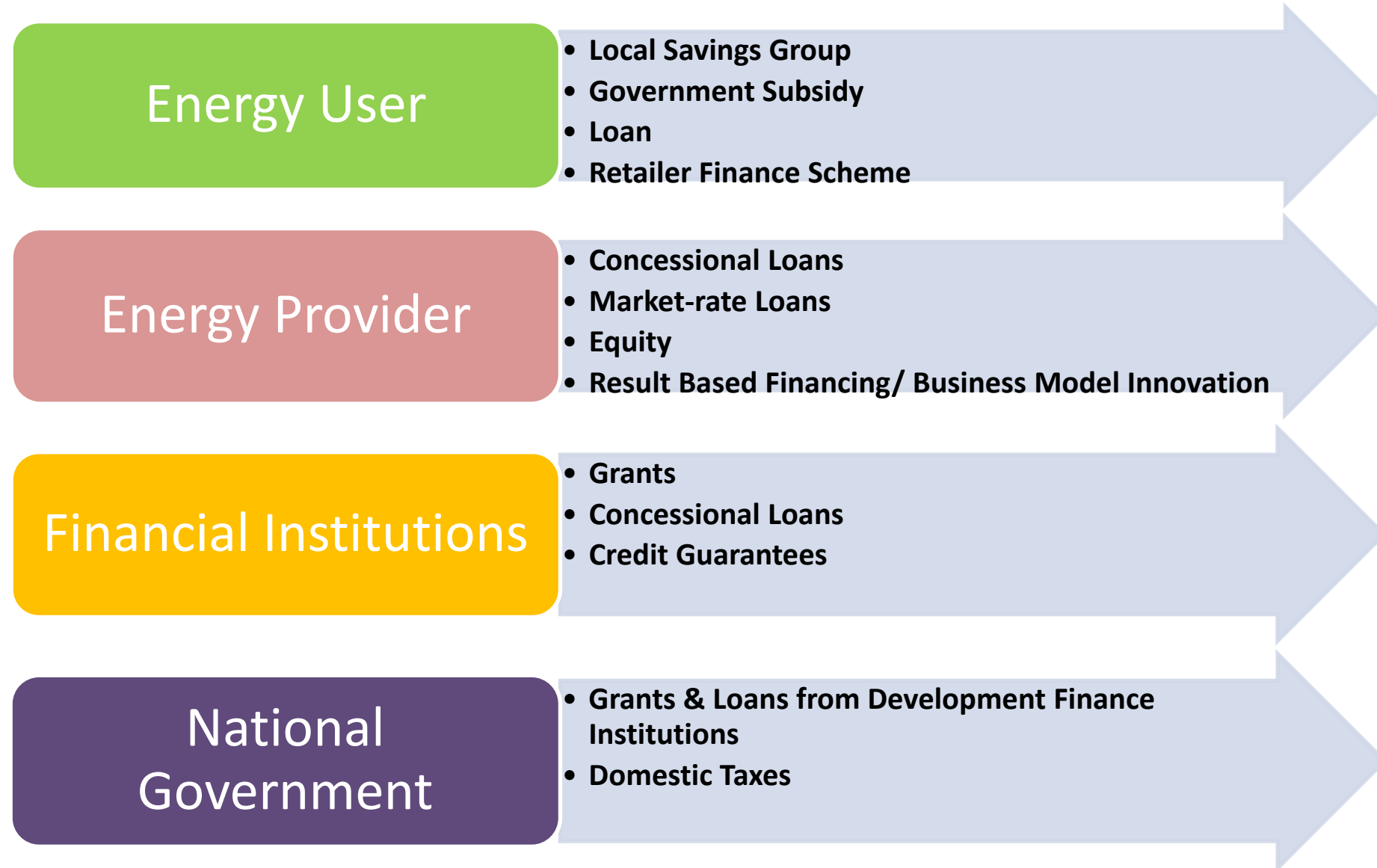
- Rural Energy Policy, 2006
- Renewable Energy Subsidy Policy, 2016
- RE Subsidy Delivery Mechanism, 2017
- Additional Support to Micro Hydro Policy, 2014
- Financial Act, 2015 – exemption of VAT & Custom Duty in RE equipments/materials
- RE Act including FIT (in the process)
- Establishment & operation of Central RE Fund
- Concept of Smart City
- Environmental Friendly Local Governance

# Institutional and Policy Frameworks

## Implementation Modality



# Energy Finance for Sustainable Impact



# Creating Enablers for Financing Energy Access

Aggregating & Channeling  
diverse government & donor  
funds for Renewable

Combining Finance with  
Market-Building efforts through  
support in Policy & Planning

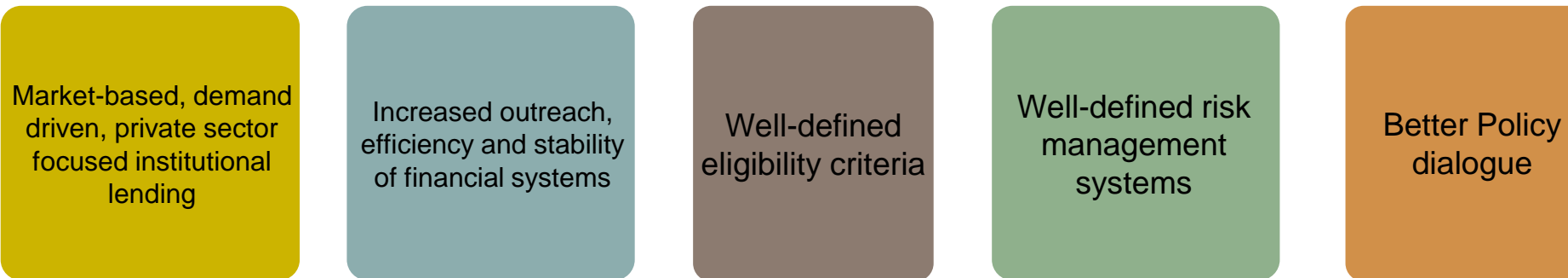
A Specific fund to channel  
Grants and Loans for  
Small-scale renewable energy via  
Commercial banks and Micro-  
finance institutions

Providing Finance support  
for Energy Users through  
Grants, Loans and Individual  
contributions

# Financing Strategy

## Central Renewable Energy Fund (CREF)

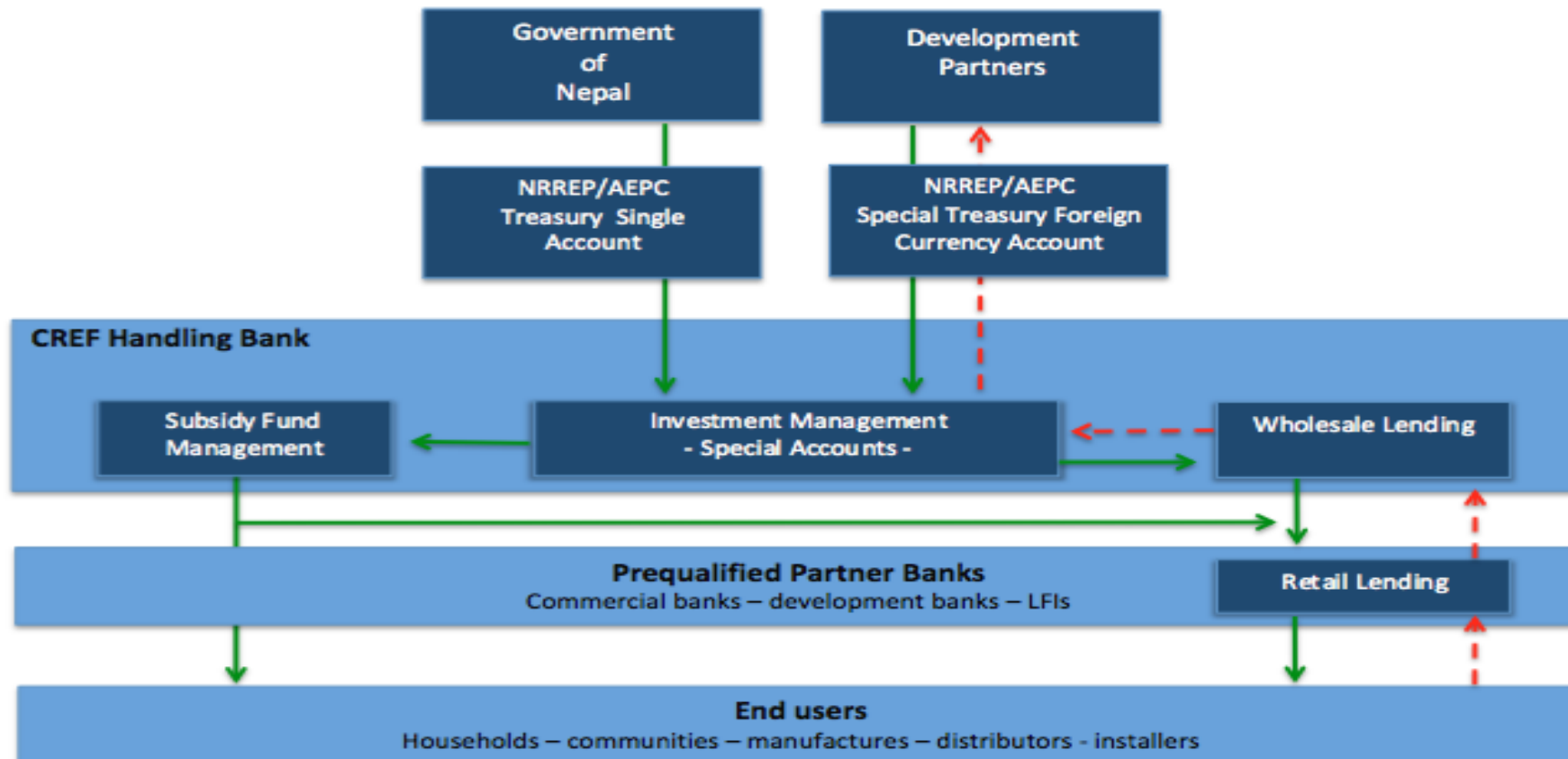
### Financial Intermediation Lending Policy



# Financing Strategy

## Central Renewable Energy Fund (CREF)

### Fund Flow Mechanism

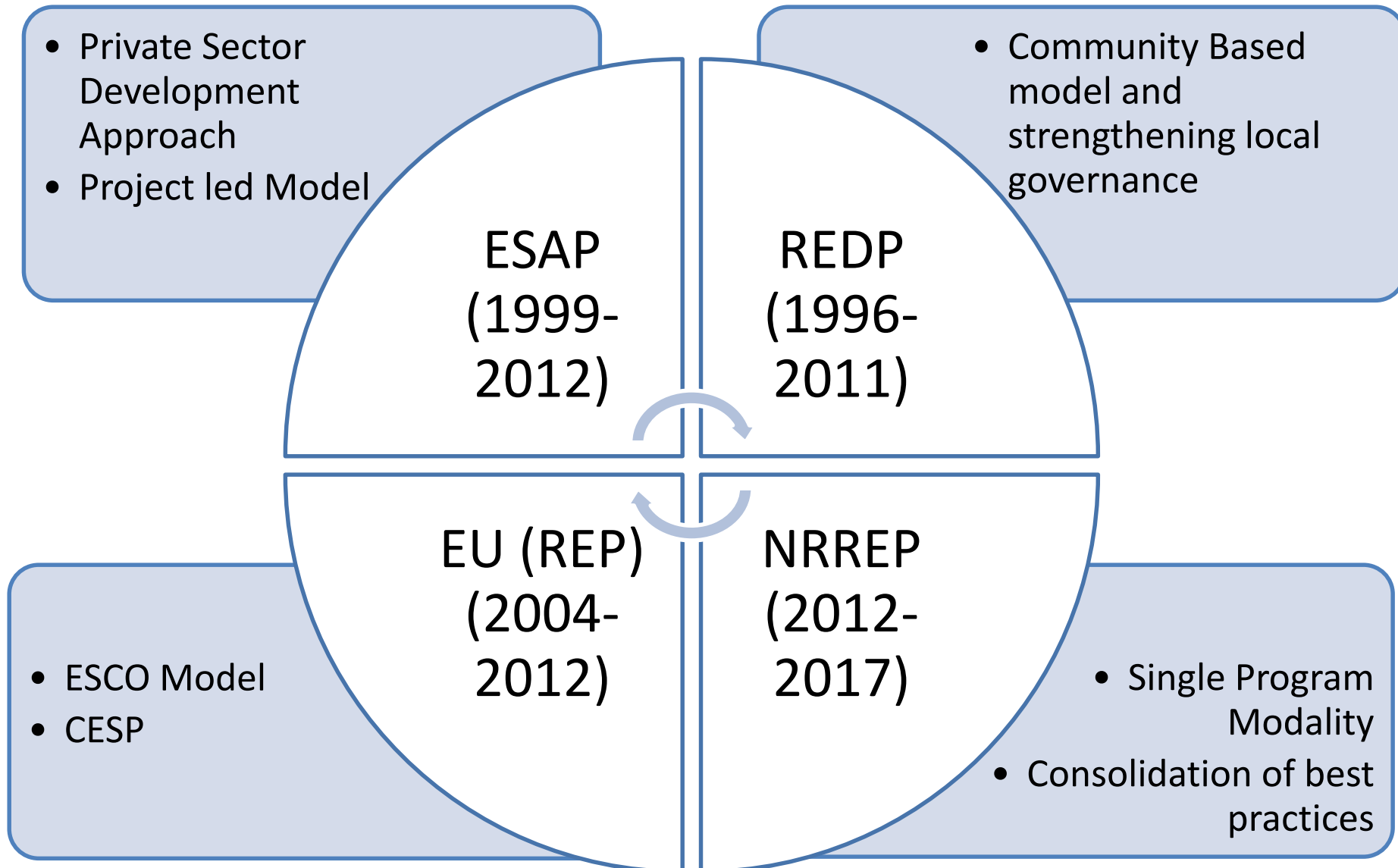




# AEPC-LED Initiatives & Leads

- *SEforAll - Access* component led by Ministry of Population and Environment (MoPE) with AEPC with member secretary
- Recommendation for *Global Climate Fund accreditation* by Government of Nepal
- Promotes *Public-Private-Partnership*
- *Innovative Initiatives*
  - Reverse Auctioning,
  - Best Available Technology
  - Incentive to Energy Services

# Modality of Major Programs



# New Initiative and Approach

- Sector wide approach (swap)
- Single Programme Modality under GoN Leadership
- Starting date: 16 July 2012
- Duration: 5 years
- Budget: USD 171 Million
- Support from multiple DPs
- Three components:
  - i. CREF (subsidy & credit)
  - ii. TS (technical, cross cutting & logistics)
  - iii. PEU



# Achievements in RE sector

In the last 20 Years of AEPC,

**Renewable Energy Mix**  
Growth

**1500 %**



Benefitting More than

**3.6 Million**

Households



**8 CDM** Projects registered in UNFCCC

**USD 1.2 Million** CERs Generated

**USD 6.7 Million** Revenue Generated  
till date

**Global Partnership**

**7** AFFORDABLE AND  
CLEAN ENERGY



**17** PARTNERSHIPS  
FOR THE GOALS



# Thank You!

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