

ASIA CLEAN ENERGY FORUM 2017

National Energy Access Policies and Plans: Government-Led Efforts



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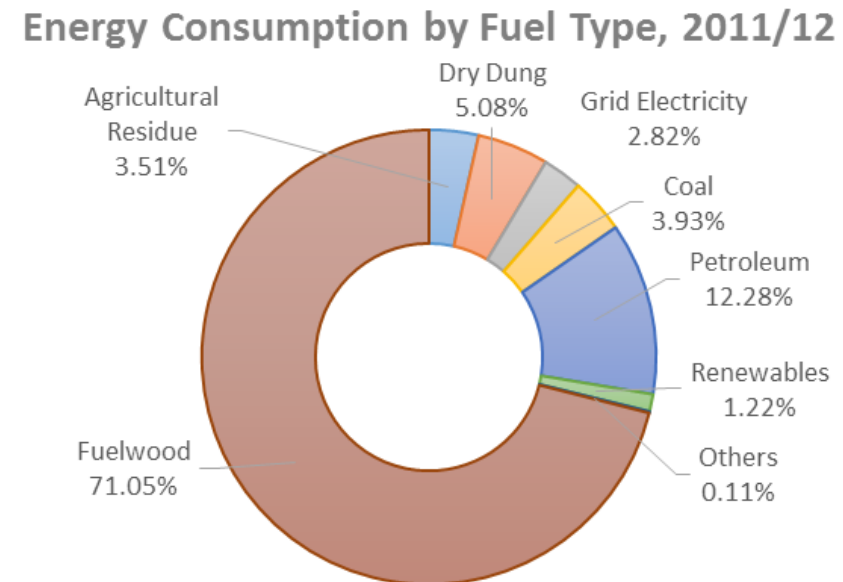
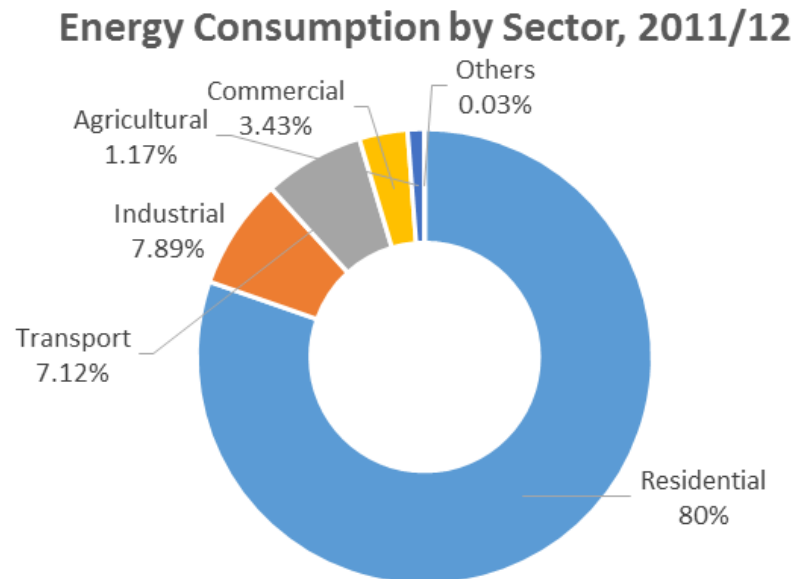
NEPAL

Country Background

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

Energy situation

- Total consumption ~ 376.3 million GJ



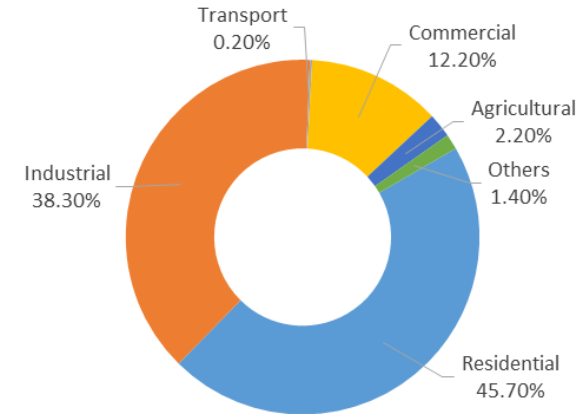
Source: Energy Data Sheet. WECS, 2014

Electrification Status

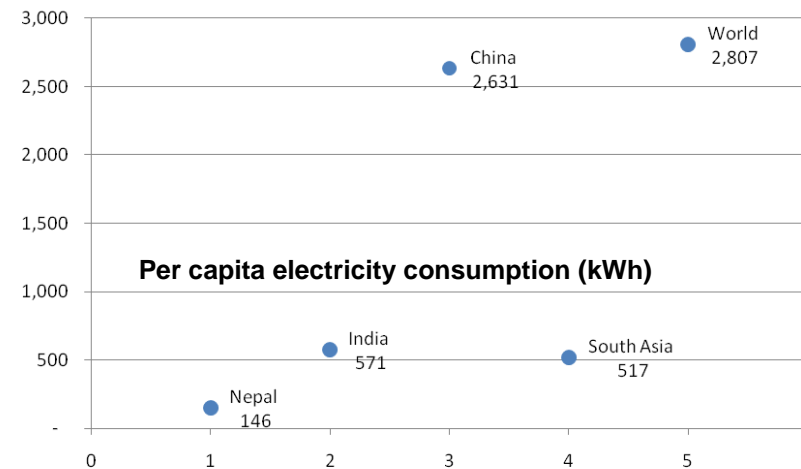
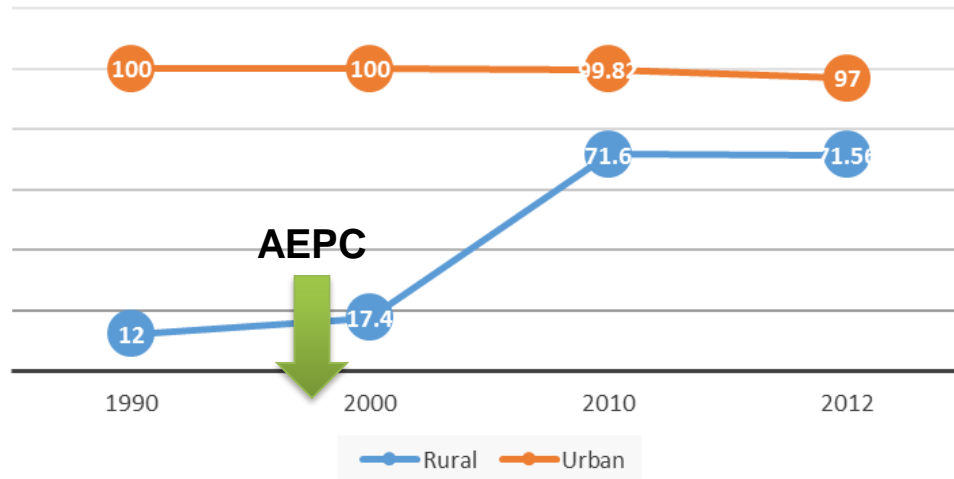
Source	Capacity (MW)
Small, medium and large hydro	762.03
Mini/micro/pico hydro	37.78
Thermal plants	53
Solar PV systems	7.45
Total	860.26

76.3% of population have access to electricity - unreliable

Grid Electricity by Sector, 2011/12



Access to electricity, historical trend



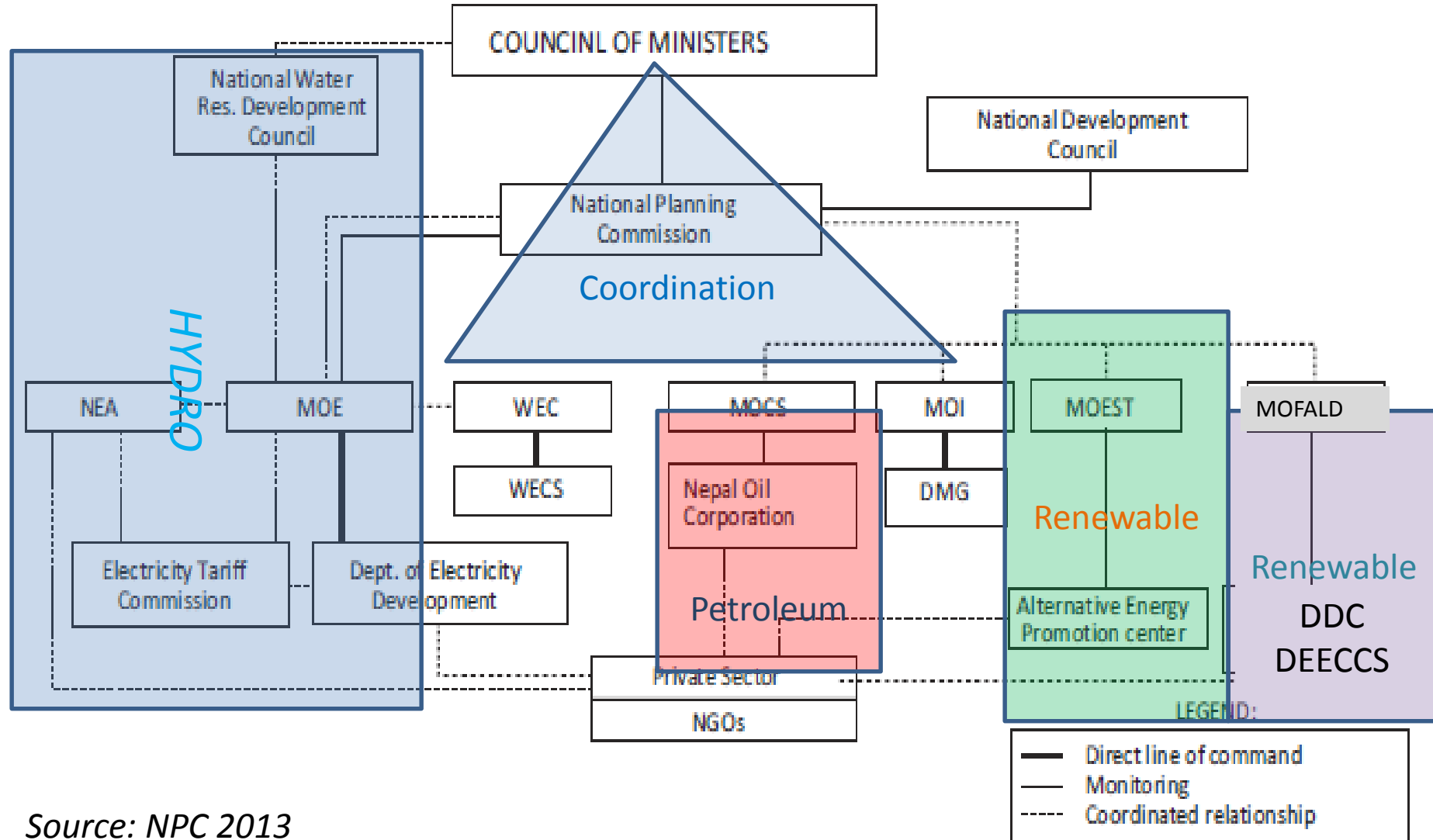
Government Priorities on RE

- “Clean Cooking Solutions for All by 2017 (CCS4ALL)” mission: announced in Jan 2013 & incorporated in 13th 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



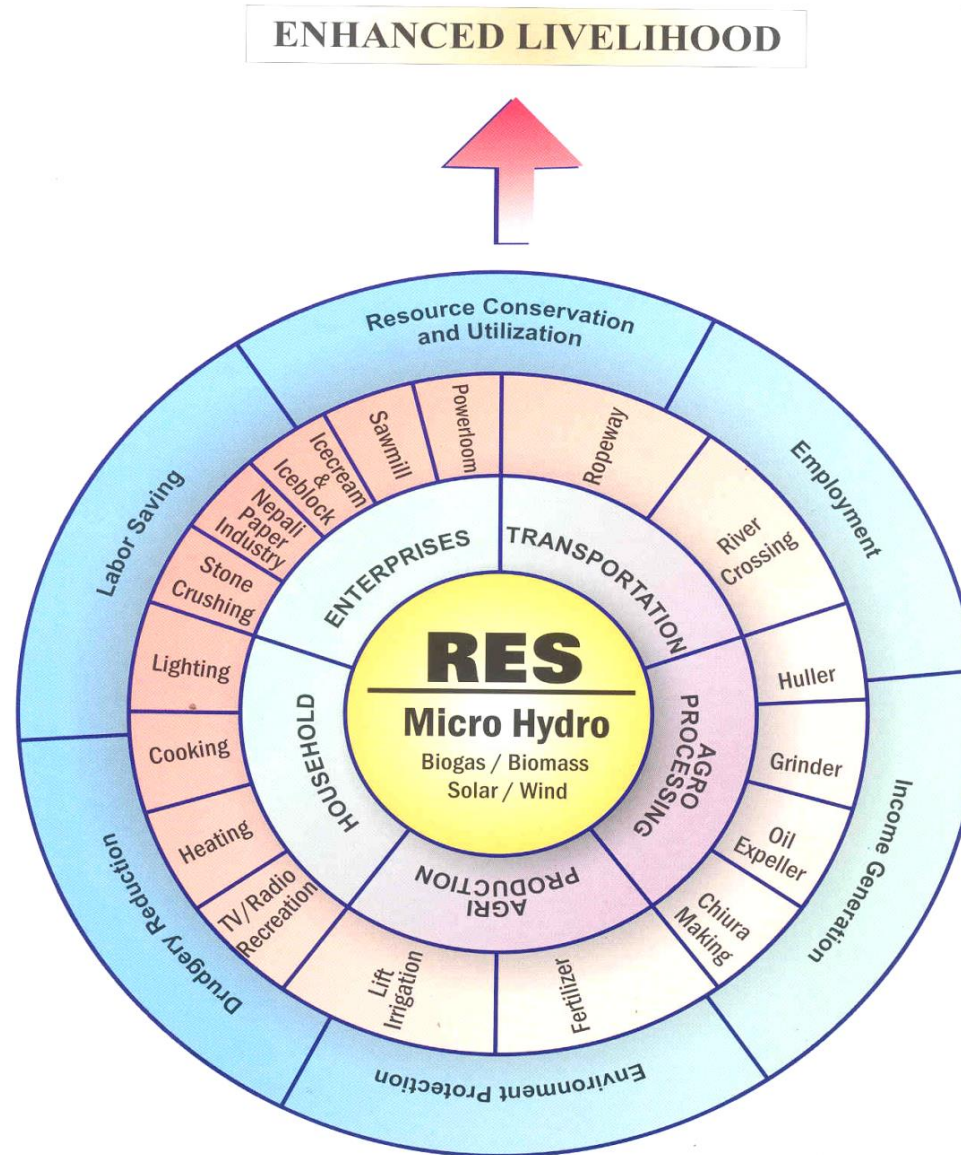
Source: NPC 2013

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

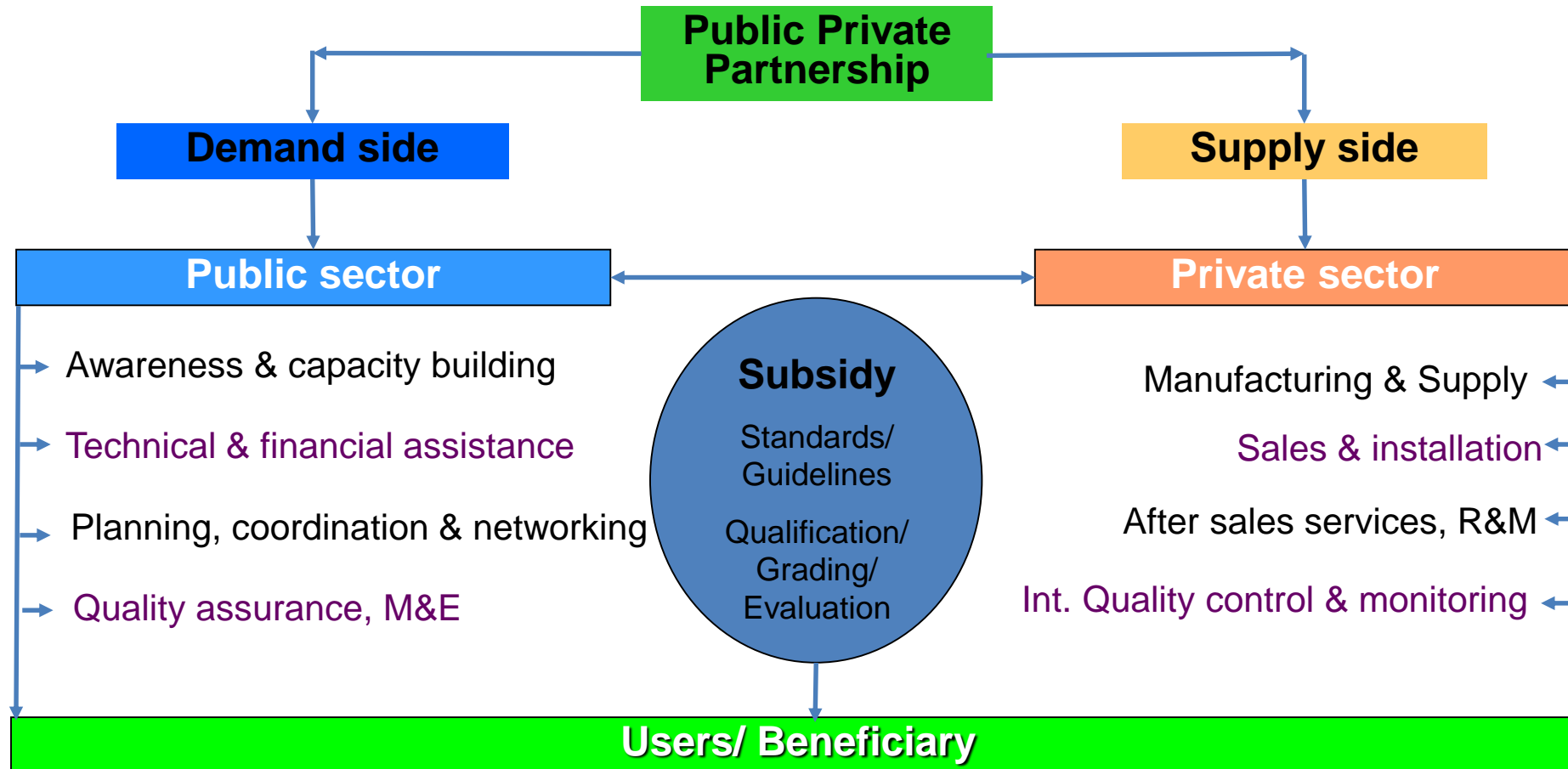
- Financing energy services not only energy products
- Eventually replacing subsidy with credit
- Increase private sector investment
- Bring professionalism into the sector for operating and managing the RE systems
- Up-scaling of technology
- Promotion of 'most economic' Best Available Technology (BAT)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

Energy User

- Local Savings Group
- Government Subsidy
- Loan
- Retailer Finance Scheme

Energy Provider

- Concessional Loans
- Market-rate Loans
- Equity
- Result Based Financing/ Business Model Innovation

Financial Institutions

- Grants
- Concessional Loans
- Credit Guarantees

National Government

- Grants & Loans from Development Finance Institutions
- Domestic Taxes

Creating Enablers for Financing Energy Access

Aggregating & Channeling
diverse government & donor
funds for Renewable

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

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

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

Financing Strategy

Central Renewable Energy Fund (CREF)

Financial Intermediation Lending Policy



Market-based, demand driven, private sector focused institutional lending

Increased outreach, efficiency and stability of financial systems

Well-defined eligibility criteria

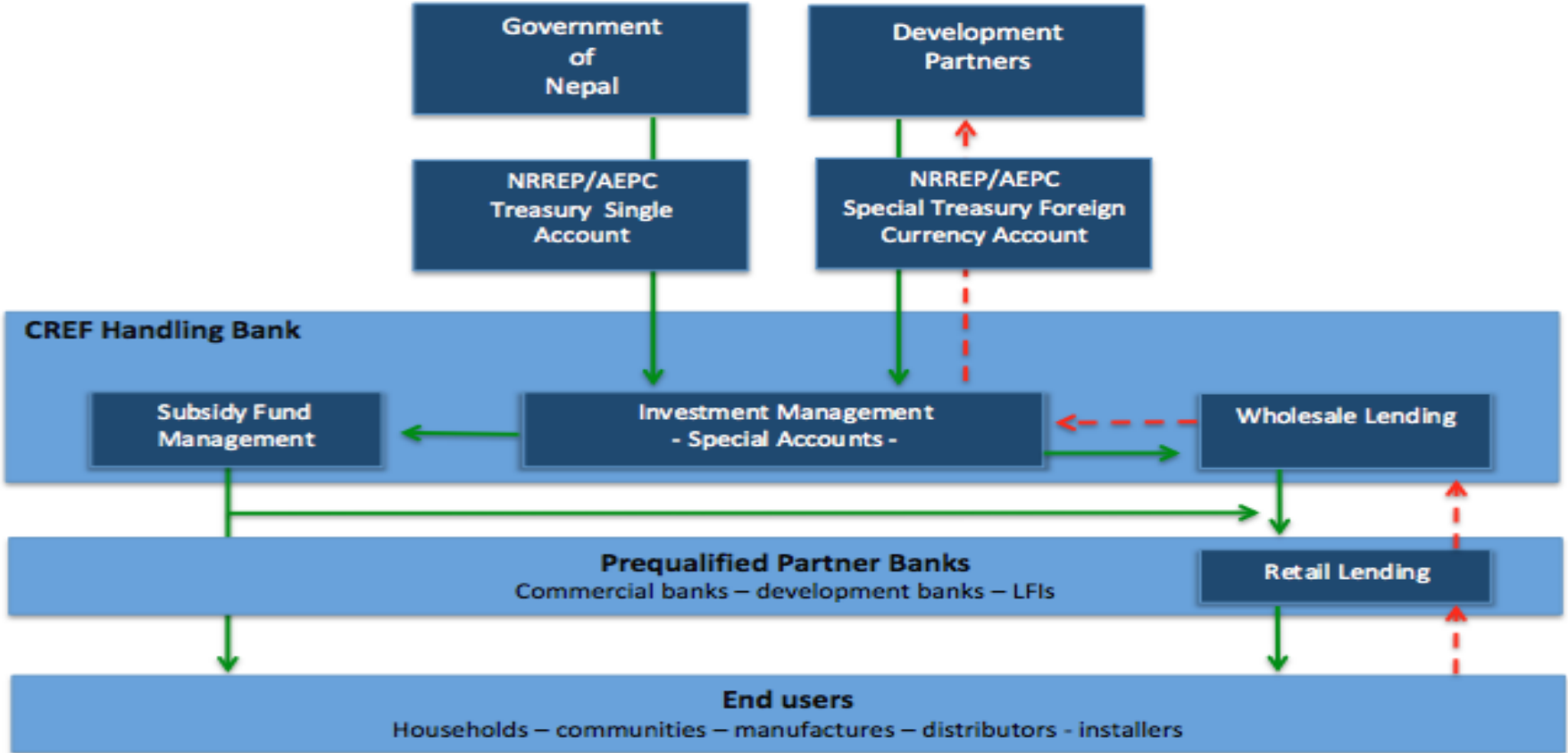
Well-defined risk management systems

Better Policy dialogue

Financing Strategy

Central Renewable Energy Fund (CREF)

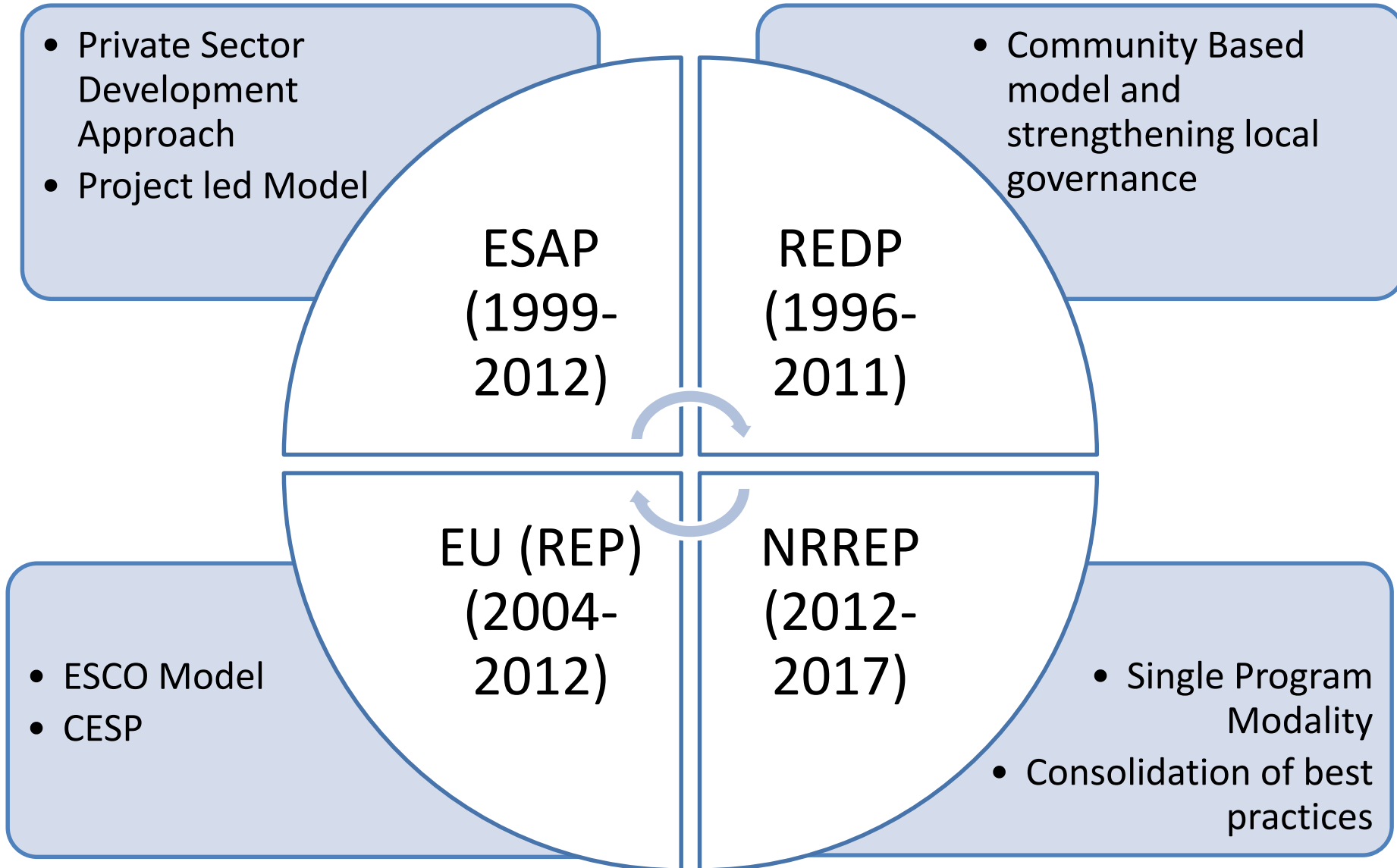
Fund Flow Mechanism



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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