

**Alternative Energy Promotion Centre
National Rural & Renewable Energy Programme**

A Study Report on:

**Roles and Responsibilities of Regional Service Centres and
District Energy and Environment Units/Sections**

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Acronyms

ADDCN	Association of District Development Committees of Nepal
AEPC	Alternative Energy Promotion Centre
BDRE&PEU	Business Development for Renewable Energy and Productive Energy Use
BETs	Bio-energy technologies
CQAU	Compliance and Quality Assurance Unit
CREF	Central Renewable Energy Fund
DANIDA	Danish International Development Agency
DfID	Department for International Development (of UK Government)
DDC	District Development Committee
DEECCS	District Energy, Environment and Climate Change Section
DEEU/S	District Energy and Environment Unit/Section
EFLG	Environment Friendly Local Governance
ESAP	Energy Sector Assistance Programme
EU	European Union
GESI	Gender Equality and Social Inclusion
GoN	Government of Nepal
ITDG	Intermediate Technology Development Group
IWM	Improved water mill
KfW	Kreditanstalt für Wiederaufbau Development Bank (Germany)
LED	Local economic development
LFI	Local financial institutions
LSGA	Local Self-Governance Act, 1999
MH	Micro-hydro
MSME	Micro, small and medium sized enterprises
MoFALD	Ministry of Federal Affairs and Local Development
MoSTE	Ministry of Science, Technology and Environment
NAVIN	National Association of VDC in Nepal
NCCSP	Nepal Climate Change Programme
NGO	Non-Governmental Organisation
NMHPDA	Nepal Micro Hydro Power Development Association
NPC	National Planning Commission
NRREP	National Renewable and Rural Energy Programme
REDA	Rural Economic Development Association
RES	Rural Empowerment Society
REDP	Rural Energy Development Programme
RERL	Renewable Energy for Rural Livelihoods Programme
RET	Renewable Energy Technology
RETS	Renewable Energy Testing Station
RSC	Regional Service Centre
SHS	Solar Home System
SNV	Netherlands Development Organisation
TS	Technical Support
UNDP	United Nations Development Programme
VDC	Village Development Committee

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Executive summary

1. This study has been conducted to prepare the roles and responsibilities of Regional Service Centres (RSCs) and District Energy and Environment Units/Sections (DEEU/Ss) for implementation of the National Rural and Renewable Energy Programme (NRREP) at the local level.
2. Alternative Energy Promotion Centre (AEPC) has started the NRREP being supported by number of Development Partners including Danida, Norway, Germany, UK, ADB, the World Bank, UNDP, UNCDF, SNV etc. from 16 July 2012. It aims to improve the living standard of rural women and men, increase employment of women and men as well as productivity, reduce dependency on traditional energy and attain sustainable development through integrating alternative/renewable energy with the socioeconomic activities of women and men in rural communities. It is a single programme modality in which there will no other AEPC executed Development Partner supported renewable energy programmes or projects funded outside the NRREP.
3. NRREP has evolved as a sector wide approach programme in the renewable energy (RE) sector based on long past experiences. Its institutional modalities for field level implementation primarily combine the experience of Energy Sector Assistance Programme (ESAP) and Rural Energy Development Programme (REDP)/Renewable Energy for rural Livelihood Programme (RERL).
4. Prior to 1990 energy sector development was without proper policy and regulatory frameworks. The Hydro Power Policy (1992) was first policy in the energy sector which has also indirectly covered micro-hydro (a RE). The policy has provisioned that license up to 1000 kW would not be required. RE Policy was first promulgated in 2006 in a more comprehensive way. Initiation of REDP and establishment of AEPC in 1996 mark the comprehensive approach to RE development in Nepal.
5. By the time NRREP has commenced, policy and regulatory frameworks have been well developed. As of now, there are at least 18 of them (see 3.1 below) need to be fully taken into consideration for roles and responsibilities of RSCs and DEEU/Ss as well as for the implementation of NRREP. For all practical purposes, the RSCs and DEEU/Ss or DEECCS should familiarise themselves with the RE Policy (2006), RE Subsidy policy (2013), RE Subsidy Delivery Mechanism (2013) and CREF Financial Intermediation Mechanism (2013), among others.
6. Review of NRREP programme document and discussion with AEPC officials reveal that the central level implementation arrangements have been well articulated. However, sub-national level implementation arrangements have been found to be further refined given the complexity created by the involvement of multiple partners and evolving country context. NRREP has envisioned RSCs and DEEU/Ss as the key sub-national level implementation mechanism. A RSC could be a NGO or a private company or a cooperative selected through competitive processes for a project period with the provision of annual contract renewal based on performance appraisal. DEEU/Ss are integral part of DDCs in accordance to the Local Self Governance Act (1999).
7. Discussions with various stakeholders identified pros and cons of RSCs and DEEU/Ss as well as raised critical issues for NRREP's considerations. The most important advantage of deploying a RSC is its efficiency in implementation of RETs promotion while potential disadvantage is continuity of such efficiency in a sustainable manner after the NRREP

phases out. In a similar note, the most important advantage of a DEEU/S is that it is a permanent structure of DDC having sustainable RET promotion potential with enhanced institutional capacity while the current disadvantage is its work efficiency compounded with its low level of capacity.

8. Key issues and considerations argued by various respondents pertaining to NRREP implementation relate to i) legal status of RSCs and DEEU/Ss linked to sustainability of RET promotion, weak coordination between them, and possible overlapping of roles and responsibilities at the present context; ii) differences in district characteristics in terms of their internal resources availability and geographic features leading to differences in roles and responsibilities of DEEU/Ss in different districts; iii) claims of DDCs and DEEU/Ss as they could deliver all kinds of RET promotion given some capacity building supports; iv) concern that fund-flow largely by-passes the government mechanism via DDC; and v) concerns of private sectors if roles of RSCs and DEEU/Ss include approval of payments after installation of household level RETs.
9. In order to make recommendation on demarcated roles and responsibilities of RSCs and DEEU/Ss, a number of conclusion have been reached as bases or rationales or guiding principles. Based on all considerations, the roles and responsibilities of RSCs and DEEU/Ss have been suggested as:
 - General roles and responsibilities,
 - RET specific roles and responsibilities, and
 - Collaborative roles and responsibilities common to both RSCs and DEEU/Ss including BDRE&PEU component.

Recommended general roles and responsibilities for RSCs are:

- i) Awareness creation, demand stimulation and collection of all RETs.
 - Organise RET promotional workshops and meetings to create awareness among the beneficiaries and potential service providers.
 - Carry out activities for RETs demand stimulation and collect demands of RETs from potential beneficiaries based on GESI and other relevant criteria.
- ii) Capacity building and institutional development of local bodies and NGOs
 - In a participatory manner, assess the capacity gaps of related DDCs, DEEU/Ss or DEECCs, NGOs and private sectors concerning RETs promotion mainly relating to prioritization, planning, implementation, monitoring, and reporting capacities.
 - Facilitate preparation of human resource capacity development plan and organisational strengthening plan including phase out strategy.
 - As per the demand, help manage to build capacities through training and other tools as appropriate.
- iii) Maintain database of RSC's activities as well as contribute to development of database management system in DEEU/Ss or DDCs
 - Select, organise and undertake reviews for appropriate indicators on creating database on RETs of assigned districts.
 - Maintain database of all RETs promotion, implementation, M&E and other relevant data up-to-date for the assigned districts.
 - Collect, analyse and keep database of district level projects/programmes/activities related to energy, environment conservation and climate change and establish as resource centre.

- Assist DEEU/Ss or DEECCSs of assigned districts to prepare district level profile from the perspective RETs and climate change.
- Supply, as and when required, appropriate data for planning and academic purposes on RETs.

Recommended RET specific roles and responsibilities for RSCs are:

i) Institutional/Community/Commercial/Solid waste Biogas

- Create awareness of institutional/community biogas promotions with institutions like schools, hospitals, etc. and local communities and facilitate demand collection in line with RE Subsidy Policy and Delivery Mechanisms (2013).
- Similarly, identify feasibilities/possibilities and encourage private companies or institutions for commercial and solid waste biogas plants. Such interventions should help develop/maintain clean village/town/cities.
- Coordinate as well as encourage institutions and/or private sector for Business Development Services to promote institutional/community/commercial/solid waste biogas.
- Assist AEPC to review pre- and detail feasibility studies of proposed institutional biogas plants.
- Coordinate, support and collaborate with DEEU/Ss wherever demand comes via them.
- Monitoring, supervision and quality assurance of biogas plants.
- Database management (including CDM related data), reporting to AEPC and concerned DEEU/Ss.

ii) Institutional Biomass Energy Technologies

- Fully familiarise the provisions and procedures of policy and delivery mechanism.
- Create awareness and disseminate information on these different types of ICSs for their demand stimulation/creation.
- As appropriate, carry out field-testing and contextualization of technologies.
- Find out BET-based enterprise development.
- Develop linkage with local financial institutions (LFI) and private sector for BETs promotion.
- Technical monitoring, supervision and quality assurance of ICS & other biomass energy technologies.
- Coordinate, support and collaborate with DEEU/Ss wherever demand comes via them.
- Participatory monitoring and supervision of BETs together with DDC, DEEU/Ss or DEECCSs.
- Maintain and manage MIS & CDM database related to BETs.

iii) Solar Drinking Water Pump

- Carry out activities Relating to Rural community based Solar Drinking Water Pumping Projects (RSDWP), including:
 - Demand creation, collection and feasibility studies.
 - District level initiation workshop in coordination with DDC/DEEU/Ss
 - Facilitate and support the drinking water communities in raising fund with coordination with local government organizations like VDC, DDC, District Water Division office, NGOs and other probable partners.
 - Monitoring and supervision for quality assurance of the project with DDC/DEES/DEU.
 - Testing and commissioning of RSDWP.

- Record keeping and database management.
- Coordinate, support and collaborate with DEEU/Ss wherever demand comes via them.

iv) Community electrification (micro/mini hydro power development which are above 10 KW installed capacity)

- Pre-feasibility and detail feasibility study through consultants.
- Detail feasibility study report appraisal.
- Support to fulfil conditional approval.
- Technical support and back stopping during construction period.
- Monitoring and supervision during pre and post installation of the micro/mini hydro projects.
- Conduct Testing & Commissioning (T&C), Power Output Verification (PoV), one year guarantee provisioning.
- Provide technical support to DEEU/S as and when needed.
- Coordinate, support and collaborate with DEEU/Ss wherever demand comes via them.

Recommended general roles and responsibilities for DEEU/Ss are:

i) Coordination and secretariat office functions:

- Act as the secretariat office for coordination at the district level regarding environment, energy, climate change, disaster prevention programme planning and EFLG matters.
- Under the leadership of the DDC, coordinate with all concerned stakeholders within the (horizontal) and, as appropriate/needed, with the regional and national stakeholders (vertical).
- Play coordinating role among public, private, NGOs, cooperatives and community organizations for promotional activities RETs, such as, demand stimulation and management.
- Play coordinating roles for protection and conservation of environment and to implement climate change, and disaster management related activities and projects.
- Work as DDC's technical wing for subsidy recommendation, technical assistance and quality assurance at the local level on environment, energy, climate change, disaster, waste management, and pollution control programmes/activities for AEPC and other relevant authorities.

ii) Database management

- Select, organise and undertake reviews for appropriate indicators on creating database on environment, energy, climate change, disaster management and pollution control issues within the district.
- Collect, analyse and keep database of district level projects/programmes/activities related to energy, environment conservation and climate change and establish as resource centre.
- Prepare district level profile of environment protection and conservation, energy production and utilization, waste management, disaster management and climate change management.
- Act as technical wing DDC to advise preparation of VDC profiles in order to integrate environment, energy, climate change, disaster, waste management, and pollution control issues.
- Supply, as and when required, appropriate data for planning and academic purposes on environment, energy, climate change, disaster, waste management, and pollution control issues.

Recommended RET specific roles and responsibilities for DEEU/Ss are:

i) Community electrification (pico hydropower development which are up to 10 kW installed capacity)

- Conduct feasibility studies through consultants
- Detail feasibility study report appraisal.
- Technical support and back stopping during construction period
- Conduct Testing & Commissioning (T&C), Power Output Verification (PoV), one year guarantee provisioning.
- Facilitate for water right certificate in district water resource committee.

ii) Institutional/Community/Commercial/Solid waste Biogas; Institutional Biomass Energy Technologies; Solar Drinking Water Pump; and Community electrification (micro/mini hydro power development which are above 10 kW installed capacity)

- As and when required, provide support to RSCs in the process of planning, approval and procurement of necessary goods and services in line with PPA regulations.

Recommended collaborative roles and responsibilities for RSCs and DEEU/Ss including the BDRE&PEU component are:

i) Planning, implementation, monitoring and reporting

- Assist to prepare annual and longer-term periodic RETs work plans for district and/or districts in line with relevant policies, rules and regulations, directives, procedures and guidelines.
- Assist DDC and VDCs to integrate RET activities into the 14-step planning processes and help streamline the implementation processes.
- In line with the Environment Protection Act (1997), assist different service providers to carry out IEE and EIA, and to monitor prescribed mitigation measures together.
- Coordinate to develop appropriate M&E framework by selecting indicators based on relevant policy, regulatory or other relevant national documents.
- Undertake timely M&E activities implementing RETs through service providers to track progress status and assessing achievement of results of programme/project/activities.
- Carry out reporting to concerned authorities in line defined policies and procedures.
- Assist AEPC and DDCs for making penalties and punishment in case a company has claimed for subsidy without promoting the RET/system, has installed the system in the place other than the prescribed place, has made mistake while installing the system or done irregularity or used equipment, which are incompatible with the prescribed standard.

ii) Quality control of promoted RETs

- Conduct joint review and analysis of quality grades and standards of various RETs that are going to be promoted in the districts or assigned districts.
- Undertake field/actual observations, monitoring and supervision of quality standards of RETs being promoted and prepare necessary reports.
- If sub-standard RETs are found, prepare case studies/files and report to AEPC including DDC, as well as jointly assist AEPC for making penalties and punishments, if required.

iii) Database Management

- Select, organise and undertake reviews for appropriate indicators on creating database on RETs of assigned districts.

- Maintain database of all RETs promotion, implementation, M&E and other relevant data up-to-date for the assigned districts.
- Collect, analyse and keep database of district level projects/programmes/activities related to energy, environment conservation and climate change and establish as resource centre.
- Collaborate to prepare district level profile from the perspective RETs and climate change.
- Supply, as and when required, appropriate data for planning and academic purposes on RETs.

iv) Implementation of BDRE&PEU Component

- Analyse and identify potential for RE based enterprises in the assigned region.
- Encourage local communities or interested entrepreneurs for the MSME activities as well as to form Local Economic Development (LED) committees. As far as practicable, undertake such activities in coordination and collaboration with DEEU/Ss.
- Identify and evaluate potential technical assistance (TA) providers (training institutions, consultants/firms, etc. in the region as well as business development service (BDS) providers.
- Facilitate business plan development by coordinating with BDS providers.
- Facilitate linking micro, small and medium sized enterprises (MSMEs) with local financial institutions (LFIs) for financial services.
- Facilitate finding out possible linkages with other stakeholders and programmes for potential collaborations, such as, Department of Cottage and Small Industries (DCSI), Cottage and Small Industry Development Board (CSIDB), district chapters of chamber of commerce and industries GoN's programme Micro Enterprise Development for Poverty Alleviation (MEDPA), etc.
- Undertake as well as coordinate participatory joint monitoring activities together with relevant stakeholders including DEEU/Ss.
- Prepare regional level report of PEU component implementation and forward to concerned authorities.

Part-I: Background

1.1 A short description of NRREP

Alternative Energy Promotion Centre (AEPC) has started the National Rural and Renewable Energy Programme (NRREP) from 16 July 2012. NRREP enjoys the support of the Government of Nepal (GoN) and various international development partners, including but not limited to ADB, DANIDA, DFID, GiZ, KfW, the Norwegian Ministry of Foreign Affairs, SNV, UNDP, UNCDF and the World Bank in the form of financial and technical assistance. In addition, some development partners may join hands as it moves forward.

The NRREP aims to improve the living standard of rural women and men, increase employment of women and men as well as productivity, reduce dependency on traditional energy and attain sustainable development through integrating alternative energy with the socioeconomic activities of women and men in rural communities.

A distinctive feature of NRREP is that it will be a single programme modality in which there will be no other AEPC executed Development Partner supported renewable energy programmes or projects funded outside the NRREP. This is done to remove inefficiencies, duplication, lack of coordination, supply led projects and fragmentation of aid to the rural and renewable energy sector in Nepal.

The NRREP has three main components as: i) Central Renewable Energy Fund (CREF) as the core financial mechanism responsible for the effective delivery of subsidies and credit support to the renewable energy sector; ii) Technical Support (TS) to accelerate renewable energy service delivery with better quality, comprising various technologies, to remote rural households, enterprises and communities, to benefit men and women from all social groups, leading to more equitable economic growth; and iii) Business Development for Renewable Energy and Productive Energy Use (BDRE&PEU) to contribute to an increase in income generation and employment potential for micro, small and medium sized enterprises (MSME) in rural areas, particularly for men and women belonging to socially and economically disadvantaged groups.

The NRREP has envisioned institutional arrangements to deliver the expected results for each of the components. The Regional Services Centres (RSCs) and District Energy and Environment Unit/Sections (DEEU/Ss) are the key institutional delivery mechanisms for renewable energy technologies (RETs) to local communities, as the focus of this study looking into their roles and responsibilities.

1.2 Brief overview of RE development in Nepal and emergence of NRREP

Introduction of electricity in Nepal in 1911 by establishing Pharping Powerhouse (500KW) marks the beginning of RET development in Nepal. After 1950s various other RETs (micro-hydro, biogas, biomass, solar energy, etc.) were introduced as well as government began to take initiatives for their promotion. However, until mid 1990s the development and promotion of the RETs were very much individual projects or initiatives. The initiation of the Rural Energy Development Programme (REDP) in August 1996 by United Nations Development Programme (UNDP) and the establishment of AEPC in November 1996 mark the new beginning of RETs development in a holistic manner. The REDP, through its social-

engineering approach, promoted micro-hydro (MH), biogas, solar photovoltaic (SPV) and improved cook stove (ICS) in its programme villages. Later, since 2004 the World Bank (WB) also partnered with REDP for the up-scaling of micro-hydro in the villages of Nepalese hills and mountains. Similarly, AEPC also began to promote all kinds of RETs through its first phase of the Energy Sector Assistance Programme (ESAP-I) since March 1999. While these two longer-term impact initiatives were launched, the SNV (Netherlands Development Organisation) supported biogas support programme was already ongoing since early 1990s. Soon after the beginning of ESAP-I, BSP was also brought under the purview of AEPC while REDP continued as it was until 2003 when it was transiting to its second phase. REDP was also brought under the purview of AEPC since then.

The key difference between i) REDP and ii) ESAP&BSP was institutional dimensions of delivery of RETs to the local people. With the promulgation of Local Self Governance Act (1999), REDP took the approach of institutionalising its then Rural Energy Development Sections (REDS) under the District Development Committee (DDC) to promote RETs at the local level. In this way, REDP decentralised its most of the promotional activities to local government bodies and provided technical support from the centre. REDP used to deploy private companies and non-governmental organisations (NGOs) through DDCs for field level activities. In its second phase (2003-2006) and third phase (2007-2010), REDP also experimented by establishing its regional offices while also continued posting its district offices as District Energy Sections (DES) which later on also expanded as District Energy and Environment Sections (DEESs). Since 2011, the REDP's approach has been continued with slight modification in its strategic focus as "Renewable Energy for Rural Livelihood Programme (RERL)".

Whereas the ESAP/AEPC also moved along with its phases (Phase I from 1999-2006 and Phase II 2007-2011) during which the primary difference it maintained from REDP was that it promoted RETs through NGOs as Area Centres (AC, in Phase-I and Regional RE Service Centres in Phase-II) and private companies as RET promoters by directly contracting from the centre. Similar, approach was applied for the biogas promotional activities except that the Biogas Support Programme, Nepal (BSP-N) would work as a bridge between AEPC and individual biogas promoters.

While the REDP and ESAP implementation modalities continued to promote RETs, like the education and governance sectors, effort was made by the government and development partners to go for a sector-wide approach to RE sector. As a result, the NRREP has emerged by harbouring the good practices of both modalities. This combination has, therefore, given an impetus to realise a situation that the roles and responsibilities of DEEU/Ss and RSCs would be overlapping which remained less pronounced when the two different modalities were working separately.

1.3 RE policy and regulatory frameworks

Until the restoration of multi-party democracy in 1990, policies regarding energy promotion or development were lacking. The Hydropower Development Policy (1992, revised in 2001), Electricity Act (1992), Electricity Rules (1993, amended in 2007, 2008 and 2009) and Electricity Tariff Fixation Rules (1993, amended in 1993, 1994 and 1999) were the first policy and regulatory frameworks in the energy sector. There was no any policy and regulatory framework for RETs. The Hydro Power Development Policy (1992 as well as 2001) had addressed only micro-hydro in an indirect manner by making a provision that

license up to 1000 kW would not be required. "However, if the project having a capacity of 100 KW to 1000 KW is to be operated, a notice to that effect with necessary particulars should be given to the concerned agency before commencing the work of the project."¹ Therefore, the BSP-N, REDP and ESAP were working innovatively through local government bodies, community people, NGOs and private sector for the promotion of RETs without proper policy and regulatory frameworks until 2006.

It was only in 2006 the Rural Energy Policy was promulgated based on the lessons learned from various programme experiences, primarily from REDP. With the support of UNDP-Sustainable Energy Trust Fund, the REDP launched a RE policy formulation project as its component, fielded policy formulation missions, conducted nationwide consultations for RE policy formulation, advocated with all actors engaged in RETs promotion business and finally succeeded formulation of RE policy with the leadership of National Planning Commission and AEPC which was promulgated by the Cabinet decision in 2006. Subsequently, RE Subsidy Policy (2006, and revised in 2013) and RE Subsidy Delivery Mechanism (2010, revised in 2013) were also passed by the government.

There are a number of other relevant policy and regulatory frameworks for NRREP. The Environment Protection Act (1997), Local Self Governance Act (1999), Public Procurement Act (2007), Public Procurement Regulations (2007), policies of the Central Bank of Nepal, and several guidelines and directives, such as, GESI guidelines, social mobilisation guidelines, decentralised planning guidelines, and mechanisms are pertinent during implementation the NRREP and defining roles and responsibilities of DEEU/Ss and RSCs.

1.4 RE technological focus of NRREP

NRREP envisions that "Several RETs will be supported, each with their distinctive characteristics and implementation strategies, ..." ². The past experience suggest that, practically, in the most of the instances the RETs that will be promoted will be micro-hydro plants (MHP), biogas plants (domestic and institutional), solar PVs (domestic and institutional), improved cooking stoves and solar water pumping. However, considering the specific contexts wind mills for electricity production, improved water mills (IWM), solar *tukis* and other technologies may be promoted. Therefore, roles and responsibilities of DEEU/Ss and RSCs should consider these factors too.

¹ Hydropower Development Policy, 2049 BS or 1992 AD, page 2.

² NRREP Programme Document, June 2012, page iii.

Part-II: Methodology

2.1 Objective of the study

NRREP has already started its implementation. It has envisioned DEEU/Ss and RSCs as its wings for local level implementations. However, a need has been realised to further refine demarcation of roles and responsibilities of them.

Therefore, the overall objective of this assignment is to prepare the roles and responsibilities of RSCs and DEEU/Ss for NRREP implementation.

Specific objectives of the assignment are to prepare roles and responsibilities of RSCs and DEEU/Ss relating to:

- RETs awareness and promotional activities;
- RETs prioritisation, selection and planning of projects;
- Implementation, supervision, monitoring, evaluation, review and reporting of the activities and projects.
- Coordination, networking and database management
- Capacity building of stakeholders, resource mobilization
- Research and development on RETs.

2.2 Scope of the work

This task has covered consultations with main stakeholders of national and local/district levels; and review of relevant document, such as, NRREP project documents, policies, acts, rules and regulations and guidelines.

Specifically, following activities were conducted:

- Review of relevant programme/project documents (see 3.1 and Annex - 5 List of documents reviewed), particularly NRREP, ESAP, REDP, RERL, etc. and modalities, such as, DEES/U and Regional Renewable Energy Service Centres (RRESCs) engagement.
- Review of District Energy Environment and Climate Change (DEECC) operational guideline (draft); draft environment friendly governance (EFLG), LSGA, RE policy, Subsidy Policy and mechanism, CREF Intermediation Mechanism, etc. (see 3.1 and Annex - 5)
- Interaction/consultation meetings with relevant components/subcomponents/units of AEPC/NRREP responsible for coordination with DEEU/Ss and RSCs and get their inputs (see Annex - 3 & 4).
- Interactions/consultation meetings with key officials of NPC, MoSTE, MoFALD, ADDCN, NAVIN, NMHPDA, and NBPA (see Annex - 3 & 4).
- Field visit and interactions/consultation meetings with DDCs and DEEU/Ss of Dhading, Chitwan, Palpa and Tanahun.
- Field visit and interactions/consultation meetings with RSCs in Palpa and Tanahun.

To reach to conclusions and recommendations the study framework may be presented as follows (Figure 1):

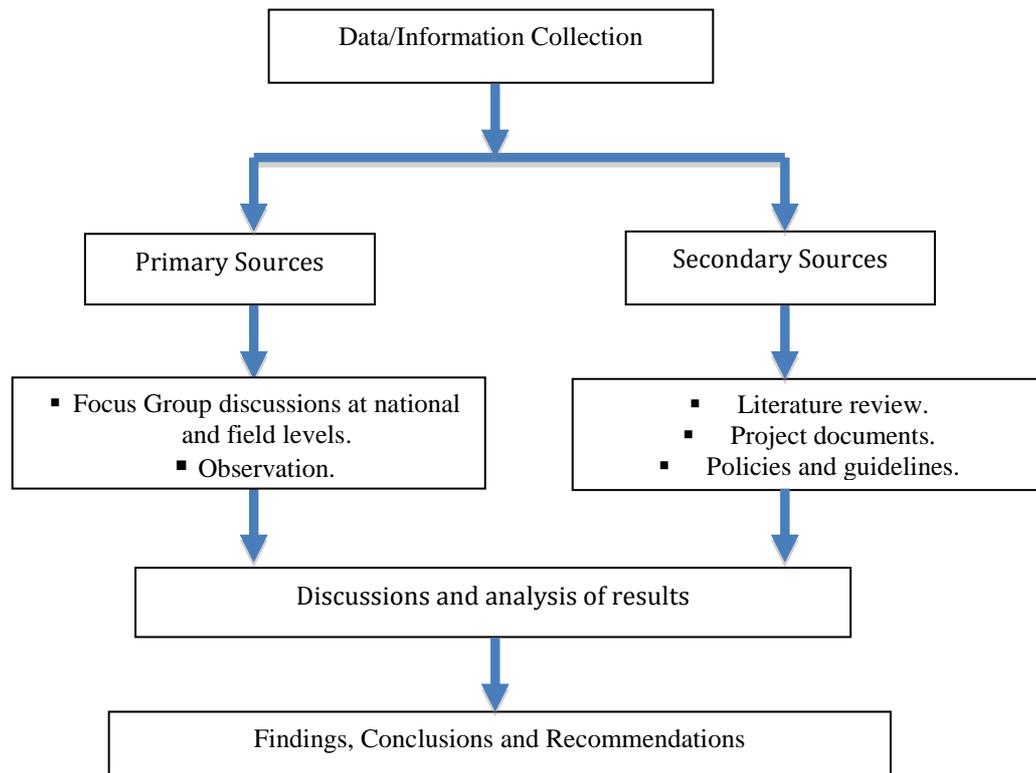


Figure 1. Study framework

2.3 Consultation approach

2.3.1 Central level

A list of individuals and offices were provided to the consultants' team by the AEPC for undertaking consultations. During the consultation with AEPC officials a few additional organisations were also advised which were also consulted. Checklists were designed for all different kinds of officials/offices to be consulted (see Annex - 2). However, free-flowing discussions were encouraged as practicable as possible in order to extract real views of officials.

In line with the given ToR and scope of work outlined above, meetings were conducted with concerned officials of AEPC/NRREP in four groups on the basis of i) their past associations with REDP/RERL, ii) ESAP, iii) directly recruited in AEPC, and iv) other programmes of various themes. This was done to extract views and ideas of the professionals in a more homogenous environment from their past association but their engagement in various energy technologies and themes at present.

For NPC, MoFALD and MoSTE, individual offices were visited and consultation meeting organised with concerned officials.

For NMHPDA and NPBA, consultations were organised together at the office of NBPA as they are representative private organisations.

For ADDCN and NAVIN, consultations were organised together at the office of ADDCN as their works are similar in nature.

2.3.2 Field (district/region) levels

Field level consultations were organised from 29 July to 4 August 2013 (see Annex - Field visit schedule) visiting Dhading, Chitwan, Palpa and Tanahun District offices and officials. Checklists were developed for respective institutions too (see Annex -2). However, free-flowing discussions were encouraged as practicable as possible in order to extract real views of officials.

Discussions were organised at the office of LDOs of visited districts, RSCs and DEEU/S as convenient as possible for the concerned officials. In case of Chitwan discussion was organised only with DEEU officials whereas in Tanahun meeting was organised together with Planning and Monitoring Officer of DDC and DEEU officials (because LDOs of these districts were out of station at the time of visit). Both with Rural Economic Development Association (REDA, Palpa) and Rural Empowerment Society (RES, Tanahun) meetings were organised with almost all of the officials of these offices in groups. The meeting with REDA was organised to understand perspectives and lessons as it was an outgoing RRESC which will not be involved in the NRREP implementation directly like the recently selected RSCs.

2.4 Analytical approach

This study primarily followed the qualitative analytical approach based on:

- Contents that were extracted from reviews of ESAP and REDP/RERL modalities respectively relating to RSCs and DEEU/Ss as field level implementation entities; and review of all other relevant document as listed in Annex -5.
- Inputs collected through consultations from officials at the national and district/regional levels.

The information were analysed descriptively as views and ideas shared by various officials from national (AEPC, NPC, MoFALD and MoSTE) and local levels (DDCs, RSCs and DEEU/Ss) as well as provisions stated in various policy, regulatory, mechanisms and programme/project documents with particular focus on the specific objectives in view of i) Policy context for NRREP implementation; ii) Central level mechanisms of NRREP implementation; iii) Field level RETs delivery mechanisms of NRREP implementation, particularly focusing on RSCs, DEEU/Ss and NGOs and others; and iv) Proposed fund-flow mechanism of NRREP. Having a holistic perspective based on the analytical outcomes (Part - III), the conclusions and recommendations (Part - IV) have been drawn with specific roles and responsibilities of RSCs and DEEU/Ss.

Part-III: Findings and discussions

3.1 Policy context for NRREP implementation

As stated above in Part I, the policy context for NRREP has now well developed with the promulgation of RE Policy (2006) and subsequent policies, rules and regulations which are prime guides for its implementation. NRREP is a holistic RE programme of GoN with the support from multiple development partners and according to NPC it is regarded as "P1" (first priority) programme in view of the importance of RETs promotion in Nepal as well as the volume of money that is being invested in the programme. Therefore, it is critical that the NRREP is nationally owned and remains consistent with the policies and regulatory frameworks of the country. If policies and regulations are found to be restraining, appropriate amendments may need to be pursued, the analysis of which is beyond the scope of current ToR. Nevertheless, the review of policies in relation to NRREP reveals that key policies, regulations and guidelines that, but not limiting to, will be attracted in NRREP implementation are as follows:

For RETs promotion, in general:

- 1) Rural Energy Policy (2006);
- 2) RE Subsidy Policy (2006, and revised in 2013);
- 3) RE Subsidy Delivery Mechanism (2010, and revised in 2013);

For governance and planning:

- 4) Local Self-Governance Act (1999);
- 5) Environment Protection Act (1997);
- 6) District Annual Work Planning Procedures (2068 BS);
- 7) Social Mobilisation Directive (2066 BS);
- 8) Local Body Resource Mobilisation and Management Guidelines (2069 BS);
- 9) District Climate and Energy Plan Preparation Guideline (2011);
- 10) District Energy, Environment and Climate Change (DEECC) Section, operational guideline (in final stage, yet to be approved);
- 11) Government's periodic plans;

For procurement of goods and services:

- 12) Public Procurement Act (2007);
- 13) Public Procurement Regulations (2007);

For monitoring and evaluation:

- 14) Results Based Monitoring and Evaluation Guidelines (2010);
- 15) Poverty Monitoring and Assessment System (PMAS);
- 16) Minimum Condition and Performance Measurement (MCPM);

For fund flow, and handling grant and credit funds:

- 17) Policies, guidelines and directives of the Central Bank of Nepal issued from time to time; and
- 18) Draft Central Renewable Energy Fund (CREF) Financial Intermediation Mechanism (2013).

3.2 Central level mechanisms of NRREP implementation

The NRREP management structures are quite elaborate. It has a Programme Steering Committee (PSC) for the overall management which comprise of the following six members:

- 1) Secretary, Ministry of Science, Technology and Environment (MoSTE) - Chairperson
- 2) Joint Secretary, Ministry of Finance - Member
- 3) Joint Secretary, Ministry of Federal Affairs and Local Development (MoFALD) - Member
- 4) Joint Secretary, Ministry of Energy - Member
- 5) A representative from Development Partners - Member
- 6) Executive Director of AEPC - Member Secretary, Ex-officio.

The above structure has been designed to "ensure a high degree of efficiency in the decision making ..." ³ without any conflict of interest and to maintain the well established direct link with the AEPC Board through the Chairperson of the PSC. From among the development partners who are signing the Joint Financing Agreement (JFA) are expected to identify and assign a lead partner to represent in the PSC and to maintain the contact with the GoN for all aspects of NRREP.

To provide advices to NRREP management and PSC, a Coordination Committee will be established comprising of representatives from following and should ensure a gender balance:

- 1) National Planning Commission
- 2) Ministries of Finance
- 3) Ministry of Energy
- 4) Ministry of Federal Affairs and Local Development
- 5) Ministry of Women and Social Affairs
- 6) A representative from each of the associations supplying Renewable Energy Technologies (Micro Hydro Power, Solar and Biogas)
- 7) A representative from an organisation of women and socially excluded
- 8) A representative from the Association of Village Development Committees in Nepal
- 9) A representative from the private financial sector
- 10) A representative from the private sector with extensive knowledge on MSME development
- 11) A representative from each of the Development Partners supporting NRREP
- 12) AEPC Executive Director, Member Secretary
- 13) Senior Adviser and the Chief Executive Officer of CREF, as Observers.

AEPC will carry out the secretariat functions including organisation of NRREP Coordination Committee meetings and Committee members will receive an update of NRREP progress at each meeting. It is to be noted that representation from Association of District Development Committees of Nepal (ADDCN) seems missing and would be appropriate to include. In the same way, ED of AEPC has been proposed as the member secretary but chairpersonship has not been mentioned.

³ Ibid, page 16.

AEPC as the designated executing agency for the NRREP, the Executive Director (ED) of AEPC works as the Programme Director and looks after overall day-to-day management of NRREP. Of the three components, respective AEPC Programme Managers will undertake day-to-day management of i) TS and ii) BDRE&PEU components while the Chief Executive Officer (CEO) will manage iii) CREF component. There will be a Senior Adviser as well as national advisers for providing advice to AEPC on NRREP implementation. There will be a Compliance and Quality Assurance Unit (CQAU) led by a Senior Fund Management Advisor (also provides advices to CEO of CREF) for providing oversight and support to financial and procurement management as well as for quality assurance and support to Value for Money audits across NRREP.

CREF Component: A detailed Financial Intermediation Mechanism (2013) has been already developed for the implementation of the CREF amounting USD 116.3 million. The Mechanism will be implemented through private commercial and development banks selected on a transparent and competitive basis in accordance with well-defined eligibility criteria.

TS Component: For the delivery of TS component the NRREP programme document suggests that "the management arrangement ... [should] build on some fundamental principles: (i) It should be a streamlined structure,(ii) the managerial responsibility should effectively be vested within AEPC, (iii) high quality advise should be provided to AEPC, and (iv) AEPC should at the end of the five years implementation period not be responsible for carrying the costs of additional staff specifically needed for NRREP execution."⁴ The Document also suggests that the "Programme Managers will be the decision makers under the responsibility to the Programme Director and the NRREP governance structure"⁵ taking advices from advisors. However, a detailed mechanism similar to CREF's Financial Intermediation Mechanism has not been developed.

As a part of the TS component, NRREP also envisages, as relevant, undertaking innovation, research and development on RETs, such as, the Renewable Energy Testing Station (RETS), and specific GESI needs (e.g. affordability, reliability of technology and costs). The activities can be carried out in collaboration with and facilitation of academia, private sector and civil societies. A committee consisting of the ED of AEPC, the Senior Adviser of NRREP and one or two representatives from the research society will make the assessment of proposals according to a number of established criteria.

BDRE&PEU Component: For this component, "AEPC will be responsible for coordinating the business development support, the ex-post monitoring, reporting and coordination with other components. AEPC will nominate one of its senior staff members as PEU Programme Manager. PEU Programme Staff will be employed in the same way as under the Technical Support Component. A PEU national adviser will be contracted and paid from the TA budget"⁶. The main objective is to achieve an increase in income generation potential for micro, small and medium sized enterprises (MSMEs) in rural areas, particularly for men and women belonging to socially and economically disadvantaged groups. For this, strategy is to support MSMEs to implement existing and new economic activities demonstrating substantial market demand and growth potential, aligned with local resources and capacities and powered (at least partially) with RE leading to income generation. Those business

⁴ Ibid, page 18.

⁵ Loc. cit.

⁶ Ibid, page 20.

activities need to be identified, studied, and replicated where possible through approaches like Value chain analysis (VCA), Local Economic Development (LED) and Making Markets work for the Poor (M4P). However, a detailed mechanism similar to CREF's Financial Intermediation Mechanism has not been developed.

3.3 Field level RETs delivery mechanisms of NRREP implementation

While central level structures are for making policies and taking decisions, translation of those into actions is the responsibility of field mechanisms. The field mechanisms proposed for NRREP are the products of the long-standing experience in the RE sector and the governance sector in general. NRREP is an ambitious programme from the perspective of ensuring delivery of USD 116.3 million as CREF, USD 40.1 million as TS and USD 8.4 million as BDRE&PEU within 5 years to produce the following physical targets:

- 25 MW electricity from mini and micro hydro power plants benefitting 150,000 households,
- 600,000 Solar Home Systems,
- 475,000 Improved Cooking Stoves,
- 130,000 household biogas plants
- Establishment of 1,300 new MSMEs and
- Increase in employment by 19,000 persons.

The key actors in the field are local bodies (District Development Committees, Village Development Committees and Municipalities), NGOs, and private sectors. Local people have also pursued their development activities as cooperatives. The NRREP has envisioned implementation for field level activities through these entities.

Discussions with various stakeholders revealed that AEPC has been sailing through complex institutional dynamics in relation to field level implementation. AEPC was initially conceived as a special purpose vehicle to deliver RE services under the aegis of then Ministry of Science and Technology (MoST, now MoSTE). Over the years, AEPC has gradually proved it as an effective implementing wing of the government primarily utilising NGOs and private companies to reach out to the community people. Now there is an increased realisation that AEPC should also take firm direction to go through DDC or DEEU/S (local government wing). However, the absence of elected bodies at the local level is reported as a potential constraint for NRREP implementation.

3.3.1 Regional Service Centres (RSCs)

Introduction to RSC

- During ESAP-I (1999-2006) Area Centres (ACs) were delivery wings or Service Providers of RETs at the local/regional levels. They were referred as Regional Renewable Energy Service Centres (RRESCs) during ESAP-II (2007-2011) and were 12 in number. In NRREP, the RRESCs have been recognised/termed as RSCs and the numbers have been re-adjusted to 9 in total providing services to all 75 districts. The following are the map (Figure 2) and table (Table 1) of RSCs and serving districts under NRREP. The key criteria for such clustering of districts include coverage, geographic accessibility and potential volume of work.



Figure 2. Location Map of RSCs.

Table 1 - RSCs and working districts.

RSC Cluster No. ⁷	Cluster/Regional Headquarters	Districts Coverage
1.	Dadeldhura	Dadeldhura, Baitadi, Darchula, Doti, Bajhang, Bajura, Achham, Kailali, and Kanchanpur
2.	Surkhet	Humla, Mugu, Jumla, Jajarkot, Banke, Kalikot, Dailekh, Surkhet, and Bardiya
3.	Dang	Rukum, Salyan, Rolpa, Pyuthan, Dang, Dolpa, and Argakhachi
4.	Kaski	Mustang, Kaski, Parbat, Syangja, Palpa, Gulmi, Myagdi, Baglung, Kapilbastu, and Rupandehi
5.	Chitwan	Manang, Lamjung, Gorkha, Tanahun, Dhading, Chitwan, Makwanpur, Rasuwa, Nuwakot, and Nawalparasi
6.	Kavre	Kathmandu, Bhaktapur, Lalitpur, Kavre, Ramechhap, Okhaldhunga, Solukhumbu, Dolakha, and Sindhupalchowk
7.	Bara	Parsa, Bara, Rautahat, Sarlahi, Mahottari, and Sindhuli
8.	Saptari	Dhanusha, Siraha, Saptari, Sunsari, Morang, Jhapa, Udaipur, and Khotang
9.	Dhankuta	Sankhuwasabha, Bhojpur, Dhankuta, Taplejung, Terathum, Panchthar, and Illam

Source: AEPC).

⁷ At the time of preparation of this report the selected RSCs for clusters 1 - 9 respectively include, Rural Development Service Centre (RDSC), Association for Social Transformation and Humanitarian Assistance (ASTHA-Nepal), Backward Education Society (BASE), Dhaulagiri Community Resource Centre (DCRDC), Rural Empowerment Society (RES), Resource Management and Rural Empowerment Centre (REMREC), Renewable Energy Water Supply and Sanitation Promotion Centre (REWSSPC), Sagarmatha Community Development Centre (SCDC), and Namsaling Community Development Centre (NCDC).

- Legally a RSC could be an NGO, or a cooperative, or a private firm registered under relevant legal authority of GoN. AEPC/NRREP selects RSCs through a competitive process and enters into an agreement with the selected ones for the project duration with the provision that contract are renewed on the basis of their performance against the agreed targets.
- There is also a provision that NRREP will support the selected RSCs to enhance their capacities to facilitate the delivery of RE services and promote linkages at a local level as resource centres or regional arms of the AEPC. It has been envisioned that RSCs will have roles in coordination of the local implementation of NRREP as service providers and will work as intermediary organisations between AEPC and rural households/communities for RE programmes.
- NRREP has also envisioned deployment of Business Officers in the RSCs and to set up local economic development (LED) committees at local level. The Business Officer, who will be responsible to the PEU Manager, will facilitate the end use promotion and income generating activities at the local level.

Views expressed about RSCs

- Discussions with various stakeholders at central and district levels (See Annex - 3 & 4) revealed differences of opinion and understanding on RSCs. The key areas of differences relate to legal status of RSCs, their operational styles, and sustainability of their operation and support in the RET sector.
- Key views suggesting advantages of deploying RSCs include as follows:
 - Having RSCs as service delivery agents has great benefit for their efficiency as they do not have to go through lengthy processes and requirements. RSCs are critical in view of the very ambitious delivery target of over USD 170 million within a limited time period.
 - RSCs are more cost effective in terms of delivery of RETs as a complete set of technical people could be stationed at the RSCs who could be mobilised in more effective manner as per the need of the given region. For example, RSC Chitwan (or RES of Damauli) has recruited/appointed Regional Coordinator, Mini-Grid Engineer, Biomass Energy Engineer, Solar Energy Officer, GESI Officer, Sub-Engineers, Senior Social Mobiliser, Facilitator and Admin staff who could be mobilised or deployed to 10 districts from time to time as per need.
 - In some districts, where there used to be RRESCs (of EASP-II), as reported, the coordination and collaboration between them and district bodies used to be smooth. As a result, they had seen locational advantages of RSCs in their district. However, in the NRREP context as the RSC is going to be relocated elsewhere. As a result, they have a difficult feeling that they would have to refer their villagers to far away places for getting help for RET promotional activities.
 - Most of the RSCs are NGOs and are already in contact with local community through other programmes and, therefore, can work with efficiency with their existing structures and staff.

- Since RSCs work through local partner organisations (LPOs) and hire local staff for respective districts, the ownership of the programme may be enhanced.
- Key views suggesting disadvantages/concerns with regards to deploying RSCs include as follows:
 - Government programme should have tried to use more of the government apparatus than the NGOs as the government institutions are permanent in nature and RET services could be provided in a more sustainable manner.
 - NRREP should decisively consider its implementation through government mechanism, but should not abandon the roles of RSCs abruptly.
 - Other larger government programmes have been running through government mechanism and strengthening the system, but NRREP seems as likely threat that system strengthening would be taken far away for some years.
 - A RSC being a regional in nature were losing their focus and effectiveness in districts.
 - There are less accountability and ownership RSC activities in districts as well as there are no real coordination between DDCs and RSCs.
 - As an NGO, a RSC is likely to cease working on RETs after NRREP phases out. Moreover, by nature as well as by virtue of the contractual arrangements with them, RSCs cannot be useful for sustainable development of RETs.

Some issues and considerations:

- When looked at from the RETs promotion perspectives, keeping the specific objectives of this study in view, the reviews of NRREP programme document as well as the views that emerged from discussions, it was found that there is no limitation for a RSC in the field for RETs promotion, except the agreed annual work plan when they sign contract with AEPC/NRREP. In other words, they can undertake RETs awareness and demand creation activities; RETs projects planning; coordination; implementation of projects; capacity building; and R&D on RETs. *This is a critical issue that it has potential for duplication of efforts between DEEU/Ss and RSCs.*
- Discussions with DDCs and DEEUs revealed that various districts give differential treatments concerning RET activities in their districts that are implemented by RSCs. In general, it became apparent that coordination and collaboration between DEEU/Ss and RSCs are weak and imposed rather than institutionalised and systematic. Some LDOs mentioned that coordination has been primarily limited to passing of RSCs' activities through District Council meeting which they are liberally approving via DEEU/Ss processes considering them as demand based programmes. However, close monitoring is lacking.
- With regards to village level delivery of RETs of certain RETs, private sectors representative organisations suggested that RSCs as well as DEEU/Ss may undertake monitoring but their roles to recommend subsidy disbursement would be restraining.

3.3.2 DEEU/S

Introduction to DEEU/S

- In line with the RE Policy (2006), AEPC continued to instituting or internalising District Energy and Environment Units/Sections (DEEU/Ss) in all 75 districts of

Nepal which is in conformity of the LSGA (1999) provision as stipulated under Article 257⁸. Those which were under REDP or RERL having implementation responsibilities for micro-hydro or other RETs were called as DEESs and those which having only liaison and promotional activities were called as DEEU/Ss.

- Since 2012, the Nepal Climate Change Support Programme (NCCSP) has commenced covering 14 districts in the Mid- and Far Western Regions of Nepal⁹. With the initiation of NCCSP the responsibilities of DEEU/Ss in these districts have been expanded to include climate change adaptation activities whereby the Sections/Units will be called as District Environment, Energy and Climate Change Sections (DEECCSs). The MoFALD has shown its ownership of DEEU/Ss or DEECCSs and has played a key role in developing DEECCS operational guidelines. Recently the MoFALD has also pursued developing the concept of environment friendly local governance (EFLG) and has taken lead to finalise the DEECC operational guideline in line with it. MoFALD has kept a longer-term vision that these sections are internalised as well as become the focal points for additional environmental issues like disaster and pollutions.
- NRREP has recognised that the DEEU/Ss or DEECCSs are an integral part of the DDCs and should be internalised as soon as possible. They will be permanent institutional mechanisms responsible for undertaking energy and environmental activities in their respective districts. AEPC has emphasized the capacity development of these entities for demand collection, implementation, monitoring and supervision of RETs and programmes.
- However, the DEECCS draft operational guideline has described the present situation of DEEU/Ss in a more critical manner. It has pointed out that the existing Units/Sections have been housed in the DDC but their programmatic and administrative funding directly come via AEPC from the programmes of GoN and development partners. The Units/Sections are operating in a dual responsibility situation. Therefore, they are in dilemma that neither they could be said as own sections of DDCs nor they could be ignored. As a result, it has been pointed out that districts have not been able to optimise the benefits from these Units/Sections.

Views expressed about DEEU/S

- In the context of NRREP implementation, recent discussions with various stakeholders and institutions (see Annex - 3&4) suggested mixed opinions about DEEU/S's involvement.
- Key views suggesting advantages of DEEU/S include as follows:
 - DEEU/Ss or DEECCSs are integral parts of DDCs and permanent in nature, they are present in all districts, and can sustain even after country will move

⁸ LSGA Article 257. "Establishment of Subject-wise Section: 1) District Development Committee may, for development and construction works to be carried out in the district development area, set-up subject-wise sections in office on the basis of the prescribed criteria."

⁹ NCCSP districts include Achham, Bajura, Bardiya, Kailali, Dolpa, Humla, Jumla, Mugu, Dailekh, Jajarkot, Kalikot, Dang, Rolpa and Rukum.

into federal structure. Therefore, this structure should be utilised as much as possible by the programme.

- They are the authentic institutions for RETs development and promotion in their respective districts and can play roles of planning, monitoring, coordination, promotion and district energy information centre (clearing house). They can act as centre of excellence for facilitation of RETs in the districts for VDCs, and Ilakas.
 - A DEEU/S or DEECS is one of the closest government entities with the local communities, and people come for seeking support on RETs for their villages.
 - DEEU/Ss can prioritise RETs promotion in their respective districts among so many other priorities and are more accountable to people in a sustained manner.
- Key concerns raised about DEEU/Ss include as follows:
 - Being a government entity, a major concern was that the DEEU/Ss could be less efficient in their work owing to the prevailing government bureaucracy.
 - The capacities of DEEU/Ss are limited and may not be able to cater services to deliver ambitious results of NRREP. At present, in case of DEEU only one Energy Development Officer (EDO) is posted with support of AEPC and DDC, depending on their internal resource, may or may not recruit a Sub-Engineer.
 - Some also reported that staff capacities in DEEU/Ss are quite low who even do not know how to carry out feasibility studies.

Some issues and considerations:

- Districts are differentially endowed with their internal resources. Some districts are better off because they have plenty of natural resources which they can and are capitalising for their development activities while others are lagging behind. In some districts, revenue collection is massive because of the presence of mega-hydro power plants in their districts (for example, Tanahun district has Marsyangdi hydro power-III, Lamjung district has Marsyangdi hydro power I & II, Syangja district has Kaligandaki A, etc.) while many others are deprived of such opportunities/possibilities. The districts with big revenue collections have been busy in implementing their own energy activities and the presence of DEEU/Ss have been highly advantageous for them.
- Such differences are also indicative of the fact there are differences in the roles and responsibilities of the DEEU/S in various districts. Moreover, the geographic conditions of districts as mountain, hills and Tarai also sufficiently pose a need for differences in the DEEU/S operations. It was reported and appeared quite obvious that in hilly districts naturally micro-hydro development potentials exist in addition to other RETs which demand local community participation. Whereas in Tarai or plain districts RETs promotion may take more of individual household mode with RETs like ICS, SHS and biogas. Therefore, a number of respondents argued that differential treatment should be given to the DEEU/S of hilly and Tarai regions in terms of staffing structure and specialisations. One key consideration suggested by some respondents for Tarai is that the promotion of RETs in the remote and backward areas has to be backed by strong social mobilisation activities.

- When looked at from the RETs promotion perspectives, keeping the specific objectives of this study in view, the reviews of NRREP programme document, history and the views that emerged from discussions, it was found that DEES were mainly located in the hilly districts and implementing major RETs viz. MHP, SHS, biogas and ICS. Whereas the DEEUs were mainly in Tarai districts (also in hills where REDP/RERL does not exist) were primarily helping DDCs to prioritise and integrate RETs in the planning processes and monitoring as quality assurance office. Discussions also revealed that in some district where there is plenty of resources for RET activities, even DEEUs have ventured implementation of MHP bigger than 10 KW. It is to be noted that the recent subsidy policy has made a provision that DEEU/S will implement MHP (redefined as pico hydro) for which AEPC/NRREP will provide subsidy funds into their respective District Energy Fund (DEF) via District Development Fund (DDF, a basket fund).
- LDOs and DEEU/Ss also suggested that, with some additional capacity in the district, they are capable to deliver all kind of RETs in their districts. They also argued that they being the permanent government structure, should be honoured in delivery of RETS in their districts as they claimed they were the authority as well as local people first come for all kinds of development assistance to their offices. Discussions also revealed that the coordination and collaboration with RSCs are heavily relying on the personalities and working styles of RSC's leaders which appear to be addressed by making some mandatory arrangements.
- With regards to village level delivery of RETs of certain RETs, private sectors representative organisations suggested that DEEU/Ss as well as RSCs may undertake monitoring but their roles to recommend subsidy disbursement would be restraining.

3.3.3 NGOs/private sector/cooperatives

In general, government and development partners consider NGOs, private sector and cooperatives as service providers for the implementation of programmes/projects at the grass roots level. Among others, their roles have been important during the time of ESAP as well as REDP/RERL programmes for the promotion of RETs. REDP used to employ NGOs for Community Mobilisation (CM) activities, private companies for installation of MHPs, biogas, SHS and ICS, and it used to encourage village level people to form their MHP cooperatives for running after installation. In a similar fashion, AEPC/ESAP used to employ NGOs as ACs or RRESCs for community mobilisation, demand creation, awareness and even promotion of certain RETs. It used to employ private companies for MHP, biogas, ICS, IWM, wind energy, solar energy, etc.

From the discussions among various stakeholders it has become clear that some of the RETs, such as, MHP, institutional solar energy, and institutional biogas, would require community participation at the village or VDC level or institutional level while there are a number of other RETs which could be dealt like any other commodity in the market. The only requirement is that people should be aware of those RETs, they should come-up with demand and they should be capacitated to afford. For such activities, both in Tarai as well as in hilly districts NGOs or cooperatives or private companies can play roles for public awareness and demand stimulation so that AEPC/NRREP could appropriately deal with subsidy flow to those communities or people who are in need.

In order to deliver such activities both RSCs and DEEU/Ss have past experiences. It was, however, found that the roles and responsibilities of the apex organisations of private sector or NGOs or cooperatives have not been appropriately configured (This study however did not include consultations with cooperative organisation). Concerning roles and responsibilities of RSCs and DEEU/Ss, the private sector national associations were concerned that these entities should only facilitate, but must not play authoritative roles like their payments become incumbent upon their approval. For example, there is an established system that solar electricity and biogas installations in households are directly done by private companies, they report to AEPC and obtain their payments, and now they do not like to get additional approval from RSCs or DEEU/Ss.

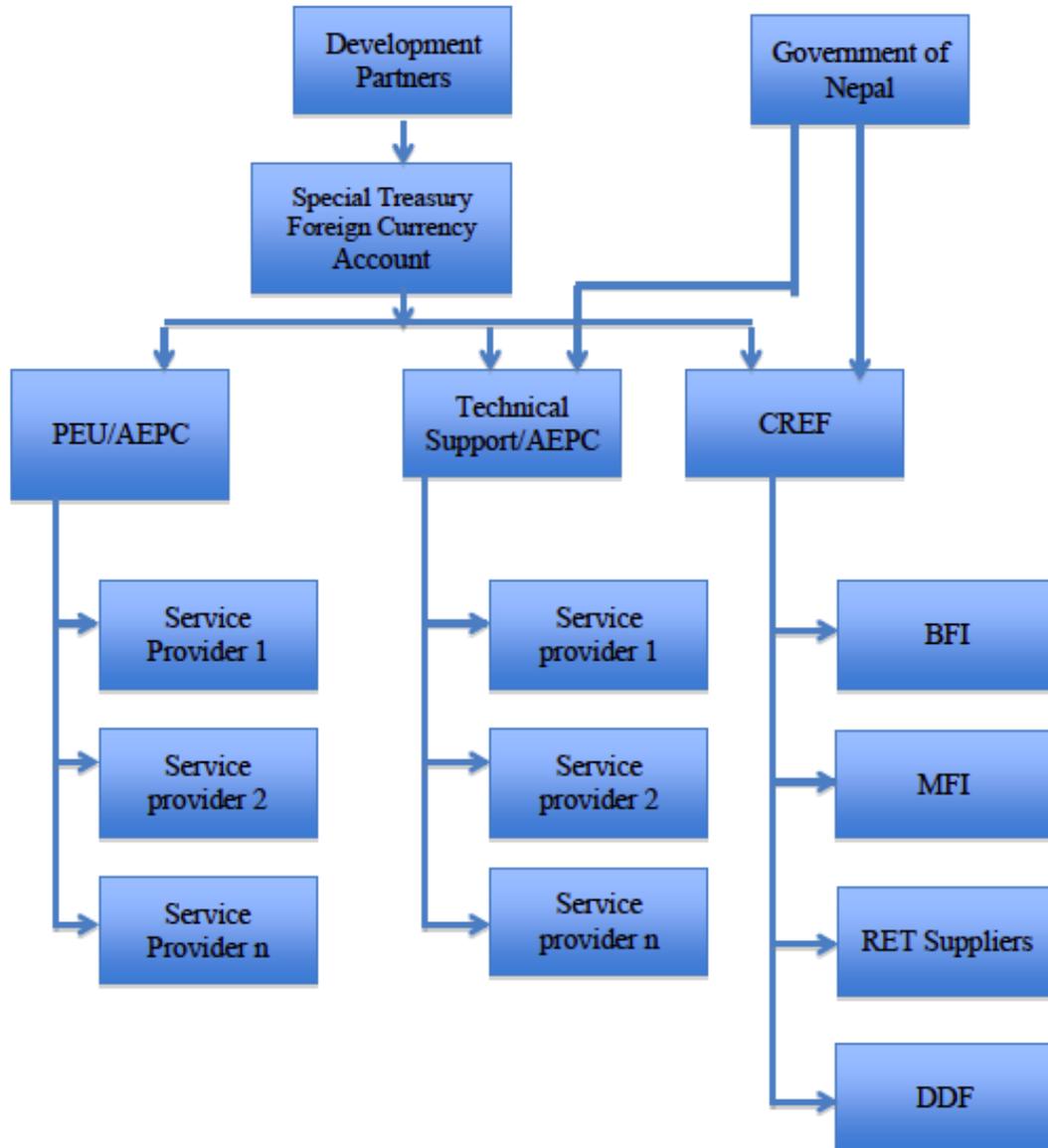
3.4 Proposed fund flow arrangements of NRREP in relation to roles and responsibilities of RSCs and DEEU/Ss

The overall fund flow arrangement of NRREP is as per the Figure 3 (below). NRREP programme document states that "The general principles for planning, budgeting, accounting, auditing and procurement in NRREP are that these activities will be aligned with and fully integrated with the partner institutions procedures where possible in order to avoid parallel processes."¹⁰ It segregates that the TS and BDRE&PEU component will follow the AEPC procedures while the CEO would develop procedures for CREF component. Therefore, the CREF Financial Intermediation Mechanism has already been finalised.

As fund flow mechanism is not sufficiently detailed out in the NRREP programme document, from the figure it can be interpreted that the fund flow arrangement considers DDCs, RSCs, DEEU/Ss, NGOs, private sectors and cooperatives as service providers. It could be understood that RSCs and DEEU/Ss will get funding support from TS and BDRE&PEU components for performing some of their roles. Therefore, a concern has been raised on relationship between AEPC/NRREP and DDCs in one hand, and DDCs are not seeing any money coming to their purview on the other, except salaries and operational costs of DEEU/Ss staff. Moreover, subsidy policy and delivery mechanism suggest that only up to 10kW pico-hydro subsidy will be provided to DDCs or DEEU/Ss. The CREF fund-flow completely bypasses DDCs role as it will be using banking and financial institutions both for grant delivery and credit flow. In addition, the flow diagram suggests that payments to RET suppliers will be made through CREF. The present level familiarity among DDCs or DEEU/Ss about the CREF Financial Intermediation Mechanism is low to none.

Representatives of MoFALD and LDOs argued that fund flow mechanism of NRREP ought to adopt the mainstream government system. This would mean that the RETs promotion money should go via DDF to DEF and finally to beneficiaries. However, the CREF mechanism opting the fund-flow via banks has been considered in order to reduce potential fiduciary risk in which even the AEPC has detached itself. This is one of the key contentions that NRREP needs to handle in an amicable manner.

¹⁰ NRREP Programme Document, June 2012, page 22.



Notes:

CREF: Central Renewable Energy Fund

PEU: Business Development for Renewable Energy and Productive Use of Energy Component

BFI: Banking Financial Institutions (Credit provision)

MFI: Micro Finance Institutions (Credit provision)

DDF: District Development Funds (Subsidy provision)

RET: Renewable Energy Technology (Subsidy provision)

(Source: NRREP Programme document).

Figure 3. NRREP Fund-flow mechanism

Part - IV: Conclusions and recommendations

4.1 Background conclusions and rationales to demarcation of roles and responsibilities of RSCs and DEEU/Ss

In order to make recommendation on demarcated roles and responsibilities of RSCs and DEEU/Ss, a number of conclusions have been reached as follows which could work as bases or rationales or guiding principles:

Inherent complexities in NRREP: NRREP is a highly comprehensive multi-stakeholder programme and, therefore, it demands clarities in roles and responsibilities at different levels. DEEU/Ss and RSCs are perhaps the most important aspects or institutions of the programme to deliver planned activities and to achieve expected results on the ground at the local level. As the NRREP kicks-off, it is inevitable that its implementation would need more clarity on a number of aspects. While AEPC procedures are supposedly well established, however, given the country context and fiduciary risks involved, additional mechanisms and procedures ought to be developed as the programme rolls out and moves ahead. AEPC has made commendable effort in bringing all concerned stakeholders of RETs around such a comprehensive programme. Binding all development partners with their own requirements and criteria was obviously a daunting task and additional dimensions, such as, further refinement of working modalities and procedures would be inevitable.

Evolution of approaches to RET development in Nepal: It is clear that the longstanding endeavours and approaches of RET promotion in Nepal, even without proper policy environment, have contributed to the evolution process in order to reach to the stage of AEPC/NRREP. Along the passage of time, lessons have been learnt and new ways of doing business have been adopted. NRREP is a unique product of such developmental processes in Nepal in the RET sector which has encompassed all RETs and programmes/projects in a single window system. Therefore, in recognition to the past approaches, realignment, readjustment and refinement in approaches would be pertinent for NRREP implementation in the present and are also important for future course of actions for RET development in Nepal.

Differences of opinion among stakeholders: Owing to their usual interests it is normal that differences of opinion or varied views would emerge from various stakeholders with regards to the roles and responsibilities of institutions that would impact on their works. As discussed above (in Part -III), respondents articulated their standpoints with great interest as well as provided valuable inputs for clarifying roles and responsibilities of DEEU/Ss and RSCs. The views in favour and NOT in favour of either RSCs or DEEU/Ss respectively represent the advantages (or strengths) and disadvantages (or weaknesses) of these bodies in perspective which can change over time and situation.

Importance of win-win solutions and policy frameworks: To the best interest of delivering AEPC/NRREP results for ultimate beneficiaries, analyses and recommendations have to be made about the roles and responsibilities of RSCs and DEEU/Ss. The specific roles and responsibilities should be the best win-win solutions, and trade-offs to be considered based on the findings, existing policies, rules and regulations, and guidelines. Reviews and analyses suggest that among

others, the NRREP programme document, RE Policy (2006), RE Subsidy Policy (2013), RE Subsidy Delivery Mechanism (2013), CREF Intermediation Mechanism (2013), Local Self-Governance Act (1999), Environment Protection Act (1997), District Annual Work Planning Procedures (2068 BS) and Public Procurement Act (PPA, 2007) are critical for the RSCs and DEEU/Ss to be familiarised for ensuring better implementation. Needless to say these will certainly help them understand related provisions, opportunities and limitations, as well as to properly implement the provisions being recommended in this report as roles and responsibilities.

Legal dimensions of RSCs and DDCs or DEEU/Ss: At the present, there is a paradox of authority and capacity issues between RSCs and DEEU/Ss which has become a critical consideration in defining roles and responsibilities. A RSC by virtue of its legal status lack authority in terms of activities or programme endorsement from local government bodies while may have better capacity which should be capitalised for achieving NRREP results within the limited project duration. Existing situation is such that, a DEEU/S being an integral part of DDC has the legal authority consistent with prevailing acts, rules and regulations. But there is a common perception that DEEU/Ss currently lack capacity and efficiency to deliver as per the expectation of the AEPC/NRREP. Although RSCs are perhaps effective and efficient, one of the most critical areas of difficulty according to the provisions of the PPA (2007) is that a RSC (as it could be a NGOs or private sector or cooperative) does not have the right to procure goods and services of high value but a DDC (or DEEU/S) have the right to perform such tasks. For example, if procurement relating to a micro-hydro or mini-grid installation is to be done, that has to be done either by AEPC directly or has to go through DEEU/Ss. This situation implies that either AEPC has to take the overburden or should delegate to DDC or DEEU/S. If such responsibilities are to be delegated, then it demands a strong support of DDCs which could be ensured through DEEU/Ss. Therefore, for all practical reasons DEEU/Ss' roles and responsibilities will become critical in the districts for which AEPC/NRREP has to appropriately address.

Different natures of RETs: Reviews and analyses of documents and feedbacks suggest that the RETs could be categorised as community and/or institution oriented and individual household oriented. In other words, some RETs demand community or institutional participation for their promotion while other RETs could be promoted to individual households. This also implies that community oriented RET promotion needs a more institutional or organisational approach for which entities like RSCs or DEEU/Ss are required. However, the individual household oriented RETs could be promoted through simple a market based approach, except some level of awareness creation or demand stimulation may be required by some external assistance. Therefore, the main focus of roles and responsibilities of RSCs and DEEU/Ss should be on the community or institutional oriented RETs promotion. Accordingly, description of roles and responsibilities at the technological level could be confined to those RETs only that would demand community/institutional involvement.

Coordination and collaborations between RSCs and DEEU/Ss: As envisioned by NRREP, the RSCs are being given mandate to work as technical wing for promotion of RETs in their respective regions. This means there is no limitation for them in terms of which RETs they promote in the assigned districts depending on the potentialities. On the other hand, the DEEU/Ss have mandate to promote or develop

all potential RETs within their districts with all legal provisions given they have enough resource. If they have resource, they may even be able to afford required capacity (ies) to undertake any technical aspects of RET promotion. Under such circumstances, there is no alternative to coordination and collaboration for synergistic gains (or to avoid overlapping and duplication which cause losses). Therefore, a number of roles and responsibilities may be recommended as common to both RSCs and DEEU/Ss indicating their comparative advantages owing to technical capacities and legal authorities.

Based on all these considerations, the roles and responsibilities of RSCs and DEEU/Ss have been suggested as:

- General roles and responsibilities,
- RET specific roles and responsibilities, and
- Collaborative roles and responsibilities common to both RSCs and DEEU/Ss including BDRE&PEU component.

4.2 Recommendations for RSCs' roles and responsibilities

4.2.1 General roles and responsibilities

AEPC/NRREP considers RSCs as temporary and efficient vehicles for implementation of RETs in their respective regions. Therefore, their functions are very much confined in relation to promotion of RETs only and they will be phased out along with NRREP. The AEPC/NRREP, however, is also thinking of regional technical hub-like institutions in addition to technical capacities available in RSCs and DEEU/Ss or DEECCSs. Further, with the exception of NRREP programme document, government does not have a pre-defined legal provision (like LSGA for DEEU/S) for the establishment and perpetuation of RSCs. However, RSCs are expected to thoroughly familiarise with all relevant policies, rules and regulations, and guidelines relevant for RETs promotion as mentioned above. Under such circumstances and need of ensuring ambitious delivery of NRREP results, the roles and responsibilities of RSCs may be encapsulated into following broad categories of functions.

- i) Awareness creation, demand stimulation and demand collection of all RETs.
 - ii) Capacity building and institutional development of local bodies and NGOs.
 - iii) Maintain database of RSC's activities as well as contribute to development of data base management system in DEEU/Ss or DDCs.
- i) Awareness creation, demand stimulation and collection of all RETs.
 - Organise RET promotional workshops and meetings to create awareness among the beneficiaries and potential service providers.
 - Carry out activities for RETs demand stimulation and collect demands of RETs from potential beneficiaries based on GESI and other relevant criteria.
 - ii) Capacity building and institutional development of local bodies and NGOs
 - In a participatory manner, assess the capacity gaps of related DDCs, DEEU/Ss or DEECCSs, NGOs and private sectors concerning RETs promotion mainly relating to prioritization, planning, implementation, monitoring, and reporting capacities.
 - Facilitate preparation of human resource capacity development plan and

- organisational strengthening plan including phase out strategy.
- As per the demand, help manage to build capacities through training and other tools as appropriate.

iii) Maintain database of RSC's activities as well as contribute to development of database management system in DEEU/Ss or DDCs

- Select, organise and undertake reviews for appropriate indicators on creating database on RETs of assigned districts.
- Maintain database of all RETs promotion, implementation, M&E and other relevant data up-to-date for the assigned districts.
- Collect, analyse and keep database of district level projects/programmes/activities related to energy, environment conservation and climate change and establish as resource centre.
- Assist DEEU/Ss or DEECCSs of assigned districts to prepare district level profile from the perspective RETs and climate change.
- Supply, as and when required, appropriate data for planning and academic purposes on RETs.

4.2.2 RE Technology specific roles and responsibilities

In relation to technology specific roles and responsibilities, RSCs should familiarise with RE Subsidy Policy (2013) and RE Subsidy Delivery Mechanism (2013) at a minimum which provide enough guideline and direction for promotion of different RETs. Technology wise following roles and responsibilities for RSCs are suggested:

Institutional/Community/Commercial/Solid waste Biogas

- Create awareness of institutional/community biogas promotions with institutions like schools, hospitals, etc. and local communities and facilitate demand collection in line with RE Subsidy Policy and Delivery Mechanisms (2013).
- Similarly, identify feasibilities/possibilities and encourage private companies or institutions for commercial and solid waste biogas plants. Such interventions should help develop/maintain clean village/town/cities.
- Coordinate as well as encourage institutions and/or private sector for Business Development Services to promote institutional/community/commercial/solid waste biogas.
- Assist AEPC to review pre- and detail feasibility studies of proposed institutional biogas plants.
- Coordinate, support and collaborate with DEEU/Ss wherever demand comes via them.
- Monitoring, supervision and quality assurance of biogas plants.
- Database management (including CDM related data), reporting to AEPC and concerned DEEU/Ss.

Institutional Biomass Energy Technologies

The RE Subsidy Policy (2013) suggests, "No direct subsidy will be provided for the promotion of household mud improved cook stoves. But local bodies are encouraged to provide some financial support to install mud ICS to household with single woman, backward, disaster victim, poor and endangered ethnic group as identified by the Government

of Nepal."¹¹ Therefore, RE Subsidy Delivery Mechanism (2013) elaborates bio-energy technologies (BETs) as i) Improved Iron Stoves and ii) Iron Gassifier. Former consists of a) Domestic Improved Iron Stove, b) Institutional Improved Iron Stove and c) Iron Rocket Stove while latter is primarily for electricity generation. Therefore, the RSC should undertake following roles and responsibilities in line with the policy and delivery mechanism except for domestic stoves:

- Fully familiarise the provisions and procedures of policy and delivery mechanism.
- Create awareness and disseminate information on these different types of ICSs for their demand stimulation/creation.
- As appropriate, carry out field-testing and contextualization of technologies.
- Find out BET-based enterprise development.
- Develop linkage with local financial institutions (LFI) and private sector for BETs promotion.
- Technical monitoring, supervision and quality assurance of ICS & other biomass energy technologies.
- Coordinate, support and collaborate with DEEU/Ss wherever demand comes via them.
- Participatory monitoring and supervision of BETs together with DDC, DEEU/Ss or DEECCSs.
- Maintain and manage MIS & CDM database related to BETs.

Solar Drinking Water Pump

- Carry out activities Relating to Rural community based Solar Drinking Water Pumping Projects (RSDWP), including:
 - Demand creation, collection and feasibility studies.
 - District level initiation workshop in coordination with DDC/DEEU/Ss
 - Facilitate and support the drinking water communities in raising the fund with coordination with local government organizations like VDC, DDC, District Water Division office, NGOs and other probable partners.
 - Monitoring and supervision for quality assurance of the project with DDC/DEEU/Ss/DEU.
 - Testing and commissioning of RSDWP.
 - Record keeping and database management.
 - Coordinate, support and collaborate with DEEU/Ss wherever demand comes via them.

Community electrification (micro/mini hydro power development which are above 10 kW installed capacity)

- Pre-feasibility and detail feasibility study through consultants.
- Detail feasibility study report appraisal.
- Support to fulfil conditional approval.
- Technical support and back stopping during construction period.
- Monitoring and supervision during pre and post installation of the micro/mini hydro projects.
- Conduct Testing & Commissioning (T&C), Power Output Verification (PoV), one year guarantee provisioning.
- Provide technical support to DEEU/S as and when needed.

¹¹ Article 8.4.1 of the RE Subsidy Policy, 2013.

- Coordinate, support and collaborate with DEEU/Ss wherever demand comes via them.

4.3 Recommendations for DEEU/Ss' roles and responsibilities

4.3.1 General roles and responsibilities

The DEEU/Ss or DEECCSs are going to be permanent type of offices and may even sustain once the federal structure is instituted in the country. Their roles and responsibilities ought to be wider than the coverage of NRREP and longer-term horizon. Therefore, the roles and responsibilities specific to DEEU/Ss or DEECCSs have been envisioned with wider and longer perspectives, and they can be categorised into three broad areas of functions as i) coordination and secretariat office, and iii) database management.

i) Coordination and secretariat office functions:

- Act as the secretariat office for coordination at the district level regarding environment, energy, climate change, disaster prevention programme planning and EFLG matters.
- Under the leadership of the DDC, coordinate with all concerned stakeholders within the (horizontal) and, as appropriate/needed, with the regional and national stakeholders (vertical).
- Play coordinating role among public, private, NGOs, cooperatives and community organizations for promotional activities RETs, such as, demand stimulation and management.
- Play coordinating roles for protection and conservation of environment and to implement climate change, and disaster management related activities and projects.
- Work as DDC's technical wing for subsidy recommendation, technical assistance and quality assurance at the local level on environment, energy, climate change, disaster, waste management, and pollution control programmes/activities for AEPC and other relevant authorities.

ii) Database management

- Select, organise and undertake reviews for appropriate indicators on creating database on environment, energy, climate change, disaster management and pollution control issues within the district.
- Collect, analyse and keep database of district level projects/programmes/activities related to energy, environment conservation and climate change and establish as resource centre.
- Prepare district level profile of environment protection and conservation, energy production and utilization, waste management, disaster management and climate change management.
- Act as technical wing DDC to advise preparation of VDC profiles in order to integrate environment, energy, climate change, disaster, waste management, and pollution control issues.
- Supply, as and when required, appropriate data for planning and academic purposes on environment, energy, climate change, disaster, waste management, and pollution control issues.

4.3.2 RE Technology specific roles and responsibilities

Community electrification (pico hydro power development which are up to 10 kW installed capacity)

- Conduct feasibility studies through consultants
- Detail feasibility study report appraisal.
- Technical support and back stopping during construction period
- Conduct Testing & Commissioning (T&C), Power Output Verification (PoV), one year guarantee provisioning.
- Facilitate for water right certificate in district water resource committee.

Institutional/Community/Commercial/Solid waste Biogas; Institutional Biomass Energy Technologies; Solar Drinking Water Pump; and Community electrification (micro/mini hydro power development which are above 10 kW installed capacity)

- As and when required, provide support to RSCs in the process of planning, approval and procurement of necessary goods and services in line with PPA regulations.

4.4 Recommendations for collaborative roles and responsibilities for RSCs and DEEU/Ss including the BDRE&PEU component

The common roles and responsibilities outlined below are activities that the RSCs and DEEU/Ss must ensure coordination and collaboration for smooth operation at the ground level.

i) Planning, implementation, monitoring and reporting

- Assist to prepare annual and longer-term periodic RETs work plans for district and/or districts in line with relevant policies, rules and regulations, directives, procedures and guidelines.
- Assist DDC and VDCs to integrate RET activities into the 14-step planning processes and help streamline the implementation processes.
- In line with the Environment Protection Act (1997), assist different service providers to carry out IEE and EIA, and to monitor prescribed mitigation measures together.
- Coordinate to develop appropriate M&E framework by selecting indicators based on relevant policy, regulatory or other relevant national documents.
- Undertake timely M&E activities implementing RETs through service providers to track progress status and assessing achievement of results of programme/project/activities.
- Carry out reporting to concerned authorities in line defined policies and procedures.
- Assist AEPC/NRREP and DDCs for making penalties and punishment in case a company has claimed for subsidy without promoting the RET/system, has installed the system in the place other than the prescribed place, has made mistake while installing the system or done irregularity or used equipment, which are incompatible with the prescribed standard.

ii) Quality control of promoted RETs

- Conduct joint review and analysis of quality grades and standards of various RETs that are going to be promoted in the districts or assigned districts.

- Undertake field/actual observations, monitoring and supervision of quality standards of RETs being promoted and prepare necessary reports.
- If sub-standard RETs are found, prepare case studies/files and report to AEPC/NRREP including DDC, as well as jointly assist AEPC/NRREP for making penalties and punishments, if required.

iii) Database Management

- Select, organise and undertake reviews for appropriate indicators on creating database on RETs of assigned districts.
- Maintain database of all RETs promotion, implementation, M&E and other relevant data up-to-date for the assigned districts.
- Collect, analyse and keep database of district level projects/programmes/activities related to energy, environment conservation and climate change and establish as resource centre.
- Collaborate to prepare district level profile from the perspective RETs and climate change.
- Supply, as and when required, appropriate data for planning and academic purposes on RETs.

iv) Implementation of BDRE&PEU Component

Implementation of BDRE&PEU (or PEU) activities have been envisioned to have tied-up with a RE source (either existing or newly established), mainly micro and mini hydro, but in some cases other RETs will also be relevant (e.g. community solar). This will imply linkage and synergy with other components. Considering all these, PEU component could be stated as collaborative functions of RSCs and DEEU/Ss. The key role will be to facilitate implementation of the activities as described in the PEU component document of NRREP. The collaborative roles and responsibilities for RSCs and DEEU/Ss may be outlined as follows:

- Analyse and identify potential for RE based enterprises in the assigned region.
- Encourage local communities or interested entrepreneurs for the MSME activities as well as to form Local Economic Development (LED) committees. As far as practicable, undertake such activities in coordination and collaboration with DEEU/Ss.
- Identify and evaluate potential technical assistance (TA) providers (training institutions, consultants/firms, etc. in the region as well as business development service (BDS) providers.
- Facilitate business plan development by coordinating with BDS providers.
- Facilitate linking MSMEs with local financial institutions (LFIs) for financial services.
- Facilitate finding out possible linkages with other stakeholders and programmes for potential collaborations, such as, Department of Cottage and Small Industries (DCSI), Cottage and Small Industry Development Board (CSIDB), district chapters of chamber of commerce and industries GoN's programme Micro Enterprise Development for Poverty Alleviation (MEDPA), etc.
- Undertake as well as coordinate participatory joint monitoring activities together with relevant stakeholders including DEEU/Ss.
- Prepare regional level report of PEU component implementation and forward to concerned authorities.

Part -V: Annexes

Annex 1. Terms of reference.

Annex 2. Checklists for consultation with different stakeholders.

Annex 3. Meetings and Field visit plan.

Annex 4. List of people consulted.

Annex 5. List of documents reviewed.

Annex 1. Terms of reference

Alternative Energy Promotion Centre National Rural & Renewable Energy Programme

Terms of Reference

Preparation of Roles and Responsibilities of Regional Service Centres (RSC) and District Energy and Environment Units (DEEUs)

The Government of Nepal (GoN) and Development Partners supporting Nepal's rural and renewable energy sector have designed National Rural and Renewable Energy Programme (NRREP) for five years from mid-July 2012 to mid-July 2017 in a single programme modality. Alternative Energy Promotion Centre (AEPC) is an executive agency for this programme.

NRREP gives high importance to the role of the Regional Service Centres (RSCs) to coordinate local and regional implementation of NRREP activities. The major roles of RSCs is to coordinate local implementation of NRREP, carry out GESI based community mobilization, generate awareness and demand for RETs, be involved in the development, implementation and operation of RET based projects, coordinate with DDCs for all renewable energy (RE) programs in the district, and support households for income generating and livelihood activities, and enterprises for enterprise development especially through productive uses of renewable energy.

Although, the most of the NRREP activities at district and regional levels have been planned through Regional Service Centres, the program yet recognizes DDCs as one of the key stakeholders in the process. There are dedicated sections and units within DDCs across 75 districts; often referred as District Energy and Environment Units (DEEU) and District Energy and Environment Sections (DEES). Despite the differences in institutional setups of RSCs and DEEU/Ss, both the institutional aim to enhance and increase the energy services to rural households in particular, many activities somewhere seemingly overlaps. This situation has created an ambiguity between RSCs and DEEUs, which demands clarity in their roles and scope of work in delivering NRREP activities.

In this regard, Institutional Support Sub Component felt need of experts inputs in seeking clarity in RSCs and DEEUs roles and responsibilities.

Through this ToR, AEPC/NRREP intends to procure services from the qualified consultants to provide input to define the scope, roles and responsibilities of RSCs and DEEU/Ss with reference to their intended roles as prescribed in the relevant NRREP documents

Objective

The objective of this assignment is to work out the roles and responsibilities of RSCs and DEEU/s for NRREP implementation.

Scope of Work

This ToR covers assisting AEPC/NRREP in following main activities:

- Interact with relevant AEPC/NRREP components/subcomponents/units responsible for coordination with DEEUs and RSCs and get their inputs.

- Review relevant AEPC/NRREP program documents, study previous modality AEPC programs (e.g. ESAP, REDP, RERL) modality of DEES and Rural Regional Energy Service Centres (RRESC) engagement and lessons learned.
- Review District Energy Environment and Climate Change (DEECC) operational guideline (draft)
- Extract information on existing exercises carried out AEPC/NRREP staff relevant to the study.
- Interact with MoFALD key officials, ADDCN, NAVIN and visit at least two of existing RRESCs and two DEEU/Ss to understand their individual perspectives on RSCs and DEEUs engagement within NRREP mechanism.
- Prepare the draft of Roles and Responsibilities of RSCs and DEEU/Ss and share with AEPC/NRREP concerned staff for their inputs and comments.
- Prepare the final draft of the document consolidating the comments received.

Consultative Meetings/ Workshop

With a view of building clarity on scope of work and roles and responsibilities of RSCs and DEEUs a frequent interaction meeting with AEPC/NRREP staff and one consultative workshop shall be conducted. Under this activity, the consultant shall at least cover the following activities:

1. Present the study finding and draft version of report for inputs and discussions in the workshop.
2. Draft final document based on inputs and recommendations based on the discussions in the in-person meetings/workshop.
3. Provide a final report in electronic and hard copies.

Inputs from AEPC/NRREP

Considering the importance of the proposed assignment the related Institutional Support staff of AEPC/NRREP and Local Body Coordination unit of AEPC will provide support as and where needed and will periodically monitor the progress of the work undertaken by the consultant.

Time and budget

Timing

It is estimated that the assignment will be completed within one month after the signing of the contract. The consultant/firm shall propose a realistic work plan for this timeframe and or/schedule.

Budget

The required budget should be prepared as per proposed format attached in Annex III. The proposed bid should not exceed NRs 500,000.

Deliverables

The consultant will deliver the following outputs:

- Inception/Desk Report in English languages with study methodology and strategy to engage concerned stakeholders in preparation of envisaged assignment and submit for the required inputs both in electronic and hard copies.
- Final copy of document stating the roles and responsibilities of RSCs and DEEU/Ss

Qualification of the Consultant

The consultant should have prior experiences in working with local government agencies, especially with DEEU/Ss and RRESCs plans/policies/strategies in the Alternative/Renewable Energy Sector. The following are qualification requirements of the consultant:

1. Team Leader/Renewable Energy Expert

- A Masters Degree in Energy, Engineering Environment studies.
- More than 10 years of experiences in Rural and Renewable Energy.
- Should have an excellent experience in decentralization issues of Nepal, Local government bodies and institutional structures and existing energy development approach of AEPC/NRREP.
- Experience of working at the local, regional and central government officials and the inter-personal skills needed for this.
- Inside knowledge of how national organizations operate, both at the central and local level.
- Very good report writing skills in English and Nepali.

2. Institutional Expert

- A Masters Degree in Management, or development studies.
- More than 10 years of experiences in institutional aspects with good knowledge on decentralisation, role of NGOs, local bodies etc.
- Should have an excellent experience in decentralization issues of Nepal, Local government bodies and institutional structures and existing energy development approach of AEPC/NRREP.
- Experience of working at the local, regional and central government officials and the inter-personal skills needed for this.
- Inside knowledge of how national organizations operate, both at the central and local level.
- Very good report writing skills in English and Nepali.

Annex 2. Checklists for consultation with different stakeholders.

Checklist - AEPC Officials

- Please provide us your understanding of roles and responsibilities of RSCs and DEEU/Ss according to NRREP project document (Bullet points by DEEU/Ss and RSCs)
 - a) RETs Project selection
 - b) Planning
 - c) Implementation
 - d) M&E
 - e) Coordination, networking and collaboration
- Roles and responsibilities by administrative and technology aspects
- Are there any strategy and policy adopted or thinking to adopt by AEPC/NRREP to prioritise RETs? or Is it open to any possibilities?
- Will NRREP be implemented following PPA rules and regulation? If yes, what are the implications you have foreseen? If no, why not? and has AEPC/NRREP developed any implementation regulations or directives?
- Selection or establishment criteria for RSC and DEEU/S - legal bases.
- Practical benefits of engaging RSCs and DEEU/S and sustainability dimension.
- During ESAP time what functions were given to RSCs?
or
- During REDP time what functions were given to DEEU/S?
- How was your experience about the relation, coordination and collaboration between DEEU/S and RSCs? How can you rate 1 (worse) to 5 (best)?
- Any problem (s) you experienced between RSCs and DEEU/S
- Any other issues/suggestions. Please also write to us with your ideas as we move ahead.

Checklist - MoFALD

- What is MoFALD's understanding about NRREP?
- How is MoFALD seeing the roles and responsibilities of DEEU/Ss and RSCs in the context of EFLG concept in the ministry?
- How does MoFALD see about the sustainability of RSC and DEEU/S modality?
- What about the policy status to internalise the DDC/DEEU/Ss?
- Any other issues.

Checklist - NPC

- How does NPC see NRREP from priority perspective?
- How is NPC's current thinking on M&E of NRREP?
- How does NPC see the importance of DEEU and RSC for NRREP?
- How does NPC see about the sustainability of RSC and DEEU/S modality?
- Any other issues.

Checklist - NBPA and NMHPDA

- How are your experiences of working with DEEU/Ss and RSCs in the past? What were good and bad points you can recollect?
- How do you see the roles and responsibilities of DEEU/Ss and RSCs in the context NRREP?
- What roles do you have at PQ selection process and material delivery of RETs in terms of quality assurance?
- How do you monitor the RETs installed in the community? Is there practice of joint monitoring as well with Government and AEPC?

- What relation do you think with RSC and DDC/DEEUs for success implementation of NREEP?
- Any other issues.

Checklist - ADDCN and NAVIN

- How are your experiences of working with DEEUs and RSCs in the past? What were good and bad points you can recollect?
- How do you see the roles and responsibilities of DEEUs and RSCs in the context NRREP?
- What types of policy advocacy at central steering committee meeting?
- Is there any roles for DEEUs internalisation in DDC and facilitation for NRREP?
- What types of facilitation do you have for NREEP implementation at local levels, particularly DDC and VDC?
- Any other issues.

Checklist - DDC/DEEUs

- How is your experience working with AEPC?
- How is your experience working with NGOs especially with RSC?
- How RSC is following LSGA (RET planning and endorse from DDC council)
- Why is your opinion about fund flow mechanism of NRREP? How it should be?
- Are there positive remarks/outcomes from NGO/RSC in the district?
- Any roles duplication with DDC/DEEUs on RETs?
- How the internalisation of DEEUs is proceeding?
- What roles are played by NGO desk at the time of LPO selection?

Checklist - RSCs

- How are your experiences working with AEPC?
- How are your experiences working with DDCs/DEEUs?
- How is your experience working with RETs private companies (solar, biogas, micro hydro and so on)?
- How RSC is following LSGA (RET planning and endorse from DDC council)
- Are there synergistic remarks/outcomes from DDC/DEEUs and NGO/RSC in the district?
- How NGO federation supports for LPO selection?
- How is your experience working with LPOs and consumers committees?
- Any roles duplication with DDC/DEEUs on RETs?

Annex 3. Meetings and field visit schedules (actual).

I. Central level

Visit Team: Tek Bahadur Gurung and Bhupendra Rana Magar

S.N.	Offices	Location of meeting	Dates/Time	Remarks/Mtg with
1	AEPC	AEPC Office, Khumaltar Height, Lalitpur	22 Jul 2013, 2-3:30PM 22 Jul 2013, 4-5:30PM 23 Jul 2013, 12-1:30PM	Group-1 Group-2 Group-3
2	MoFALD	MoFALD, Singha Durbar, Kathmandu	24 Jul 2013, 12-1 PM	Mr. Ramesh Adhikari
3	NPC	NPC, Singha Durbar, Kathmandu	24 Jul 2013, 1:30- 2:3PM	Messrs. Gopi Mainali and Manahari Khadka
4	MoSTE	MoSTE, Singha Durbar, Kathmandu	24 Jul 2013, 3-4 PM	Mr. Dandu Raj Ghimire
6	AEPC	AEPC Office, Khumaltar Height, Lalitpur	26 Jul 2012, 11- 12:30PP	Group-4
6	NBPA, NMHPA	NBPA Office, Kupondole, Lalitpur	13 Aug 2013, 1:30-3PM	Messrs. Surendra B Mathema, and Dhruba P Chaulagain
7	ADDCN, NAVIN	ADDCN Office, Sanepa, Lalitpur	15 Aug 2013, 4:30-6PM	Messrs. Hemraj Lamichhane and Parashuram Updadyay

II. Field visit

Visit Team: Tek Bahadur Gurung and Bhupendra Rana Magar

Visited districts: Dhading, Chitwan, Tanahun and Palpa

S.N.	Itinerary/Travel	Meetings/consultations	Date	Remarks
1	Kathmandu to Dhading byansi	<ul style="list-style-type: none"> Meeting with LDO, Dhading Meeting with DEEU, Dhading 	29 Jul 2013	
2	Dhading to Chitwan		29 Jul 2013	Stop over in Chitwan
3	Chitwan	<ul style="list-style-type: none"> Meeting with DEEU, Chitwan 	30 Jul 2013	
4	Chitwan to Palpa	<ul style="list-style-type: none"> 	30 Jul 2013	Stop over in Tansen, Palpa
4	Palpa	<ul style="list-style-type: none"> Meeting with REDS, Palpa Meeting with LDO, Palpa Meeting with DEEU, Palpa 	31 Jul 2013	Stop over in Tansen, Palpa
5	Palpa to Pokhara	<ul style="list-style-type: none"> 	1 Aug 2013	Stop over in Pokhara
6	Pokhara to Kathmandu	<ul style="list-style-type: none"> Meeting with DDC and DEEU, Tanahun Meeting RES, Tanahun 	2 Aug 2013	Returned to Kathmandu by late night.

Annex 4. List of people consulted.

S.N.	Name	Designation	Office Address	Remarks
1	Mr. Satish Gautam	NPM, RERL	AEPC	
2	Mr. Ram Dhital	Assistant Director	AEPC	
3	Mr. Jagadish Khoju,	Programme Manager	AEPC	
4	Mr. Bibek Raj Kandel	Programme Officer	AEPC	
5	Mr. Bhupendra Shakya	Renewable Energy Expert	AEPC	
6	Mr. Madhusudan Adhikari	Advisor	AEPC	
7	Mr. Shalav Risal	National Advisor	AEPC	
8	Mr. Ran Bahadur Thapa	Programme Officer	AEPC	
9	Mr. Tilak Limbu	Programme Officer	AEPC	
10	Mr. Rudra Khanal	Assistant Director	AEPC	
11	Mr. Nawa Raj Dahal	Assistant Director	AEPC	
12	Mr. Raju Laudari	Assistant Director	AEPC	
13	Mr. Barun Adhikari	M&E Advisor	AEPC	
14	Mr. Kjarton Gullbrå	Intl Senior Tech Advisor	AEPC	
15	Ms. Nigma Tamrakar	GESI Advisor	AEPC	
16	Mr. Uttam Jha,	National Advisor	AEPC	
17	Mr. Sameer Thapa	Assistant Director	AEPC	
18	Ms. Karuna Sharma	Climate Change Advisor	AEPC	
19	Mr. Ramesh Adhikari	Under Secretary	Planning Section, MoFALD	
20	Mr. Chakra Pani Sharma	Under Secretary	MoFALD	
21	Mr. Gopi Mainali	Joint Secretary	NPC	
22	Mr. Manohari Khadka	Under Secretary	NPC	
23	Mr. Dandu Raj Ghimire	Under Secretary	MoSTE	
24	Mr. Ramesh Neupane	LDO	DDC Dhading	
25	Mr. Birman Raskoti	DEE Officer,	DEEU Dhading	
26	Mr. Man Bdr Shrestha	Office Assistant	DEEU Dhading	
27	Mr. Bishal Lamichhane	DEE Officer	DEEU Bharatpur Chitwan	
28	Ms. Sita Subedi	Office Assistant	DEEU Bharatpur Chitwan	
29	Mr. Dirgha Bahadur Pokharel	LDO	DDC Palpa	
30	Mr. Manoj Nepal	Energy Officer	DEEU Palpa	
31	Mr. Karuna Sagar Pandey	Asst Energy Officer	DEEU Palpa	
32	Mr. Lila Bahadur Karki	ED	REDA Palpa	Phased out RRESC
33	Mr. Jiwan Kunwar	Coordinator	REDA Palpa	
34	Mr. Shiva G.C.	Social Mobiliser	REDA Palpa	
35	Mr. Ganesh Ghimire	Planning and Monitoring Officer	DDC Tanahun	
36	Mr. Prakash Bhandari	Energy and Env Officer	DEEU Tanahun	

37	Mr. Shiva Dhungana	Sub-Engineer	DEEU Tanahun	
38	Ms. Sarita Gurung	Chairperson/Regional Coordinator of RSC for NRREP	RES Tanahun	RSC
39	Ms. Sarala Shrestha	Secretary/Assistant Admin Officer	RES Tanahun	RSC
40	Ms. Shushila Kaini	Gender Equality and Social Inclusion Officer	RES Tanahun	RSC
41	Mr. Santosh Ojha	Mini-Grind Engineer	RES Tanahun	RSC
42	Mr. Pawan Acharya	Biomass Energy Engineer	RES Tanahun	RSC
43	Mr. Krishna Shrestha	Sub-Engineer	RES Tanahun	RSC
44	Mr. Langi Gurung	Solar Energy Officer	RES Tanahun	RSC
45	Mr. Bhabilal Thapa	Sub-Engineer	RES Tanahun	RSC
46	Mr. Madhav Neupane	Senior Social Mobiliser	RES Tanahun	RSC
47	Mr. Hari Sharan Soti	Facilitator	RES Tanahun	RSC
48	Mr. Surendra Bhakta Mathema	Chairperson	Nepal Micro Hydro Power Development Association, Kathmandu	
49	Mr. Dhruva Prasad Chaulagain	Chairperson	Nepal Renewable Energy Development Company (Pvt.) Ltd./NBPA Kathmandu	
50	Mr. Hemraj Lamichhane	Executive General Secretary	ADDCN Kathmandu	
51	Mr. Parashu Ram Upadhyay	Chief Executive Officer	NAVIN Kathmandu	

Annex 5. List of documents reviewed.

1. Rural Energy Policy (2006)
2. RE Subsidy Policy (2006, and revised in 2013)
3. RE Subsidy Delivery Mechanism (2010, and revised in 2013)
4. Local Self-Governance Act (1999)
5. Environment Protection Act (1997)
6. District Annual Work Planning Procedures (2068 BS)
7. Social Mobilisation Directive (2066 BS)
8. Local Body Resource Mobilisation and Management Guidelines (2069 BS)
9. District Climate and Energy Plan Preparation Guideline (2011)
10. District Energy, Environment and Climate Change (DEECC) Section, operational guideline (in final stage, yet to be approved)
11. Public Procurement Act (2007)
12. Public Procurement Regulations (2007)
13. Results Based Monitoring and Evaluation Guidelines (2010)
14. Poverty Monitoring and Assessment System (PMAS)
15. Policies, guidelines and directives of the Central Bank of Nepal issued from time to time
16. Draft Central Renewable Energy Fund (CREF) Financial Intermediation Mechanism (2013)
17. NRREP Programme Document - main document, TS component and BDRE&PEU components
18. NCCSP Programme Document
19. RERL Programme Document
20. REDP Programme Document
21. Manual for Assessment of Minimum Conditions & Performance Measures (MCs/PMs) of DDCs – 2065 (2008) (With Second Amendment)
22. Shrestha S.K., Thapa R and Bajracharya K. (date not mentioned). National Improved Cook Stove Dissemination in the Mid-Hills of Nepal, Experiences, Opportunities and Lesson learnt.
23. Light for All - Delivery Mechanism for Solar Tuki (August 2008).
24. Nepal Interim PV Quality Assurance (NIPQA) – 2005 (Second Revision of NIPQA - 2000)
25. Terms of Reference for Selection of the Regional Service Centres for the Implementation of the National Rural and Renewable Energy Programmes
26. ESTABLISHING BASELINE IN COOKING ENERGY AND TECHNOLOGIES. Prepared for the: Rural Energy Development Programme, Alternative Energy Promotion Centre, Khumaltar Height, Lalitpur.
27. ELECTRICITY ACT, 2049 (1992)
28. Electricity Rules, 2050 (1993)
29. Hydropower Development Policy (2049BS)
30. The Hydropower Development Policy (2001)
31. A Guideline On "Promotion of the Domestic Biogas Plant in Urban Households" - Sahari Gharelu Biogas Plant- Biogas Support Program, Prepared BY: Alternative Energy Promotion Centre (AEPC), Khumaltar height, Lalitpur, Nepal
32. Public Expenditure & Financial Accountability and Fiduciary Risk Reduction Action Plan, Implementation Period – March 2012 - July 2015
33. District Level GESI Orientation Resource Book prepared by MoFALD (in Nepali).
34. A power point presentation on implementation of DEECCS - by MoFALD.

35. Monetary Policy for Fiscal Year 2013/14, Nepal Rastra Bank, Central Office Baluwatar, Kathmandu (Unofficial Translation).
36. A Study on the Design of a Formula Based Grants System for VDCs and Update Grant System for DDCs in Nepal (2009) - Prepared for Local Body Fiscal Commission by PRAD Nepal.
37. Approach paper for TYP 2070/71 to 2072/73 BS (in Nepali).
38. Biogas loan process and criteria (in Nepali).
39. DPMAS Implementation directives (2067 BS, in Nepali).