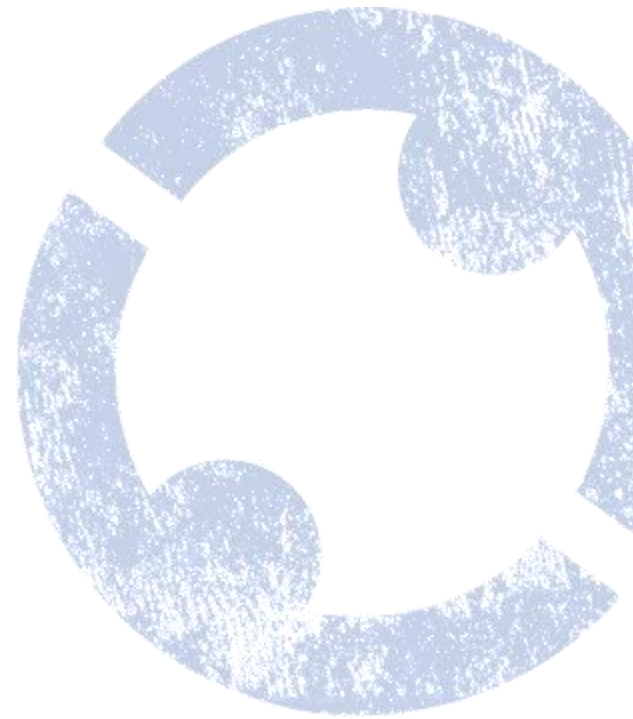


Final Report

# Role of Good Governance for Green and Inclusive Energy Access in Nepal



**PRACTICAL ACTION**  
Technology challenging poverty



**Office Responsible: Practical Action  
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## Foreword

With more than a billion population without access to electricity globally, it is of utmost importance to maintain the energy systems already in place and serving to communities. The role of good governance is highly important to secure access to clean and modern energy and to ensure their sustainability. There are quite a number of community-based energy systems constructed and in operation in Nepal. It is necessary to confirm their sustainable operation with maintenance of good governance for equitable distribution of benefits. This research therefore, was carried out by Practical Action under Green and Inclusive Energy (GIE) project implemented by Hivos Energia and funded by The Netherlands Ministry of Foreign Affairs as per the need of project consortium members. The study made research on role of good governance for green and inclusive energy (GIE) access to achieve SE4ALL and SDG-7 targets in Nepal.

First and foremost, our gratitude goes to the women and men from sampled survey sites for providing valuable information for this study. We are also very thankful to our GIE project consortium partners and other respondents from various organisations for providing necessary information and feedback to this study. For their contribution to prepare this report, I would like to thank my colleagues from Practical Action, Pooja Sharma, Min Bikram Malla, Manjari Shrestha, and Ujjal Raj Acharya (consultant) including Archana Gurung and Upendra Shrestha for editorial support. We also thank a team of consultants from Phulchoki Energy Pvt. Ltd and Nepal Energy Foundation, Mahesh Acharya, Dil Raj Khanal and Dilli Prasad Ghimire. Our special thanks also goes to Ben Garside and Kavita Rai from International Institute for Environment and Development (IIED), whose review, feedback, support and contributions to the report were truly invaluable. Finally, I would like to thank Sheila Oparaocha (ENERGIA) and Dr. Indira Shakya for their valued feedbacks and overall coordination.

I hope this document will serve as a valuable entity in strengthening and maintaining good governance in energy systems to achieve the targets of SE4ALL and SDG-7 in Nepal.

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## Abbreviations

ACAP	Annapurna Conservation Areas Program
ADB	Asian Development Bank
AEPC	Alternative Energy Promotion Centre
BoD	Board of Directors
CBOs	Community-based Organization
CBS	Central Bureau of Statistics
CRE	Community Rural Electrification
CREEs	Community Rural Electrification Entities
CREF	Central Renewable Energy Fund
DAGs	Disadvantage Groups
DAO	District Administration Office
DDC	District Development Committee
DoED	Department of Electricity Development
EC	Executive Committee
GESI	Gender Equality and Social Inclusion
FGDs	Focused Groups Discussions
FGRM	Feedback and Grievance Redress Mechanisms
GIE	Green and Inclusive Energy
GoN	Government of Nepal
IGA	Income Generating Activities
INGO	International Non-Governmental Organization
KIIs	Key Informant Interviews
MHPs	Micro Hydropower Plants
MW	Megawatt
NACEUN	National Association of Community Electricity Users Nepal
NEA	Nepal Electricity Authority
NGO	Non-Governmental Organization
NMHDA	Nepal Micro Hydropower Development Association
NPC	National Planning Commission
NRREP	National Rural and Renewable Energy Programme
NTNC	Nepal Trust for Nature Conservation
PAF	Poverty Alleviation Fund
PHPA	Public Hearing & Public Auditing
RE	Renewable Energy
REDP	Rural Energy Development Program
RERL	Renewable Energy for Rural Livelihood
RET	Renewable Energy Technology
RVWRMP	Rural Village Water Resources Management Project
SDGs	Sustainable Development Goals
SEforALL	Sustainable Energy for All
UN	United Nations
UNEP	United Nations Environmental Program
WB	World Bank
WECS	Water and Energy Commission Secretariat



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## Executive Summary

The role of the good governance is highly important for securing access to green and inclusive energy particularly in least developing countries like Nepal through different community-based energy systems such as institutional and community based biogas system, solar mini-grids and Micro Hydropower Plants (MHPs). Community Rural Electrification Entities (CREEs) and various co-operatives/community management systems have been practicing different principles and elements of good governance locally. Each institutional modality of community-based energy systems has its own strength and weakness in maintaining and strengthening good governance. This study has been designed to explore the field based practices of good governance in the CREEs and the MHP sector.

The assessment of existing practices of good governance has been carried out for four types of institutional modalities (water users' association/ user groups, cooperatives, NGOs/ CBOs and companies) of the community-based energy management systems (MHPs and CREEs). Five principles/elements of good governance (empowerment and community participation, transparency, accountability, feedback and grievances redress mechanism (FGRM) and Gender Equality and Social Inclusion (GESI) integration) and 55 criteria within those elements are looked at. Colour ranking (traffic lights) method is used for the governance assessment and the governance status of community-based energy systems and their operating institutions is ranked into three statuses - good (green), average (yellow) and below average (red). The key findings, major conclusions and recommendations of the research are summarized as follows:

### Key findings

1. The practice of good governance exists in different degrees, based on institutional modalities of MHP management systems and CREEs. Out of 55 criteria, majority were found to be partially fulfilled.
2. Out of four institutional modalities, the cooperative institutions are comparatively in stronger position in maintaining good governance as they have fulfilled majority of the criteria.
3. Some of the important criteria of good governance such as participation of executive committee (EC)/ board of directors (BoD) in capacity building, information flow about the provision of specific subsidy for targeted beneficiary groups, transparency provisions in the operating instruments, annual organization of general assembly, preparation of annual audit report, payment of tariff in time, rights to register complaints, provisions in operating instrument against illegal activities etc. are mostly fulfilled by all of the MHPs and CREEs.
4. Other important criteria of good governance such as community ownership over the resource and infrastructure, selection of service providers/contractors in time and quality assurance of equipment, construction and service, representation of 33% women and maintaining 40% inclusiveness in the decision making bodies, GESI specific platform, Renewable Energy Technologies (RETs) knowledge transfer to Dalits, clarity of the annual program to the general members, regular reporting to the concern agencies, transparent process of conflict resolution, transfer of user groups into cooperatives, monitoring and evaluation, etc. are not fulfilled in the majority MHPs and CREEs.
5. In terms of Community Rural Electrification (CRE) Program, the relationship and coordination between Nepal Electricity Authority (NEA) and CREEs is weak mainly due to the issues of tariff fixation process, ineffectiveness in service delivery mechanism and time consuming process of agreements between the two institutions. In comparison, the relation and coordination between MHPs and Alternative Energy Promotion Centre (AEPC) and its support agencies is good and satisfactory.

6. There is deficit in awareness and capacity to understand and effectively enforce policy and legal arrangement of good governance in MHPs and CREEs.
7. Both MHPs and CREEs have a number of critical issues such as lack of transparency in the management system, insufficient accountabilities towards their consumers, etc. that need to be addressed as soon as possible considering the existing legal requirements, policy as well as institutional frameworks.

## Conclusions

The MHPs and CREEs are two different types of community-based energy management systems by nature of energy source and supply systems. MHP management has rights and responsibility to engage in generation, transmission and distribution of electricity generated. The CREE has rights and responsibility only to engage in the electricity distribution in rural areas from the national grid. Therefore, they are registered in different government agencies (District Administration Office, District Development Committee, Cooperative Division, and Office of Company Registrar) and operate with different governance modalities. Due to various types of institutional modalities among MHPs and CREEs, there is inconsistency in their performances. Besides, there is also weak monitoring and evaluation from support agencies.

MHPs and CREEs have been playing an instrumental role for ensuring access to green energy to the people of remote areas. MHPs and CREEs also provide electricity for the productive use in rural areas which has supported in generating employment opportunities, income generation and sustaining livelihood. Both types of entities have invested lots of efforts and initiatives to maintain good governance in the community-based energy systems and out of 55 good governance criteria, 44 of them are moderately fulfilled, which has supported them in sustaining their community institutions. They have also created social cohesion in the communities and have been successful in reducing social discrimination in the society by sharing all benefits and challenges together. However, there is still insufficient and ineffective participation of women and socially marginalized groups. This has resulted in gaps in maintaining GESI in MHPs and CREEs which is one of the major criteria of good governance. Likewise, there are some areas of improvement in terms of fulfilment of transparency requirement, accountabilities, and grievances redress and conflict resolution in the long run.

The national level policy and legal frameworks of both entities have adequately incorporated good governance provisions and integrated GESI elements. The policies are required to be complied by the community-based energy institutions in their decision making process. However, these aspects of legal requirements on good governance and GESI integration are hardly reflected in the operating instruments (such as bylaws and plans/programs) of MHPs and CREEs.

Similarly, the policy and legal frameworks have emphasised for capacity building of MHPs and CREEs. Even so, maintenance of good governance has been affected as the support agencies have not provided adequate capacity building of these entities.

## Policy Recommendations

1. To remove inconsistency between policy/ legal frameworks and the operational instruments of community-based energy institutions, it is urgent to implement a governance strengthening program in RE and CRE sector for the revision of operational instruments (bylaws or constitutions) of the community-based energy institutions.
2. Considering the recommendation of Social Mobilization Directive of AEPC and CRE bylaw of NEA, it would be good to transform the existing institutional structures of community-based electricity institutions (user groups, NGOs/ CBOs and company) into MHP/ CRE cooperative institution, which will be stronger in terms of maintaining good governance.



3. Develop some specific governance criteria and indicators by the concerned institutions (AEPC & NEA) for the periodic assessment of the status of good governance in community-based energy institutions at different level, which will be supportive to identify the specific areas for the reform of governance in the community electricity institutions.
4. Capacity building and awareness raising activities on good governance should be implemented on a regular basis in the MHPs and CREEs for continuation of community empowerment and full and effective participation of all members including women and socially marginalized groups in the decision-making process.
5. Effectiveness of regulatory agencies (AEPC and NEA) and capacity building of project developer is most urgent to maintain quality assurance in construction, equipment and service delivery from the service providers/contractors for the good governance and sustainability of MHPs and CRE system. Maintaining two way communication, regular reporting to concern agencies, enhancing coordination with relevant stakeholders, effective implementation of annual plan and program, development of additional required human resources, financial and technical resources, development of new leadership, timely organizing election for leadership change and institutional memory transfer related actions are also urgent in MHPs and CREEs in order to enhance accountability of the leadership.
6. Integrating and mainstreaming GESI in MHPs and CREEs is most urgent for equitable distribution of benefits from the entities.
7. As the local government is more responsible for rural electrification, the community-based energy systems should also be prioritized and integrated into the energy plans for proper monitoring and support ensuring their sustainability.





# 1. Introduction

## 1.1. Background

The utilization of green and inclusive energy and its access to all is an important pathway towards sustainable development. According to the National census 2011, about 67% of households in Nepal have access to electricity. By 2017, there has been increment in electricity access; however, a large portion of population, mostly rural population (about 25%) continue to be lag behind in gaining access. Likewise, about three-fourth of the total households (about 74%) in Nepal, use firewood as usual source of fuel for cooking (CBS, 2013). The use of traditional biomass resources for cooking and heating contribute towards forest degradation which further causes loss of agricultural productivity. The use of traditional biomass also contributes to indoor air pollution and this mainly affects the health of women and children (NPC, 2013). Right to energy access is one of the fundamental elements of the national/ international instruments including Constitution of Nepal, RE subsidy policies, Sustainable Energy for All (SEforALL) and Sustainable Development Goals (SDGs).

The Government of Nepal has been supporting promotion and development of renewable energy (RE) systems for increasing access to energy in rural areas for more than four decades. As a result, around 25% of population have been able to gain access to energy through various renewable energy technologies (AEPC, 2016). Among different off-grid renewable energy technologies (RETs), electrification through community managed electrification systems such as pico/ micro / mini hydro are the major ones.

There are more than 2500 Micro Hydropower Plants (MHPs) and pico hydropower plants installed in Nepal for decentralized electrification for rural communities. Around 34 MW of electricity has been generated from mini and micro hydro schemes, 15 MWp from solar PV system, 20 kW from wind energy and more than 1.5 million households have been benefited from different renewable sources for cooking, lighting and productive end uses (AEPC, 2016). These RETs have been installed and operated with support of diverse source of investment available from different agencies and development partners. The institutional set up and governance frameworks for the installation and operation of RETs are also based on different policy and legislative instruments. The MHPs are registered as electricity cooperatives, water users' association, users' committee, non-governmental organization, cottage enterprise or company. 450 co-operatives are registered in Nepal for production, distribution and management of electricity and out of them majority are Community Rural Electrification Entities (CREEs) while the rest are related to MHPs and other RE systems.

There are 278 CREEs in 52 districts that use on-grid electricity to electrify rural and some of the urban areas. In addition, 64 additional CREEs are in the process of contract with Nepal Electricity Authority (NEA) for electrifying rural communities. About 4.5 million populations have access to energy through CREEs in Nepal and the demand of such energy distribution system is gradually increasing, because Government of Nepal is providing 90% subsidy for on-grid based community rural electrification. The institutional set up and the governance framework of CREEs is based on electricity cooperatives, though before 2014, many CREEs have been registered as an NGO or company and such CREEs require to transform into electricity cooperative taking into account the legal provision of Community Rural



Electrification (CRE) Bylaws 2014 and the newly enacted Cooperative Act 2017 (NEA, 2014)<sup>1</sup>. The CREEs, which are registered as electricity cooperatives, have to comply with the Cooperative Act 2017 including other relevant legal instruments on CREEs to maintain and enhance good governance in the institution. Relatively, it is less complex to assess the governance status of electricity cooperatives than MHPs which are established and registered under legal frameworks such as Water Resource Regulation 1995 or Association Registration Act 1977.

In context of Nepal, it has been learnt that the decentralized and community-based energy systems such as MHPs, pico hydropower plants and CREEs can also contribute to achieve the energy access goal of SEforALL and SDG7 through an appropriate policy, legal and institutional arrangement at different level (NPC, 2017). The Constitution of Nepal (2015) has guaranteed that every citizen shall have the right to live in a clean and healthy environment (Article 30(1)). The state has obligation to implement such fundamental rights of citizen through an appropriate policy, legal and institutional arrangement at all level. Securing rights of energy access to all citizens will be one of the important milestones to fulfil state obligation related to this fundamental right. Similarly, the constitutional policies of state have also committed to ensure reliable supply of energy in an affordable and easy manner, and make proper use of energy, for the fulfilment of the basic needs of citizens, by generating and developing RE (Article 51 (g)(3)). Such type of constitutional commitment for the promotion of RE is incorporated for the first time in the constitutional history of Nepal. According to the power sharing mechanism of the Constitution of Nepal, RE is included under the exclusive power of local government (Schedule 8 of the Constitution), therefore relevant policy and legal provisions will be developed by the local government as per their local requirement in the new federal structure of the country. The newly enacted Local Government Operation Act (2017) has also devolved the authority to the local government in order to make law, policy, plan and program related to generation of up to 1 MW of electricity and regulating the distribution of electricity at local level.

Therefore, there will be different implications over the governance mechanism of community-based energy systems in Nepal during the implementation of new constitutional provision on energy and new legal provisions on generation and distribution of electricity based on the Local Government Operation Act 2017, Cooperative Act 2017, Industrial Enterprise Act 2016, Electricity Regulatory Commission Act 2017 as well as existing electricity legislations. In this research, the governance status of MHPs and CREEs is assessed taking into account the constitutional power sharing on energy access, new legislative provisions on community-based energy generation and distribution systems as well as emerging institutional arrangement based on the state restructuring. The existing status of the governance in MHPs and CREEs is assessed against the major elements of governance defined by the various energy related legal arrangement.

## 1.2. Objectives

The major objective of the research is to analyse the role of good governance, specially transparency, accountability, gender integration and social inclusion for sustainable green and inclusive energy access through community-based energy systems. The specific objectives of the research are to:

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<sup>1</sup> Recently, NEA has issued a circular to CREEs to transform their institutional set up into electricity cooperative based on the new legal arrangement, if they have previously registered as a NGOs or companies.



- Analyse the policies and legislative instruments related to governance of community based energy systems;
- Assess the good governance practices of the existing community based energy systems considering major five elements of governance that are: *community empowerment and participation; transparency; accountability; feedback & grievance redress mechanisms (FGRM) and Gender Equality and Social Inclusion (GESI) integration* including equitable distribution and productive utilization of generated and distributed energy;
- Identify critical and major contributing factors that contribute to strength and maintain good governance of a sustainable community based energy systems;
- Identify the major barriers of good governance and areas of improvement in existing policies, laws and governance practices that will facilitate sustainability of community-based energy systems;
- Document cases of best practices and lessons learnt of good governance practices in community based energy systems.

### 1.3. Research Questions

The main deliberation of the research question is how policies, legislations and community-based practices support to strength and maintain good governance in green and inclusive energy through community-based energy system. The specific research questions are:

#### **a) Policies and legislative instruments**

- What are the current provisions to maintain good governance in community based energy systems in Nepal?
- What elements of the enabling environment (policies and laws) are conducive to promote best practices of good governance in community-based energy system?

#### **b) Gender**

- Are the current best practices of governance in community based energy systems GESI friendly?
- What is the role of women and disadvantaged groups (DAGs) in the implementation, operation and management component of community based energy systems?

#### **c) Support services**

- How the different public agencies, investor and service providers have been contributing for strengthening good governance in community-based energy system during the design, implementation, operation, and management and monitoring?

#### **d) Governance practices of the existing systems**

- How well do the community based energy systems ensure community empowerment and participation, gender engagement, equity and social inclusion, financial accountability and transparency along with Public Hearing & Public Auditing (PHPA) for sustainability of the system?
- What are the critical and contributing factors that contribute to the good governance in community-based energy system?

#### **e) Critical issues in Community Managed Energy Systems**

- What are the major conflicts in community based energy systems and how community or other responsible agency has been managing to minimize or resolve the conflicts on water resources, electricity generation, distribution and utilization?
- Are the conflict resolution, distribution and utilization of energy mechanisms GESI sensitive?



- How communities react to grid and off grid based energy systems in terms of maintaining good governance? What are the critical issues and major barriers for strengthening good governance in community-based energy systems?
- What lessons can be drawn from the current practices on good governance and what are the areas of improvement in policies and practices?

## 1.4. Significance, scope and limitation of the research work

### a) Significance of the research

Nepal's Electricity Act 1992 provides local communities and private operators to develop MHP up to 1 MW, providing opportunity for local level governance, including day to day management of generation, transmission and distribution. Such a legal provision means there is much flexibility in governing small scale community-based electricity system. The CREEs have a different legal framework as it has been allocated the responsibility for distribution of electricity in the defined rural areas.

The national policies, legislations and regulatory instruments have less emphasis on governance aspect of the community-based energy systems, therefore these systems namely CREEs and MHPs are relying on their own internal systems (such as business plan, bylaws, decision-making process) to establish and maintain good governance, which has not been adequately acknowledged at national or sub-national policy process. The openness of such a policy and law is open for interpretation, often leaving room for a wide range of governance structure and systems. Likewise, due to weakness in the practice of good governance in some of the community-based energy systems, they fail in providing reliable electricity, hence are unsustainable. This research tries to identify the critical issues of good governance in these systems and present the way forward to enhance the good governance in community-based energy systems for their sustainability, in their relationship with private service providers and market based approach for the promotion of green inclusive energy access.

### b) Scope

This research is concentrated on the governance aspect of community-based energy systems (namely CREEs and MHPs) in Nepal and it has analysed the policy issues, gaps, and successes as well as failure stories of CREEs and MHPs. Based on the analysis, the different options and way forward are proposed to fulfil the existing gaps to strengthen good governance in community-based energy systems. The research has covered the governance mechanisms of MHPs and CREEs which are covered by the RE Subsidy Policy 2016 and other different initiatives of the government agencies and local government.

### c) Limitation

The research work is confined to the major five elements of governance (*community empowerment and participation; transparency; accountability; FGRM and GESI integration*) of community-based energy systems. Similarly, other elements of governance such as rule of law and procedural aspects of governance such as efficiency and communication are also analysed as per their importance and requirement. The detail aspects and practices on efficiency and communication elements are covered in other separate two research reports. The accountabilities of government agencies, local governments, service providers, support agencies and bank and financing institutions are not measured or assessed in this research. Also, it has been discussed that market-based approach should be promoted for sustainable rural electrification program. However, as this is a new approach practice is yet to be realized, hence, it was not include in the current research.



## 1.5. Research methodology

Qualitative method was mainly applied and quantitative methods were also used for obtaining the perspectives of stakeholders on different aspects of good governance in the context of green and inclusive energy (GIE) access through community-based energy systems. During the research work, an extensive review of relevant policy documents, research reports and publications has been conducted for the analysis of secondary information. The case studies of best practices have been generated through both qualitative and quantitative methods.

### a) Secondary information collection

Background information collection and literature review was carried out on governance status of the community based energy systems and its impact on overall utilization of green energy. The secondary information were collected from published reports of AEPC, NPC, NEA, and from various relevant development partners, projects and energy specific non-governmental organizations such as Asian Development Bank (ADB), The World Bank (WB), Practical Action, National Association of Community Electricity Users Nepal (NACEUN), Nepal Micro Hydropower Development Association (NMHDA) and Nepal Trust for Nature Conservation/ Annapurna Conservation Areas Program (NTNC/ ACAP).

### b) Interviews with the key stakeholders at national level

Interviews were carried-out with key agencies and stakeholders at national level to collect critical issues on good governance for green and inclusive energy access. These interviews were conducted with the relevant authority/ officers/ staffs of semi-governmental agencies (NEA, AEPC, NTNC/ ACAP), development partners (WB and ADB), and GIE consortium partners like NMHDA, NACEUN and other stakeholders.

### c) Field Survey

The following field survey tools have been used for the collection of first-hand information from the selected MHPs and CREEs for the research purpose:

#### *i. Focus Group Discussions and Key Informant Interviews*

Focused Groups Discussions (FGDs) and Key Informant Interviews (KIIs) have been carried out in 11 MHPs and 6 CREEs sites (Annex 3) to collect necessary information and case studies by using questions and checklists (Annex 4 ) which has developed for this study. The meetings of the executive/ management committee of MHPs and CREEs have been organized for the FGDs. The main office bearers and the members of the local governments were the key informants for the KII. All these field survey sites were selected based on the specific criteria such as representation of provinces and physical locations, project scale, road access and remoteness, electricity generation and distribution capacity, households and their ethnicity composition. These site selection criteria and the field survey sites were finalized after discussion with the consortium partners.

#### *ii. Household Survey*

Household survey has been conducted using the household questionnaire (Annex 5) in 140 households from the 17 survey sites to know perceptions or insights of the families about the governance practices of their community-based energy system and other aspects of management within the community managed energy systems. The findings from the household survey are presented in the relevant chapters.



***d) Colour ranking for the governance assessment:***

Based on the available first-hand information from KII, FGDs, households survey and field observations, the individual traffic lights (colour) ranking is given to each governance criteria of the five good governance principles/elements. The 'green', 'yellow' and 'red' lights/colour reflects the meaning or existing practices of good governance as 'good', 'average' and 'below average' respectively in each institutional modalities. After traffic lights/colour ranking in each governance criteria, the logic and justifications of such ranking is explained in a summarized text.



## 2. Governance framework of community based energy systems

Under the UN initiative on SEforALL, states and stakeholders are committed to take concrete action toward achieving three critical objectives by 2030 which are: ensure universal access to modern energy services; double the global rate of improvement in energy efficiency; and double the share of RE in the global energy mix (SEforALL, 2016). Similarly, SDGs have also set the similar goals to achieve by 2030 under the goal 7 which is related to *ensure access to affordable, reliable, sustainable and modern energy for all* (UN, 2015).

The good practices of governance and its effective implementation would be instrumental to achieve the above-mentioned energy related goals and targets of SDGs and SEforALL. In the context of Nepal, different policy and legal provisions are formulating to maintain and enhance good governance in energy sector including MHPs and CREEs which could be supportive to achieve SDGs and SEforALL. The major policy and legal provisions to maintain good governance in community-based energy systems in Nepal are analysed in this section.

### 2.1. An overview of policy arrangement for good governance in MHPs and CREEs

The RE Subsidy Delivery Mechanism 2016 has classified community-based small scale hydropower plants into three categories which are pico hydro (up to 10 kW), micro hydro (greater than 10 kW and up to 100 kW) and mini hydro (greater than 100 kW and up to 1000 kW). The CRE Bylaw 2014 has devolved the rights to local communities (CREEs) for the electricity distribution management in rural areas up to 50 kVA supply for their members/consumer.

The government of Nepal has been developing various policy instruments to promote MHPs and CREEs and these policies have incorporated some of the important elements of good governance, which are really important to maintain governance in the community-based energy systems. Some of the major policy provisions of these instruments are as follows:

**Table 1: Good governance provisions in policy instruments**

Policy instruments	Good governance provisions
<p><b>MHPs</b></p> <ul style="list-style-type: none"> <li>• RE Subsidy Policy 2016</li> <li>• RE Subsidy delivery mechanism 2016</li> <li>• RE Policy 2014</li> <li>• National RE Framework 2017</li> </ul> <p><b>CREEs</b></p> <ul style="list-style-type: none"> <li>• Community Rural Electrification Bylaw 2014</li> <li>• Cooperative Act 2017</li> </ul>	<p>Various policy provisions to maintain good governance in MHPs and CREEs :</p> <ul style="list-style-type: none"> <li>• Regulatory agencies (AEPC &amp; NEA) and their roles and responsibilities for maintaining good governance in the entities</li> <li>• Institutional objective and nature of MHPs &amp; CREEs</li> <li>• Decision making bodies of the entities</li> <li>• Empowerment and community participation</li> <li>• Participation and representation in all phases of system development</li> <li>• Transparency and rights/access to information</li> <li>• Accountability</li> <li>• FGRM</li> <li>• GESI</li> <li>• Capacity building and consumers protection</li> <li>• Monitoring and evaluation</li> </ul>

#### a) Micro-Hydro Plants

MHPs started to be installed in Nepal for the electrification in rural off grid areas with the facilitation from Agricultural Development Bank that channelled the government subsidy to establish MHPs for lighting and agro-processing during the decade of 1985-1995. Later on

various development partner/donors had extended their support to expand MHPs in various locations of the country (NMHDA, 2014).

The Electricity Act 1992 has created, through the deregulation of up to 1000 kW capacity, a conducive environment to community and private sector participation in MHPs development. As per this act, there is no requirement to obtain licence from the Department of Electricity Development (DoED) for the generation, transmission or distribution of electricity up to 1,000 kW and for conducting necessary survey thereof. However, there is a requirement to get technical clearance from the DoED before utilization of water sources. Therefore, many communities, agencies and stakeholders have been engaging to promote MHPs in rural areas based on the decentralized decision making process.

As a government institution, AEPC was established in 1996 based on the formation order with an objective of developing and promoting renewable/alternative energy technologies in Nepal, which has also rights and responsibilities to promote and provide financial (as a subsidy) and technical support to MHPs for the effective implementation of RE subsidy policy of the government.

Rural Energy Development Program (REDP, 1996-2011), Renewable Energy for Rural Livelihood (RERL, since 2011), Energy Sector Assistance Programme (ESAP, 1996-2012) and National Rural and Renewable Energy Programme (NRREP, since 2012) has extensively supported to develop pico, micro and mini hydros in rural areas of the country since the establishment of AEPC in 1996 (NMHDA, 2014). Various government agencies including AEPC and Poverty Alleviation Fund, development partners, private companies and NGOs have been continuously providing support as well. During the implementation of these projects, the Government of Nepal has been also developing various policy and legal instruments such as Electricity Act 1992 for the promotion of MHPs in Nepal.

Different RE subsidy policies has been successfully implemented in Nepal and contributed to develop capacities for the utilization of RE technologies in many rural areas of the country (UNEP, 2012). After review of the successes and policy issues of this policy, Nepal has formulated a new RE Subsidy Policy, 2016 considering the past experiences and constructive suggestions of stakeholders. A separate RE Subsidy Policy Delivery Mechanism 2016 has also been formulated for the effective implementation of RE Subsidy Policy, 2016. Other different policies and guidelines (See annex-1) have been also formulated by the AEPC for the strengthening of good governance in MHPs. Some of the key features of these policy and procedural documents are: governance mechanism of MHPs and their entities; pro poor focus; specific subsidy for targeted poor, women and vulnerable communities; gender sensitive subsidy mechanism; decentralized planning, institution and operations; and mechanism to create community ownership through internal resources mobilization etc. The establishment of the Central Renewable Energy Fund (CREF) is one of the important policy and institutional achievement in Nepal for the sustainability of MHPs and other RE programs. All these policy initiatives have been contributing towards the strengthening of good governance in MHPs.

## **b) Community-based Rural Electrification Entities (CREEs)**

The Electricity Act 1992 has not made any specific provision for the community rural electrification; however the Act has opened a window for the distribution of electricity through leasing with any institutions including CREEs (sec. 35). The NEA Act 1984 has given power to NEA to make an appropriate arrangements for the supply of electricity of suitable standard in economically feasible areas for industrial and agricultural development and for the benefit of the people (sec. 19) and for this purpose, the NEA has power to frame bylaw (sec. 35).





Government of Nepal has introduced a policy provision in 2003 to provide subsidy for on-grid based CRE program through mobilizing electricity users/ consumers groups of the rural communities. A Bylaw was formulated in 2008 to operationalize this CRE policy approach and based on the ground level experiences. The Bylaw has subsequently been revised and now a CRE Bylaw 2014 is in place for the operation of CREEs. This Bylaw has defined the overall governance framework of CREEs. The main objectives of the CRE Bylaw are to promote community participation in the rural electrification and its expansion through community institutions; to strength the community management of electrification; to develop capacity of local communities and to attract investment from community, private and local governments for the electrification (sec.3).

Before formulation of CRE Bylaw 2014, NEA had signed contracts with different types of entities such as cooperatives, NGOs and companies for CRE program based on the previous Bylaw. Due to weak participation of electricity users and lack of community ownership in the NGOs and company modalities, the CRE Bylaw 2014 has recognized only those cooperatives which are registered with the specific objective for community rural electrification with electricity users/ consumer participation and membership in the cooperative institution. Such specific cooperatives require to comply with the cooperative law as well as electrification laws and is instrumental to create community ownership over the CRE with strengthened governance mechanisms.

## **2.2. List of Legislative instrument for strengthening good governance in MHPs and CREEs**

The Constitution of Nepal (2015), Electricity Act 1992, Nepal Electricity Authority Act 1984, Local Government Operation Act 2017, Electricity Theft Control Act 2002, Cooperative Act 2017, Industrial Enterprise Act 2017, Company Act 2006, Electricity Regulatory Commission Act 2017, Water Resource Act 1992, Water Resource Regulation 1993 and other sectoral regulations and procedures have also specified various provisions to maintain good governance in MHPs and CREEs. However, these legislations are not explicitly internalizing any specific approaches to promote and strengthen good governance in MHPs and CREEs. Some of the governance elements of these legislations are described in table 2 below:



**Table 2: Good governance elements in legal instruments**

<b>Legal instruments</b>	<b>Good governance elements</b>
Constitution of Nepal	<ul style="list-style-type: none"> <li>• Fundamental right to live in a clean and healthy environment (art 30)</li> <li>• State policy - ensure reliable supply of energy in an affordable and easy manner, and make proper use of energy, for the fulfilment of the basic needs of citizens, by generating and developing RE.</li> </ul>
Electricity Act 2049	<ul style="list-style-type: none"> <li>• No license require to be obtained for the generation, transmission or distribution of electricity up to 1000 kW (MHPs) and only information need to give to the DoED (sec. 3)</li> </ul>
NEA Act 1984	<ul style="list-style-type: none"> <li>• No specific provisions to maintain good governance in community-based energy systems.</li> </ul>
Water Resource Act 1992, Regulation 1993	<ul style="list-style-type: none"> <li>• Registration of MHP Water Users' Association in the District Water Resource Committee to ensure the ownership over water resource to generate hydroelectricity.</li> </ul>
Electricity Regulatory Commission Act 2017	<ul style="list-style-type: none"> <li>• Develop governance frameworks and code of conducts for the electricity generation, transmission and distribution.</li> </ul>
Electricity Theft Control Act 2002	<ul style="list-style-type: none"> <li>• CREEs are responsible to control theft of electricity by developing rules and code of conducts.</li> </ul>
Cooperative Act 2017	<ul style="list-style-type: none"> <li>• Recognized to hydroelectricity or electricity cooperative as an specific type of cooperative and have rights to expand working area and membership in the jurisdiction of more than one local government.</li> </ul>
Industrial Enterprise Act 2017	<ul style="list-style-type: none"> <li>• The energy generation, transmission and distribution system are counted as an energy industry</li> <li>• Tax incentive to all types of energy enterprise as a nationally prioritized industry</li> </ul>
Local Government Operation Act 2017	<ul style="list-style-type: none"> <li>• Power of local government - Formulate policy, law, standards, plan to regulate hydroelectricity project which generate up to 1 MW, renewal energy and associated technology development and transfer to the communities and electricity distribution and its management at local level (sec. 11).</li> </ul>

**Constitution of Nepal:** The constitution has guaranteed that every citizen shall have the right to live in a clean and healthy environment (art 30) and energy is essential to achieve this fundamental right of citizen. The state is responsible to fulfil this right of citizen and for this purpose; it is required to make an appropriate law through multi-stakeholder process. Likewise, the state policy of the constitution is to ensure reliable supply of energy in an affordable and easy manner, and make proper use of energy, for the fulfilment of the basic needs of citizens, by generating and developing RE (art 51). As per the constitutional provision, it is an obligation of the state to gradually implement this policy.

The Constitution of Nepal has given rights and responsibilities to the local governments in order to regulate and facilitate RE development (up to 1 MW - schedule-8) and based on this provision, the local governments will be responsible to maintain good governance in the community-based energy systems in the future.

**Electricity Act 2049:** As per this Act, no license shall be required to be obtained by a citizen or a domestic organization for generation, transmission or distribution of electricity up to 1000 kW, and for conducting necessary survey thereof. However, before generating, transmitting or distributing hydroelectricity of the capacity ranging from 100 kW to 1000 kW, information shall be given to the DoED in a manner as prescribed in the Electricity Regulation 1993 (sec. 3) to obtain technical clearance. In such information, the MHP related community institutions need to provide the information on description of the MHP, project site, source of and ownership over water source and its quantity to be utilized, electricity distribution areas and benefited members/consumers from the proposed MHPs.



**Nepal Electricity Authority Act 1984:** One of the important function, duty and power of the NEA is to develop and enforce various bylaws on electricity distribution by itself or through CREEs. As the CRE program was introduced only in 2003, the act does not contain anything about CREEs. Some elements of good governance have been elaborated in the CRE Bylaw 2014 which is elaborated in the next sub-section.

**Water Resource Act 1992:** According to the Water Resource Act 1992 and Water Resource Regulation 1993, if the local communities/ institutions want to utilize water resource for generation of electricity from pico, MHPs and Small/Mini hydro (up to 1000 kW), they have to be registered as a MHP Water Resource Users' Association in the Office of District Water Resource Committee (now local government). Also, they should provide such information to the DoED. In order to form a MHP Water Resource Users' Association, they require developing their bylaw/ constitution for operation and maintenance and good governance (rule 3, 4 & 5). Thus, responsibility and accountability of electricity generator/ distributor entities necessitates maintaining their good governance through their own internal documents such as business plans, bylaws, constitution, statute, memorandum, regulation, accounting and reporting system and transparent as well as participatory decision making process.

**Electricity Regulatory Commission Act 2017:** The Electricity Regulatory Commission will be an independent and a main responsible agency in the future in Nepal for the regulation of all type of hydroelectricity systems because the Act has given rights and responsibilities to this commission to maintain good governance in electricity sector including community-based energy systems in Nepal. The Commission has also authority to develop governance frameworks and code of conducts for the electricity generation, transmission and distribution. However, enough time and resource requires to be allocated for this purpose after the establishment of the Commission.

**Local Government Operation Act 2017:** This Act has provided certain rights, roles and responsibilities to the local government to regulate MHPs and CREEs. For this purpose, the local government will enact their own local law. The local government has right to formulate policy, law, standards, plan to regulate hydroelectricity project which generate up to 1 MW, RE and associated technology development and transfer to the communities and electricity distribution and its management at local level (sec. 11). According to the provisions of this Act, the local government has also rights and responsibilities to monitor and evaluate the small scale electricity generation, transmission and distribution as prescribed in the law of local government. Therefore, the local government and their policy as well as legal framework will have an important role to promote good governance in the MHPs and CREEs (please see detail in the section 2.5).

**Electricity Theft Control Act 2002:** The CREEs have obligation to control theft of electricity by developing community rules and code of conduct based on the community level discussion and consensus, because if the electricity theft related activities are accrued in the CREEs, the provisions of this Act will be imposed by the local government and NEA jointly to control theft of electricity and they may impose fine and punishment. The CREEs have rights and obligation to develop such rules and code of conducts with regardless of the provisions of Electricity Theft Control Act 2002. However, the provision of this Act does not apply for the MHPs.

**Cooperative Act 2017:** The Cooperative Act 2017 has made a specific legal provision to implement community rural electrification through electricity cooperative. The Act has given specific incentives to those cooperatives which has specific objective to develop MHPs and implement community rural electrification programs. The Act has also incorporated enough provisions and requirement to maintain good governance in such MHPs and electricity cooperatives.



**Industrial Enterprise Act 2017:** This Act has recognized energy industry as a first nationally prioritized industry (sec. 15) and the income tax exemption will be provided to such energy enterprises for a certain period. According to the Schedule-3 of this act, the energy generation, transmission line and distribution system are counted as an energy industry, therefore, if any MHPs and CREEs want to utilize such incentives provided by this Act, they need to be registered as an energy industry in the industry related departments, which will be also instrumental to maintain and strength good governances in MHPs and CREEs, because they have to maintain a transparent system and inclusive mechanism to utilize such incentives provided from this legislation.

### 2.3. Major institutional modalities to promote good governance in MHP and CREEs

The MHPs are CREEs are under management of four types of institutional modalities: i) MHP Water Users' Associations/ User Groups, ii) Community Rural Electrification Cooperative, iii) NGOs/ CBOs and iv) Private Companies as described in detail below:

#### a) MHP Water Users' Association/ User Groups

Majority of MHPs are established and operated by MHP Water Users' Association/ User Groups registered in the District Water Resource Committee as per legal requirement of Water Resource Regulation 1993. These Association/ Groups have rights to generate, transmit and distribute hydroelectricity to their members/ consumers. The main good governance elements of such MHP Water Users' Association/ User Groups are as follows:

**Objectives:** The main objective of the MHP Water Users' Association/ User Groups is to secure rights over the water source for the generation of hydroelectricity and transmission and distribution of that generated community hydroelectricity to their member/ consumers.

**Governing policies:** MHP Water Users' Association/ User Groups are regulated by the Water Resource Act 1992, Water Resources Regulation 1993, and Electricity Act 1992, Electricity Regulation 1993, RE Subsidy Policy 2016 and RE Subsidy delivery mechanism 2016. They have to comply with the good governance elements defined by these policies and legislations during the preparatory, construction and institutional strengthening phases of MHPs.

**Support agencies:** The Local Governments, District Water Resource Committee, AEPC and associated support agencies, CREF and DoED are some of the government agencies which have been empowering the MHP Water Users Association/User Groups to maintain and enhance good governance in their institutional arrangement namely in the preparatory and construction phase of MHPs.

**Institutional nature:** As per the Water Resources Regulation 1993, the legal/institutional nature of the MHP Water Users Association/User Group is a non-profit making social business organization. They have rights to generate financial resource for the MHP operation cost in order to maintain its sustainability, but not for distribution of profit to members, which is one of the constraints to MHPs to create ownership feeling over the property and profits of MHP.

**Operating instruments:** The main internal operating instrument of the MHP Water Users' Association/ User Groups is constitution/ bylaw approved from the local governments/ District Water Resource Committee or Cooperative Division Offices. The effective implementation of such operating instrument is instrumental in order to maintain good governance in the institution.



**Decision making bodies:** General Assembly, Executive Committee (EC) and specific Sub-committees are some of the main decision making bodies of the MHP Water Users' Association/ User Groups. The rights, roles and responsibilities of these decision-making bodies are defined in the approved constitution/bylaw of the specific entity.. Effectiveness and accountability of such decision making bodies is essential to maintain good governance including transparency in the community institution.

## **b) Community Rural Electrification Cooperative Institutions**

The Cooperative Act 2017 has recognized hydroelectric/ electricity cooperative and provided special privileges to them. There are about 450 cooperatives in Nepal involved in energy sector particularly in the generation and distribution of clean energy like small-scale solar panel distribution, construction of small-scale hydropower project, and installation of biogas to their members (Department of Cooperative, 2017). Energy sector cooperatives in Nepal receive major funding as grant and subsidy from the different funds and contribute some amount of their own for the generation, distribution, repair, and maintenance of small-scale MHPs especially in rural area of Nepal (SREP, 2011). Similarly, Community Rural Electrification Cooperatives are consumer-owned utilities that were established to provide reliable and affordable electricity by purchasing electric power at wholesale from NEA and distributing it directly to their member/consumer (AEPC, 2013). In this way, there is a huge role of electricity cooperatives for the sustainability of MHPs and CREEs in rural areas of the country. The main good governance elements of these Community Rural Electrification Cooperative institutions are as follows:

**Objectives:** The objective of the Community Rural Electrification cooperative is to achieve socio-economic prosperity of the member/consumers in their working areas by ensuring access to affordable, reliable, sustainable and modern energy through off-grid or on-grid. Therefore, the CRE cooperative are accountable to fulfil this objective taking into account the provisions of their bylaw which is approved by the concern agencies.

**Governing laws and policies:** The Cooperative Act 2017 and CRE Bylaw 2014 has given special emphasis to the Community Rural Electrification Cooperatives for off-grid electricity generation/distribution and on-grid electricity distribution particularly in rural areas. RE Subsidy Policy 2016 and RE Subsidy delivery mechanism 2016 has also recognized the role of Community Rural Electrification Cooperatives to maintain community ownership, gender equity, social inclusion and good governance in the community-based rural electrification. Therefore, electrification cooperatives require complying with the governance elements of these policy and legislative instruments during the operation of cooperative institutions.

**Regulatory and support agencies:** According to the Cooperative Act 2017, the Local Governments, state level Cooperative Division Office and central level Department of Cooperative are main regulatory agencies for the monitoring of cooperatives in order to maintain and enhance good governance in their institutional mechanisms. Community Rural Electrification Department of NEA, its Directive Committees, and Community Rural Electrification Fund and Revolving Fund are also responsible to provide support to CRE cooperative in order to enhance good governance in their operation and implementation of the CRE Programs.

**Institutional nature:** The institutional nature of Community Rural Electrification cooperative is to generate profits and provide support to its members for their socio-economic development through sustainable supply of affordable and reliable off-grid or on-grid rural electricity. The Electrification cooperatives can easily obtain subsidy, grants and loan from various agencies and funds, because they have rights to generate financial resource from their members and profit making activities in an accountable, transparent and participator way which could



support to fulfil their financial obligations. Therefore, subsidy policies and social mobilization directive of AEPC and the CRE Bylaw of NEA has given high emphasis for the mobilization of electrification cooperative for community-based electrification in rural areas.

**Operating instruments:** Bylaws and internal procedural documents are some of the main operating instruments of the cooperative institutions. The good governance elements (transparency, accountability, participation, GESI, FGRM, capacity building and consumer protection etc.) are an integral part of these operating instruments, which are mandatory for the decision making bodies of the all types of cooperative institutions including CRE cooperatives.

**Decision making bodies:** As per Cooperative Act 2017, the General Assembly, Board of Directors (BoD) and Financial Supervision Committee are main responsible decision making bodies of the cooperative institution. The rights, roles and responsibilities of these decision making bodies are defined in the legislation which are also to be reflected into the approved bylaw of registered cooperatives. Each decision making bodies are accountable to fulfil and comply their defined rights, roles and responsibilities in order to maintain good governance in the cooperative institution.

### c) Non-governmental Organizations/ Community-based Organizations (NGOs/ CBOs)

NGOs/ CBOs have been also working in some rural areas in Nepal as MHP developer or CREEs in Nepal. However, their number is limited as most of them are converting into cooperative taking into account the provision of Social Mobilization Directive of AEPC and CRE Bylaw of NEA. However, such NGOs/ CBOs have also been playing an important role promoting good governance in the MHPs and CREEs. Some of the major good governance elements of these MHPs/ CREEs based NGOs/ CBOs are as follows:

**Governing laws and policies:** The main governing law for the NGOs/ CBOs is Associations Registration Act, 2034 (1977). However, the MHPs/ CREEs based NGOs/CBOs should also comply the policy and legal provisions of CRE Bylaw 2014, RE Subsidy Policy 2016 and RE Subsidy Delivery Mechanism 2016 if they desire to implement MHPs and CRE program respectively.

**Regulatory and support agencies:** The NGOs/ CBOs are registered in the District Administration Office and affiliated with Social Welfare Council and Poverty Alleviation Fund (PAF), however these agencies are not responsible to regulate the MHPs and CRE program. Therefore, taking into account the objective of NGOs/ CBOs, the NEA and its Department of CRE, AEPC and associated support agencies, and other concern agencies such as PAF and other funds are counted as government agencies to maintain and enhance good governance in those NGOs/ CBOs who are implementing MHPs and CRE program.

**Objective and institutional nature:** The main objective of the NGOs/ CBOs is developing and extending socio-economic activities of local communities through MHPs or CREE. However, they are not accountable towards the members of local communities, and therefore it is assumed that the status of good governance in the NGOs/ CBOs is relatively weak. As they are non-profit making social organizations, NGOs/ CBOs have very limited direct access to subsidy, grants and loan from energy related funds. Therefore, the Social Mobilization Directive of AEPC and CRE Bylaw of NEA recommend NGOs/ CBOs to convert into CRE cooperative institution.

**Decision making bodies and operating instruments:** According to Associations Registration Act, 1977 and Social Welfare Council Act, the General Assembly and the EC are main responsible decision-making bodies in the NGOs/ CBOs to maintain and enhance good



governance in the program and implemented activities. Generally the rights, roles and responsibilities of these decision-making bodies are defined in the legislations and approved constitution of the NGOs/ CBOs, which is required to be followed in order to maintain good governance in the organization and its decision-making process.

#### **d) Companies**

Few companies have been directly working as a MHPs developer or a CREE, however, the RE Subsidy Policy and its Delivery Mechanism of AEPC as well as CRE Bylaw of NEA has mainly made companies responsible for providing service to the MHPs and CREEs as a contractor. Therefore, Social Mobilization Directive of AEPC and CRE Bylaw of NEA have made provision to convert those companies into cooperative institutions which have been working as a MHP developer or CREEs.

**Governing laws and regulatory agencies:** The main governing law for the companies is Company Act 2006 and if the company is working as a MHP developer or CREE, they also need to comply with the provision of CRE Bylaw 2014, RE Subsidy Policy 2016 and RE Subsidy delivery mechanism 2016. The main regulatory agencies are Office of Company Registrar, NEA and Department of CRE and associated funds, AEPC and associated support agencies and funds, and as per the objectives of the company, the other concern agencies can also play a role of regulatory agencies to maintain good governance in those companies which are implementing MHP program or CRE program.

**Institutional nature and objectives:** The institutional nature of the company is to make profit and the objective is to developing and extending socio-economic activities & profit making through different activities including MHP development and implementation of CRE program. The profit making companies have very limited options to obtain subsidy and grants from the various energy funds for the MHPs and CRE program, therefore, it is recommended to mobilize the companies as a contractor rather than MHP developer or CRE program implementer.

**Decision making bodies and operating instruments:** As per Company Act 2006, the General Assembly and BoD are main responsible decision making bodies in the company and the rights, roles and responsibilities of the these bodies are defined in the Act and approved memorandum and regulation of registered company. Participation of local communities and maintaining GESI in the decision making process and operation of company is not mandatory, which is one of the weakness of the company modalities in the sector of MHP development and CRE program implementation.

## **2.4. Main initiatives to promote good governance in MHPs and CREEs from agencies and stakeholders**

The different government agencies have been developing various instruments and institutional mechanism to develop capacity of MHPs and CREEs in order to maintain and enhance good governance in such community institutions as well as in their off-grid and on-grid energy supply programs. The governance monitoring mechanisms developed by these agencies are also instrumental to maintain governance in MHPs and CREEs. Some of the major initiatives and efforts taken from these agencies to maintain good governance in this sector are as follows:



### **2.4.1 Pico, Micro and small/mini Hydroelectricity Plants projects (off-grid)**

#### **Alternative Energy Promotion Centre (AEPCC)**

- Formulated RE Subsidy Policy and its Delivery Mechanisms to maintain transparency in the utilization of subsidies and recognition of community participation in all phases of MHPs.
- Developed and implementation of Social Mobilization Directives and Gender Equality and Social Inclusion mainstreaming plan in order to ensure community participation and GESI, and fulfilling accountability from decision making bodies in MHPs.
- Established and operationalize the FGRM at central level to reduce and manage MHPs related conflicts.
- Established a Compliance Unit to maintain a foundation of integrity for everyone and establish a culture of shared responsibility and accountability in the RE actions.
- Develop standards and guidelines for RE technologies including MHPs
- Established monitoring system of the MHPs project through independent third party.

#### **Poverty Alleviation Fund**

- About 60% costs of MHPs are covered from PAF in many rural and remote areas of PAF implemented districts.
- Developed various rules and norms to provide subsidy and grants transparently to community organizations in order to implement PAF's one of the core program-development of rural energy.
- Mandatory provision for the integration of gender equity and social inclusion in the CBOs and its energy program and ensuring benefits for poor and socially DAGs.

#### **Central Renewable Energy Fund**

- Developed Financial Intermediation Mechanism and maintaining compliance mechanism as well as fiduciary risk management.
- Developed a transparent fund flow mechanism to provide subsidy and grant to end users (households, communities, manufactures, distributors and installers) through Prequalified Partner Banks (CREF, 2013)

#### **Department of Electricity Development**

- Developed an internal procedural document to obtain information on the MHP project which generate from 100 kW to 1000 kW and this procedure has supported to maintain database of mini hydro, MHPs and transparency in the MHP projects

#### **National Trust for Nature Conservation (NTNC)**

- Invested adequate financial resources to develop MHPs in various Conservation Areas and Buffer Zones of the country.
- Developed a coordination mechanism in Conservation Areas to reduce duplication of funding and overlapping of MHPs program.
- Facilitated for gender integration and social inclusion in the MHPs of Conservation Areas and implementation of capacity building program for MHP managers and operators (NTNC, 2016).

#### **Rural Village Water Resources Management Project (RVWRMP)**

- Integrated various approaches for inclusive and gender-balanced community participation in the project document and procedures as an essential element for the successful implementation of MHP projects (RVWRMP, 2016).

#### **Asian Development Bank and World Bank**





- Supported development of subsidy policy, gender action plan, FGRM mechanisms, social safeguards and compliance mechanisms in RE sub-sector.
- Support training and capacity building programs

#### **Multi/ Bilateral development partners**

- Supported development of energy plan and program to some local government and urban areas.
- Supported for capacity building of government agencies and local governments for strengthening energy governance.
- Support to AEPC – policy and programmes

#### **INGOs**

- Supported for capacity building of agencies, MHP projects and CREEs for strengthening energy governance at community level.
- Support technical research and development and support pilot projects

#### **Private sector (manufacturers and installers)**

- Supported to maintain transparency, accountability and community participation during the preparatory/design and construction phases of MHP projects.

#### **Banks and Financing institutions**

- Supported for the establishment of funds flow mechanisms and fiduciary risk management, which is highly important to maintain good governance in MHP projects and RE financing.

#### **Universities**

- Research, innovation and development of new technologies
- Capacity building

### **2.4.2 Community Rural Electrification Program (on-grid)**

#### **NEA & CRE Department**

- Formulated CRE Bylaw 2014 and incorporated key elements of good governance which is required to be compiled by the CREEs.
- Established a transparent step and process in order to make contract between NEA and CREEs for on-grid based community rural electrification which has supported to define the rights, roles, responsibilities and accountability of each involving agencies, committees and decision-making bodies of CREEs.

#### **Department of Cooperative**

- Recognized the MHPs/CRE cooperative as a specific cooperative and define the rights, roles and responsibilities of each decision making bodies of such cooperative.
- Incorporated gender-friendly provisions in cooperative law which has to be followed by CRE cooperatives.

#### **CRE Fund**

- Developed financial rules and bylaw to maintain transparency during the utilization of financial resources from the fund.

#### **Local Governments**

- Some municipalities have started to develop energy plan based on the past experiences and available least cost options for affordable, reliable, sustainable and modern energy.



- Support to CREEs for their capacity building to maintain efficiency during the implementation of CRE program.

### **NACEUN**

- Support to develop awareness and capacity to enhance good governance in the CREEs which are affiliated with them.

### **Private sector**

- Support to maintain transparency, accountability and community participation during the establishment of transmission lines and electricity distribution systems.

The Social Mobilization Directive of AEPC and the CRE Bylaw of NEA has defined the specific roles and responsibilities of these above mentioned agencies and stakeholders to promote best practices of good governance in each phases of MHPs and CREEs (please see annex 2).

## **2.5. Restructuring energy sector and the role of local governments for MHPs and CREEs**

The local government are more interested to develop energy plans and implementation of rural energy program through MHPs and CREEs, therefore they have been investing more than 10% of the total cost of rural energy infrastructures in the past (PAF, 2016). The Constitution of Nepal has also given exclusive power to local governments for the development of policy, law, plan and program in order to develop small hydroelectricity projects and alternative energy/ RE programs at local level (Scheduel-8). Therefore, the small hydroelectricity and RE related rights, roles and responsibilities of the local government is increased based on this exclusive constitution power.

Considering the above-mentioned constitutional power sharing provisions and energy sector constitutional policies as stated in the art. 51 of the Constitution of Nepal, the Local Government Operation Act 2017 has devolved the following energy related rights, roles and responsibilities to the local governments (sec 11):

- Local level policy, law, standards and plan formulation, implementation, monitoring and regulation for the development of hydroelectricity project having the capacity up to 1 MW.
- Policy, law, standards and plan formulation, implementation and regulation of alternative energy/ RE at local level
- Management, operation, monitoring and regulation of local level electricity distribution systems and services
- Alternative energy/ RE related technology development and transfer, capacity development and promotion at local level
- Conduct other activities related to hydroelectricity project and alternative energy/ RE

The Local Government Operation Act 2017 has devolved enough rights to local governments for the management and regulation of small scale hydroelectricity projects, other RETs and local level electricity distribution systems. The act provides rights to local government to formulate policy, law, plan and program, but it has not made clear provision about the electricity generation, transmission and distribution entities at local level. Many community-based organizations, user groups, cooperative and companies have been involved for the generation, transmission and distribution of electricity from off-grid and on-grid electricity systems since last many years, and the Act has not made clarity to recognize their roles and sustainability of such community-based energy systems. Thus the local governments require to develop an energy plan to mobilize such community-based energy systems in a coordinated way. The local governments have also responsibilities to coordinate, facilitate and regulate the community-based energy systems to ensure access to affordable, reliable,



sustainable and modern energy for all at local level. Based on the past experiences, expertise and capacity, the semi-governmental agencies such as AEPC, NEA, PAF, NTNC and other concerned agencies, energy projects, NGOs and private sector are also responsible to provide support to local governments in order to develop energy plan and maintaining good governance in the community-based energy systems through respective local governments.



### 3. Assessment of the existing practices of good governance in community-based energy systems

This chapter provides an analysis from the field on how elements of good governance (community empowerment and participation, transparency, accountability, gender integration, social inclusion, FGRM and capacity building) are maintained and ensured in the community-based energy systems.

#### 3.1. Community empowerment and participation

The AEPC and other supporting agencies have provided special emphasis for the community mobilization activities from the onset of development of MHPs and other RE program implementation in Nepal which has supported organizational development; skill enhancement; capital formation; technology promotion; environment management; and empowerment of vulnerable groups at community level (UNDP, 2012). The CRE program has also adopted three approaches that includes increase of community participation in rural electrification; develop capacity of CREEs for the operation, maintenance and protection of electricity supply system, and provide subsidy for the CRE program implementation (NACEUN, 2017)<sup>2</sup>.

MHPs and CREEs have supported communities for the reduction of poverty and enhancement of the livelihood of the rural people by enabling micro-enterprise and off-farm activities. All these progress have been achieving due to community empowerment and effective community participation.

The Social Mobilization Directive (2013) of AEPC (see annex 2) has defined 28 good governance criteria in order to ensure community empowerment and participation in different phases of MHPs development. Out of theme, ensuring full and effective participation of all members of MHPs and stakeholder in the process of all types of feasibility studies; ensuring community ownership of the MHP Water Users' Association/ user groups/ cooperatives over the water sources and energy infrastructure; ensuring Gender Equality and Social Inclusion in the EC and maintaining community participation in capacity building; tariff fixation, and management of maintenance funds and maintenance activities are quite important to enhance good governance.

#### **Case Study 1: Empowerment for entrepreneurship from MHPs**

Daram Khola MHP of Baglung District started operation in 2011 and it generates 50 KW of electricity. The tariff of the electricity was fixed after rigorous discussions in the community, because members of the MHPs were interested to utilize the generated power for the establishment of micro-enterprises. The MHP charges tariff of NPR 7 per unit from the consumers. The member of the communities have been operating more than seven poultry farms, two saw mills and seven agro processing mills utilizing of power generated from the MHP. These enterprises have created opportunities for job and increased income generation. The consumers have been using different home appliances like cooker and refrigerator by utilizing remittance which has also improved health care for women and children. Therefore, all consumers are empowered to participate in the relevant activities of this MHP in order to maintain its sustainability.

*Source:* FGDs and KII with the executive committee

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<sup>2</sup> NACEUN (2017), Biddhut Khabar (Electricity News), Community Rural Electrification Program: Implementation and Experience by Uttam Kumar Ghimire, [www.naceun.org.np](http://www.naceun.org.np)



Likewise, the RE subsidy delivery mechanism 2017 of AEPC and CRE Bylaw 2014 of NEA have also given emphasis on the orientation to all the community members and ECs of the MHPs and CREEs about the institutional, financial and technical aspect of MHPs and CRE program. During the assessment of existing practices for community empowerment and participation in MHPs and CREEs, the following status is identified:

**Table 3: Existing status of community empowerment and participation in MHPs and CREEs**

Governance criteria	Institutional modalities of MHPs & CREEs			
	MHP WUA/ User groups	Cooperative institutions	NGOs/ CBOs	Companies
Orientation to community members and ECs	Green	Green	Green	Green
Information, awareness campaign	Yellow	Green	Yellow	Yellow
Community participation in different feasibility studies & design of program	Yellow	Yellow	Yellow	Yellow
Community participation (in kind)	Green	Green	Yellow	Yellow
Community participation in capacity building	Green	Green	Green	Yellow
Community participation in tariff fixation	Yellow	Yellow	Yellow	Yellow
Community participation in maintenance	Green	Green	Yellow	Yellow
Community ownership over resources	Green	Green	Red	Red
	Green	Yellow	Red	
	Good	average	below average	

The above table 3 presents the status of existing practices on empowerment and community participation in different activities of MHPs and CRE program which are important to create ownership over the process and property resources of MHPs and CREEs. The cooperative modality has better space for community mobilization, empowerment and hence, active participation than other modalities. With public awareness campaigns, sought-after participations in most of the meetings along with representation and participation of community people in cooperative model has relatively made the environment more conducive for good governance practice. Furthermore, as a shareholder of the cooperative, users/consumers feel more ownership to the entity than other modalities. Capacity building opportunities for system maintenance as well as productive uses could be easily accessed in community-led models, especially cooperative. In the CBOs/NGOs and companies which are established by individuals, there is very limited opportunity to consumers for the participation in decision making process.

### 3.2. Transparency in MHPs and CREEs

The disclosure of information and public participation, enforcement authority, rights to pricing or fixation of tariffs can support the creation of community ownership and strengthen tenure rights of community institution over the energy systems (UNDP, 2016). Such practices also are important for MHPs and CREEs also for strengthening transparency. Therefore, these provisions of transparency should be incorporated in the policies, laws and procedural documents of MHPs and CREEs also.



The Social Mobilization Directive of AEPC has made mandatory provisions to provide all relevant legal, financial and technical information to the members of MHPs and it is the obligation of project developer, service providers and facilitating agencies complying with these provisions. Similarly, the CRE Bylaw of Nepal has also stated a clear provision to provide all relevant financial and technical information to the members of CREEs during the all phases of CRE program.

Establishment of notice boards and disclosure of information, mechanism to ensure access to information for all relevant agencies, stakeholders and their members, and mechanisms for information flow to the members and concerned agencies are some of the integral part of the organizational management and operating instruments of MHPs and CREEs. During the visit of offices of the selected MHPs and CREEs, it was found that the notice board were maintained, though the mechanisms for access to information and its flow to the member was found to be weak and less effective.

The policies and laws related to MHPs and CRE program have made mandatory provisions for the preparation of annual plan and program, annual progress report and annual audit report and their submission in the regulatory agencies by the MHPs and CREEs. A mechanism to maintain general and specific records is also an important task in order to prepare plan and program, progress report and audit report of the MHPs and CREEs. Likewise, RE and CRE sector policy and laws has also made a mandatory provision to organize PHPA at the beginning and end of project completion as well as in a regular basis to make clarity on plan and programs of MHPs and CREEs as well as service providers and support agencies. All these transparency requirements are stated in the sector policies and reflected in the operating instruments of MHPs and CREEs. During the assessment of existing practices of transparency in MHPs and CREEs, the following status was identified:

The table 4 reflects the status of existing practices of transparency indicators in the sampled MHPs and CREEs. Based on the past experience in MHPs and CRE program, information flow and economics transparency is one of the important elements for the sustainability of MHPs and CREEs in Nepal (GoN/UNDP, 2011). During the assessment and analysis of the transparency practices in different modalities of MHPs and CREEs, it was found that the transparency provisions are well incorporated in the operating instruments of the institutions. However, the disclosure of information and its flow are weak or less functional. The annual audit reports were regularly prepared to fulfil the legal requirement for renewable of organization, though very few institutions have been preparing annual plan and program and annual progress reports.

**Case Study 2: Contribution of MHP to establish community FM station and maintaining transparency**

Before establishment of MHP in Girindi Khola of Baglung district, there were no effective mechanisms for the communication at local level and the population were depending on traditional practices to receive information from various institution and agencies. Only after the establishment and generation of 75 kW of electricity from Girindi Khola MHP, it has been become possible to establish a community FM station in Kharbang, Baglung on 2011. It is one of the important local community FM station in a remote area which has been regularly supporting the flow of local news, community notices and information to the people of Baglung and some of the adjoining districts of province 4 and 5. This initiative of the MHP and the local community FM station is instrumental to maintain transparency about the plan program and activities of MHP and other community institutions having a major positive impact

*Source:* KII with the member of executive committee



**Table 4: Existing status of the practices for transparency in MHPs and CREEs**

Governance criteria	Institutional modalities of MHPs & CREEs			
	MHP WUA/ User groups	Cooperative institutions	NGOs/ CBOs	Companies
Transparency provisions in operating instruments (constitution, bylaw etc.)	Green	Green	Green	Green
Notice board & disclosure of information	Green	Green	Yellow	Yellow
Access to information	Green	Green	Yellow	Yellow
Annual Plans and programs	Yellow	Green	Yellow	Yellow
Annual progress report	Yellow	Green	Yellow	Yellow
Annual audit report	Green	Green	Green	Green
Clarity in information and records	Yellow	Yellow	Yellow	Yellow
Clarity in communication systems	Yellow	Yellow	Yellow	Yellow
Clarity on program/activities to consumers	Yellow	Yellow	Red	Red
PHPA	Yellow	Yellow	Yellow	Yellow
Submission of project completion report	Green	Green	Green	Green
	Green	Yellow	Red	
	good	average	below average	

The household members had very limited information about the recording systems and communication systems of their MHPs and CREEs. Likewise, the NGOs/CBOs and companies who are registered in different agencies such as District Administration Office (DAO, District Development Committee (DDC), etc. and Office of Company Registrar respectively are reluctant to make clarity about their program and activities to the electricity consumers who are not the members of NGOs/CBOs and companies, because it is not legally binding. It has found that the PHPA has been conducted generally only one time after the project completion in majority MHPs and CREEs; however, there is no practice to conduct PHPA in regular basis.

In terms of transparency practices in the MHPs and CREEs, out of 11 criteria relating to transparency (table 4), only five criteria are fulfilled by the user groups and cooperatives and rest of the criteria are not achieved by all types of institutional modalities, which is one of the critical issues for the sustainability of MHPs and CREEs.

### 3.3. Accountability in MHPs and CREEs

Accountability is also a key requirement and essential element of good governance in MHPs and other rural energy program (Practical Action, 2006). Accountability is an obligation of an individual or organization to account for its activities, willingness to accept or to take responsibility for them, and to disclose the results of an action in a transparent manner. It also includes the responsibility for financial management or other entrusted property and resources. In the context of accountability in MHPs and CREEs, various provisions are incorporated in the policy, legislations, directives, guidelines and institutional decisions of the energy sector (see annex 1 and 2). One of the critical aspects is that the fulfilment of accountability only by the members of MHPs and CREEs is not enough for the sustainability of MHPs and CRE program. The government agencies, local governments, service providers, financing institutions and funds, facilitating agencies, development partners and other relevant stakeholders related to the program and activities should also be equally accountable for effective implementation of activities and sustainability of program. Therefore, in the context of MHPs and CRE program, the accountability could be fulfilled through a culture of 'shared responsibility'.



The CRE Bylaw has defined the accountabilities of all relevant agencies, service providers and CREEs themselves. According to the CRE Bylaw (sec. 10), the CREEs and their members of the ECs are accountable to manage the electricity supply system in an efficient way.

Similarly, the RE Subsidy Policy and its Delivery Mechanism has also given special emphasis on accountability of MHPs and according to these policy instruments, the project developers are accountable for the selection of contractor and quality assurance of installed equipment in MHPs. In all types of institutional modalities of MHPs and CREEs, the ECs or BoD is accountable towards the general assembly and they are required to comply with all the provisions of RE and electricity policy and legislations except licencing provisions. Each member of the community (household members of MHPs or CREEs) is responsible to contribute cash or in kind for their projects or program as per the requirement of MHP or CRE schemes and agreements and they are also responsible for the payment of electricity tariff in time. Similarly, the CREEs are also accountable for the payment of electricity tariff to NEA as per the agreement between CREEs and NEA.

### **Case Study 3: Community accountability for rural electrification**

Gramin Purbadhar and Environment Development Manch (an NGO) of Tanahu District started CRE program in the rural areas of Suklagandaki Municipality after agreement with NEA in 2060 BS for the implementation of CRE program. 1400 households are affiliated with this CRE program. At the beginning, 20% investment was generated from the rural communities by leveraging with other financial resources of Dhangdhung Thulopakha Tinpokhari community forestry for CRE program. After the establishment of transmission line of community electrification, the rural communities formed sub-committees in each command areas and they have been regularly contributing towards the maintenance of electricity lines and poles by mobilizing their own resources generated from community forestry. The households have been regularly paying electricity tariff and there is no outstanding due amount for the payment from to CREE.

Source: Community consultation with executive body of CREE

These accountability requirements are stated in the policy and legal frameworks and reflected into approved operating instruments of MHPs and CREEs as well as different agreements or circulars. During the measurement and assessment of the existing status of the fulfilment of accountability in MHPs and CREEs, it is explored that organizing general assembly and other regular meetings; and payment of tariff related accountabilities are fulfilled by the EC/ BoD as well as energy consumers on a regular basis, because these accountabilities are highly important to sustain the MHPs or CREEs

Table 5 presents the status of existing practices on accountability in MHPs and CREEs. Due to limitation of study area, the study has measured and assessed only the accountability of MHPs and CREEs and their EC or BoD. Therefore, in this study, the accountabilities of government agencies, local governments, service providers, support agencies and financial institutions are not measured or assessed. In terms of payment of energy tariff, the status of the fulfilment of accountability from energy users (HHs members) is also measured through participatory focused group discussion and household survey.





During the assessment of existing practices of accountability in purposively selected MHPs and CREEs, the following status is identified:

**Table 5: Existing status of the fulfilment of accountability in MHPs and CREEs**

Governance criteria	Institutional modalities of MHPs & CREEs			
	MHP WUA/ User groups	Cooperative institutions	NGOs/ CBOs	Companies
Organize general assembly and other regular meetings	Good	Good	Good	Good
Maintain two way communication	Average	Average	Average	Average
Regular reporting to concern agencies	Below average	Average	Below average	Average
Maintain coordination with stakeholders	Average	Average	Average	Average
Selection of contractor/service providers in time and quality assurance	Below average	Below average	Below average	Below average
Implement plan, program and agreements	Average	Average	Average	Average
Management of human, financial and technical resources	Average	Average	Average	Average
Payment of tariff (from energy users)	Good	Good	Good	Good
Payment of tariff (to NEA by CREEs)	Good	Good	Good	Good
Enhance capacity of members and develop new leadership	Average	Average	Average	Average
Transform user groups into a sustain legal entity (such as cooperative) and maintain legality of institution	Below average	Good	Below average	Below average
Timely election and leadership change	Average	Good	Average	Average
Transfer institutional memories	Average	Average	Average	Average
	Good	Average	Below average	

Other accountabilities such as maintaining two way communication; maintain coordination with stakeholders; implementation of plan, program and agreements/contracts; management of human, financial and technical resources; enhancing capacity of members and develop new leadership; conducting timely election and leadership change and transfer institutional memories related accountabilities, responsibilities and obligations are partially fulfilled. Therefore, in terms of fulfilling these important criteria of accountabilities, all four types of institutional modalities of MHPs and CREEs are positioned in average ranking status, as there are more scopes to improve the governance practices to fulfil the accountabilities. Similarly, it was found that there has been no regular reporting to concerned agencies. The RE Subsidy Policy 2016 and the CRE Bylaw 2014 has made government agencies, project developer and contractor accountable to ensure quality assurance of equipment, construction and services delivery. However, due to weakness of the regulatory agencies and service providers, the MHPs and CRE program are not implemented in timely manner, which does not help in maintaining accountability.

### 3.4. Feedback and Grievance Redress Mechanisms in MHPs and CREEs

The Water Resource Act 1992 has defined the priority order on the utilization of water resources whereby hydroelectricity is listed in fourth priority order after drinking water, irrigation and agricultural activities (sec.7). The water resource strategy 2002 has identified



that there are some conflicts have been arising about the priority order of water resource utilization and ownership over the water resources, which has impacted the generation of micro-hydroelectricity in rural areas (GoN/WECS, 2002). The CRE program is also not free from other conflicts and grievances. The main conflicts and grievances in MHPs and CRE program are participation in decision-making related to affordability of electricity prices and tariff fixation; consumer services and quality of supply of electricity and appliances (such as electric meter, cables etc.) and reluctance in addressing consumer grievances by the decision making bodies.


Despite having such types of grievances in the MHPs and CREs, it was found that there are no adequate establishment of an effective FGRM and conflict resolution mechanism within the MHPs and CREs. Therefore, it has been realized that there is a need to establish an effective FGRM to manage the MHPs related grievances, which could be more important to maintain and enhance good governance. FGRMs are intended to be accessible, collaborative, prompt, and effective in resolving concerns through dialogue, joint fact-finding, negotiation, and problem solving way.

#### Major conflicting issues in MHPs and CREs

- Priority order of water resource utilization
- Ownership over the water resources
- Participation in decision-making related to affordability of electricity prices and tariff fixation
- Quality and efficiency in consumer services
- Efficiency in the financial and technical management
- Relationship between MHPs/CREs and agencies
- Quality of supply of electricity and appliances (such as electric meter, cables etc.)
- Reluctance in addressing consumer's grievances by the decision making bodies such as EC or BoD

Since last few years, the conflicts between MHPs as well as CREs and different agencies are also accruing particularly about the implementation of different agreements, financial flow and service delivery from service providers and support agencies. The Water Resource Regulation 1993 has made a provision to establish a Water Resources Utilization Inquiry Committee and if any dispute arises on utilizing the water resources for different purpose including MHPs, this committee has authority to resolve such dispute (Water Resources Rules, 2050 (1993) - rule 28). This committee can follow different procedures for the appraisal of the problems such as discussion about the grievances of local people, fact finding of main conflicting issues for the utilization of water resources and field study of conflicting sites.

The Environmental and Social Safeguards Policy of AEPC has ensured that if there are any environmental and social harms accrued due to the AEPC funded MHPs or energy programs, the affected people or community can register their complaints for redress. The RE Subsidy Delivery Mechanism 2016 has made a specific provision to establish a FGRM at central level within the AEPC to redress the grievances and facilitation to resolve the conflicts on MHPs and other RE programs (sec. 7). FGRM and its procedures are already established in AEPC. RE Subsidy Delivery Mechanism has also made specific provisions in order to protect the interest of RE consumers. However, all



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**उजुरी वा गुनासो सुन्ने व्यवस्था**

यस केन्द्रले हाल प्रदान गर्दै आइरहेको सेवाहरूमा तपाईंको कुनै गुनासो भए वा यस केन्द्र तथा मातहतका कर्मचारीहरू बाट प्रवाह हुने सेवामा कुनै कमजोरी, गुनासो वा अवाञ्छनीय गतिविधिहरू भए कृपया निम्न तरिकाहरूबाट आफ्नो व्यहोरा प्रस्तुत गरी सेवा प्रवाहलाई चुस्त बनाउन यस केन्द्रलाई सहयोग गरिदिनुहुन समस्त सेवाग्राही महानुभावहरूमा यस केन्द्र हादिक अनुरोध साथ अपिल गर्दछ।

**उजुरी वा गुनासो टिपाउने तरिका**

- आफ्नो गुनासो वा मार्का परेको विषय लेखि केन्द्रको उजुरी पेटिकामा राखिदिने।
- यस केन्द्रले रेसिप्शनमा राखेको उजुरी पुस्तिकामा आफै टिपाउन सकिने।
- यस केन्द्रको वेबसाइट [www.aepc.gov.np](http://www.aepc.gov.np)को Grievances मार्फत समेत उजुरी गुनासो पठाउन सकिने।
- केन्द्रको इमेल email: [grievance@aepc.gov.np](mailto:grievance@aepc.gov.np) मार्फत पठाउन सकिने।
- केन्द्रको टेलिफोन मार्फत गुनासो टिपाउन सकिने।
- सिधै गुनासो सुन्ने अधिकारी सामु पनि मार्का वा गुनासो टिपाउन सकिने छ।

तपाईंले गर्नु भएको यस्तो उजुरी वा गुनासो गोप्य रहनेछ र पत्र आएको गुनासो/उजुरीहरूमाथि छानविन गरी प्रत्येक चौमासिकमा प्रतिवेदन साबर्जनिक गरिने छ।

नेपाल सरकार  
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of these approaches are not reflected into the operating instruments of various institutional modalities of MHPs. There are instances of such complaints but no official data available. During the community level discussions, it has found that due to lack of specific mechanism for FGRM in the community institutions, the complaints are not addressed in time from the executive body of MHPs. The level of awareness on FGRM is also found weak due to lack of capacity building program for strengthening good governance including FGRM at community level.

The CRE Bylaw 2014 has also incorporated a specific provision to form a conflict resolution committee at local and central level, which has rights to redress the grievances of CREEs and electricity consumers. The committee has also the right to resolve the CRE program related conflicts within a certain period of time by following the procedures defined in the bylaw (sec. 31). During the consultation in AEPC and NEA, it has identified that a lots of grievances namely relating to service delivery from contractor, fixation of tariff, electric safety, and compensation against electric shocks etc. are registered in the both agencies (AEPC and NEA) and they are allocating enough time and resources to provide redress and resolving the various conflicts.

The Cooperative Act 2017 has given rights to the members of cooperative to register a complaint and after registration of such complaint it is required to investigate against any misuse of the power and property of cooperative. The Act has also made a strong provision for the punishment to the Directors and strong provisions for the punishment against illegal activities and corruption in cooperatives. All these above-mentioned provisions are less reflected in the operating documents of the various institutional modalities of MHPs and CREEs. During the assessment of existing practices of FGRM as well as conflict resolution mechanisms in the selected different institutional modalities of MHPs and CREEs, the following status is identified:

**Table 6: Existing status of FGRM in MHPs and CREEs**

Governance criteria	Institutional modalities of MHPs & CREEs			
	MHP WUA/ User groups	Cooperative institutions	NGOs/ CBOs	Companies
Rights to register complaint	Green	Green	Green	Green
Accessible mechanism to register feedback	Green	Green	Yellow	Yellow
GESI sensitive FGRM	Yellow	Yellow	Yellow	Yellow
Maintaining records of registered grievances	Yellow	Green	Yellow	Yellow
Establishment of grievances redress mechanism and process	Yellow	Green	Yellow	Yellow
Institutional capacity to redress grievances	Yellow	Yellow	Yellow	Yellow
Equitable decision (non-discrimination)	Yellow	Yellow	Yellow	Yellow
Transparent process for conflict resolution	Yellow	Yellow	Red	Red
Provisions in operating instrument to take action against illegal activities of Office bearers	Green	Green	Green	Green
Corruption control measures	Green	Green	Yellow	Yellow
Monitoring of the enforcement of redress or resolutions	Red	Red	Red	Red
	Green	Yellow	Red	
	good	average	below average	



The table 6 presents the status of existing practices on FGRM in MHPs and CRE program. Above-mentioned few criteria are also related to conflict resolution. FGRM and conflict resolution mechanism in MHPs and CREs can play an important role to maintain good governance and sustainability as well as successful implementation of MHPs and CRE programs. In terms of MHPs and CRE program, the policy and legislation has made provisions to establish such mechanisms at central level in AEPC and NEA, though the objective of this study is to measure and assess the FGRM and conflict resolution mechanism only at community level under the different institutional modalities of MHPs and CREEs rather than assessment of central level mechanism on FGRM and conflict resolution mechanism.

Based on the discussion with selected MHPs and CREEs, and review of some of the operating instruments such as bylaws and constitutions of the MHPs and CREEs, it was found that they have made provisions for securing rights to register complaints and taking action against illegal activities of office bearers of the EC/ BoD.

From the community level discussion and household survey, it was found that the other important criteria of FGRM such as accessible mechanism to register feedback, GESI sensitive FGRM, maintaining records of registered grievances, establishment of grievances redress mechanism and process, institutional capacity to redress grievances and equitable decision making (non-discrimination in the decisions) related criteria are partially fulfilled due to low priority given to these aspects from all involved. Some of the other criteria such as transparent process for conflict resolution and monitoring of the enforcement of redress or resolutions are hardly fulfilled at community level and in terms of fulfilling these criteria, the status of MHPs and CREEs is below average.

### 3.5. Integration of Gender Equality and Social Inclusiveness (GESI) in MHPs & CREEs

**GESI integration:** GESI integration is one of the core elements of good governance in all aspects of socio-economic and environmental development. GESI integration can be interpreted as a process and strategy for ensuring the concerns of women and men from all social groups (ethnicity, caste, economy, age, disability, geographic locations) as an integral dimension in the design, implementation, monitoring and evaluation of policies and programs in all political, economic and social spheres including energy access. It aims to promote equality and strengthen the legitimacy by addressing existing disparities and gaps which are highlighted in access and control over resources, services, information and opportunities and the distribution of power for decision making (AEPC, 2014). Energy access is associated with women and men spending more time on income generating activities (WRI, 2016).

**GESI mainstreaming:** Considering the important contribution from women and disadvantage groups for MHPs and CRE development, the AEPC and Community Rural Electrification Department of NEA has formulated different policies and guideline for the GESI integration and mainstreaming in MHPs and CRE program. The goal of the *GESI mainstreaming plan*



(2012) of AEPC is to improve the living standard of rural women and men by creating RET based employment opportunities and generate income. This plan has taken different approaches for this purpose such as positive discrimination, specific subsidy for target groups, gender sensitive and socially acceptable social mobilization, capacity building, coordination, specific platform for GESI responsive RET knowledge exchange, up-scaling of the good governance practices etc.

**Roles of women and men:** Women and men, especially from disadvantage groups or targeted beneficiary groups are equally contributing in the different phases of MHP and CRE program. In the implementation phase, some of the important activities they are involved include participation in civil constructions, transportation of machines, equipment and construction materials. They are also involved in the operation of the plant, and repair and maintenance. Sometimes natural calamities/ disasters and possible incidents affected the infrastructure of the plants or supply systems. These all are not easily resolved by women and men, but they are successful in doing all these with the help of the public and private sector<sup>3</sup> (WWF, 2013). During the discussions at community level, the women members of the EC expressed that the social structure (such as class and cast systems) and family norms (such as male dominant decision making process) are creating obstacles for their capacity building and engagement in the technical service delivery.

**Equitable distribution of energy for productive use and IGA:**

The equitable distribution of generated energy and its productive use is highly important for the GESI integration in MHP and CRE program, because it supports women and disadvantage groups for the Income Generating Activities (IGA) and livelihood. According to *Strategy and Guideline for Promotion of Income Generating Activities (IGA)* of AEPC, IGAs are economic activities that provide partial to full employment to engaged households on a gradual basis. It is based on local knowledge, skills and resources and the products/services are marketable. Engaged HHs of women-led family and disadvantage groups in IGAs should work for monetary benefit and have willingness to take risks. IGAs are, in general, informal and may not require registration under any government authority (AEPC, 2015). However, it is required to conduct a power supply agreement between entrepreneur and MHP users' groups or cooperative to promote productive energy use at rural areas (AEPC, 2015a).

**Case Study 4: Women friendly productive use of energy**

The Ghandruk village had already been electrified by the Chane Khola MHP, which came into operation in 2011. While the people's basic power needs were met by the 30 kW MHP, its potential for supporting livelihoods had yet to be explored. Therefore the AEPC and ACAP/NTNC carried out a business opportunity assessment in Ghandruk in March, 2015. A meeting of the Chane Khola MHP users' committee was called in Ghandruk, with majority of women participants. In that meeting women participants proposed to open a bakery targeting the restaurants serving breakfast to trekkers. Therefore they decided to operate a bakery business in Dhandruk village by utilizing the electricity of Chane Khola MHP.

Source: AEPC/RERL  
<http://www.np.undp.org/articles/2017/06/20>

According to the survey, the electricity from MHPs is utilized mainly for lighting, education activities and agro-processing. Electricity access has helped the woman to do various

<sup>3</sup> NMHDA (2014) *The scenario of Micro Hydro development in Nepal* By Purna N. Ranjitkar, published in Jalshakti, (the Micro Hydro magazine) Vol. No. 13, 2014 and The Nepal Weekly on 11/11/2014



activities in easy and efficient way especially for running their shops and agro-processing mills. The study team could not find other productive use enterprises set up by women and disadvantaged groups in the study areas.

**Capacity building:** GESI focused capacity building program are also instrumental for strengthening good governance in MHPs and CREEs, because it supports women and disadvantaged groups to perform their assignments in an effective and efficient way, which is important for the sustainability of MHPs and CRE program. The following topics are some of the important areas for capacity building:

- energy education;
- technical skill transfer and providing basic technical knowledge to operators of MHP and CREEs staffs;
- cooperatives management, account management,
- financial administration and monitoring system training;
- regular orientation to operators and members of EC;
- support to establish computerized billing system;
- commercial orientation and support to develop business plans for the productive use of electricity etc.

The progress report of AEPC, NEA, and MHPs as well as CREEs themselves shows that they have a special component for capacity building and spending enough time and resource for this purpose, which has contributed for the strengthening of good governance in MHPs and CREEs. The GESI friendly policies, laws and guidelines of the Government of Nepal have also contributed for the GESI integration and mainstreaming in MHPs and CREEs. The following provisions are playing a significant role for the GESI integration and mainstreaming in MHPs and CREEs.

**Table 7: Policy instruments and provisions for GESI integration in MHPs and CREEs**

<b>Policy instruments</b>	<b>Provisions for GESI integration</b>
GESI mainstreaming plan (2012), AEPC	<ul style="list-style-type: none"> <li>• Goal: to improve the living standard of rural women and men by creating RET based employment opportunities and generate income</li> <li>• Approach: positive discrimination, specific subsidy for target groups, gender sensitive and socially acceptable social mobilization, specific platform for GESI responsive RET knowledge exchange</li> </ul>
GESI Toolbox (2014), AEPC	<ul style="list-style-type: none"> <li>• Aims: to promote equality and strengthen the legitimacy by addressing existing gender disparities and gaps</li> </ul>
RE Subsidy Policy 2016, AEPC	<ul style="list-style-type: none"> <li>• Additional subsidy - additional subsidy for targeted beneficiary groups (Women-led households, Earthquake affected households and households of minority Indigenous Peoples and Dalits)</li> </ul>
Social Mobilization Directives 2013, AEPC	<ul style="list-style-type: none"> <li>• Ensure one third representation of women in the EC including at least one post for women such committee</li> <li>• Maintain inclusiveness in at least 40% seat of EC</li> </ul>
Social and Environmental Safeguards Policy, AEPC	<ul style="list-style-type: none"> <li>• Human Rights: Ensure full respect for human rights, dignity, aspirations and livelihoods of women and men residing in the project area.</li> </ul>
Cooperative Act 2017	<ul style="list-style-type: none"> <li>• At least 33% women participation in the BoD is mandatory (this provisions apply all types of cooperative including MHPs and CREEs)</li> </ul>
CRE Bylaw 2014, NEA	<ul style="list-style-type: none"> <li>• Allocation of budget for capacity building of cooperative based CREEs</li> </ul>



All these above-mentioned policy and legal provisions are comprehensive and GESI friendly, however these policy and legal provisions are less reflected in the operating documents (such as constitutions, bylaws, regulation, memorandum etc.) of the various institutional modalities of MHPs and CREEs (MHP Water Users' Associations/ User Groups, Community Rural Electrification Cooperative, NGOs/ CBOs and Companies).

**Case Study 5: Capacity building for the sustainability of MHPs**

MHPs are the main source of lighting in the rural reaches of Annapurna region. There are about 51 micro-hydro stations currently operating in the region with a total generation capacity of over 1.5 megawatt. Of these, ACAP has directly supported the establishment of 13 MHPs totalling over 530 kW capacity. Besides the regular technical support provided by the Project, including hiring external consultants, repair and construction work were undertaken in Tsarang, Marang and Phoo villages this year. This in turn will ensure uninterrupted power supply for more than 80 households. Additionally, a 5-day micro hydro operation repair and maintenance training conducted in Butwal for 14 micro hydro operators will enable to secure maintenance-related skills necessary for upkeep of the region's plants on a daily basis.

Source: Annual Report, 2016, NTNC

During the assessment of existing practices on GESI integration and mainstreaming in the selected different institutional modalities of MHPs and CREEs, the following status is identified:

**Table 8: Existing status of GESI integration in MHPs and CREEs**

Governance criteria	Institutional modalities of MHPs & CREEs			
	MHP WUA/ User groups	Cooperative institutions	NGOs/ CBOs	Companies
Provision for positive discrimination in operating instruments of MHPs & CREEs	Green	Green	Yellow	Yellow
At least 33% women representation in EC/BoD	Green	Green	Red	Red
At least 40% inclusiveness in EC/BoD	Yellow	Yellow	Red	Red
Information flow on provision of specific subsidy for targeted beneficiary groups	Green	Green	Green	Green
Gender sensitive social mobilization	Yellow	Yellow	Yellow	Yellow
GESI friendly decision-making process	Yellow	Green	Yellow	Yellow
GESI specific sub-committee (platform)	Red	Red	Red	Red
GESI specific capacity building program	Green	Green	Yellow	Yellow
GESI prioritized energy distribution for IGA	Yellow	Yellow	Yellow	Yellow
GESI responsive RET knowledge exchange	Yellow	Yellow	Yellow	Yellow
RET knowledge transfer to women	Green	Green	Yellow	Yellow
RET knowledge transfer to Dalits	Red	Red	Red	Red
	Green	Yellow	Red	
Good	average	below average		



Past studies have linked improvements in gender equality with advances in economic and democratic outcomes leading to good governance. There is two way close relation between the two issues. The table 8 shows the status of existing practices for GESI integration in MHPs and CRE program. In terms of GESI integration in the MHPs and CREEs, out of 12 criteria, only five criteria are fulfilled by the user groups and cooperatives and rest of the criteria are hardly achieved by all types of institutional modalities, which are some of the critical challenges for GESI integration in MHPs and CREEs and it has resulted the weakness in maintaining good governance in community-based energy systems in Nepal.

### 3.6. Major contributing factors for strengthening good governance in MHPs and CREEs

The support and cooperation from local communities with the hydropower developers and electricity distributors is always positive, which is the best factor for the sustainability and good governance in MHPs and CRE program at community level. The community-based energy systems have contributed to generate ownership and tenure rights over the micro-hydroelectricity generation and distribution system as well as off-grid CRE systems. Therefore, ensuring collective ownership and tenure rights is one of the main contributing factors for strengthening good governance in community-based energy system. Some of the other contributing factors for strengthening good governance are as follows:

- The establishment of MHPs and CREEs involves capacity of the community on how to use and maintain energy systems, building new skills in planning and managing local resources. It has motivated to community people to maintain good governance in their community-based energy systems<sup>4</sup>.
- The recognition of community ownership is a key contributing factor to maintain good governance in the MHPs and CREEs.

#### Use of electricity in rural areas

- agro-processing mills, furniture enterprise & saw mills and carpentry;
- powering cable television network, computers, household radios, communication centres and computer institutes;
- powering irrigation pumps and drinking water;
- powering refrigerators for storing medicines and vaccines in remote areas; and
- providing energy for income-generating activities such as handicrafts, tailoring, sewing, knitting, blacksmithing and poultry farming

- The electricity generated from MHPs and distributed through CRE programs are utilized for lighting homes; powering enterprises; powering information and communication technologies; powering irrigation pumps and drinking water; powering refrigerators for storing medicines and vaccines in remote areas; and providing energy for income-generating activities in rural areas which has been supporting for the people's prosperity, therefore, communities have been maintaining good governance in their community-based energy systems (UNDP, 2012). In the community consultation, it was realized that the people are gaining prosperity from MHPs and CREEs, therefore they are maintaining good governance in their MHPs and CREEs.

<sup>4</sup> AEPC/RERL, Being off the grid does not mean being powerless **Jun 23, 2017**, <http://www.np.undp.org/content/nepal/en/home/presscenter/articles/2017/06/23>





- The local communities have invested their time and financial resource for the establishment of community-based energy systems, which are being cost-effective to them because of the availability of government subsidies and concessional credits. They want continuity for the energy generation and supply from such cost-effective systems in a sustainable way, therefore MHPs and CREEs have been maintaining good governance in their institutional mechanisms (UNDP, 2016). In this way, the cost effectiveness is also a contributing factor to maintain good governance in the community institutions.
- A transparent and consensus-based decision-making processes help for ensuring equitable opportunities for all households in a community and it also supports for ensuring equitable community ownership over the energy system. Different mechanisms are instituted by the communities to help poor and women headed households to access electricity through different options such as recognition of kind contribution and payment of wage that went towards their monthly tariff payment. All these mechanisms have supported to maintain sustainability and good governance in the community-based energy system (UNDP, 2012). The pro-poor energy distribution system which allow lower tariff for women headed households and disadvantages families has contributed to maintain good governance in MHPs and CREEs.

### 3.7. Opportunities for up-scaling of good governance

Based on the field-based assessment of the existing status of the practices of good governance in different institutional modalities of community-based energy systems, the following practices are found relatively strong. Therefore, those institutions (users' associations/ user groups, cooperatives, CBOs/ NGOs and companies) which have low performance on good governance, they can replicate and scale-up these good practices of governance in their institutional mechanisms:

- Orientation to community members and EC
- Community participation in capacity building
- Transparency provisions in operating instruments (constitution, bylaw etc.)
- Organize general assembly and other regular meetings
- Information flow on provision of specific subsidy for targeted beneficiary groups
- Annual audit report
- Payment of tariff
- Submission of project completion report
- Rights to register complaint
- Provisions in operating instrument to take action against illegal activities of Office bearers

### 3.8. Implications of the practices of good governance

During the community-level discussions, the participants of the FGDs and KIIs reflected various positive and adverse implications of the practices of good governance at community level. The major implications have been listed and out of them some the important implications are as follows:



**Table 8: Implications of the practices of good governance**

<b>Governance Elements</b>	<b>Positive Implications</b>	<b>Adverse Implications</b>
Community empowerment and participation	<ul style="list-style-type: none"> <li>• Capacity building of leadership</li> <li>• Maintenance and sustainability of MHPs and CREEs</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of feeling ownership over the policy/decision-making process and property resources from HHs members due to weakness in capacity building of all members (ownership)</li> </ul>
Transparency	<ul style="list-style-type: none"> <li>• Increased access over the process and services of energy supply</li> <li>• Trust building (internal &amp; external)</li> </ul>	<ul style="list-style-type: none"> <li>• Additional time and resource consuming Increase conflict between leadership and general members (access)</li> </ul>
Accountability	<ul style="list-style-type: none"> <li>• Regularity in the institutional mechanisms (assembly, meetings)</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of new leadership and weaknesses in transferring institutional memories (Knowledge)</li> </ul>
FGRM	<ul style="list-style-type: none"> <li>• Reduced conflicts</li> <li>• Increased satisfaction over the service delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Partiality and weakness in maintaining fairness</li> <li>• Reduced feeling ownership over the process of FGRM (Trust)</li> </ul>
GESI integration	<ul style="list-style-type: none"> <li>• Increased equity/justice and inclusiveness</li> <li>• Supported to maintain fairness in the service delivery</li> <li>• Increased opportunity for IGA/end use of energy</li> </ul>	<ul style="list-style-type: none"> <li>• Limited opportunities over the leadership due to lack of compliance of mandatory provisions on GESI integration (capacity)</li> <li>• Weak participation of women, Dalits and social DAGs due to lack of fairness in the distribution of opportunities (participation)</li> </ul>



## 4. Major barriers and issues of good governance in MHPs and CREEs

Despite progress, there are barriers that exist both in policy and practical level. The national policy and legal frameworks have opened the window for different institutional modalities (Users' Association, User Groups, and Users' Committee, Cooperatives, NGOs/CBOs and companies) to work as project developer for development of MHPs or CRE program. Based on the analysis and discussion in chapter three, we can draw a conclusion that there are inconsistencies between policy frameworks, the institutional modalities and functions of community-based energy systems, which has resulted in the weak governance of the systems particularly with the lack of common monitoring mechanism to track the performance of different institutional modalities. In this section the main issues and barriers of good governance in MHPs and CREEs are explored based on the analysis of chapter two and three.

### 4.1. Barriers and gaps in the governance of MHPs and CREEs

The following barriers to maintain governance in the MHPs and CREEs are based upon the finding from community level participatory focused group discussions, key informant interview and review of the different reports of AEPC and NEA as well as other relevant publications of different stakeholders:

**Weak empowerment:** The community empowerment was found to be weak in the NGO and company institutional modalities of MHPs and CREEs. Weak participation of community members were mentioned during the feasibility assessments, design of project, tariff fixation etc. These have led to weak sustenance of the MHPs.

**Inadequacy in transparency:** The mechanisms for securing access to information and preparation of plans and program, annual progress reports and information as well as data maintaining system were found to be inadequate. Due to weak monitoring from support agencies, there are also irregularities in the public hearing & public auditing practices. Thus, members of communities are less aware about the annual plan and program of the MHPs and CREEs.

**Weakness to fulfil the accountability:** Ownership of all and at the same time ownership of none is a classic governance issue faced by community energy utilities all over the world. This was seen particularly during the operational and institutional strengthening phase. Ineffectiveness in communication between management and customers, lack of regular reporting to concerned agencies, weak coordination with stakeholders, and inadequate human resources are some of the major barriers in fulfilling the accountability in MHP and CREEs.

**Weak Grievances Redress Mechanism:** Only few MHPs and CREEs have established grievance redress mechanism and conflict resolution mechanism. In the study areas out of 11 MHPs, only 2 MHPs have established such mechanism. Even when set, these mechanisms are not effective due to insufficient capable and trustable human resources for maintaining impartiality as processes lacked transparency and there were no proper monitoring mechanism for enforcement of resolutions.

**Weak performance in the institutional strengthening phase:** During the preparatory and construction phases, the community members of MHPs and CREEs were found to be working actively but a majority MHPs and CREEs were found to have weak financial management and performance. The policy and law has made a provision to transform the existing institutional



modalities of MHPs and CREEs into cooperatives but field discussions found that they are reluctant to do so because of the long term duration and complexities in changing modalities.

**Lack of Insurance:** Incidences of injuries were found in some sites of hydro power plants, and also during the repair and maintenance of the transmission line of CRE. Only few MHPs and CREEs have been arranging the resource for the insurance of their operators, though majority are reluctant to allocate resource for the insurance.

## 4.2. Governance issues in the policies and laws

### a) Community Rural Electrification Program

**Recognition of community contribution:** Many households of the CREEs lacks the ability to collect 10% contribution share, therefore they want to fulfil this share through engaging in different activities during the construction of transmission line, though NEA is not in position to recognize such households contribution due to procurement provisions of financial bylaws of NEA.

**Unpredictability:** One of the most pressing issues of the CRE Program is that, even though the envisaged time-frame for finalising grid-extension (from the date the community deposited the 10% contribution) is one year, the actual time for construction sometimes exceeds two to three years. Such time consuming process decrease the enthusiasm of CREE members.

**Lack of ownership of the transmission line:** As a subsidy, 90% of the investment costs of CRE program are provided by the government via CRE Fund in NEA. The CRE Bylaw states that the ownership of the transmission line in the command areas of CREEs belongs to NEA. This provision has been creating conflicts between NEA and CREEs namely during the protection or maintenance of transmission lines.

**Weaknesses in capacity building:** The CRE Bylaw has made a provision to provide training to the members of EC/ BoD of CREEs about technical know-how for operation and maintenance of the community grid, though the trainings are not conducted regularly and only cover the basic training on financial and administrative management.

### b) Micro Hydropower Plants

**Fixation of tariff and other charges:** The Electricity Act 1992 allows developers to fix the tariff and other charges in off grid systems below 1 MW. While fixing electricity tariff and other charges, it may be so fixed that all investments made on electricity generation, transmission or distribution is paid back in average of 25 years by deducting the depreciation cost and a dividend of 25 percent on share capital is earned. The Act has given emphasis on financial aspect only without giving adequate attention for participation and transparency while fixing the tariff. So there has been no adequate attention for ensuring users' participation in tariff fixation in practice.

**Purchase of electricity and generation plant:** The Electricity Act 1992 has stated that in case where NEA or licensee is going to distribute electricity in an area where any local community institution or individual is already distributing electricity by generating up to 1000 kW of hydroelectricity, such community institution or individual if desires to sell the hydroelectricity plant, transmission and distribution line which is operated by him/her, the NEA or said licensee shall have to purchase such hydroelectricity plant, transmission and distribution line on the price (after deducting wear, tear and general depreciation) as fixed by mutual agreement (sec. 30). However, NEA has a practice of not interconnecting electricity of less than 100 kW generated from MHPs to its system, which rules out power purchase



agreement for all most all MHPs installed by rural communities. Therefore, in many places the MHPs where grid has reached, are in the situation to shut down.

### 4.3. Policy and practical issues on GESI integration in MHPs and CREEs

There are different policy and practical issues on GESI integration in energy sector in the different components of program or project cycle such as conceptualization of program, design/formulation, implementation and monitoring and evaluation. A report on *Identification of Gender and Social Inclusion Gaps at Policy and Institutional Level* prepared by AEPC in 2013 and the GESI Toolbox of AEPC had identified some of the following important gaps in policy and institutions for GESI integration in MHPs (AEPC, 2013a):

- Not assessed the capacity of women for the affordability to access in the RE technology and their viability in the local market
- No audit/budgeting with respect to GESI has been carried out to date in many MHPs
- The existing implementation modality does not suffice in ability to reach out to the target group, because the mechanism is far from being able to ensure the access to information, services and technologies despite the favourable subsidy policy.
- The delivery mechanism does not reach out to the grass-roots of remote areas.
- Low level of literacy, lack of skill, affordability, knowledge, constraints in the uptake of IGA and entrepreneurship,
- Non-recognition of voices and choice of women; resulted limiting choices for the women and the marginalised groups
- Low and ineffective participation/representation of women and the marginalised groups in community institutes and decision-making process

During the community consultation particularly with women members of the executive body of MHPs and CREEs, these points still exists. The policy and legal provisions on GESI integration in MHPs and CREEs is not properly followed during the leadership selection process and planning activities.



## 5. Conclusions and Recommendations

### 5.1. Conclusions

Good governance is an important component of MHPs and CREEs for their sustainability. The MHPs and CREEs have dual responsibilities of being a socially responsible organization as well as compliance to fulfill investment share from members, subsidy, concessional credits from government via semi-governmental agencies (AEPC and NEA) and remain within the legal frameworks. Thus the entities need to have a strong operational constitution to govern themselves.

MHPs and CREEs are also providing electricity power for the productive use in rural areas that helps generate employment opportunities, income generation and sustaining livelihood. However, better governance in including the participation of women and socially marginalized groups in planning and decision making process and tariff fixation mechanisms is needed to ensure that there is more equitable distribution and benefits.

The MHPs and CREEs have taken different efforts and initiatives to maintain good governance as many governance criteria were found to be fulfilled. The entities have created social tie ups in the communities, and have been successful in reducing social discrimination as all households members have to participate and share all pros and cons of MHPs and CREEs together. However, there are some areas of improvement in terms of fulfilment of transparency requirement, accountabilities, and grievances redress and conflict resolution.

The policy and legal frameworks of MHPs and CREEs have adequately incorporated the provisions on good governance and GESI integration which need to be mandatorily followed by the community-based energy institutions, though these aspects of the legal requirement on good governance and GESI integration need to be better reflected in the operating instruments of the MHPs and CREEs. Support agencies were also found to be not effective in monitoring and new legal requirements will need to be adjusted by the entities in the near future including the new Federal context. For this, there is a great need for capacity building efforts in all areas of good governance, including taking gender and social inclusion factors into account.

The research shows that the community-based energy systems have their own good governance mechanisms based on each institutional modalities and structures related to MHPs and CREEs. While comparing different institutional modalities of MHPs and CREEs, relatively the cooperative legislation has incorporated appropriate provisions and institutional structures to maintain good governance. Out of the four institutional modalities of community-based energy institutions (users' association/ user group, cooperative, CBOs/ NGOs and company), the cooperative institutions were found to be better managed and majority of the good governance criteria were positive. Likewise, the CRE Bylaw of NEA and Social Mobilization Directive of AEPC has recognized cooperative model as an appropriate model for the designing, construction and operation of CREEs and MHPs respectively. During this research work, it was found that the local communities who are involved in the MHPs and CRE program through other models also preferred to convert their institutions into cooperative. However, this type of transitioning is a lengthy process and requires facilitation support from local governments, AEPC and NEA and associated support agencies. Furthermore, it has been realized that the awareness and capacity building on policy and legal arrangement on governance and their effective compliance and enforcement are some of the important tools to maintain good governance in MHPs and CREEs.



## 5.2. Recommendations

To address the barriers, issues and gaps in MHPs and CREEs and promote good governance in the systems following measures are recommended:

- Implement a governance strengthening program in RE and CRE sector for the revision of operational instruments (bylaws or constitutions) of the community-based energy institutions in order to mainstreaming the criteria and indicators of good governance.
- Transform the existing institutional structures of community-based electricity institutions (user groups, NGOs/CBOs and company) into MHP/CRE cooperative institution
- Develop some generic and specific governance criteria and indicators for the periodic assessment of the status of good governance (particularly transparency, accountability and GESI integration)
- Capacity building and awareness raising activities on good governance should be implemented on a regular basis for continuation of community empowerment and full and effective participation of all members including women and socially marginalized groups in the decision-making process.
- Annual Plans and programs and annual progress report preparation mechanism, and annual reporting system should be strengthened and PHPA practices should be continued to maintain transparency.
- Quality assurance should be insured in construction, equipment and service delivery from the service providers/contractors through improving effectiveness of regulatory agencies and capacity building of project developer.
- Maintaining two way communication, regular reporting to concerned agencies, enhancing coordination with relevant stakeholders, effective implementation of annual plan and program, development of additional required human, financial and technical resources, development of new leadership, timely organizing election for leadership change and institutional memory transfer related actions are also urgent in order to enhance accountability of the leadership.
- The FGRM as well as conflict resolution mechanisms should be established and strengthened in each community institutions for the effectiveness of good governance. The effectiveness and accessibility of the central level FGRM in AEPC and NEA need to be improved considering the emerging issues and concerns in RE sector.
- The GESI integration and mainstreaming is most urgent and through this process there should be address of the GESI integration related issues such as ensuring at least 33% women representation in EC/BoD, maintaining at least 40% inclusiveness in EC/BoD, gender sensitive and socially acceptable social mobilization, GESI friendly decision-making process and establishment of GESI specific sub-committee (platform), GESI prioritized energy distribution for IGA, GESI responsive RET knowledge exchange and RET related knowledge transfer to Dalits.
- There should be reforms in the RE Subsidy Policies, MHPs related other procedural instruments, CRE Bylaw and other institutional mechanisms related to various RE/CRE funds mobilization procedures considering the concerns and demands of the MHPs and CREEs as well as their associations and networks.
- The community-based energy systems (which are operated by the user groups or cooperatives) should be integrated into the energy plan of local governments considering the rights, roles and responsibilities of local governments for the community-based energy regulation at local level.



The recommendations, its strategic actions and responsibilities in detail are in Annex 6.





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## Annex 1: Good Governance frameworks in Community-based energy systems in Nepal

Good governance criteria	Existing institutional modalities for the establishment and operation of community-based energy systems (MHPs & CREEs)				
<b>Institutional modalities</b>	<ul style="list-style-type: none"> <li>MHP Water Users' Association/ User Groups</li> </ul>	<ul style="list-style-type: none"> <li>Community Rural Electrification Cooperative</li> </ul>	<ul style="list-style-type: none"> <li>NGOs/CBOs</li> </ul>	<ul style="list-style-type: none"> <li>Company</li> </ul>	<ul style="list-style-type: none"> <li>Industry</li> </ul>
<b>Governing laws and policies</b>	<ul style="list-style-type: none"> <li>Water Resource Act 1992</li> <li>Water Resources Regulation 1993</li> <li>Electricity Act 1992</li> <li>Electricity Regulation 1993</li> </ul>	<ul style="list-style-type: none"> <li>Cooperative Act 2017</li> </ul>	<ul style="list-style-type: none"> <li>Associations Registration Act, 2034 (1977)</li> </ul>	<ul style="list-style-type: none"> <li>Company Act 2006</li> </ul>	<ul style="list-style-type: none"> <li>Industrial Enterprises Act 2017</li> <li>Company Act 2006</li> </ul>
	<ul style="list-style-type: none"> <li>Community Rural Electrification Bylaw 2014</li> <li>Renewable Energy Subsidy Policy 2016</li> <li>Renewable Energy Subsidy delivery mechanism 2016</li> <li>Renewable Energy Policy 2014</li> </ul>				
<b>Regulatory agencies</b>	<ul style="list-style-type: none"> <li>Local Governments</li> <li>District Water Resource Committee</li> <li>AEPC and associated support agencies</li> <li>Funds</li> <li>Department of Electricity Development</li> </ul>	<ul style="list-style-type: none"> <li>Local Governments</li> <li>NEA and CRE Department, Committees, Funds</li> <li>Cooperative Division Office/Department of Cooperative</li> </ul>	<ul style="list-style-type: none"> <li>Chief District Office</li> <li>Concern agencies as per objective of NGOs/CBOs</li> <li>NEA and Department of CRE</li> <li>AEPC and associated support agencies</li> </ul>	<ul style="list-style-type: none"> <li>Office of Company Registrar</li> <li>Concern agencies as per objective of companies</li> <li>NEA and Department of CRE</li> <li>AEPC and associated support agencies</li> </ul>	<ul style="list-style-type: none"> <li>Local Government</li> <li>Department of Industry</li> <li>AEPC and associated support agencies</li> </ul>
<b>Institutional nature of MHPs &amp; CREEs</b>	<ul style="list-style-type: none"> <li>Non-profit making social organization</li> </ul>	<ul style="list-style-type: none"> <li>Profit making social and economic organization</li> </ul>	<ul style="list-style-type: none"> <li>Non-profit making social organization</li> </ul>	<ul style="list-style-type: none"> <li>Profit making company</li> </ul>	<ul style="list-style-type: none"> <li>Profit making</li> </ul>
<b>Objectives</b>	<ul style="list-style-type: none"> <li>To secure rights over the water source for the generation, transmission and distribution of electricity in rural community</li> </ul>	<ul style="list-style-type: none"> <li>To achieve socio-economic prosperity of the member in the working areas through CRE</li> </ul>	<ul style="list-style-type: none"> <li>Developing and extending socio-economic activities through CRE</li> </ul>	<ul style="list-style-type: none"> <li>Developing and extending socio-economic activities &amp; profit making through CRE</li> </ul>	<ul style="list-style-type: none"> <li>Developing socio-economic activities &amp; profit making</li> </ul>
<b>Operating instruments</b>	<ul style="list-style-type: none"> <li>Constitution of MHP Water</li> </ul>	<ul style="list-style-type: none"> <li>Bylaws</li> </ul>	<ul style="list-style-type: none"> <li>Constitution of</li> </ul>	<ul style="list-style-type: none"> <li>Memorandum</li> </ul>	<ul style="list-style-type: none"> <li>Industrial</li> </ul>

	Users' Association or User Groups	<ul style="list-style-type: none"> <li>Internal Procedural Documents</li> </ul>	NGOs/CBOs	<ul style="list-style-type: none"> <li>Regulation</li> </ul>	Schemes
<b>Decision making bodies</b>	<ul style="list-style-type: none"> <li>General Assembly</li> <li>EC</li> <li>Sub-committees</li> </ul>	<ul style="list-style-type: none"> <li>General Assembly</li> <li>BoD</li> <li>Financial Supervision Committee</li> </ul>	<ul style="list-style-type: none"> <li>General Assembly</li> <li>EC</li> </ul>	<ul style="list-style-type: none"> <li>General Assembly</li> <li>BoD</li> </ul>	<ul style="list-style-type: none"> <li>Meeting of investor</li> </ul>
<b>Transparency and rights/access to information</b>	<ul style="list-style-type: none"> <li>Annual progress report</li> <li>Annual Plans and programs</li> <li>Annual audit report</li> <li>Internal communication &amp; information flow system</li> <li>Public hearing before after project completion</li> <li>Submission of project completion report to AEPC</li> </ul>	<ul style="list-style-type: none"> <li>Annual program and budget</li> <li>Annual progress report</li> <li>Annual audit report</li> <li>Public Hearing &amp; Public Auditing of the activities</li> <li>Internal communication &amp; information flow system</li> </ul>	<ul style="list-style-type: none"> <li>Annual progress report</li> <li>Annual Plans and programs</li> <li>Annual audit report</li> <li>Submission of project completion report to AEPC or NEA as per requirement</li> </ul>	<ul style="list-style-type: none"> <li>Annual report and Annual audit report submission to Office of Company registrar</li> <li>Submission of project completion report to AEPC or NEA as per requirement</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<b>Accountability</b>	<ul style="list-style-type: none"> <li>Fixed roles and responsibilities and tenure period of EC</li> <li>EC accountable towards the general assembly</li> <li>Comply all provisions of electricity legislation except licencing provisions</li> <li>Obligation of electricity users - payment of tariffs</li> </ul>	<ul style="list-style-type: none"> <li>Fixed roles and responsibilities and tenure period of BoD</li> <li>BoD accountable towards General Assembly</li> <li>Cash/kinds contribution for CRE (10%) and MHPs (about 30%)</li> <li>Obligation of CREEs/electricity users - payment of tariffs</li> </ul>	<ul style="list-style-type: none"> <li>Fixed roles and responsibilities and tenure period of EC</li> <li>EC accountable towards the general assembly</li> <li>Comply policy &amp; legal provision as per requirement</li> <li>Payment of tariffs</li> </ul>	<ul style="list-style-type: none"> <li>Fixed roles and responsibilities and tenure period of BoD</li> <li>BoD accountable towards General Assembly</li> <li>Comply policy &amp; legal provision as per requirement</li> <li>Payment of tariffs (if company is a CREE)</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
	RE Subsidy Delivery mechanisms 2016: Project developers (MHP Water Users' Association/ User Groups, community electrification cooperatives, Non-Governmental community-based Organization or companies) are accountable for the selection of contractor and quality assurance of installed equipment in MHPs and CRE.				
<b>Participation and representation</b>	(not defined in the law, though based on the approved constitution of institution): <ul style="list-style-type: none"> <li>Cash and kind contribution in the construction phase</li> </ul>	<ul style="list-style-type: none"> <li>In the context of CRE, 10% investment from the member of CRE cooperative</li> <li>Share investment in the</li> </ul>	(not defined in the law, though if CBOs are working as a MHP or CREE): <ul style="list-style-type: none"> <li>Cash and kind</li> </ul>	(not defined in the law, though if company is working as a MHP or CREE): <ul style="list-style-type: none"> <li>Cash and kind</li> </ul>	Not applicable

	<ul style="list-style-type: none"> <li>Participation in design, construction and operation phase,</li> <li>Participation in annual general assembly and EC</li> </ul>	<p>cooperative</p> <ul style="list-style-type: none"> <li>Rights to participation in decision making process</li> </ul>	<p>contribution and participation in design, construction and operation/ distribution phase</p>	<p>contribution and participation in design, construction and operation/ distribution phase,</p>	
<b>Feedback and Grievance Redress Mechanism</b>	<ul style="list-style-type: none"> <li>Formation of Water Resources Utilization Inquiry Committee</li> <li>No specific legal provision to form FGRM in the MHP Water Users' Association/ User Groups</li> <li>RE Subsidy Delivery Mechanism 2016: Central level FGRM in AEPC - Subsidy Facilitation Committee</li> </ul>	<ul style="list-style-type: none"> <li>Rights to complaint register and investigation against any misuse of the power and property</li> <li>Punishment to the Director and strong provisions for the punishment against illegal activities</li> <li>Conflict resolution committee at centre and local level (16/31)</li> </ul>	<ul style="list-style-type: none"> <li>No specific legal provision to form FGRM in the CBOs</li> <li>RE Subsidy Delivery Mechanism 2016: Central level FGRM in AEPC - Subsidy Facilitation Committee</li> </ul>	<ul style="list-style-type: none"> <li>No specific legal provision to form FGRM in the company</li> <li>RE Subsidy Delivery Mechanism 2016: Central level FGRM in AEPC - Subsidy Facilitation Committee</li> </ul>	Not applicable
<b>Gender equity</b>	<ul style="list-style-type: none"> <li>No specific legal provision to maintain gender equity and women participation in MHP Water Users' Association/ User Groups</li> <li>SM Directive: one third women's participation in EC and at least one women in key post</li> </ul>	<ul style="list-style-type: none"> <li>At least 33% women participation in the BoD is mandatory</li> </ul>	<ul style="list-style-type: none"> <li>No specific legal provision to maintain gender equity and women participation in NGOs/CBOs</li> </ul>	<ul style="list-style-type: none"> <li>No specific legal provision to maintain gender equity and women participation in company</li> </ul>	Not applicable
<b>Social inclusion</b>	<ul style="list-style-type: none"> <li>No specific legal provision social inclusion in MHP Water Users' Association/ User Groups</li> <li>SM Directive: Maintain inclusiveness in at least 40% seat of the EC</li> <li>RE subsidy Policy: additional subsidy for</li> </ul>	<ul style="list-style-type: none"> <li>No specific provision for social inclusion in BoD</li> <li>Tax exemption for the cooperatives operating by the socio-economically DAGs</li> </ul>	<p>No specific provision for social inclusion in the decision making bodies of NGOs/CBOs</p>	<p>No specific provision for social inclusion in the decision making bodies of companies</p>	Not applicable

	targeted beneficiary groups <sup>5</sup>				
<b>Capacity and consumers protection</b>	<ul style="list-style-type: none"> <li>No specific legal provisions in order to develop capacity</li> <li>RE Subsidy Delivery Mechanism 2016: provide information to consumer about new RE technologies</li> <li>SM Directive: Provide technical know-how to the operator and members of EC</li> </ul>	<ul style="list-style-type: none"> <li>Investment of the fund for the capacity building of cooperative and their members (sec. 70)</li> <li>Apply the provision of RE subsidy policy and CRE bylaw for capacity building in MHP/CRE cooperatives</li> <li>CRE Bylaw: allocation of budget for capacity building of CREEs</li> </ul>	<ul style="list-style-type: none"> <li>No specific legal provisions in order to develop capacity</li> <li>Apply the provision of RE subsidy policy and CRE bylaw for capacity building in MHP/CRE related NGOs/CBOs</li> </ul>	<ul style="list-style-type: none"> <li>No specific legal provisions in order to develop capacity</li> <li>Apply the provision of RE subsidy policy and CRE bylaw for capacity building in MHP/CRE related company</li> </ul>	Not applicable

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<sup>5</sup> For the purpose of RE subsidy policy, “targeted beneficiary groups” refers to “women-led households with dependent children, earthquake victims from earthquake affected districts, endangered indigenous community identified by GoN and Dalit”.

## Annex 2: Social mobilization Guidelines 2013 in National Rural and Renewable Energy Program of AEPC

Phases	Activities	Guidance for Good governance
Preparatory Phase	Demand for project	<ul style="list-style-type: none"> <li>Document preparation in a transparent way</li> </ul>
	Pre-feasibility study	<ul style="list-style-type: none"> <li>Provide information transparently to the user and beneficiaries</li> <li>Ensure the participation of all stakeholder in the process</li> </ul>
	Formation of User Group	<ul style="list-style-type: none"> <li>Ensure one third representation of women in the EC including at least one post for women such committee</li> <li>Maintain inclusiveness in at least 40% seat of the EC</li> <li>Define the rights, role and responsibilities of user groups and its EC (such as collection of recommendations from concern agencies, registration of water source for the recognition of tenure rights, resource management, organize general assembly and regular meetings, maintain financial transparency and auditing of the funds, maintain two way communication, regular reporting to concern agencies)</li> </ul>
	Detail feasibility study	<ul style="list-style-type: none"> <li>Ensure full and effective participation of users, EC and stakeholders</li> <li>Provide all relevant technical information to the beneficiaries</li> </ul>
	Registration of water rights	<ul style="list-style-type: none"> <li>Include all relevant documents for the securing of preferential rights over the water source to generate micro hydropower</li> <li>If the MHP is more than 100 kW, collect additional documents to provide Electricity Development Board</li> </ul>
	Resource collection and utilization	<ul style="list-style-type: none"> <li>Clearly define the plan for use of subsidy, other sources and physical voluntary contribution</li> </ul>
	Public hearing	<ul style="list-style-type: none"> <li>Disseminate the all information (social, economic, environmental, subsidies, other sources, community contributions) to the assembly of user group.</li> <li>Response to the questions</li> </ul>
Construction Phase	Selection of construction company	<ul style="list-style-type: none"> <li>Transparently select the construction company through public auction by follow the norms established under AEPC technical and financial norms</li> <li>Complete the contract process in a transparent way</li> </ul>
	Approval of subsidy	<ul style="list-style-type: none"> <li>Compile all document transparently</li> </ul>
	Selection of operator	<ul style="list-style-type: none"> <li>Select operator transparently and give priority to the DAGs</li> </ul>
	Capacity building	<ul style="list-style-type: none"> <li>Provide technical know-how to the operator and other members of the EC</li> <li>Define the roles of operators</li> </ul>
	Construction of MHP	<ul style="list-style-type: none"> <li>Maintain consistency with the plan during the construction of MHPs</li> <li>Conduct regular monitoring</li> </ul>
	Public audit	<ul style="list-style-type: none"> <li>Organize public audit for the collection of feedback in order to improve the performance</li> </ul>
	Fix the tariff of the electricity	<ul style="list-style-type: none"> <li>Define the tariff of electricity after open and transparent discussion with the electricity users based on the affordability and demand and supply.</li> </ul>

Phases	Activities	Guidance for Good governance
Operational Strengthening	Sustainable management of MHP and maintenances	<ul style="list-style-type: none"> <li>Manage the EC, technical staffs, tariff collection, safety measures, manage maintenance fund transparently</li> </ul>

	Financial management	<ul style="list-style-type: none"> <li>• Collect tariff effectively and timely manner, manage financial resource and its record transparently</li> </ul>
	Transform user groups into a legal entity	<ul style="list-style-type: none"> <li>• Transform the user group into a permanent and stable legal entity (such as enterprise or a company or a cooperative) for the sustainability of MHP after wider discussions in the general assembly of user group</li> </ul>
	Maintain emission reduction records	<ul style="list-style-type: none"> <li>• Maintain data of emission reduction transparently and provide such data and information at national level to get benefits from different carbon financing projects/program</li> </ul>
	Insurance	<ul style="list-style-type: none"> <li>• Mange financial resources for the insurance of MHP, its constriction labours, operators and other staffs</li> </ul>



### Annex 3: Sample size (Selected MHPs and CREEs for FDG, HH survey and preparation of case studies)

SN	Name of MHPs	Districts	Local level (Municipality/ Rural Municipality)	States Province	Capacity (kW)	HH	Criteria		
							Project scale*	Road access	Ethnicity composition
1	Putpute - II	Syangja		4	98	834	L	Yes	Mix
2	Urja - I	Baglung	Rangkhani	4	26	273	S	Yes	Mix
3	Urja - IV	Baglung	Surkuwa	4	14	133	S	Yes	Mix
4	Malekhu Khola -II	Dhading	Mahadevsthan	3	18	166	S	Yes	Mix
5	Daram khola	Baglung	Malama	4	50	475	M	Yes	Homogeneous (Magar)
6	Mid Girindi Khola	Baglung	Riga	4	45	337	M		Homogeneous (Magar)
7	Khamari Khola	Surkhet	Babiyachaur	6	55	620	M	No	Mix
8	Badighad Khola	Gulmi	Neta	5	100	912	L	Yes	Mix
9	Chheranga Khola	Tanahu	Baidi	4	35	190	S	Yes	Mix
10	Chane Khola	Kaski	Ghandruk	4	35	250	S	No	Homogeneous (Gurung)
11	Jhumsa Khola	Palpa	Mathagadi	5	30	310	S	Yes	Mix

\* Above 75 kW – Large (L), 49-75 kW – Medium (M), Less than 50 kW - Small (S)

SN	Name of CREEs (Cooperative/Company)	District	State	Local level (Municipality/ Rural Municipality)	HHs	Ethnicity composition
1	Nawajyoti samudayik gramin vidhut upabhokta samuha, Kusmishera	Baglung	4	Tunibot, Kusmisera	185	Magar/ Brahman
2	Amilichap	Dhading	3	Siddalek	900	Mix
3	Gramin vidhut upavokta samiti , pakuwa Pakuwa	Parbat	4	Kusma Municipality	460	Mix
4	Gramin Purbhadhar thata Batabaran Bikash Mancha	Tanahu	4	Khaireni	1400	Mix
5	Naubasta	Banke	5	Naubasta	1300	Mix
6	Bela Gramin Bidhut Company	Dang	5	Bela	480	Mix

## Annex 4: Checklist for Focus Group Discussions (FGDs) and KII

Questionnaires	Checklists for FGD
<p><b>Research questions 1:</b> What are the current provisions to maintain good governance (transparency, access to information and public hearing) in community based energy systems in Nepal?</p>	
<p><i>Question to CREEs/MHPs</i></p> <p>1.1 What kinds of documents (such as bylaws, business plans, investment plans, working procedures, contract documents, code of conducts etc.) have been developed to maintain governance in the CREEs/MHPs?</p> <p>1.2 What types of provisions on governance (transparency, accountability etc.) have stated in such document to maintain and enhance governance?</p> <p>1.3 What are the plans and programs (training etc.) to develop capacity for strengthening governance in your CREEs/MHPs?</p> <p>1.4 What are the mechanisms to generate awareness on the policy, legal and institutional provisions to maintain governance in the communities? (information sharing mechanism - questions to national stakeholders (NEA, AEPC) and both community institution and consumers)</p> <p>Question to national stakeholders (NEA, AEPC)</p> <p>1.5 How the CREEs/MHPs are maintaining financial transparency and accountability?</p> <p>1.6 What are the strengths and major gaps of the current policy and legal provisions to maintain governance in CREEs/MHPs?</p>	<ul style="list-style-type: none"> <li>• Policy instruments (sectoral)</li> <li>• Legal instruments (sectoral and generic)</li> <li>• Procedural documents (sector)</li> <li>• Guidelines</li> <li>• Bylaws</li> <li>• Decisions made by the relevant agencies, MHPs and CREEs</li> <li>• Safeguards measures</li> <li>• Published reports</li> <li>• Good practices (for case study)</li> </ul>
<p><b>Research questions 2:</b> What elements of the enabling environment (policies and laws) are conducive to promote best practices of good governance in community-based energy system?</p>	
<p><i>Questions to national stakeholders (Ministry, NEA, AEPC and CREEs/MHPs)</i></p> <p>2.1 What are the main provisions in policy and law to maintain transparency and access to information in CREEs/MHPs?</p> <p>2.2 Which provisions of the existing policies and laws are more supportive to promote governance in CREEs/MHPs?</p> <p>Questions to community institution (selected CREEs/MHPs)</p> <p>2.3 How the roles and responsibilities of each office bearers have been defining in the CREEs/MHPs?</p> <p>2.4 How the Office bearers and the service providers are fulfilling their accountabilities in the CREEs/MHPs?</p> <p>2.5 What are the policy/legal provisions and community practices to secure effective participation of each members in the designing, planning, monitoring and evaluation of CREEs/MHPs?</p> <p>2.6 What are the community practices to secure the gender equity and social inclusion in the CREEs/MHPs and its benefits sharing?</p> <p>2.7 Are the current enabling environment (laws and practices) of good governance at the community and organizational level Gender and Social Inclusion sensitive?</p> <p>2.8 Do good practices of governance take into consideration meaningful participation of women and DAGs at all level (national, local and community level) of different energy sectors?</p>	<ul style="list-style-type: none"> <li>• Governance criteria in CREEs/MHPs sector</li> <li>• Governance strategy of the public agencies, investors and service providers</li> <li>• Policy advocacy at different level for governance</li> </ul>
<p><b>Research questions 3:</b> How the different government and public agencies, local governments, investor and service providers and CSOs have been contributing to strength technical, financial and other accountability and public auditing in community-based energy system?</p>	
<p><i>Questions to national stakeholders (NPC, Ministry, AEPC, NEA, Banks and contractor private companies - NMHDA)</i></p> <p>3.1 What kind of roles is played by the public agencies (Ministries, energy sections of local government etc.) to strength governance in CREEs/MHPs?</p> <p>3.2 How the investors (NEA, AEPC, Banks etc) are contributing to strength governance?</p> <p>3.3 What is the major role of service providers to strength governance in each cycle of designing the CREEs/MHPs?</p> <p>3.4 What are the coordinating mechanism between public agencies, investors and service providers to maintain governance in this sector?</p> <p>3.5 How the local government will coordinate between each other to promote MHPs and CREEs?</p>	<ul style="list-style-type: none"> <li>• Decision matrix (decisions of the MHPs, CREEs and local government)</li> <li>• Resource require to maintain governance</li> <li>• Simplicity/robustness for maintaining governance</li> <li>• Time frame for the decisions,</li> <li>• Rules and regulation on local government operation</li> </ul>

3.6 What are the roles and responsibilities of the energy section (if any) of local government?	
<b>Research question 4:</b> What are the major conflicts in community based energy system and how community or other responsible agency has been managing to minimize or resolve the conflicts on electricity/energy distribution and utilization in a gender sensitive way?	
<p><i>Question to community institution</i></p> <p>4.1 What kinds of conflicts have been facing by the communities in the CREEs/MHPs?</p> <p>4.2 What are the conflict resolution mechanisms in CREEs/MHPs?</p> <p>4.3 Which mechanisms are being very effective to manage conflicts?</p> <p>4.4 Which agencies are effectively contributing to resolve the conflicts? Local level bodies or government agencies or CSO/NGOs</p> <p>4.5 In which actions (generation, transmission and distribution) are more and complex conflicts?</p> <p>4.6 Are the conflict resolution, distribution and utilization of energy mechanisms GESI sensitive?</p>	<ul style="list-style-type: none"> <li>• List of major conflict and cases</li> <li>• Conflict resolution mechanisms</li> <li>• Most effective and less effective mechanisms</li> <li>• Contributing agencies</li> <li>• Complex conflicts</li> </ul>
<b>Research question 5:</b> What are the critical and contributing factors that contribute to the good governance in community-based energy system?	
<p><i>Questions to national stakeholders and community institution</i></p> <p>6.1 How the existing policy and regulatory frameworks have been contributing to enhance governance? (national)</p> <p>6.2 What are the major roles of community members (HHs) to improve governance? (community)</p> <p>6.3 Which internal and external mechanisms have been widely contributing to strength governance? (national/community)</p> <p>6.4 What are the critical factors to create obstacles to enhance governance in CREEs/MHPs? (national/community)</p>	<ul style="list-style-type: none"> <li>• Contributing factor (policies, practices, resource, clarity, empowerment, ownership etc.)</li> <li>• Role of actors and communities</li> <li>• Major obstacles</li> </ul>
<b>Research question 6:</b> How well do the community based energy systems ensure community empowerment and participation of all members of the communities including women and DAGs, gender integration, equity and social inclusion for sustainability of the system?	
<p><i>Questions to national stakeholders (NEA and AEPC)</i></p> <p>5.1 What are the mechanisms to empower local communities for their effective participation in the CREEs/MHPs?</p> <p><i>Questions to community institutions (CREEs and MHPs)</i></p> <p>5.2 How is community participation being practiced during the design, implementation, operation and management phases?</p> <p>5.3 What are provisions and practices to ensure gender equality and social inclusion in leadership, decision-making, access to energy and benefits sharing including property rights over the structure of REEs/MHPs?</p> <p>5.4 What are the plans and program of public agency and communities for the sustainability of CREEs/MHPs?</p> <p>5.5 Are the current best practices of good governance at the community based energy systems GESI friendly?</p> <p>5.6 Are women and DAGs involved in the implementation, operation and management component of community based energy systems?</p> <ul style="list-style-type: none"> <li>○ If yes, what are the roles of women and DAG's in these processes?</li> <li>○ If no, why are they not included in the process of management?</li> </ul> <p>5.7 Are there mechanisms that ensure inclusion and gender sensitivity into the management of renewable energy sectors?</p>	<ul style="list-style-type: none"> <li>• Internal documents</li> <li>• Internal mechanisms – committees, sub-committees, working groups, task forces,</li> <li>• Gender friendly and socially appropriate governance mechanisms</li> <li>• Reporting and information sharing systems</li> <li>• Collection of detail information on governance of CREEs/MHPs</li> </ul>
<b>Research question 7:</b> What are the critical issues and major barriers for strengthening good governance in community-based energy systems?	
<p><i>Questions to community institutions</i></p> <p>7.1 What are the major issues and barriers at community level to strength governance in CREEs/MHPs?</p> <p>7.2 Why such issues and barriers on governance are emerging?</p> <p>7.3 Who are playing role to emerge such issues and barriers?</p> <p><i>Questions to national level</i></p>	<ul style="list-style-type: none"> <li>• List of issues and its prioritization (based on perspectives)</li> <li>• Power and interest analysis</li> <li>• Correction measures</li> </ul>

7.4 Are there any legal provision to take action against anti-governance activities at community level?	
<b>Research question: 8.</b> What lessons can be drawn from the current practices on good governance and what are the areas of improvement in policies and practices to maintain governance?	
<p><i>Questions to national stakeholders and community institutions</i></p> <p>8.1 What are the major lessons from the current provision and practices on good governance in this sector?</p> <p>8.2 What are the areas of improvement in policies to strength governance?</p> <p>8.3 What are the areas of improvement in practices to strength governance?</p> <p>8.4 Are there any recollections/ instances that show the good governance in the community-based energy systems?</p>	<ul style="list-style-type: none"> <li>• major lessons (lists and analysis)</li> <li>• Areas of improvement (in policy and practices)</li> <li>• Good practice examples</li> <li>• Way forwards</li> <li>• Recommendations</li> </ul>

## Annex 5: Questionnaires for HH Survey

Address of Interviewee

CREE/ MHP Name:

District:

Municipality/Rural Municipality:

Ward:

Village:

Household Number (if available):

Interviewer:

Date of Interview:

General Information about the Household

1.1 Name of Respondent:

1.2 Sex of Respondent:

### Source of energy and their uses

1. What types of energy fuels do you use for cooking? a. Coal and/or Charcoal b. Straw and/or Dung c. Electricity d. LPG Gas e. Bio-Gas f. Other (specify)	2. How do you use the electricity provided by CREE/ MHP? a. Household lighting b. Radio/ TV c. Mobile Charging d. Kitchen equipment e. Productive Use (Business/ Service) f. Other (specify)
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### Transparency and access to information

1. Do you know the name of any policy/legal instruments relating to MHPs or CREEs?	Yes No
If yes, What are the names of these instruments? 1 ..... 2 ..... 3.....	
2. Are you aware about the bylaws of your MHPs or CREEs?	Yes No
3. Do you have access to the decisions, plan, program and annual budget of your MHPs or CREEs?	Yes No
4. Are you aware about the PHPA?	Yes No
5. Is there a practice of PHPA in your MHPs or CREEs?	Yes No
6. Who has been providing the basic information about the rules of your MHPs or CREEs in your household?	
Executive Committee of MHPs or CREEs?	Government agencies
	Local Governments
	Service providers (installers/NGOs)

### Accountability, efficiency and Redress Mechanisms

1. Do you have basic information about the main rights, roles and responsibilities of the executive committee of your MHPs or CREEs?	Yes No
2. Is there any conflict management mechanism in your MHPs? or CREEs	Yes No
3. Is there any mechanism to register the complaint against the decisions of executive committee or office bearers	Yes No
4. If yes, are you satisfied with the decisions of conflict management mechanism?	Yes No
5. If No, Why you are not satisfied? .....	

**Participation, representation, gender equity and social inclusion**

1. Did you participate/ Are you engaged in any phases of development of CREE/ MHP?	Design (Yes/ No) Construction (Yes/ No) Operation (Yes/ No) Management (Yes/ No)
2. What was/ is your role in such participation?	
3. Are you aware about the inclusive mechanisms of MHPs or CREEs?	Yes No
4. Is there any mechanism to secure participation and representation of women in the executive committee of your MHPs or CREEs?	Yes No
5. Is there any mechanism to secure participation and representation of Indigenous Peoples, Dalits and other DAGs in the executive committee of your MHPs or CREEs?	Yes No
6. If yes, are you satisfied with the existing inclusive mechanisms? .....	

**Capacity**

1. Are you getting opportunities (such as trainings) to develop capacity for strengthening good governance practices in your MHPs or CREEs?	Yes No		
2. If yes, what kinds of capacity building opportunities were provided?			
Governance training (such as PHPA tools and process)	Accounting training	Monitoring and report preparation	Exchange visit to sharing knowledge
3. Are you satisfied with the capacity building opportunities? .....			

**Challenges and way forward**

What are the major challenges to maintain governance in your MHPs or CREEs?	What are the major suggestions to improve governance in your MHPs or CREEs?
1	
2	
3	

**Instances of good practice**

Is there any instance/ recollection of good governance practice in our CREE/ MHP?

## Annex 6: Policy Recommendations and Strategic Actions

Recommendations	Strategic actions	Main responsibility	Time frame
To remove inconsistency between policy/legal frameworks and the operational instruments of the community-based energy institutions, it is urgent to implement a governance strengthening program in RE and CRE sector for the revision of operational instruments (bylaws or constitutions) of the community-based energy institutions in order to mainstreaming the criteria and indicators of good governance.	Revision of operating instruments, support and facilitation for the revision	AEPC for MHPs  NEA for CREEs	Medium term
Considering the recommendation of Social Mobilization Directive of AEPC and CRE Bylaw of NEA, it would be good to transform the existing institutional structures of community-based electricity institutions (user groups, NGOs/CBOs and company) into MHP/CRE cooperative institution, which will be stronger in terms of maintaining good governance in the institutional management, because it has found that all most energy cooperatives have fulfilled about 90% good governance criteria.	Support and facilitation from support agencies and local governments	AEPC for MHPs  NEA for CREEs Local governments	Long term
Develop some generic and specific governance criteria and indicators for the periodic assessment of the status of good governance (particularly transparency, accountability and GESI integration) in community-based energy institutions, which will be supportive to identify the specific areas for the reform of governance in the community electricity institutions.	Formation of a working group to develop and piloting governance assessment criteria	AEPC, NEA & development partners	Short term
Capacity building and awareness raising activities on good governance should be implemented on a regular basis in the MHPs and CREEs for continuation of community empowerment and full and effective participation of all members including women and socially marginalized groups in the decision-making process.	Monitoring, trainings, sharing	AEPC for MHPs; NEA for CREEs; , local government,	Regular
Annual Plans and programs and annual progress report preparation mechanism, and annual reporting system should be strengthened and PHPA practices should be continued to maintain transparency in the MHPs and CREEs.	Facilitation and trainings, rewards, compliance measures	AEPC, NEA, local gov, MHPs/ CREEs	Regular
Effectiveness of regulatory agencies and capacity building of project developer is most urgent to maintain quality assurance in construction, equipment and service delivery from the service providers/contractors for the good governance and sustainability of MHPs and CRE system.	Regular monitoring, compliance measures, rewards	AEPC for MHPs and NEA for CREEs	Regular
Maintaining two way communication, regular reporting to concerned agencies, enhancing coordination with relevant stakeholders, effective implementation of annual plan and program, development of additional required human, financial and technical resources, development of new leadership, timely organizing election for leadership change and institutional memory transfer related actions are also urgent in MHPs	Regular monitoring, compliance measures, rewards	AEPC for MHPs and NEA for CREEs	Regular

Recommendations	Strategic actions	Main responsibility	Time frame
and CREEs in order to enhance accountability of the leadership.			
The FGRM as well as conflict resolution mechanisms should be established and strengthened in each community institutions for the effectiveness of good governance in MHPs and CREEs. The effectiveness and accessibility of the central level FGRM in AEPC and NEA need to improve considering the emerging issues and concerns in RE sector.	Revision of operating instruments to incorporate FGRM	Local governments, MHPs/CREEs,	Medium term
The GESI integration and mainstreaming in the MHPs and CREEs is most urgent and through this process there should be addressal of the GESI integration related issues such as ensuring at least 33% women representation in EC/BoD, maintaining at least 40% inclusiveness in EC/BoD, gender sensitive and socially acceptable social mobilization, GESI friendly decision-making process and establishment of GESI specific sub-committee (platform), GESI prioritized energy distribution for IGA, GESI responsive RET knowledge exchange and RET related knowledge transfer to <i>Dalits</i> .	Revision of operating instruments to integrate GESI	Local governments, MHPs/CREEs	Medium term
There should be reforms in the RE Subsidy Policies, MHPs related other procedural instruments, CRE Bylaw and other institutional mechanisms related to various RE/CRE funds mobilization procedures considering the concerns and demands of the MHPs and CREEs as well as their associations and networks.	Formation of a working group to review and identify the areas of improvement	AEPC, NEA, relevant ministry	Short term
The community-based energy systems (which are operated by the user groups or cooperatives) should be integrated into the energy plan of local governments considering the rights, roles and responsibilities of local governments for the community-based energy regulation at local level.	Participatory planning process to give priority to energy plan and allocation of resources	Local governments, support agencies	Regular (each year)