

Scaling up Renewable Energy Programme (SREP) in Nepal – a status review

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**Country Report** 

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Climate change

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- Supporting climate change negotiators from poor and vulnerable countries for equitable, balanced and multilateral solutions to climate change.
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Sustainable development in countries like Nepal, where 44 % of the population do not have access to electricity is now closely linked to access to energy. This country report looks at the status of the Scaling up Renewable Energy Programme (SREP) in Nepal. The Climate Investment Fund (CIF) is a funding channel designed to assist developing countries pilot low emission and climate resilient development approaches. As the fund unfolds, lessons can be gathered from the early stages of the programme. IIED is undertaking case studies of selected countries participating in two Strategic Climate Fund (SCF) programmes – one of which is the Scaling up Renewable Energy Programme (SREP) in Nepal and Ethiopia. This country report looks at the status of the SREP in Nepal. These initial reflections point to areas where further in-depth analysis will be needed to understand how planning and implementation decisions are made and to attribute the real cause behind observed trends.

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# Summary

Developing countries are most vulnerable to climate change, with extreme weather events and changing precipitation patterns already affecting the livelihoods of millions. In the Copenhagen Accord (2009) wealthier countries promised financial support to help developing countries respond to climate change. Part of these pledges are channeled through the Climate Investment Fund (CIF) and pilot countries like Nepal are first in line to make use of the funds that could potentially make a lasting impact on their economy and society.

This report examines how one of the CIFs strategic climate funds, the Scaling Up Renewable Energy Programme (SREP), is helping the pilot country Nepal make the transition into a low emission society. SREP projects are expected to consist of both renewable energy investments (including infrastructure investments) and capacity building and advisory services as well as support for policy changes that increase the use of renewable energy. The funding of SREP is disbursed in two phases. In Phase one, pre-investment support will be given to the participating governments to develop an investment plan and associated advisory services will be provided.

A policy process matrix approach is used to understand SREP programme processes, actors involved in different stages of SREP, likely points of contention and hindrances going forward, and highlight facets of the programme requiring further investigation.

## Key findings

As Nepal is going through the early stages of the SREP, first lessons can be drawn from the planning process, including the set-up of the institutional framework, the prioritisation of different renewable technologies and stakeholder participation.

With many institutions, such as the Ministry of Environment and its Alternative Energy Promotion Centre (AEPC) already in place, Nepal was comparatively well prepared for assigning the focal points for SREP. Additionally there are plans to shape an Alternative Energy Promotion Board (AEPB) and a new Central Renewable Energy Fund (CREF) that will disburse funds. An expert quality reviewer has pointed

out that the roles of these institutions have to be clarified to avoid completion and confusion (Upadhyay, 2011).

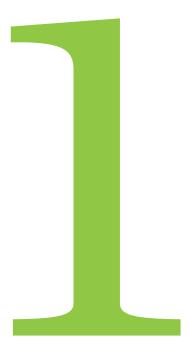
The first important step in the SREP process is the preparation of an investment plan, which has to be endorsed by the SREP Sub-committee. In Nepal this planning and preparation period was relatively straightforward. This can largely be attributed to the country having extensive experience in previously pursuing schemes to promote renewable energy. The investment plan was endorsed in less than a year in 2011.

SREP provides financing for renewable energy technologies such as photovoltaic systems, wind energy, bio-energy, geothermal energy and small-scale hydropower. The Government of Nepal (GoN) largely focused on proven technologies and suggested using SREP funds for increasing the amount of small-, miniand micro hydropower stations in remote rural areas. More funds were allocated to a biogas programme. GoN was able to defend these decisions against objections voiced by developing partners on the subcommittee that a transformational impact could not be achieved through such small-scale measures.

During the preparation of the investment plan workshops and direct consulting with a range of stakeholders, including banks, developers, manufacturers and development partners ensured broad ownership of the document. Criticism was voiced from the commercial banks over a lack of actionable information from government and MDBs. Civil society involvement from regional NGOs was only minimal but overall transparency of the process was not disputed among stakeholders.

## Introduction

Developing countries require an estimated US\$100 billion per year in climate finance by 2020 to move towards climate resilient and low carbon development paths (as per the Copenhagen Accord). The CIF is one donor commitment designed to assist developing countries to pilot low emission and climate resilient development approaches. This paper provides a cursory narrative around the status of one CIF funded SREP programme in Nepal. The finding of this paper also serves the broader purpose of defining the focus and informing the subsequent analysis of the political economy assessment of Climate Investment Funds.



Climate Investment Fund financing is disbursed through two different multi-donor funds – the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF) – with targeted programmes designed to address the issues of adaptation and mitigation. The fund is designed as pilot programmes, which have a 'sunset clause', setting an end date once countries have an effective 'architecture' – including policy, institutional and financial systems – for responding to climate change.

As the fund unfolds, various lessons can be gathered from the early stages of the programme. These lessons, besides informing the current governance of CIFs, will also guide the future design of the global financial architecture for climate change. As part of a broader political economy study on Climate Investment Funds, IIED is undertaking case studies of selected countries participating in two SCF programmes: the SREP and the Pilot Programme for Climate Resilience (PPCR). The studies examine how SREP is helping Nepal and Ethiopia shift to a low green-house gas development pathway, and how effective the PPCR is at helping **Nepal** and Bangladesh shift towards a resilient, sustainable and poverty-cutting development path. Besides examining the linear processes of programme planning and implementation, these assessments will also analyse how planning and implementation decisions take place within broader political economy realms of the country.

This country report provides a cursory narrative around the status of SREP in Nepal. A policy process matrix approach is used to understand SREP programme processes, actors involved in different stages of SREP, likely points of contention and hindrances going forward, and highlight facets of the programme requiring further investigation. The finding of this paper serves the broader purpose of defining the focus and informing the subsequent analysis of the CIFs.

The policy matrix approach (Guldbrandsson *et al.*, 2005) is applied by adapting and amalgamating the policy process approach (Kingdon, 1995; Howlett and Ramesh, 2003; Tanner and Allouche, 2011) and actor-structural approach (Popper, 1966; Elster, 1982; Mayhew, 1980) to understand:

- (a) How Nepal drives different stages of SREP – planning, decision making/prioritisation, institutionalisation, stakeholder inclusion, and learning?
- (b) Which actors are involved and their roles within these processes?

This country paper reflects Nepal's experiences with each of the SREP process stages and the actors involved.

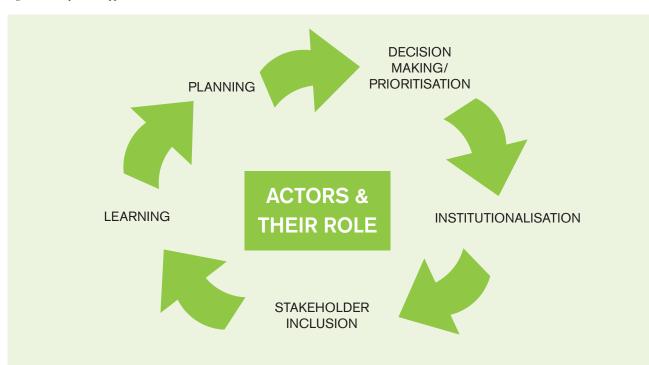


Figure 1 - Policy matrix approach

### **BOX 1: ANALYTICAL APPROACH**

A policy matrix approach assumes that different stages of policy/programme processes are influenced by different actors and the environment that they operate in (Guldbrandsson et al., 2005). Within this paper we have simply tried to assess the state of affairs – particularly how processes are taking shape under CIFs and the key actors involved in the process. This paper doesn't give a detailed view of how actors and their environment influence PPCR processes. These aspects will be touched more in detail within the political economy studies being conducted in the second stage of the assessment.

Policy process approach states that the policy processes involve distinct phases, including agenda setting, conceptualisation, negotiation, policy formulation, decision making, implementation, evaluation and termination or renewal (Kingdon, 1995; Howlett and Ramesh, 2003; Tanner and Allouche, 2011).

Actor structural approach underlines that both actor and their structures have the ability to influence their policy processes (Popper, 1966; Elster, 1982; Mayhew, 1980).

### Overview of SREP

The SREP is a targeted programme of the Strategic Climate Fund, established to scale up renewable energy in the world's poorest countries. It aims to pilot and demonstrate the economic, social and environmental viability of low-carbon development in the energy sector. SREP provides financing for renewable energy technologies such as solar, thermal and photovoltaic systems, wind energy, bio-energy, geothermal energy and small-scale hydropower. It also envisages a significant role of the private sector in promoting renewable energy. SREP projects are expected to consist of both renewable energy investments (including infrastructure investments) and capacity building and advisory services as well as support for policy changes that increase the use of renewable energy. SREP programming seeks to:

- Assist low-income countries to initiate a process leading to transformational change to low carbon energy pathways by exploiting their renewable energy potential in place of fossil-based energy supply and inefficient use of biomass.
- Combine public sector and private sector actions to scale up private sector investments.

- Improve market and financial conditions and increase investor confidence that leads to greater public and private sector investments in renewable energy.
- Provide experience in scaling up renewable energy that can be shared at the regional, national and international level and increase public awareness of the opportunities of renewable energy.
- Reduce local air pollution and greenhouse gas emissions and contribute to climate resilience and energy security (CIF, 2010b).

The program builds on the following key principles:

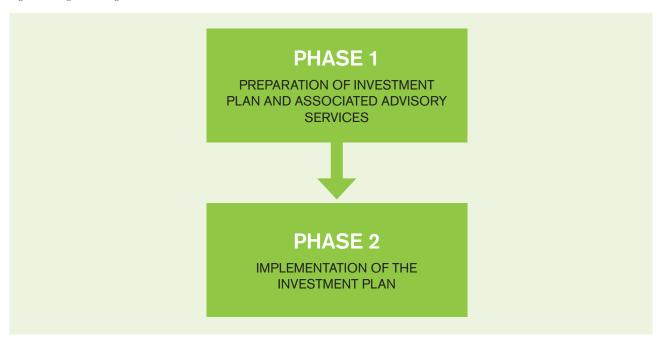
- · Should be country-led and build on national policies and existing energy initiatives,
- Be programmatic and outcome-focused,
- · Prioritise investments that create productive use of energy and seek wider economic, social and environmental benefits,
- Encourage private sector investments,
- Be designed and implemented with the participation of local communities and indigenous people (CIF, 2010b).

A number of financing products such as grants, concessional loans, guarantees and equity are available under the SREP to pursue these objectives (CIF, 2010b).

The funding of SREP is disbursed in two phases. In Phase one, pre-investment support will be given to the participating governments to develop an investment plan and associated advisory services will be provided. An investment plan can include activities under two broad categories: (a) Capacity building and advisory services to support delivery and results (given only as grants) and (b) Investments leading to deployment of different renewable energy technologies and their operational management. In phase two, the implementation of the investment plan will be funded (CIF, 2010b).

The Fund is allocated to a country based on certain criterion such as - an enabling regulatory environment for the renewable energy sector, policies that support private sector participation, public-private partnerships, and extent of availability of financing for renewable energy technologies (CIF, 2010a). With respect to the role of the Multilateral Development Banks (MDBs) in planning and implementing the programme 'SREP Financing Modalities' states that preparation grants will generally be recipient-executed, but may be executed by an MDB if justified, and that all preparation grants will be supervised by the MDB in order to ensure compliance with its operational policies and procedures, including procurement, fiduciary and financial management guidelines (CIF, 2010b).

Figure 2 - Programme stages of SREP



### Governance of SREP

The SREP and each of the CIF programmes are administered by the World Bank led CIF admin unit. The decision-making arrangement for SREP within the SCF comprises of a Trust Fund Committee, a Partnership Forum, an MDB committee, an Administrative Unit, and a trustee.

- The SCF Trust Fund Committee performs the role of an overseer of the activities and operations of SCF fund. It comprise of representatives (8) from donor countries, (8) recipients countries, a CIF representative from the World Bank, and a representative of the MDB identified by the MDB committee. The committee has the responsibility to approve setting up of SCF programmes and also make sure that the programs are aligned with United Nations Framework Convention on Climate Change (UNFCCC) principles as well as ensuring the lessons are fed into the secretariat.
- The SREP Sub-committee is established by the SCF Trust Fund Committee to oversee the operations of SREP. It comprises of six representatives from donor countries, six representatives from recipient countries, and some other members selected by the SCF Trust fund committee. The subcommittee has the responsibility to approve the prioritised programs, their operational criteria as well as the financing modality.
- The MDB Committee comprises of representatives from MDBs to ensure co-ordination, collaboration and sharing of information between the MDBs. The committee is also responsible for identifying specific

areas and programs related to climate change where MDBs could collaborate and align with each other's work.

- The CIF admin unit is responsible to support the work of CIF, as well as all the subcommittees of different programmes.
- Observers for the SREP Sub-committee include Civil Society Organisation (CSO) representatives, private sector representatives, and community based organisations. Whilst the observer role of CSOs can be viewed as a progressive move in terms of transparency and accountability, CSOs do not have any latitude to participate in decision-making.
- The Trustee role is performed by the International Bank of Reconstruction and Development (IBRD).
  IBRD has set up a trust fund for SCF to receive funds from its contributors.

The governance mechanism and the programme cycle of SREP are common across all pilot countries. However, the participating pilot countries were at different stages of addressing their energy issues, so a "one-size-fits-all" approach would not have worked. Country contexts and MDB approaches have significantly determined the way SREP has operationalized in pilot countries. The following sections provide an overview of the energy context of Nepal and also describe how SREP is operating along its different programme stages – (a) planning the investment plan; (b) prioritising investment components; (c) defining institutional mechanisms; (d) stakeholders' participation; and (e) developing a learning framework.

# Country context

Nepal's per capita primary energy consumption is extremely low – as is its energy generation. This shortage combined with frequent blackouts hamper economic development. At the same time the country's renewable energy potential is considerable with an estimated 42,000 megawatts (MW) of commercially exploitable hydropower available and various others sources which still remain unexploited at a larger scale (CIF, 2011).



In the winter months of 2010 only around 50% of peak-load demand could be met by the country's 706 MW installed electricity generation capacity (mostly hydropower) as low flow periods impaired production. For the 56% of Nepalese with access to basic energy services, load shedding of around 12 hours per day is usual throughout the year. Households that lack access to grid electricity regularly rely on costly and harmful alternative fuel sources. Nepal's persistent energy shortage and frequent power outages have severely constrained economic growth (CIF, 2012).

Coupled with the fact that the construction period for new power generation projects and new import transmission capacities is extensive, a rapid improvement of energy supply cannot be expected, which again may constrain economic development in Nepal. An emergency supply through diesel power plants is also unrealistic, because of the high power generation costs associated. New renewable energy sources (excluding large hydropower) such as biogas, micro hydro and solar energy contributed about 0.7% to the national balance in 2008/09 altogether. Although the share is still small, it has increased by 40 % since 2005 (Energypedia, 2013).

There are a number of polices and plans in place that are specifically calibrated to support renewable energy measures. For example, in 2001 the Hydropower Development Policy aimed to extend reliable and qualitative electric service throughout Nepal, including rural areas, and to more closely link electrification with economic activities (Hydropower, 2001).

Government of Nepal in partnership with development partners have introduced a National Rural and Renewable Energy Programme (NRREP) in 2012, a single programme modality which will steer and finance all renewable energy projects in Nepal. The programme is executed by a semi-autonomous agency – Alternative Energy Promotion Centre (AEPC).

The GoN announced its Biofuel Program in the fiscal year of 2008/2009 to promote biofuel feedstock for biodiesel production, as well as the Subsidy Policy for Renewable (Rural) Energy, 2009, which follows on from the 2006 Policy and essentially strives to make the existing subsidies equitable, inclusive, and effective to help encourage rural electrification (CIF, 2011). The subsidy policy was recently revised in 2013.

In order to disburse the above mentioned subsidies, the MOSTE prepared the Renewable (Rural) Energy Subsidy Delivery Mechanism (2010) which is subdivided into different categories of renewables, and sets out the subsidy criteria and delivery means to advance equitable promotion of renewable and efficient energy. This instrument also formalises the arrangement for the Rural Energy Fund (REF), a fund established to deposit and disburse subsidies in the forms of economic assistance made available from various sources including the GoN and external development partners for the development of renewable (rural) energy (AEPC, 2010). Similarly, the Delivery Mechanism of Additional Financial Support to Micro/Mini Hydro Project (2011) helps to finance eligible projects (AEPC, 2011).

Additionally there are a number of policy instruments that whilst they are not specifically focused on renewable energy, still have a renewable energy dimension, which helps create a favourable policy underpinning to facilitate SREP financing. For example, the National Climate Change Policy (2011) has clear provisions to promote the use of renewable energy (MOSTE, 2011). Other relevant energy sector policies include the Water Resources Strategy 2002 and National Water Plan 2005 as well as the National Electricity Crisis Resolution Action Plan 2008 (CIF, 2011).

In 2011 the SREP Sub-Committee approved US\$40m to fund a programmatic investment plan designed to address the country's urgent energy needs and pave the way for long term low carbon development.

# Planning and prioritisation

The SREP is carried out in two different phases: The first phase supports the development of an investment plan and associated advisory services; and the second phase involves implementing the plan. Nepal already had institutional arrangements for renewable energy development in place and various stakeholder groups were able to reach an agreement on which renewable sectors should be chosen for the investment plan.



## Preparation and planning

In early 2011, the understanding of climate change amongst key government agencies had evolved considerably given the prominence of the climate change agenda heralded by the National Adaptation Programme of Action (NAPA) and the PPCR processes (MOSTE, 2010). There were also well-developed institutional arrangements for renewable energy development, and as demonstrated above, the development of renewable energy had been a high government priority for some time with considerable resources already committed – particularly with respect to rural renewable energy (NRREP, 2011)

In 2011, at the same time as the development of the SREP investment plan, the GoN in conjunction with development partners were formulating the National Rural and Renewable Energy Programme (NRREP); it is designed to be a single platform that will streamline all programmes and projects under a single modality. It aims to improve the living standard of rural women and men, increase employment as well as productivity, reduce dependency on traditional energy and attain sustainable development through integrating the alternative energy with the socioeconomic activities in rural communities (NRREP, 2011). As a result of comprehensive consultations between the MDBs and the GoN, the SREP investment plan complemented and integrated on-going developments in the renewable energy sector, particularly the development of the NRREP. This likely fosters government ownership in the selection of context-specific priorities.

In developing the SREP investment plan the Government also formed a broad-based steering committee, including key government stakeholders from the Ministries of Environment, Finance, Local Government, the National Planning Commission (NPC) and the Alternative Energy Promotion Centre (AEPC) as well as key private sector companies. Two sub-committees were also established to expedite consultations for each of the main components of the SREP. Ministerial roles in SREP preparation were made clear from the outset, allowing the MOSTE to effectively shepherd intense inter-ministerial discussions in developing the investment plan. The AEPC, which has considerable knowledge and technical capacity, also made an important contribution to government ownership and leadership. Whilst government leadership in the consultation process was strong, it has been observed that MOSTE's capacity constrained the ministry to match its commitment with timely action. The overall leadership of the government was good, even though a number of stakeholders stressed their view that the process was largely pushed by the MDBs.

The investment plan for the SREP in Nepal was produced and endorsed within less than a year in 2011.

This can largely be attributed to the country having extensive experience in previously pursuing schemes to promote renewable energy, as well as the experiences of both the NAPA and PPCR (ADB, 2012). The planning and preparation was also relatively straightforward given that Nepal had the necessary institutions in place and a clear idea of possible projects that would benefit from the SREP scheme.

## Prioritisation process and decision outcomes

The Nepal investment plan provides for four different energy technologies to be funded under SREP: small hydropower, mini/micro-hydropower, solar PV and biogas (CIF, 2011). This decision can be considered the agreement reached between the objectives of the main stakeholder groups:

- The manufacturers of micro/mini hydro, solar and biogas energy who had an interest to see projects using their respective power source being supported by SREP funding.
- The banks had an interest in gaining more resources and creditworthiness, and were generally leaning towards grid-based projects that are proven to be more commercially viable than remote off-grid projects in rural areas.
- The Government considered the incorporation of SREP into its entire renewable energy planning important and wanted to adopt new renewable energy policy and its own support programme (Peoples Hydropower [PHP]).
- Nepal Electricity Authority (NEA) was mostly concerned about grid stability and the rising electricity demand. It would therefore have preferred larger, gridbased renewable energy systems.

It appears that the government and the MDB-joint mission tried, and to a large degree succeeded, to balance these different objectives and interests. There did however remain some disagreement about the importance that each renewable energy sector should have. This is reflected in the comments of the Development Partners. Norway remarked that it would have preferred the investment plan to focus on small hydropower (SHP) instead of aiming also at funding mini- and micro-energy. It also wondered how the development of 50 MW of SHP would have a transformational impact in a country that faces severe power shortage (Norway, 2011). Switzerland on the other hand stressed the usefulness of solar power systems in remote areas (Switzerland, 2011).

Based on the SREP criteria (leverage, transformational impact and sustainability), along with barriers and risks on implementation and longevity, two broad

categories of renewable energy project investments were chosen; i) On-grid Small Hydro Power and ii) Off-grid Mini and Micro Energy Initiatives (including mini and micro hydropower and solar PV for lighting and other productive end uses and extended biogas) (See Table 1). Off-grid renewable technologies are less expensive when providing access of modern energy services to remote and sparsely populated areas compared to connecting them to national grid energy systems. The nature of three investments components are explained below:

**Small hydropower:** ADB and IFC are jointly implementing the small hydropower component which aims to create an enabling environment for the private sector to invest in small hydro. SREP financing of \$20 million will be used to provide financing and advisory services to facilitate development and testing of commercially viable small hydropower projects and capacity building of local financial banks for renewable energy projects; thereby demonstrating a viable investment environment for the private sector to invest in. The programme expects to leverage around \$93.4 million in additional financing from private sector and other partners, once the private sector is mobilised to invest in the renewables sector.

**Extended Bio gas programme:** World Bank is directing around \$10 million of SREP financing to scale up municipal waste to energy by covering initial costs and removing credit barriers. The project is providing financing and advisory support for implementing around 160, 000 bio gas plants. The programme expects to leverage around \$126.4 million from private sector and development actors.

Mini micro off grid electricity: SREP aims to provide affordable energy access to rural populations of Nepal by financing \$12 million to build a capacity of 30 megawatt mini micro hydropower installations and solar home systems. The implementing MDB (Asian Development Bank) also expects to leverage around \$131 million in additional financing from other actors such as private sector, government and development partners (CIF,

It seems apparent that SREP in Nepal has high emphasis on investing in scaling up proven renewable technologies that can improve the incomes and welfare of rural communities and villages. Small and micro hydropower installations are technologies that the country has long term experience in. However, MDBs and the government have also started promoting investment in technologies that the country has less experience in, such as converting municipal waste into electricity and mini grid solar power. Although household bio gas has been used in Nepal since 1990s, GoN is now interested to institutionalise large scale waste to energy. As far as proven technologies are concerned, the government believes that it has not yet exploited the full potential of renewable technologies for productive purposes and therefore using SREP finance to realise this goal. So far, the Government of Nepal's support to the renewable energy sector has been focussed on fulfilling the country's household-level energy requirements (Rai, 2013).

Table 1 - Nepal SREP Investment Plan - Key Components.

PROGRAMME	MDB	SREP FINANCE (IN USD MILLION)	IMPLEMENTING AGENCIES
Small Hydropower Finance Programme	ADB, IFC	ADB – 10m IFC – 10m	Private sector Ministry of Science, Technology and Environment (MOSTE).
Extended Biogas Programme	WB (IBRD)	IBRD – 10m	Alternative Energy Promotion Centre (AEPC), MOSTE
Mini and Micro Initiatives: Off Grid Electricity	ADB	ADB – 12m	Alternative Energy Promotion Centre (AEPC),

# Institutionalisation of SREP in Nepal

SREP supports the pilot countries to define an institutional mechanism to implement the programme in the short run, as well as strengthen and establish capacities of institutions to address energy issues in the long term. Nepal has divided the work under SREP between a semi-autonomous agency, environment ministry, MDBs and the private sector.



The Government has designated the Ministry of Finance and the Ministry of Science, Technology and Environment (MOSTE) as the focal points for SREP. Additionally, the MOSTE has designated the AEPC as the lead executing agency for SREP-related activities. All ministries and committees proposed in the Nepal investment plan are expected to be established and operational at present. The Asian Development Bank (ADB) acts as the SREP Focal MDB in Nepal.

There are plans to set up an Alternative Energy Promotion Board (AEPB) that can run SREP and the Rural Renewable Energy Program (RREP) together. The AEPB would be an autonomous agency with powers to raise grant and loan funds to develop renewable energies (CIF, 2011).

SREP funds for the Micro/Mini Energy Support will be channeled through the new Central Renewable Energy Fund (CREF). CREF will disburse funds as subsidies, technical assistance and as credit to financial institutions, community energy funds and manufacturers (Refer Box 2). The financial institutions and microfinance institutions are then giving funds to the micro energy projects (solar, biogas, micro and mini hydropower) owned by users (CIF, 2011).

SREP funds will also be awarded by the government to provide technical assistance in the form of advisory services and assistance in capacity building and developing Small Hydro Power project financing expertise.

The roles of existing institutions should be further clarified so that there is no competition and confusion between agencies (Upadhyay, 2011).

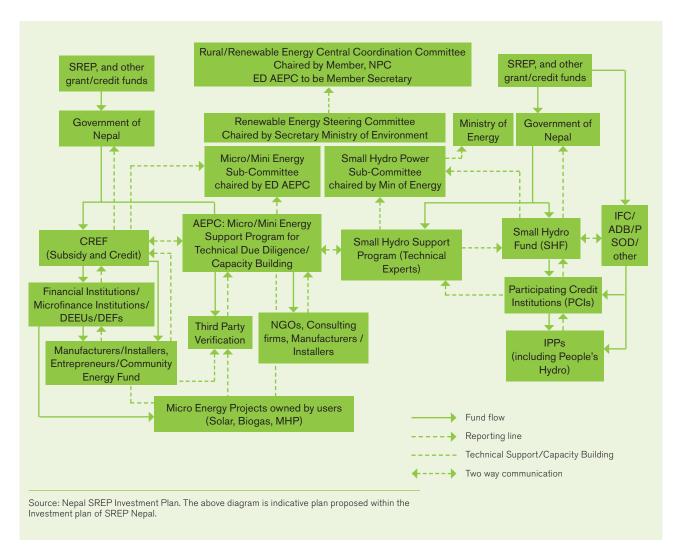
### **BOX 2: THE CENTRAL** RENEWABLE ENERGY FUND (CREF) OF NEPAL

CREF is a financial intermediation mechanism managed by a national commercial handling bank and partially funded by the GoN and by development partners. Funds from GoN and development partners will be channeled through the treasury to the apex management agency - CREF Handling bank (a commercial entity) based on approvals by CREF investment committee. The administering bank has three core activities.

- Wholesale lending to provide credit for renewable energy technologies. The Handling Bank appraises and provides loans (low interest, long term) to pre-qualified partnering banks that will in turn provide credit to renewable projects (either developers or end users).
- Subsidy Fund Management the apex bank will manage and disperse subsidy fund in line with government's subsidy policy. The AEPC is responsible for appraising the subsidy applications from qualified RET installers.
- Investment management CREF funds that are not used for subsidy or credit financing will be reinvested to earn revenue. This will allow the handling bank to retain surpluses thus ensuring the sustainability of the fund in the long run.

Source: Alternative Energy Promotion Centre, Nepal

Figure 3 - Indicative institutional arrangement for SREP in Nepal (CIF, 2011).



## Stakeholder inclusion and results framework

Stakeholder inclusion in the SREP processes is crucial for ensuring that country priorities are defined and investment proposals are developed through a cross-sectorial dialogue. A participatory process was followed for the development of SREP in Nepal with broad government and private sector participation but limited civil society involvement.

Besides learning from each other, SREP aims to enhance lesson learning from the programme activities. The SREP results framework was therefore designed to help countries monitor and evaluate performance. The framework also guides the countries to develop national M&E frameworks and assimilate SREP indicators within them.



### Stakeholder consultation

According to an ADB report (2012) on the consultation process for developing the SREP investment plan the private sector was well represented in the consultation workshops, but most effective input was achieved via individual exchanges with government or the consulting team. The dialogue was undertaken both through representative organisations, such as the Independent Power Producers' Association Nepal (IPPAN), and directly with individual manufacturing companies and developers. The private sector made significant contributions to debates on householdversus-institutional targeting, household-level financing, lessons to be learned from the implementation of the (failed) Power Development Fund (Shrestha, 2012) and the many structural barriers to smallscale power development in Nepal. Development partner engagement was substantial throughout the consultation process.

At the meeting of SREP Pilot Countries in May 2012 an interest in having greater private sector participation was noted, and the CIF administrative unit was requested to explore opportunities for convening a working group of interested parties, including sub-committee members, to consider how to maximise the private sector participation in the SREP (CIF, 2012a).

There was also appropriate engagement with the banking sector, which was seen as vital given its central role in SREP implementation. Nevertheless, the banks expressed concern over the lack of actionable information from government and MDBs, especially at the beginning of the process.

As with the private sector, the engagement of development partners through individual consultations with the government and the SREP team was the most effective and important mode of engagement.

Consultations focused on the relationship between the SREP and the evolving NRREP, and in particular how the SREP could contribute to the objectives of the NRREP and be integrated into the sector-wide approach to renewable energy development adopted by the government. The development partners expressed satisfaction with their involvement in consultations, the adequacy and quality of the consultation process, and the outcomes with respect to integration with the RREP.

However, according to the ADB report, there was much less engagement with partners from civil society. Only SNV, an international NGO involved in renewable energy development, participated outside of the consultation workshop process in spite of the fact that there are at least 60 NGOs in Nepal, working at the central and regional level in the renewable energy sector (Mainali & Silveira, 2012).

The report noted that there was no evidence of significant concerns among stakeholders about the transparency of the SREP preparation process. However, upon approval of SREP, information was not as readily available as during the consultation process.

## Learning framework for SREP

SREP results framework lays down broad objectives against which successes will be measured. Performance of SREP is measured in terms of SREPs role in improving access to renewable energy; leveraging additional funds for renewable energy; and generating socio-environmental co-benefits.

- Increase in the number of households supplied with electricity through renewable energy supply/capacity addition. The indicators used are: number of new connections, and increase in the installed capacity, measured in MW or number of new plants.
- Leverage of additional funds for renewable energy investments. The indicator used is the ratio of the amount of SREP Initial Allocation to the additional funding sourced, which should be in the ratio of 1:4. SREP resources will leverage additional funding from GoN, private sector equity, RREP and other sources. The last mentioned includes donors, development partners, commercial financing, local government units etc. As per the Financing Plan the total investment requirement of the Program is US\$514,167, indicating a leverage ratio of 1 to 11.9.
- Environmental co-benefits. Measured in terms of GHG mitigation for each investment category in tons CO<sub>2</sub> per annum (CIF, 2011).

# Conclusion and key issues

This paper provides a wide-angle snapshot of interim findings around SREP operations in Nepal. As SREP further unfolds there is still more to learn from the early stages of its operations. We conclude with some key findings from the SREP processes that can direct us to areas that need further exploration.



Initial reflections point to areas where further in-depth political economy analysis is needed to understand and attribute the real cause behind observed trends. Some key issues or facets of the programme that may require further investigation are highlighted below.

## Difficulties in choosing which renewable energy to promote

When preparing the investment plan some disagreement amongst development partners surrounding the relative importance that each renewable energy sector should play occurred. Nepal (unlike other participating countries) decided to use SREP funds largely to support small, mini- and micro-energy, thus focusing on the basic energy requirements of the rural population (Rai, 2013). This has led to criticism by development partners (Norway, 2011) who questioned the transformational impact (as required for SREP funded projects) that such small power plants in remote areas would have while the whole country lacks several hundred megawatts in capacity. However, GoN has stated that a substantial number of large hydropower projects and high-voltage transmission lines between Nepal and India are in the pipeline that will help to alleviate the countries overall power shortage in the medium term (CIF, 2012c).

Seeing that the SREP pilot country Ethiopia faced critical comments for not focusing on the needs of the local population after deciding to use SREP funds for large-scale energy projects that would allow producing electricity for export, Nepal seems to have chosen a good compromise. GoN also decided - against the advice of Switzerland (2011) - to scale up proven renewable energies (i.e. hydropower) rather than investing in new technology, such as solar power but at the same time incorporated a biogas component and a solar wind hybrid (later) which is a novelty. However controversial during the planning phase, the outcome suggests that Nepal has struck a balanced deal in terms of distribution of projects between minis vs. medium scale and proven vs. new renewable technology, off grid vs. on grid, however, the weight of funding is more directed towards proven small hydro.

## Need for clear delineation of powers and roles

In Nepal, the Ministries of Finance and Environment and the Alternative Energy Promotion Centre plus more than eight other institutions are responsible for policy-making and implementation of renewable energy development in Nepal. Additionally GoN wants to establish an Alternative Energy Promotion Board (AEPB) that can run SREP and the Rural Renewable Energy Program (RREP) together. For the channelling of SREP funds, for micro/mini energy support, a new Central Renewable

Energy Fund (CREF) is set up. Simultaneously the government itself will be responsible for awarding financial assistance to renewable energy projects, such as small hydropower. Ministry of Energy is responsible for large scale energy projects in the country but their role within the SREP processes is unclear. While a one-stop shop is not necessarily the best approach for promotion of renewable technologies (Upadhyay, 2011), there needs to be a clear delineation and elaboration of powers and roles between the various SREP institutions.

# Private sector concerns about lack of actionable information and delays in processes

The banking sector in Nepal initially expressed concern over the lack of actionable information from government and MDBs. Commercial banks have an interest in gaining more resources and creditworthiness through SREP as they often do not have the ability to finance multiple renewable projects due to poor liquidity and foreign exchange risk. As SREP is designed to scale up private sector investments and improve market and financial conditions for investors, providing information to banks that helps them to make specific business decisions is crucial and should not be neglected. Private sector is also concerned about the delays in SREP processes. Commercial sector is highly dynamic and interested in programmes with shorter lag periods; slow procedures under SREP may discourage private sector buy-in in the long run.

### Sufficient civil society involvement?

Stakeholders such as banks, manufacturers, developers and development partners were engaged in the consultation process and their input is reflected in the investment plan. There was no evidence of concerns among stakeholders about the transparency of this process. Nevertheless – and despite there being at least 60 NGOs in the renewable energy sector – most of these organisations were not involved in the process of direct consultation with the government (Mainali & Silveira, 2012). Their input could have been beneficial as they are likely to have important practical experience when it comes to developing new renewable resources on a regional level.

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## **JARGON BUSTER - CLIMATE FINANCE**

ADB Asian Development Bank Climate Investment Funds Clean Technology Fund

International Bank of Reconstruction and Development

LAPA Local Adaptation Plans of Action **MDBs** Multilateral Development Banks

NAPA National Adaptation Programs of Action Pilot Programme for Climate Resilience **PPCR** 

Strategic Climate Fund

Strategic Programme for Climate Resilience **SPCR** Scaling Up Renewable Energy Programme

Sustainable development in countries like Nepal, where 44 % of the population do not have access to electricity is now closely linked to access to energy. This country report looks at the status of the Scaling up Renewable Energy Programme (SREP) in Nepal. The Climate Investment Fund (CIF) is a funding channel designed to assist developing countries pilot low emission and climate resilient development approaches. As the fund unfolds, lessons can be gathered from the early stages of the programme. IIED is undertaking case studies of selected countries participating in two Strategic Climate Fund (SCF) programmes – one of which is the Scaling up Renewable Energy Programme (SREP) in Nepal and Ethiopia. This country report looks at the status of the SREP in Nepal. These initial reflections point to areas where further in-depth analysis will be needed to understand how planning and implementation decisions are made and to attribute the real cause behind observed trends.

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