

# AEPC e-NEWSLETTER

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Welcome to this edition of AEPC e-Newsletter. It is an electronic newsletter aimed at keeping you updated mainly about AEPC/ESAP activities. You can subscribe this through the AEPC website: [www.aepc.gov.np](http://www.aepc.gov.np)

## INSIDE

1. News
2. Study and Reports
3. Training/Workshops/Awareness/Orientation Programmes
4. New Appointments and Departing Staff
5. Participation in National/International Workshops

### 1. News

#### A. Biomass Energy Component

##### a. Formation of Biomass Energy Users' Group

BEC has initiated process for formation of Biomass Energy Users' Group (BEUG) with the objectives of uniting biomass energy users in common platform. With support from BEC, REMREC, Kavre facilitated one day mass meeting on 6th October 2010 and formed Balambu Biomass Energy Users' Group in Lapilang VDC of Dolakha District which is the first BEUG in Nepal. Altogether 51 participants participated in this meeting. An 11 member user group has been formed under the leadership of Ms. Radhika Khadka.

##### b. Selection of New RRESC

AEPC/ESAP/BEC has recently selected a new RRESC effective 15th November 2010 to work in 5 districts of Rapti zone; Rukum, Rolpa, Salyan Pyuthan and Dang. The new RRESC is Development Concern Society (DECOS) which was one of the LPOs of BEC working in Rolpa district before.

#### B. Mini Grid Support Programme

##### A. Consultative Meeting on IWM

One day consultative Meeting on 'Improved Water Mill (IWM) integration in ESAP' was conducted in Godavari Village Resort, Lalitpur on 3rd November, 2010. Participants from AEPC, ESAP, CRT/N and SNV discussed on Progress and existing implementation framework, proposed activities and budget, Subsidy delivery practice and Work plan preparation and budgeting.

##### b. Consultative Meeting on Pico-hydro

One day consultative Meeting on 'Upgrading Existing Pico Hydropower Formats for subsidy' was conducted in Kathmandu and Butwal on 14th November, 2010 and 22 November, 2010 respectively. Altogether 48 participants from various Companies participated in the meeting.

##### c. Task force Meeting with World Bank Representative

A short meeting was conducted by Task Force in the presence of Mr. Tomoyuki Yamashita, Sr. Energy Specialist from the World Bank on 10 December 2010. The Task force includes one representative from AEPC, ESAP and REDP and two representatives each from PAF. Five projects has been proposed by the Task Force for piloting of end use promotion, which includes four from Far Western Development Region and one from Eastern Development Region. Working modalities of PAF and its linkages between ESAP and REDP were discussed. Similarly criteria for selecting the Micro-hydro projects and the process of ranking the projects based on the criteria were discussed.

##### d. Approval of Micro-hydro Projects from TRC

Technical Review Committee (TRC) has approved 44 Micro-Hydro Projects for subsidy with total capacity of 1436 kw. Altogether 15,569 households are expected to benefit from the projects.

### VDCs electrified

New VDCs are electrified from 8 MHPs and 12 Pico-hydro projects. A total of 2,633 households have benefitted from the new projects. Details of the Projects is given below :

S. No.	Name of the Project	District	VDC / Village	kW	No. of Household Connected
1	Simdi Gad	Bajhang	Patadewal	35	315
2	Rigai Khola	Rolpa	Mirul VDC-1	5.5	96
3	Kanya Khola	Sindhuli	Lampatar VDC-6	12.5	140
4	Liti (Tametar) Khola	Dhading	Tasarpu VDC 6	15	96
5	Sibi Khola	Palpa	Gandakot VDC-1	6.5	74
6	Doling Khola	Dolkha	Chankhu-8	37	256
7	Putpute Khola II	Syangja	Chisapani VDC-9	98	817
8	Tingla Khola	Ramechhap	Priti VDC-8	15	114
9	Majuwa Khola	Sindhupalchowk	Ichowk-8	5	126
10	Dihi Khola	Sindhupalchowk	Ichowk-8	5	68
11	Sisne Khola	Dhading	Gumdi-8	2.5	30
12	Siddheswor Mahadevsthan Gramin Bidhutikaran Aayojana	Okhaldhunga	Adheri Narayansthan-2	2	57
13	Chadaha Khola	Sindhuli	Balajor-8	5	47
14	Sakhardi Khola	Palpa	Bakamalang-6	3	65
15	Pakari Khola	Palpa	Mityal-1	3	44
16	Pakhe Khola	Ramechhap	Priti-1	2	20
17	Talamarang Khola	Sindhupalchowk	Talamarang-1	5	50
18	Taplung Tatha Hupchi Khola	Dolakha	Marbu-1	5	60
19	Lipe Khola Khahare	Okhaldhunga	Jyamire-2	5	130
20	Dhunge Khola	Okhaldhunga	Salleri-5	1.5	28
			Total	268.5	2,633

## C. Institutional Strengthening of Rural Energy Sector

### a. ISRES Activites

⇒ Feasibility Study of SWAp in Rural and Renewable Energy sector has been completed and the copy of it has been placed in AEPC website as well. The document provides a practical step-by-step roadmap for how to move towards a coherent SWAp within a few years. It also summarised the various policy, institutional, financial and technical issues faced in transforming the RE sector, including legal and institutional capacity difficulties, possibilities for convergence of donor funded programmes, challenges associated with decentralized institution building and the capacities of the private sector in RRE, etc

⇒ Stakeholders' consultation workshop on Draft AEPC Strategic and Organizational Development (SOD) Plan has been held at Hotel Royal Singi, Kamaldi, Kathmandu on 17 November 2010. A total of 40 participants representing different stakeholders such as line Ministries, AEPC Board Members, Donors, INGOs, Associates of RETs, RE Experts, Programmes, etc, participated. The half-day workshop was very much interactive and concluded with the go-ahead sign for the draft AEPC SOD Plan for the approval to AEPC Board

⇒ TV documentary on AEPC/ESAP has been telecasted in Nepali language with focus to Local Bodies through NTV Channel in programme called "Janachaso" from 08:30hrs to 08:45hrs, Saturday 09 October 2010. Similarly it has telecasted another Nepali language documentary with focus to General Public through NTV 2 Channel in programme called "Sarokar" from 09:15hrs to 09:45hrs, Tuesday 26 October 2010 for the dissemination of information regarding AEPC and ESAP and its working modalities.

⇒ Joint Review Mission Team with the representative from Danida, Norad and KfW to ESAP II visited for the period of 29 November to 10 December 2010 to monitor the overall performance of ESAP.

### b. Enacting Rural Energy Policy, 2006

⇒ Stakeholders' Consultation Workshop on Drafting of Regulations for Establishment of the Central Renewable (Rural) Energy Fund (CREF), 2010 and Formation of the Renewable (Rural) Energy Central Coordination Committee (RECCC), 2010 has been planned on 16 December 2010 at Hotel Himalaya, Kupandole, Lalitpur.

⇒ Field works for Analytical study on Subsidy Rates for Renewable (Rural) Energy Technologies (RETs) and their Delivery Mechanism has been completed by the consultants and draft model and report on it is in the process. The

finalization of this study has been planned to February 2011. With the help of this model, it has been aimed to assist government for the formulation of scientific subsidy rates and delivery mechanisms.

⇒ Inception report has been received on Drafting of Renewable Energy (RE) Act and the consultant is working on draft RE Act.

### c. Article Contribution: Urja Nepal Magazine

Urja Nepal Magazine, Year 3, Issue 1, "Theft of Electricity: Critising Law" has been distributed among RE Stakeholders.

### d. Thesis/Research Support to Students

Three group projects have been supported in fiscal year 2010/2011 for Thesis/Research for the area of Rural and Renewable Energy Sector. The details are given in the table shown below.

S. N.	Name of Institution	Research Topic
1	Institute of Engineering	Study of performance of blended biodiesel and jatropha oil and their comparison with fuel
2	Kathmandu University	Design, Fabrication and Performance Monitoring of Indigenous Low Cost Solar Cooling System
3	Institute of Engineering	Design, fabrication, field testing and performance evaluation of micro-hydro based electric ginger dryer and its comparative analysis with biomass based drying

## D. Climate and Carbon Unit

### a. Establishment of Climate and Carbon Unit

Climate and Carbon Unit (CCU) has been established effective July 01, 2010 in the Centre to better address climate change issues through financial support from the UK Department for International Development (DFID) and technical assistance from organizations including SNV Netherlands Development Organization.

### b. Meeting with DCEP Task Force

DEEU/DDC of Mustang and Ilam organized a meeting respectively on November 26 and December 03, 2010, with the task force and the Consultant in the presence of representative of AEPC (Program Officer-DCEP) and SNV. The meeting was successful to share

parameters/boundaries of DCEP.

### **C. Coordination of CDM Scoping Mission**

Climate and carbon unit (CCU) of the centre coordinated the DFID/UK clean development mechanism (CDM) scoping mission from 22 to 24 September 2010 in collaboration with DFID. The mission consisted two representatives, Mr. Oliver Sinclair and Mr. Tom Bouwens from the UK governments Business, Innovation and Skills Department. The objectives of the mission were to understand the state of the Nepal CDM market; make contact with carbon business related key players of Nepal; define future carbon trade mission in Nepal and conform the roles of Government of Nepal in organizing carbon trade mission. The mission consulted with private sectors, donors and government agencies of Nepal to identify potential carbon markets in Nepal, necessary support needed to realize potential carbon projects in Nepal and potential collaboration with UK based companies in carbon trade.

### **d. Stakeholder Consultation Workshop to Discuss on District Climate and Energy Plan**

AEPC/CCU has initiated to support the District Energy and Environment Unit (DEEU)/District Development Committee (DDC) of districts namely Mustang, Ilam and Makwanpur to prepare District Climate and Energy Plans (DCEP) as a Pilot project. The overall objective of a DCEP is to prepare a climate change adaptive, decentralized renewable energy plan that presents a detailed implementation plan, which can contribute to carbon mitigation and also ensures mainstreaming of Gender and Social Inclusion issues. In this context, Climate and Carbon Unit (CCU)/AEPC organized a stakeholder consultation workshop in AEPC Hall, to discuss on the district climate and energy plan, its guideline and other associated activities on September 02, 2010. The workshop shared on the objective of preparing the DCEP Guideline, which is to ensure systematic approach to undertake the planning process in all the pilot districts. Furthermore, it has been shared that the guideline supports AEPC, DEEU/DDC, and the consultants during the planning process ensuring that if the plan has covered the DCEP objectives, necessary information to be collected, methodology and tools for collecting and analyzing information and also guides on planning steps at the local and central level.

### **e. Interaction Workshop on DCEP Preparation**

DEEU/DDC-Mustang organized an interaction workshop on September 30, 2010 in the DDC-Hall, Mustang to share on framework of DCEPs preparation and to identify roles of local stakeholders in the planning process. Mr. Ranjan Parajuli (Program Officer-DCEP, CCU/AEPC) and Mr. Jeremy Stone (Renewable Energy Advisor- SNV) participated in the workshop and delivered sessions to share the concept

of DCEP, its rationality in the planned energy development and necessity to link with aspects of climate change and Gender and Social Inclusion. The workshop was also able to form a DCEP-Task force under the umbrella of District Energy and Environment Coordination Committee (DEECC), to support DEEU/DDC in the entire DCEP process.

### **e. Work in Progress**

⇒ Meeting with DCEP Taskforce (DCEP-Makwanpur) has been scheduled for December 13, 2010.

⇒ Draft DCEP Guideline preparation with collaboration of SNV is under finalization.

⇒ Validation of Biogas Clean Development Mechanism (CDM) Project Activity 3 and Project Activity 4,

⇒ Validation of Biogas CDM Program of Activities (POA),

⇒ Micro-hydro CDM Project under registration and started the procurement process for the Installation of Energy Meter in 238 Micro hydro power plants (included in CDM Project Activity) in coordination with REDP and MGSP/ESAP.

⇒ Verification of registered CDM Biogas Project Activity 1 and Project Activity 2

⇒ Submission of Project Design Documents (PDDs) of Nepal Biogas Activity 3 and Activity 4 to the Designated National Authority (DNA), Ministry of Environment for the Host Country Approval.

⇒ Preparation and submission of the Project Idea Note (PIN) for Improved Cooking Stove and Improved Water Mill CDM project to the DNA, Ministry of Environment for the Host Country Approval.

⇒ Preparation of Delivery Guideline of Carbon Revenue from Renewable Energy Programs

⇒ Support on the proposal for “Program for Scaling of Renewable Energy in Low Income Countries (SREP)” for renewable energy sector of Nepal

⇒ Baseline Studies for the Improved Cooking Stove and Solar Home System to develop them as the potential CDM project.

⇒ AEPC/CCU has selected a consultant for the Baseline Study to develop Improved Water Mill (IWM) Program as CDM/Voluntary Carbon Standard (VCS) project and the baseline study is under preparation.

## E. RENEWABLE ENERGY PROJECT PROGRESS

⇒ 14<sup>th</sup> Project Steering Committee Meeting was held on 6<sup>th</sup> October 2010. The PSC meeting approved the Progress Report-12 of the project.

⇒ The Delegation of the European Union approved the Annual Work Plan and Budget of the Project Year 5.

⇒ Installation of a total of 447 Institutional Solar PV Systems concerning to Lot 2 and Lot 5 is in progress and expected to be completed by mid January 2011. Similarly, civil works for 7 water pumping systems is in progress; 3 in Baitadi district and 4 in Salyan district. The electro-mechanical equipments for the water pumping systems (lot 6) and DC grinding milling (lot 1) have been arrived at the custom points and are in the process of custom clearance.

⇒ Sample systems for water pumping system and agro-grinding mill have been installed in Deulekh VDC of Baitadi district. Commissioning test of the sample systems has been carried out.

⇒ The contractor for 'computer and office equipment' has delivered the equipment at TIA custom. Necessary formalities for custom clearance are in progress.

⇒ Out of total 14 solar hot water systems, 8 systems (5 in Mustang, 2 in Myagdi and 1 in Gorakha district) have been installed. Remaining 6 systems are being installed in Solukhumbu district. It is expected that the installation of the solar hot water systems will be completed by the end December 2010.

⇒ REP has signed contract with Group4 Production for the preparation of documentary film on Renewable Energy Project.

⇒ The second phase of Social mobilization is continued with formal trainings on: i) Business Development and Financial Management (BDFM) of CESPs, and ii) Service Technician (ST) Training. The BDFM training has been completed in 20 districts and ST training has been completed in 8 districts.

⇒ National Project Director/REP Mr. Mangal Das Maharjan participated in the Program for Scaling up Renewable Energy in Low-Income Countries (SREP) which took place on November 11, 2010, at the World Bank in Washington, D.C. The program focus on the expectations relating to the SREP, looking at issues such as the role of SREP in the national energy context, the development of investment plans and preparation of the joint missions.

⇒ Technical Service Specialist/REP Mr. Abhimanyu K.C. participated in the Asia Pacific Climate Change Adaptation Forum 2010 which was held on the 21<sup>st</sup> and 22<sup>nd</sup> October 2010 in Bangkok, Thailand jointly organized by the Regional Climate Change Adaptation Knowledge Platform for Asia (Adaptation Knowledge Platform) and Asia and the Pacific Adaptation Network.

## 2. Study and Reports

### 2.1 Solar Energy Support Programme

#### ⇒ Status of Solar PV in Nepal- 2010

A study titled "Status of Solar PV in Nepal- 2010" has been awarded to Samuhik Abhiyan, an external consultant. The objective of the study is to make information available to stakeholders and others interested in the solar PV sector of Nepal in a form of printed book. AEPC/ESAP has received the final report and the publication is expected by the end of Dec, 2010.

#### ⇒ Technical Assessment of SHS installed with age more than of 7 years

With an objective to investigate the technical performance of the SHS components installed at least seven years before, a technical study has been awarded to Renewable Energy Test Station (RETS). The study is expected to come up with recommendation for AEPC/ESAP to revise the performance parameters in the NIPQA and review the warranty requirements of SHS components, if necessary. Selecting Chitwan district as the study site, RETS has submitted the draft report and AEPC/ESAP has commented on the report content. The final report is expected by the end of Dec, 2010.

#### ⇒ Drafting Used Lead Acid Battery (ULAB) management regulation

Considering ULAB management a national issue Ministry of Environment has been taking a leading role on solving the ULAB caused problems and a task force was formed. To facilitate the process and to draft necessary legal document Pace Nepal P. Ltd, an external consultant, has been hired by AEPC/ESAP. The consultant has already submitted an inception report for the regulation drafting and the report has also been accepted by AEPC/ESAP. The first draft of the regulation is expected by the mid of Feb, 2011.

### ⇒ Best practices and observations

For observation of completed Photovoltaic drinking water projects (PVPS) by different donors a field visit was arranged to 4 districts: Tanahun, Palpa, Argakhnachi and Baitadi. Mr. Niraj Subedi, PO of ESAP, Mr. Prem Pokhrel, Engineer of AEPC, and ESAP driver Mr. Shyam Chhetri were in the visit team. PVPS by KAAA, GWS, GoN, DDC and REP were observed during the trip. During the 7 days trip users' committee of different PVPS were met and group discussion were arranged. Comments (positive and negative) from the PVPS user's community were collected and are considered as an input/reference for setting technical standard and subsidy delivery modality of PVPS to be promoted by ESAP in its second phase.

## 3. Training /Workshops Awareness/ Orientation Programmes

### 3.1 Biomass Energy Support Programme

#### ⇒ FTC Upgrading Training

BEC organized 4 days training for Field Technical Coordinators of RRESCs on **Effective Project Management in the context of Biomass Energy Component**. The main objective of the training was upgrading field staffs. The training had conducted in three different regions. The first training was conducted in Pokhara from 9th to 12th November covering FTCs from 5 regional centers i.e. CRT, Kathmandu, REMREC Kavre, RESDTN, Tanahun, DCRDC, Baglung and REDA, Palpa. Likewise second training had conducted in Nepalgunj from 18th to 21st November covering FTCs from 4 regional centers i.e. BNA, Surkhet, CRT, Dang, RDSC, Doti and DEES, Darchula. Similarly, third training had conducted in Dharan from 23rd to 26th November 2010 covering FTCs from 3 regional centers i.e. NCDC, Ilam and Dharan region, REMREC, Katari. Altogether 35 FTCs had participated in the training.

#### ⇒ Specific Monitoring Training

BEC organized 2 days training on specific monitoring of ICS. The main objective of training was to orient monitoring team on ICS monitoring process. The training was held during 03-04 November 2010 at AEPC meeting hall. Altogether 9 participants from AEPC and ESAP participated in the training.

### 3.2 Solar Energy Support Programme

⇒ For the capacity building of Private sector AEPC/ESAP has been regularly supporting SEMAN for organizing different levels of solar electric technicians' training. For the year 2010/11 SEMAN has been awarded to conduct 5 batches of SE level I trainings in different regions of the country out of which 2 batches have already been conducted and 3 are planned for January, 2011.

Schedule of the training is as;

S N	Venue	Start date	No of participants	Remarks
1	Mahendranagar	Nov 2, 2010	40	Completed
2	Nepalgunj	Dec 2, 2010	40	Completed
3	Chitwan	Dec 20, 2010	40	Planned
4	Pokhara	Jan 1, 2011	40	Planned
5	Dharan	Jan 22, 2011	40	Planned

### 3.3 Wind Energy

#### A Half Day Workshop on “Wind Pump for Cash Crops”



Figure: - Wind pumping system at Vahauda VDC, Morang district

A half day work shop on wind pump for cash crops was held on 2nd December 2010, in Himalayan hotel organized jointly by Center for Renewable Energy and Grid Nepal with the support of **Alternative Energy Promotion Centre** (AEPC). The workshop was targeted to share the outcomes of successful installation and establishment of wind pump for ground water pumping that has been promoted by AEPC for the first time in Morang district, for cash crops and program was also anticipated to make recommendations for the government authorities for promotion of the water pumping using wind pump for cash crops. Terai region, the southern belt of Nepal is well known for its agricultural production potential. Proper irrigation is the lifeblood for agriculture. Though the region is naturally appropriate for year-round multiple cropping, farmers have not been able to harness this potential due to the lack of proper irrigation water. Mainly the workshop was held to make a discussion on this problem and to find out the probable solution of small scale irrigation by wind pump. Mainly two papers were presented in inauguration session and the discussion was carried out on the basis of those papers dividing the participants in three business groups.

Er. Narayan Adhikari, AEPC presented a paper entitled of 'Wind Pumping technology in Nepal: Current Activities & Future plan' and Mr. Baburaja Shrestha, CRE presented on the topic "wind pump for cash crops" Narayan Adhikari mainly focused on Review of Alternative Energy Sector, history of wind pumping System, glimpse of pilot project, Future plans and programs of Alternative Energy Promotion center (AEPC) on Wind energy technology. Similarly, Mr. Baburaja Shtestha focused on issues arises in wind pump, technologies, challenges, opportunity, innovation including the activities in wind pump development in Nepal. There were altogether 60 participants from different institutions including Ministry of Energy, Ministry of Agriculture, Institute of Engineering, Kathmandu University, RECAST, CES, NAST and so on.

## 4. New Appointments and Departing Staff

⇒Mr. Nashib Kafle has been appointed as Program Officer-Carbon Mitigation in the CCU/AEPC, to support in the CDM/VCS projects of AEPC. He joined office effective August 22, 2010.

⇒Mr. Ranjan Parajuli has been appointed as Program Officer-DCEP in the CCU/AEPC to support in the District Climate and Energy Plans. He joined office effective August 30, 2010.

## 5. Participation in National /International Workshops

⇒Dr. Narayan Prasad Chaulagain participated in the first meeting of the Pilot Countries Participating in the Program for Scaling up Renewable Energy in Low Income Countries (SREP) meeting in United State of America ,Washington D.C. from 11 November 2010 , organized by Climate Investment fund (CIF) .

⇒Dr. Narayan Prasad Chaulagain participated "PPCR Pilot Country Meeting" in United State of America ,Washington D.C. from 12 November 2010 , organized by Climate Investment fund (CIF) .

⇒Mr. Dibya Rajbhandari participated in 'Support project to improve maintenance skills for photovoltaic and other Renewable Power generation systems' during 30 November 9 December, 2010 in Thailand. The purpose of the tour was to gain familiarity with Energy supplies technologies that incorporate Renewable energy sources and to make capable of teaching trainees and proposing policies to facilitate the development of Renewable energy markets.

⇒Ms. Shrijana Pandey participated in a training programme on **Managing Information Resources in the Digital Age** organized by the Centre for Science and Environment, New Delhi from 07 Dec.2010 to 10 Dec 2010.

### ⇒Short Training Course and Exposure Visit

BEC Programme Officers and Biomass Energy Engineers participated in a short training course and exposure visit. The short training course on **Economics and Financing of RETs** held at Indian Institute of Technology (IIT), Delhi from 6th to 12th December 2010. The training was fruitful for developing their technical and managerial competencies. Similarly BEC also organized exposure visit at The Energy and Resource Institute (TERI), New Delhi to get orientation on biomass based technologies being researched and developed at TERI.