

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

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1. News

A. Biomass Energy Component

a. Danish and Norwegian Embassy team visited Improved Cooking Stove (ICS) site and Micro Hydro site at Ilam

A team of Danish and Norwegian Embassy personnel visited Ilam district on 25-28 January, 2010. During the visit, the team observed household improved cooking stoves at Fikkal and Pasupatinagar VDCs along with a Micro hydro scheme at Phakfok VDC. The team also observed the first operating pilot project of Tea Drying System using Gasification, designed especially for a small scale tea enterprise. The technology introduced by Biomass Energy Component of AEPC/ESAP was facilitated by its partner RRESC Namsaling Community Development Centre, Ilam as the pilot project. Formerly, the entrepreneurs were using electricity for the same purpose. Similarly, other tea entrepreneurs burn biomass directly to dry the leaves. Hot gas produced by the gasifier is passed through heat exchanger and the required clean hot gas passes into the drying unit. The drying unit is of a cabinet type with a tray inside and can dry up to 25 kgs of green leaves at a time producing 5 kgs of dried leaves in a single batch.

b. Pre-qualified metallic stove company visit

Biomass Energy Support Programme of Alternative Energy Promotion Center/Energy Sector Assistance Programme has recently completed the pre-qualified **Metallic Stove Manufacturing Companies Visit**. The main objectives of the visit were to evaluate their performance and find the issues encountered during the implementation of Metallic Stove Dissemination Programme. The team visited 15 existing manufacturing companies located in different part of the country. To discuss on the issues found during visit and make strategy for future improvement, BEBP organized a result sharing workshop on **Sharing of Finding of Manufacturing Companies Visit** on 12th March, 2010

c. Random monitoring of Metal stove installed

BESP has initiated random monitoring of metal stove installed by qualified manufacturers from MIS database maintained at AEPC. The first monitoring of stove units were monitored at Dolkha and Makawanpur district.

B. SOLAR ENERGY SUPPORT PROGRAMME

a. German Government Joining to Support Solar Energy

The German Development Bank (KfW), Government of Nepal and Alternative Energy Promotion Centre (AEPC) signed the Financing and Programme Agreement on Solar Home Systems on 10th March 2010 at Ministry of Finance as per the Financial Cooperation signed between the Government of the Federal Republic of Germany and the Government of Nepal on 16th February, 2010. The Government of the Federal Republic of Germany has committed grant assistance of 8.5 Million Euro (Approximately NRs. 850 Million) for implementation of the solar energy programme. The programme will be executed by AEPC. According to the agreement, KfW will provide grant for the installation of 100,000 Solar Photovoltaic system (SHSs), 50,000 Small Solar Photovoltaic systems (SSHs) and 100 Photo Voltaic

Solar Drinking Water Systems . The support is expected to enhance 150,000 households with electricity and 10,000 households with clean drinking water. The agreement was signed by Mr. Rameshwor Prasad Khanal, Secretary, Ministry of Finance, Mr. Klaus-Peter Pischke, Vice President, KfW, and Dr. Narayan P. Chaulagain, Executive Director, AEPC. The support will contribute to the development and expansion of the RE in Nepal.

b. Acceptance of Subsidy Application Forms

Due to the fund constraint, AEPC/ESAP applied the pro rata system to accept Solar Home System Subsidy Application Forms (SAF). 30th August 2009 onwards, with the discontinuation of quota system, AEPC/ESAP has requested companies to submit SAFs installed after 13th, October 2009 to AEPC/ESAP.

Solar PV System subsidy recommended up to 10 March 2010

Technology	Numbers
Solar Home System (SHS)	177,566
Small Solar Home System (SSHS)	4,167

c. Activities on Used Battery Collection

AEPC/ESAP formed Task Force to discuss the issue related to Used Battery Collection. The Task Force comprise of members from AEPC, ESAP and SEMAN. The Task Force approved use of tubular lead acid battery in Solar Home System (SHS) installed under KfW support and is working on used battery collection modality and battery recycling plant.

d. Company pre-qualification

AEPC/ESAP called applications for the qualification of new companies in March, 2009. Due to subsidy funds constraint, the qualification process was halted. However, with the German Government (KfW) agreement to support installation of 100,000 SHSs, AEPC/ESAP has requested the applicant companies to submit the updated information. The dead line for updated information submission was 12 March 2010.

e. 9th Round Monitoring Activities

Field activities related to the 9th round monitoring are going on. Till date, 98 trips have been mobilized to 50 districts. Out of which 45 trips have returned from field and report preparation and compilation is under process.



a. VDCs electrified

New VDCs have been electrified by 7 MHPs and 9 Pico-hydro projects in Lamjung, Baglung, Khotang, Solukhumbu, Makawanpur, Lalitpur, Okhaldhunga, Panchthar, Palpa, Ilam, Gorkha, Sindhupalchowk and Dhading districts. The projects are Togo khola MHP (35 KW), Khani khola MHP (20 KW), Daram khola MHP (35 KW), Patale khola MHP (37 KW), Khaire khola MHP (11 KW), Bhusinga (Pidulabari) MHP (75 KW), Siwa (Maluwa) khola MHP (5.5 KW), Rachewa khola Pico-hydro project (4 KW), Ujeli khola Pico-hydro project (2 KW), Mahavir khola Pico-hydro project (3 KW), Diyang khola Pico-hydro project (3 KW), Chhanga khola Pico-hydro project (3.5 KW), Tilkeni Sathi khola Pico-hydro project (1.5 KW), Chharre khola Pico-hydro project (4.1 KW), Dhapsung khola Pico-hydro project (3KW), and Budhi khola Pico-hydro (3 KW), Total of 2,371 households are benefitted from these new projects.

b. Coordination meeting

A one-day coordination meeting was held in Shanker Hotel, Kathmandu on 4 February, 2010. The objective of the meeting was to develop a support modality between AEPC/ESAP and Poverty Alleviation Fund (PAF) for Micro-hydro development. Altogether 52 participants from AEPC, ESAP, REF RRESCs and PAF attended the programme.

c. Regional Centre Mid term review meeting

Two days Regional Centre Mid term review meeting was held in Godavari Village Resort, Lalitpur during 3 -4 February, 2010. Regional Centres presentation on 3rd February and discussion on progress of the work plan 09/010 activities on 4th February 2010 marked the event. Altogether 14 participants from RRESCs participated in the meeting.

d. Result announcement

Mini Grid Support Programme (MGSP) had advertised Proposals for Updating Existing 'Pico-hydropower Formats for Subsidy Application'. On the basis of approved Terms of Reference (ToR), Nepal Micro Hydropower Development Association (NMHDA) has been selected for the purpose.

e. Call for Proposals

Mini Grid Support Programme (MGSP) called for proposals from the interested firms to conduct 'Impact study of Mini-Grid Electrification'. The Terms of Reference (ToR) was made available on www.aepc.gov.np website and also upon an e-mail request. The last date of submission of Proposals was 26 March, 2010.

f. Approval of Micro-hydro Projects by Technical Review Committee

SN	Name of the Project, Address	Head (m)	Flow (lps)	Power Output (kW)	Beneficiary Households
1	Khar khola MHP, Darma VDC, Humla	54.91	240	64	550
2	Kuchche ghatte khola MHP, Rimi VDC, Dolpa	194	44	50	419
3	Gagra khola MHP, Rokaya gaun VDC, Jajarkot	30	435	70	749
4	Rancha khola II MHP, Banakhuchaur VDC, Kavrepalanchowk	38.6	27	6	78
5	Nunegad MHP, Sarmi VDC, Dolpa	40	232	50	439
6	Gumu khola vyakure MHP, Lamidanda VDC, Dolakha	28	345	52	470
7	Kheshang khola MHP, Shyamshila VDC, Bhojpur	28	53	8	67
8	Rawa khola MHP, Lamabagar VDC, Dolakha	166	35	33	275
9	Kagmara Pugma Khola MHP, Pshe Phoksundo, Dolpa	14	265	20	179
10	Tindhara Chihan Khola MHP, Daduwa VDC, Ramechhap	13.55	128	8.5	88
11	Loding Pikey Khola MHP, Tamakhani VDC, Solukhumbu	19.33	170	18.5	152
12	Kagmara Pugma Khola MHP, Pshe Phoksundo, Dolpa	14	265	20	179
13	Tindhara Chihan Khola MHP, Daduwa VDC, Ramechhap	13.55	128	8.5	88
14	Loding Pikey Khola MHP, Tamakhani VDC, Solukhumbu	19.33	170	18.5	152
15	Melti khola MHP, Kanachaur, Doti	65	32	12	91
16	Rancha khola Ganeshtan MHP, Shantishwori, Sindhuli	48	36	10	94

17	Rancha khola I MHP, Bankhuchaur, Kavre	35.6	31	6	84
18	Irkhuwa khola MHP, Chaukidanda, Bhojpur	27.3	470	70	560
19	Ruparani khola MHP, Narakot, Jumla	59	49	16	175
20	Darna khola MHP, Darna, Achham	31.72	446	83	859
21	Chhoekam khola MHP, Sahartara VDC, Dolpa	71	36	15	127
22	Kasil khola MHP, Kalika VDC, Dolpa	88	47	24	304
23	Khori khola MHP, Byas VDC, Bajhang	37.12	84	15	123
24	Khaking khola II MHP, Jate, Udayapur	15.5	67	5.6	91
25	Naubise khola MHP, Naubise, Dhading	133	52	39	326

D. AEPC ACTIVITIES

a. Biofuel program for the fiscal year 2066/67

A call for proposal was published on 2066-06-28 and also posted on the AEPC website to get enlisted in the list of Biofuel program during the fiscal year 2066/67 under various fields of interest.

The applicant organization was allowed to choose not more than 3 fields of interest among the listed activities in the call. The activities of Biofuel programme for fiscal years 2066/67 are as follows:

1. Formulation of policy to promote Biofuel programme.
2. Establishment of Bio-Diesel plant (Commercial scale).
3. Conduct jatropha plantation training at local level.
4. Establishment of jatropha curcas modern nursery
5. Development of IEC materials.
6. Establishment of expeller machine.
7. Establishment of garden by collecting jatropha germ plasm of Nepal.
8. Study the biochemical properties of Jatropha. A total of 108 applications were received, 56 amongst them were short listed. The shortlisted applicants paid a minimal amount (NRs. 500) for TOR. All the ToRs were available 2066-10-23 onwards except for germplasm, biochemical analysis of jatropha and

media which were made available from 2066-11-11 for distribution from the account section of AEPC

b. Biofuel Programme initiated

- Commencement of jatropha plantation training from end of Chaitra.
- Operation of jatropha curcas nursery from end of Baisakh 2067.
- The installation of jatropha expeller machine by Jestha end.
- Broadcast of the Biofuel programme scheduled for near future .
- Jatropha germplasm collection from all over Nepal scheduled to take place from Baisakh 2067 .
- Analysis of biochemical properties of jatropha oil starting from the end of Baisakh 2067.

Strategy formulation draft report prepared and final draft of strategy formulation be finalized within a short period of time by a team of experts.

a. KfW joined AEPC/ESAP

KfW has joined AEPC/ESAP to provide subsidy to 100,000 Solar Home Systems (SHSs), 50,000 Small Solar Home Systems (SSHs) and 100 Photo Voltaic Solar Drinking Water Systems with support of 8.5 million EURO.

b. Sector Wide Approach (SWAp) in Rural and Renewable Energy Sector

M/S Scott Wilson Nepal (P) Ltd. has been selected for “Feasibility Study of Sector Wide Approach (SWAp) in Rural and Renewable Energy (R & RE) Sector in Nepal”. Inception report for this study has been received and an awareness programme on SWAp and its experience in Nepal for AEPC's internal stakeholders has been conducted.

c. AEPC Strategic and Organizational Development (SOD) Plan

Activities on finalising the AEPC SOD Plan are ongoing as inputs from national workshop held in December, 2009 are being incorporated.

d. Call for Proposals for Enacting Rural Energy Policy, 2006

A call for proposals was published consequently on 3, 4 and 5 March 2010 in Himalayan Times, Kantipur and Annapurna Post, and also through AEPC website for enacting the existing Rural Energy Policy 2006 by drafting and preparing the following legislative documents:

- a. Renewable (Rural) Energy Act, 2010
- b. By-law for Formation of the Central Rural Energy Fund, 2010
- c. By-law for Formation of the Rural Energy Central Coordination Committee, 2010
- d. Analytical study on Subsidy Rates for Renewable Rural Energy Technologies (RETs) and their Delivery Mechanism

e. Article Contribution: Urja Nepal Magazine

Two issues of Urja Nepal Magazine (500 copies in each batch), Year 2, Issue 1, (Sanghiyetama Jalashrot) and Year 2, Issue 2, (“Urja Administration”) have been distributed among RE Stakeholders.

f. TV Documentary on AEPC/ESAP and its working modalities

M/S Watchdog Media Services (P) Ltd. has been selected for preparing “TV documentary on AEPC/ESAP and its working modalities”. Draft inception report and draft script has been received.

g. ISO certification of REF's Subsidy Administration Systems and Procedures

M/S Quality and Environment Management Services (P) Ltd. has been selected for ISO certification of REF's Subsidy Administration systems and procedures. The first round of orientation to AEPC and its programme staff has been conducted.

h. On the Job Training and Thesis Support

On-the Job Training has been provided to four Bachelor level Industrial Engineers at four RRESCs and one thesis support has been provided for research in Biomass Energy sector.

i. Credit Financing on RETs

• Seven banks namely: Nabil Bank Ltd., Himalayan Bank Ltd., KIST Bank Ltd., Bank of Kathmandu Ltd., Clean Energy Development Bank Ltd., Standard Chartered Bank Ltd. and Kumari Bank Ltd. selected as partner banks were oriented on Renewable Energy Technologies (RETs) and opportunities in their financing.

• Training on different aspects of financing and RETs has been conducted in Rukum District to relevant 51 stakeholders to facilitate Rukum Ujyalo Program.

• Staff of AEPC and ESAP participated in international program on financing RETs organised by Nepal Rastra Bank (NRB). Two papers were presented by AEPC ED on various aspects of RETs financing. Valuable feedbacks to NRB on issuing suitable directives to encourage RETs lending in rural areas of Nepal has been provided by the participants.

j. Decentralized Energy Management Initiative (DEMI)

Decentralized Energy Management Initiative (DEMI) reports have been prepared for 8 VDCs of Gorkha, Lamjung, Gulmi, Doti, Baglung, Palpa, Baitadi and Myagdi districts. The copies of reports have been provided to various libraries/information centres agencies such as JICA, UNDP, Delegation of EU, GTZ, DFID, NPC and also uploaded in the AEPC website.

k. Kailali Kanchanpur Rural Electrification Project

Capacity Building Activity of Kailali Kanchanpur Rural Electrification Umbrella Organization (KKREUO) is ongoing. This included need assessment, various training, exposure visits and strategic planning, distribution of various promotional materials, development of KKREUO website, lobbying for uniform energy price, and support for use of banking facilities in Electricity User Cooperatives (EUCs).

F. RENEWABLE ENERGY PROJECT PROGRESS

- Annual Work Plan and Budget-4 (AWP/B-4) approved by the EU Delegation on February 3, 2010.
- Quarterly Report No. 20 (December 2009- February 2010) has been prepared and sent to the EU Delegation.
- 12th Renewable Energy Project Steering Committee (PSC) meeting held on February 23, 2010.
- REP Progress Report No. 11 has been prepared and endorsed by the PSC.
- Coordination with donor and local government units was continued.
- The contract for Lot 1 (86 PV agro-grinding mills) and Lot 6 (30 solar water pumping systems) signed with M/s AGMIN Italy srl.
- The contract for a total of 653 institutional solar PV systems (Lot 2 to 5) has been signed with M/s Energy International Pvt. Ltd., Nepal in consortium with Tata BP Solar, India.
- The contract for 14 solar water heating systems has been with M/s Solar Energy Systems Pvt. Ltd., Nepal.
- Contract for supply of motorcycles (lot 2) has been signed with M/s Morang Auto Works.
- Procurement of computer and office equipment (lot 3) is ongoing, applying the negotiation process underway.
- Contract for supply and installation of specialized software (lot 4) of has been signed with M/s Mount Digit Technologies Pvt. Ltd.
- VAT refund claim for the period of November 2009 to January 2010 was sent to the Inland Revenue Department.
- The second phase of Social mobilization has been started linking with formal training for institutional development of COs/CESPs has begun.
- Formal training program on “Organizational Development and Management for CESP” has been completed in 19 districts A total 306 representative from 152 COs have received the training.

- 96 COs get legal status as cooperatives.
 - Site selection for the installation of sample system has been completed.
 - Verification of design and drawing submitted by the contractor was completed.
 - Series of meetings with contractors for the implementation of the contracts. (3 meeting session each with M/S AGMIN Italy srl and M/S Energy International Pvt. Ltd., Nepal in consortium with Tata BP)Solar, India and 2 sessions with M/S Solar Energy Systems Pvt. Ltd., Nepal)
 - Joint verification of water pumping carried out in 3 districts.
 - Meetings with the contractor for solar water heating system, beneficiary COs' representatives and REP staff were conducted in two districts, Pokhara and Solukhumbu.
 - 5th Newsletter edition prepared
 - MIS database being updated regularly
 - Finalization of CESP Concept Paper.
- Forecast notices published for the:
- Supply of vehicles
 - Supply of Infrastructure and Equipment for Testing of Solar Thermal and Institutional PV Systems
 - Supply of Solar Dryers in the EuropeAid Website on March 17, 2010

2. Training /Workshops Awareness Orientation Programmes

2.1 Biomass Energy Support Programme

⇒ **Mid Term Review and Planning Workshop**
Biomass Energy Component organized “**Mid Term Review and Planning Workshop**” with its Regional Renewable Energy Service Centers/Service Providers (RRESCs/SPs). The workshop was held in Godawari Village Resort, Lalitpur from 31st January to 2nd February 2010. The main objectives of the workshop was to to discuss on the progress of Biomass Energy Support Programme activities conducted by

RRESCs/SPs during past 6 months and to prepare the strategy for remaining activities. The workshop concluded with productive results on evaluation criteria of LPOs associated with RRESCs, activities for penetrating potential ICS users regime and analysis of target vs achievement. Altogether 29 participants including Team leaders, Regional Coordinators, Biomass Engineers and Senior Field Technical Coordinator(Consultant for Darchula ICS promotion) from RRESCs and Energy Development Officer from Darchula were participated in the workshop.



Participants presenting their progress during Mid Term Review and Planning Workshop

⇒Orientation and Demonstration of different Stove models at Dhangadi

BESP/ESAP/AEPC is going to disseminate improved cooking stoves in the Terai region and particularly on Kailali and Kanchanpur districts and looking is forward to the utilization of properly functioning organizational framework of Kailali Kanchanpur Rural Electrification Umbrella Organization (KKREUO). KKREUO covers about 50,000 beneficiaries from Kailali Kanchanpur Rural Electrification Project (KKREP) load centers. BESP conducted orientation and live demonstration of various stove models at Dhangadi, Kailali during the 2nd Annual General Meeting of KKREUO on 8th February 2010. People participation during orientation and demonstration exceeded 300. Total 10 models of stoves including portable rocket stove models, fixed mud improved cooking stoves and household gasifiers were demonstrated in the event. Almost all models were operated to illustrate the performance of stove to the visitors.



Live demonstration of different Stove model at Dhangadi

2.2 Mini Grid Support Programme

⇒Training programme on Mini/micro hydro project assessment

Training programme on Mini/micro hydro project assessment was held at Hotel Greenwich, Pulchowk, Lalitpur from 01- 05 February, 2010. The programme was organized by Alternative Energy Promotion Centre in collaboration with Small Hydropower Promotion Project (SHPP/GTZ). The training focused on topics such as methods to assess and evaluate technical feasibility studies in the range up to 1000 kW, energy production, administrative and environment aspects, electricity sales, investment costs, operation and maintenance cost, estimation of economics, aspect of detail planning and tender. Altogether 20 participants attended the training. Mr. Gopal Raj Suwal, Mr. Rajan Acharya, Mr. Giri Raj Dallakoti and Mr. Dibya Rajbhandari attended the training from MGSP.

⇒Training programme on grid connection of isolated MHP

Training programme on grid connection of isolated Mini/micro hydro schemes up to 1MW was held at Hotel Greenwich, Pulchowk, Lalitpur, from 07 - 11 February, 2010; including a Field training from Feb 14- 18, 2010. The programme was organized by Alternative Energy Promotion Centre in collaboration with Small Hydropower Promotion Project (SHPP/GTZ). The main objective of the training was to provide theoretical along with practical knowledge on Mini/micro-hydro plant connection to the national grid network. Small hydro power plants in Pokhara and Lamjung districts were visited for practical knowledge. The training programme was attended by total 16 participants including Mr. Rana Bahadur Thapa, Mr. Tilak Limbu, Mr. Nagendra Prasad Chaudhary and Mr. Dibya Rajbhandari from MGSP.

2.3 Wind Energy Activities

National Workshop on “**Prospect, Challenges and Opportunities: Wind Energy Policy Review and Analysis**” had been jointly organized by AEPC and CES on January 31, 2009 at Himalayan Hotel. Following papers were presented at the workshop:-

- “Status and Challenges of Wind Energy Development in Nepal” by Ms. Aruna Awale, AEPC
- “Wind Energy Field Experience” by Mr. Pushkar Manandhar, Practical Action
- “Manufacturing and Installation Experience of Small Wind Turbine in Nepal” by Amrit S. Thapa
- “Starting a Wind Turbine Business in Nepal” by Mr. Rakesh Sinha, KAPEG
- “Private Wind Farm Developer's Experience” by Mr. Rabindra Shrestha, Everest Renewable
- “Draft Policy and Review of Wind Energy” by Mr. Narayan Adhikari, AEPC

Dr. Narayan Prasad Chaulagain, Executive Director/AEPC, chaired the closing session of the workshop whereas Dr. Tri Ratna Bajracharya, Director/CES and Mr. Niels Thomson, Chief Adviser/ESAP delivered some remarks on the workshop at the same session.

- ⇒ Mr. Shekhar Sharma, has been appointed as a Programme Officer for Biomass Energy Support Programme, (BESP).
- ⇒ Mr. Prajwal Raj Shakya, has been appointed as Programme Officer (Research), BESP.
- ⇒ Mr. Dipak Paudel, has been appointed as Programme Assistant, BESP.
- ⇒ Mr. Amar Singh Air has been appointed as a Senior Field Technical Coordinator, BESP.
- ⇒ Mr. Shiba Lal Rawat has been appointed as an Assistant Administrative and Finance Officer, AEPC/ESAP.
- ⇒ Ms. Ani Waiba has been appointed as an Assistant officer for REF.
- ⇒ Mr. Chaitanya P Chaudhary, has been appointed as a Programme Officer for Solar Energy Support Programme (SSP).
- ⇒ Mr. Sundar B Khadka, has been appointed as an Asst. Programme Officer for field verification of Solar Energy Support Programme (SSP).
- ⇒ Mr. Gyanendra Malla, has been appointed as Asst. Programme Officer for field verification.

3. New Appointments and Departing Staff

⇒ Mr. Bikash Uprety has been recruited as Programme Officer and Mr. Anup Rana has been recruited as Assistant Programme Officer for MGSP programme of ESAP. They have joined the organization from February 2010. Mr. Uprety has an experience of working in Kailali Kanchanpur Rural Electrification Project (KKREP) for 3 years. Mr. Rana has an experience of working in REDP for 2 years.

⇒ Mr. Bipin Karki, Engineer, AEPC resigned in his position on February 2010. He was a dedicated employee, so the entire MGSP team recognizes his great contribution during his tenure. MGSP team would like to wish his success in his future career.

4. Participation in National/International Workshops

⇒ Ms. Aruna Awale participated in the Regional Phase of the international Training Program on “Wind Power Development and Use” organized by Sida which was held in Chennai and Kanyakumari in south India during March 8-18, 2010. The main objective of the programme is to exchange experience on possibilities and problems related to the implementation of the participants change projects.

Your suggestions ,observations and feedbacks are highly welcome. - AEPC e-Newsletter

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