

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. Call for Proposals

Biomass Energy Component (BEC) has invited call for Expression of Interest (EOI) for "**Fabrication and Testing of Institutional Gasifier and Rocket Stoves**". Proposals are invited from interested companies on the basis of Terms of Reference (ToR) made available at www.aepc.gov.np or upon request through e-mail. The last date for submission of proposal was 3rd August 2010.

Similarly BEC has been implementing its activities in the 5 districts of Rapti Zone through CRT, one of its service providers since ESAP I. As described in the programme document of ESAP II, BEC's policy is to capacitate the local organizations and implement its activities through them. In this regards, BEC has invited call for proposal for "**Implementation of Biomass Energy activities in Dang region**". Proposals are invited from interested local Non Governmental Organization (NGOs) of Rapti Zone on the basis of Terms of Reference (ToR) made available at www.aepc.gov.np or upon request through e-mail. The last date for submission of proposal was 11th August June 2010.

Likewise BEC has also invited application for "**Pre-qualification for Manufacturers of Metallic Improved Cooking Stoves**". Applications are invited from interested companies on the basis of prequalification application form made available at www.aepc.gov.np or upon request through e-mail. The last date for submission of proposal was 21st September 2010.

b. Interaction meeting with Metallic Stoves Manufacturing Companies

BEC organized one day "**Interaction Meeting with Metallic Stoves Manufacturing Companies**" on sharing compensation mechanism to ensure the quality of the service delivery to the user. During the meeting BEC also shared evaluation criteria for contract extension with the existing pre-qualified companies. The meeting was held at Tewa hall, Dhapakhel on 27th September 2010. Altogether 12 participants had participated in the meeting.

c. Stove Testing Activities Conducted by ESAP/BEC

ESAP/BEC is testing improved metallic stoves in KU lab to identify and evaluate the performance of new stoves i.e. two pot hole and three pot hole metallic stove with back boilers, black pipe chimney and economized version for its inclusion in subsidy and dissemination. The dissemination process of these models can only be administered after its successful results from conformity testing of the stoves.

d. Preparation of Biomass energy Status Book -2010

ESAP/BEC is preparing Biomass Energy Status Book -2010 to enhance information flow on Biomass Energy Sector in Nepal. Nepal Environment and Scientific Service Pvt. Ltd. has been selected for preparation of this book and a contract has been signed on 20th August 2010.

e. Extension of Biomass Energy Program in Terai

BEC/ESAP has extended program in 10 districts of terai through 5 RRESCs as given below. Among which, 6 districts are covered through three newly selected Regional Renewable Energy Service Centers (RRESCs), while in 4 districts; program is being implemented by extension of districts through 2 older RRESCs in mid-hills namely - NCDC Dharan and REDA Butwal . The older RRESCs will work through district partners named as '-District Regional Renewable Energy Service Centers (DRESCs)'

S.N	Name of Organization	Working Districts
1	Kailali Kanchanpur Rural Electrification Umbrella Organization (KKREUO), Attariya, Kailali	Kailali and Kanchanpur
2	Center for Health and Environment Conservation Nepal (CHEC-Nepal), Birgunj, Parsa	Bara and Parsa
3	Renewable Energy, Water Supply and Sanitation Promotion Center (REWSSPC), Chandranigahpur, Rautahat	Rautahat and Siraha
4	Rural Economic Development Association (REDA), Butwal, Rupandehi	Rupandehi and Kapilvastu
5	Namsaling Community Development Center (NCDC), Dharan	Sunsari and Jhapa

B. SOLAR ENERGY SUPPORT PROGRAMME

⇒ ESAP II has targeted to promote 100 units of PV water pumping systems. Solar Energy Component is preparing necessary documents for the same. The technical standard and delivery modality has been drafted and is under discussion for finalization.

⇒ SEC-AEPC/ESAP has called proposal for drafting the used lead-Acid battery management guideline in Nepal. The objective of the proposal call was to prepare detailed regulation to collection, storing, transporting and recycling used lead acid batteries in Nepal. AEPC/ESAP has received three proposals for the task and the proposals are under evaluation.

C. Wind Energy Activities

⇒ Through "Energy for all programme" ADB is wondering few suitable locations to implement a pilot project of small wind turbines. On this line AEPC and ADB team with related stakeholders visited few places among which Pokhari-Narayanthan VDC in Kavrepalanchowk district is one of the identified locations. For this purpose AEPC has conducted a Pre - Feasibility & Socio Economic Survey on that location and has also plan to survey few other potential location.

⇒ National workshop on " Renewable Energy Resource Data and Energy Tools" was held on 5th and 6th August 2010. The main Objective of this workshop was to provide technology transfer about Geographical Information System toolkit (*GIS toolkit*)

prepared for Nepal by National Renewable Energy Laboratory (*NREL*), USA. It was a part of Solar and Wind Energy Resource Assessment (*SWERA*). Retscreen and Homer were also introduced at some stage in the workshop. The workshop was organized with the financial support by the United States Agency for International Development and the South Asia Regional Initiatives for Energy (*USAID/SARI Energy*) and *NREL*

⇒ Wind Data has been collected from Timal Dadan, Kanpur VDC of Kavre.

⇒ For wind energy resource assessment Nepal Academy of Science and Technology has also installed a 30 meter high wind mast station at Pyuthan, Rolpa District, near by the AEPC wind mast station. In practice, available wind mast station of AEPC is only 20 meters high.

D. Institutional Strengthening of Rural Energy Sector

a. ISRES Activities

⇒ Workshop on Feasibility of SWAp in Rural and Renewable Energy sector has been held on 10 August 2010. Draft report has been received on this study.

⇒ Draft AEPC Strategic and Organizational Development (SOD) Plan has been prepared.

⇒ Three types of TV documentary on AEPC/ESAP has been prepared focusing Donors, Local Bodies and Normal Audience groups for the dissemination of information regarding AEPC and ESAP and its working modalities.

⇒ ESAP Annual Progress Report July 2009 to June 2010 has been prepared and presented to 35th ESAP Steering Committee meeting held on 24th September 2010.

⇒ Various trainings have been provided to AEPC, ESAP and partner organisations.

b. OJT/Thesis/Research Support to Students

⇒ Ten students have been selected as On the Job Training (OJT) for September 2010 to February 2011. These students will be trained within the ESAP and at Regional Centres.

⇒ 4 group projects involving 13 students and individual thesis have been supported in fiscal year 2009/2011 for Thesis/Research for the area of Rural and Renewable Energy Sector. The result of thesis support for fiscal year 2010/2011 is expected shortly, as the evaluation process is on-going.

⇒ Master Thesis support to students of Kathmandu University materialized to prototype models of the followings:

○ Mini Grid, Design and Fabrication of Wind Tunnel for Testing Performance of Wind Turbines.

○ Atomization of *Jatropha curcas* as a cooking fuel in kerosene stoves.

○ design, fabrication and performance test of electro-mechanical governor for Improved Water Mill-based Electric Power Generation

○ Development of mini-grid/hybrid power system

c. Enacting Rural Energy Policy, 2006

⇒ Inception report for Drafting of Rules for Formation of the Central Rural Energy Fund, 2010 has been received and task force meeting has been held for future steps.

⇒ Draft report and Draft content has been received for Drafting of Rules for Formation of the Rural (Renewable) Energy Central Coordination Committee, 2010.

⇒ Inception report for Conducting Analytical study on Subsidy Rates for Renewable Rural Energy Technologies (RETs) and their Delivery Mechanism has been received and task force meeting has been held for further steps.

⇒ M/S Vipramshree Energy (P) Ltd. has been selected for Drafting Renewable Energy Act and the consultant is working for its inception report.

d. Article Contribution: Urja Nepal Magazine

Two issues of Urja Nepal Magazine, Year 2, Issue 5, “**Electricity Business**” and Year 2, Issue 6, “**Why NEA in loss?**” has been distributed among RE Stakeholders.

e. Credit Financing on RETs

⇒ Himalayan Bank, ACE Development Bank and Commerz & Trust Bank have sanctioned Rs. 300,000, Rs. 1,600,000 and Rs. 500,000, respectively, to three cooperatives under Credit Financing of SHS project.

⇒ KIST Bank visited Naubise Khola and is in the process of sanctioning Rs. 1,500,000 to this Micro Hydro Project.

⇒ Tendering process is completed and the contracts for the procurement of following supplies have been signed with the following successful bidders.

- The contract for **Supply of Vehicles** has been signed with M/s Dugar Brothers & Sons

- The contract for **Supply of Infrastructure and Equipment for Testing of Solar Thermal and Institutional PV System**; Lot 1: Solar Thermal Laboratory Infrastructure has been signed with M/S Solar Energy Systems Pvt. Ltd whereas Lot 3: Solar Thermal Testing and Measurement Equipment has been signed with M/S Associated Enterprises.

- And the contract for **Supply of Solar Dryers** has been signed with M/S Solar Energy System Pvt. Ltd.

⇒ The visit of Monitoring Mission was held from August 8 -12, 2010 successfully. The monitoring team had a meeting with REP members, AEPC and Ministries. The monitoring team visited the REP project sites at Deulekh of Baitadi district, and also visited REP Regional Office at Dhangadi.

⇒ The Quarterly Report (June-Aug, 2010) of the Project has been sent to the EU Delegation Nepal.

⇒ REP supported the event “ENGINEERS' INITIATIVES: DEVELOPMENT FOR PEACE AND DEMOCRACY” organized by Nepal Engineers' Association on July 19 2010. Technical staff of REP central office participated in the event.

⇒ The second phase of Social mobilization is continued with formal training on Business Development and Financial Management of CESP.

⇒ CESP Concept Paper has been finalized.

⇒ Training program on Business Development and Financial Management for CESP has been started and completed in nine districts and a total of 124 participant from 62 Cos were trained

⇒ The updated CESP set-up status is:

- Number of REP partner COs: 161
- Number of COs established as legal entity through registration as Cooperatives: 129
- Number of CO amending the bye-laws and filling for registration: 30
- Number of COs in process of bye-laws amendment: 02

⇒ Web page is being updated regularly.

⇒ MIS has been updated.

E. RENEWABLE ENERGY PROJECT PROGRESS

⇒ 13th Project Steering Committee Meeting held on July 13, 2010.

⇒ Annual Work Plan and Budget-5 drafted endorse by PSC, approved by AEPC and send to the EU delegation for approval.

A.VDCs electrified

New VDCs are electrified from 21 MHPs and 16 Pico-hydro projects. Total of 5,899 households have benefitted from the new projects, details of which are as follows:

S. No.	Name of the Project	District	VDC / Village	kW	Household Connected
1	Nishi Dovan	Baglung	Burtibang	32	280
2	Mawa Khola	Ilam	Sakfara	33	292
3	Sahi Khola	Baglung	Adhikari chaur	40	375
4	Pangraghari Khola	Baglung	Adhikari chaur VDC-6	12.5	105
5	Manpang Khola	Dhading	Mulpani	17	179
6	Chhote Khola	Gorkha	Manbu	100	791
7	Khari Khola	Solukhumbu	Juving	44	462
8	Ghatte Khola III	Kaski	Ghandruk-9	25	263
9	Fakfok Khola II	Ilam	Fakfok VDC-7	20	230
10	Khani Khola	Kavre	Mahadevtar, Purano Gaun	6.25	66
11	Bhichuk	Kaski	Lumle, Bhichuk	11	147
12	Koya Khola	Tehrathum	Thoklung-1, Piple	56	230
13	Khani Khola Chharini Chhanga MHP	Ramechhap	Dimipokhari	10	110
14	Upper Rilugad Khola MHP	Bajhang	Rilu	30	262
15	Chhati wan Khola MHP	Palpa	Kachal VDC-1	6	97
16	Ghatte Khola MHP	Solukhumbu	Tapting-6	8	75
17	Khete Khola MHP	Dhading	Bairani VDC-8	13	116
18	Garghatte Khola	Humla	Senda VDC-1	26	220
19	Fakfok Khola III	Ilam	Amchowk VDC-1	28	280
20	Nadi Khola	Bajhang	Majhigaun VDC-8	20.5	253
21	Simdi Gad	Bajhang	Patadewal	35	377
22	Dhakredamar	Palpa	Mityal-7	2.5	26

23	Budhi Khola	Dhading	Budhathum-6	3	68
24	Namuna	Gulmi	Ghamir-2	1	30
25	Shree Khe Dapcha Khola	Khotang	Badka Diyaly-8	1.5	35
26	Jogini Khola	Chitwan	Korak-2	2.5	52
27	Debitar	Chitwan	Lothar-3	5	91
28	Sanu Bas Khola	Lalitpur	Manikhel-8	3	32
29	Bhagawati Misrit	Tehrathum	Samdu-2	3	31
30	Sano Bhandari Khola	Ilam	Fuyatappa-7	2	18
31	Odare Sanfewa Khola	Tehrathum	Khamlalung- 5 & 8	3	26
32	Kamare Khola	Tehrathum	Samdu-3	3	29
33	Glan Khola	Sindhuli	Tamajor-5	3	43
34	Loguwa Khola	Tehrathum	Samdu-6	4	43
35	Dilung Khola II	Khotang	Waplukha-9	5	65
36	Cheptu Khola	Dolakha	Jungu-9	5	45
37	Hyoimo Lhado Chudalung Khola	Sindhupalchowk	Helambu-1	5	55
				624.75	5,899

b. Pre-qualification of Consulting companies

AEPC had announced a public notice for submitting proposals for the consulting companies for micro-hydro survey and Design. A seven-member evaluation sub-committee was formed representing from AEPC, ESAP, REDP and CRT/N. The evaluation was done based on approved ToR. Based on the information provided by individual companies and approved ToR, 52 consulting companies capable.

c. Approval of Micro-hydro Projects from TRC

Technical Review Committee (TRC) has approved 45 Micro-Hydro Projects for subsidy with capacity of 1,461 KW. Total of 13,384 households are expected to be benefitted in the future.

d. Call for proposal

Mini Grid Rural Electrification Component (MGREC) had advertised Proposals from the interested firms for:-

1. Updating Micro-Hydro Management Training Manual and Conducting 2 Batches of Micro-Hydro Management Training

2. Updating Micro-Hydro Operator Training Manual and Conducting 2 Batches of Micro-Hydro Operator Training

3. Updating Training Manual for Pico Hydro Operation and Management and Conducting 2 Batches of Pico Hydro Operation and Management Training

Proposals were invited on the basis of Terms of Reference (ToR) made available on www.aepc.gov.np or upon request through e-mail. The last date of submission of Proposals was 28 September, 2010.

2. Studies and Reports

2.1 Solar Energy Support Programme

⇒ Socio-economic impact study of the users of Solar Home System

A study titled "Socio-economic impact study of the users of Solar Home System" was awarded to Samuhik Abhiyan, an external consultant in 2009. The consultant has concluded the study and submitted the final report on July 2010. The study has evaluated the impact of SHS on income, health, education, access to information, gender equality, security, time use and household expenditure on fuel. Satisfaction level of the user has been explored through how much they have had to spend on repair and maintenance, how active they are in repair and maintenance of SHS, and whether or not SHS met the expectations of users. The study has also identified possible end use of solar PV other than for lighting.

⇒ 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/ brochures. The consultant has submitted the draft study report and has been circulated to the concerned for comments. The final report and the publication are expected by the end of Oct, 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 warrantee requirements of SHS components, if necessary. Selecting Chitwan district as the study site, RETS has informed that the primary data collection for the study has been completed and the analysis as well as the report preparation is under progress. The study report is expected by the end of Oct, 2010.

3. Training /Workshops Awareness/ Orientation Programmes

3.1 Biomass Energy Support Programme

⇒ Training on Kitchen Performance Test

Biomass Energy Component in collaboration with Partnership for Clean Indoor Air (PCIA) organized 5 days Training on Kitchen Performance Test (KPT) for Biomass energy Engineers and some Field Technical Coordinators of RRESCs. The training was followed by 10 days field testing and emission testing of ICS user household and non user household. CRT/N also participated the training as co-host accommodating additional participants from CRT/N. Altogether 28 participants including BEC programme Officers, Biomass Energy Engineers and Field Technical Coordinators had participated in the training. The training was held at Dhulikhel Mountain Resort, Khawa, Dhulikhel from 9th to 23rd August 2010. The main objectives of the training were to develop organizational capacity to conduct KPT and to update on new development on technologies and concepts. The training was conducted in theory and practical sessions. The theory session was conducted in dhulikhel and the practical session was conducted in Panchkhal, Kavre. Both session was conducted by lead trainer from Berkeley Air Monitoring Group. Altogether 28 participants including BEC programme Officers, Biomass Energy Engineers and Field Technical Coordinators had participated in the training.

⇒ Advanced Training on Biomass Energy Programme: Promotion and Dissemination

Biomass Energy Component organized 7 days "Advanced Training on Biomass Energy Programme: Promotion and Dissemination" for Team Leaders, Biomass Energy Engineers and District Coordinators of new RRESCs of Terai region. The training was held at Hotel Vishuwa, Birgunj from 14th to 20th September 2010. The main objectives of the training were to educate newly recruited staffs on working modality, their roles and responsibilities, technologies and effective implementation of designed activities. The training was effective for achieving above set objectives as well as to enhance hands-on knowledge on construction and testing of different types of mud ICS. Altogether 20 participants had participated in the training.

⇒ Training on Monitoring of Metallic Improved Cook Stoves

Alternative Energy Promotion Centre (AEPC) organized jointly with Center for Energy Studies (CES)/Institute of Engineering/Tribhuvan University and Solar Energy Foundation (SEF Nepal) conducted a Training on Monitoring and Evaluation of Metallic Improved Cook Stoves (MICS) from Bhadra 24-25, 2067 (Sept. 9-10, 2010) in Lalitpur at CES Building. The objective of the training was to develop monitoring skills of Metallic Improved Cook Stoves installed in different hilly parts of the country. The participants were Mechanical and Industrial Engineering graduates and students of Masters of Science Renewable Energy Engineering (MSREE). There were all together fifteen Engineers participating. The training was started with inaugural session which was chaired by Dr. Tri Ratna Bajracharya, Director, Center for Energy Studies. Participants were thoroughly taught on principle, manufacturing and installation and quality assurance of Metallic Improved Cook Stoves (MICS). Further they were trained on procedure of monitoring of quality of MICS in installations. Similar types of monitoring experiences were also presented during training. At the end of the training they were examined their knowledge and willingness to go for monitoring in the field.

Mr. Mangal Maharjan, National Project Director of Renewable Energy Project (REP) under AEPC was Chief Guest for the closing session and Dr. Tri Ratna Bajracharya was Chairperson for the same. At the end of the program certificate of participation were distributed to participants.

⇒ Upcoming Training/workshops and Seminars

RRESCs working in terai have started conducting 'District Level Consultation Workshop' and 'ToT for LSMs' and all these activities are expected to be completed before Dashain vacations.

3.2 Solar Energy Support Programme

⇒ As a technical assistance for capacity building of qualified solar PV companies several trainings are being organized by AEPC/ESAP. With an objective to train the local technicians of the companies who are involved in installation and after-sales service of SHS, 5 batches of solar electric level I technicians training has been planned for the year 2010/2011. These trainings are believed to ensure that SHS users get quality installation services locally. The planned schedule for the trainings is as below.

S.N	Proposed city for the training	Proposed Date
1	Mahendranagar	21- 27 Nov, 2010
2	Nepalgunj	02-08 Dec, 2010
3	Chitwan	20-26 Dec, 2010
4	Pokhara	Dec 31, 2010 to Jan 06, 2011
5	Itahari	22-28 Jan, 2011

3.3 Mini Grid Support Programme

⇒ Training programme on Micro-hydro Operation and Management

Micro-hydro Operators' training, completed in four batches, was conducted by Oshin Power services JV BTI, Butwal. Training period for each batch was 22 days. 100 participants were benefitted from the training.

Micro-hydro Managers' training, completed in three batches, was conducted by Universal Consultancy Services, Kathmandu. Training period for each batch was 7 days. 76 participants were benefitted from the training.

3.4 Renewable Energy Programme

⇒ Awareness Training on Renewable Energy Utilization and Management

Alternative Energy Promotion Centre (AEPC) organized jointly with Center for Energy Studies (CES)/Institute of Engineering/Tribhuvan University and Solar Energy Foundation (SEF Nepal) conducted an awareness Training on Renewable Energy Utilization and Management for Secretaries of Village Development Committees of Far-western Development Region from Bhadra 1-3, 2067 (August 17-19, 2010) in Nepalgunj.

The objectives of the training were to elaborate alternative energy resources in Nepal, to disseminate plans and programs of Alternative Energy Promotion Centre and to create active role from stakeholders to implement renewable energy projects in rural areas.

All together 25 Secretaries were participated the program. The participants were from Salyan, Pyuthan, Surkhet, Doti, Bardiya, Rolpa, Darchula, Kalikot, Baitadi, Achham, Dailekh, Jumla, Dolpa, Banke, Mugu, Kailali, Kanchanpur, Dadeldhura, Dang, Jajorkot, Humla and Rukum. The training was started with brief inaugural session which was chaired by Dr. Tri Ratna Bajracharya, Director, Center for Energy Studies. Similarly Mr. Narayan Adhikari represented the Alternative Energy Promotion Centre and Mr. Raju Rimal

represented Solar Energy Foundation in the program. Altogether 9 sessions were conducted covering all aspects of technology, social issues, planning issues and implementation issues. Lively discussions were held after every presentation including useful exchange of information between experts and participants.

At the end of the program certificate of participation were distributed for participants. It was also expressed that participants benefitted from this training and they want further training on the technology in future.

⇒ **Training on Energy Efficiency and Renewable Energy Utilization**

Alternative Energy Promotion Centre (AEPC) organized jointly with the Center for Energy Studies (CES)/Institute of Engineering/Tribhuvan University and Solar Energy Foundation (SEF Nepal) a **Training on “Energy Efficiency and Renewable Energy Utilization for Engineers of District Energy and Environment Unit (DEEU)”** from Bhadra 28-30, 2067 (Sept. 13-15, 2010) in Lalitpur at CES Building. The objectives of the training were to advocate importance of renewable energy in terms of sustainable development, providing wider knowledge on energy efficiency and demand side management, providing ideas about energy efficient technologies and methods of implementing efficient utilization of technologies, and delivering ideas about potential areas where energy efficiency activities can be implemented. All together there were fourteen Engineers from DEEU/DDCs of Nawalparasi, Makawanpur, Bardiya, Dhankuta, Siraha, Rautahat, Sunsari, Dhading, Nuwakot, Mahottari, Arghkhanchi, Jhapa, Dang, and Parsa. The training was started with inaugural session which was chaired by Dr. Tri Ratna Bajracharya, Director, Center for Energy Studies. Similarly Mr. Rudra Khanal represented the Alternative Energy Promotion Centre and Mr. Raju Rimal represented Solar Energy Foundation in the program. Altogether 10 sessions were conducted covering all aspects of technology, energy efficiency and project planning and implementation issues. Lively discussions were held after every presentation. Each participant made presentation of

District Energy Profile of their respected districts. Comments and suggestions were given by Dr. Tri Rata Bajracharya and Prof. Amrit Nakarmi. The training facilitated two way communication between experts and participants.

Mr. Mangal Maharjan, National Project Director of Renewable Energy Project (REP) under AEPC was Chief Guest for the closing session and Dr. Tri Ratna Bajracharya was Chairperson for the same. At the end of the program certificate of participation were distributed to participants. It was also expressed that participants benefitted from this training and they want further training on the technology and project planning in future.

4. New Appointments and Departing Staff

⇒ Mr. Niraj Subedi has been appointed as Programme Officer (Institutional Support) to work for the Solar Energy Component of AEPC/ESAP. He has started his duties from Aug 11, 2010. Mr. Subedi has been assigned to look after the capacity building activities of the Nepalese solar PV sector and also the activities to promote of SSHS, rural PV water pumping systems and the activities for Used lead acid battery management initiatives.

⇒ Mrs. Resha Piya, Programme Officer of Solar Energy Component left ESAP and joined Helvetas Nepal. She worked for AEPC/ESAP since 2002. Solar Energy Component wishes her very best for her future career.

5. Participation in National /International Workshops

⇒ Dr. Narayan Prasad Chaulagain participated in South Asia Regional Executive Exchange on Renewable Energy” Programme in Philippines held from 22 -28 August 2010. The programme was organized by USAID and he had participated “Micro Hydro Pilot Testing Programme” in Attapeu, Lao held from 9-17 September. The programme was organized by APRACA.