



INDOOR AIR POLLUTION AND HEALTH FORUM

VOL 1 ■ ISSUE 5 ■ FEBRUARY 2009

A QUARTERLY NEWSLETTER OF INDOOR AIR POLLUTION AND HEALTH FORUM NEPAL

Need for gender sensitive energy policies and programmes in Nepal

A link between energy supplies and gender roles are strongest in countries with low availability of basic electricity facilities and modern fuels, and a high dependence on biomass fuels for cooking, heating and lighting (ENERGIA, 2007). This case is very much evident in Nepal where cooking is mainly undertaken by women who are exposed to long term indoor air pollution (IAP) exposure. Women and children below five years from 85 percent households in Nepal who are dependent on solid fuels for cooking are compelled to spend their considerable time inside their kitchens with IAP which is jeopardising their right to healthy life. In addition, the women are responsible for managing HH energy and they spend considerable amount of time collecting firewood thereby reducing the time available for their education and other income generating activities. In Nepal, ratio of girls to boys regarding primary education is 81.1 per cent (CBS 2004). It shows gender disparities in access to education in Nepal.

According to a recent policy gap study conducted by Practical Action in Nepal, women's participation in selection of technology and its development is very low leading to selection of wrong solutions (Practical Action 2007). Failure to acknowledge the primary stakeholders position has resulted in formulation of strategies that are ignorant of

women's needs and capabilities. The study has identified lack of gender sensitivity in energy policy and the programme as one of the key reasons for low coverage of electricity facility, clean cooking fuel and technologies. Unfavorable financing mechanism for women is another key barrier in this regard.

According to the policy gap study, women and children constitute the primary risk group affected by IAP so the surveys and researches should also have a gender dimension where collection of gender disaggregated data and its subsequent evaluation are mandatory while designing appropriately. Moreover, specific efforts should be made to understand the dynamics of energy and fuel management at HH level. A thorough and gender sensitive analysis of existing energy policies and budget schemes/programmes would prove useful. Gender audit and gender budgeting of energy sector will ensure the rightful sharing of energy programmes for both men and women. Gender mainstreaming has been identified as the key strategy to achieve gender equality and increasing access to clean energy.

The Government of Nepal has been trying to increase energy access in rural areas through its interventions on Renewable Energy Technologies (RET). The Rural Energy Policy (2006) and Renewable Energy Subsidy

Guidelines (2000) are important initiatives in this regard. The need to increase access to energy is clearly reflected in the Three Year Interim Plan (2007-2010). Likewise, Nepal has the Energy Perspective Plan (1991-2017) and Renewable Energy Perspective Plan (2000-2020). But the energy policies, programmes and budget allocation in Nepal so far have failed to consider the gender aspects associated. They have perceived that women would be benefitted from energy and women participation in users group would increase their participation. But it lacks provision of strong mechanism to ensure women's participation, access, benefit sharing and empowerment.

There is an urgent need to develop policies, plan programmes and allocate budget from gender perspective. In Nepal, the gender and energy related programmes can be crosscutting responsibilities of national institutions such as Ministry of Environment, Science and Technology, Ministry of Women, Children and Social Welfare, Ministry of Health and Population, Ministry of Industries, Commerce and Supply, Ministry of Water Resources and Ministry of Finance and National Planning Commission. These are the key institutions that can place together gender and energy programme coherently or can synergise their own plans with other institutions.

An innovative approach of Winrock International to provide modern and renewable energy access through micro-finance services

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Access to adequate, affordable, reliable, safe and environmentally benign energy is crucial to achieving the Millennium Development Goals (MDG) and for improving the lives of poor people across the world. Renewable Energy Technologies (RETs) could play complementary roles to meet the country's energy demand. But high costing technologies, customers' poor capacity to pay and lack of accessibility to appropriate technologies are the main hindering factors for the wide-scale adoption of such technologies in developing countries.

Nepal has a huge potential for promoting RETs as cost effective means to provide energy services to the poor in remote villages. Once Micro-finance Institutions (MFI) are convinced about the credit worthiness of RETs, they can provide affordable credit to rural clients to access these highly beneficial technologies. Commercial banks and other development banks can also take advantage of this enormous potential market by means of MFIs as their intermediaries.

Winrock International (WI), Nepal is working on various projects to promote clean energy services to poor HHs through access to micro-finance and supporting additional livelihood enhancement by promoting small and medium enterprises using clean energy. WI works with rural poor HHs, government, micro-finance institutions, energy companies and other financial institutions to develop market mechanism to benefit all the involved stakeholders.

WI's Micro-finance Capacity Building Programme has built the capacity of 400 MFIs to enable them to support clean energy promotion to poor HHs. WI has further catalysed more than 200 MFIs to engage in RETs financing which has resulted in many kinds of RETs' including biogas, solar home systems, improved water mill, improved cook stoves with chimney hoods and bio diesel energy access to rural poor in different parts of the country.

WI has developed several guidebooks, manuals and published newsletters catering to MFIs and potential RETs adopters. WI promoted micro-finance to help poor HHs get access to electricity and supported the establishment of Clean Energy Development Bank by building its capacity in Nepal for sustainable investments in the sector.

Project information: SWASTHA project

Practical Action Nepal Office launched "Strengthening Water, Air, Sanitation and Hygiene Treasuring Health (SWASTHA)" project from January 2009 with the objective to develop and promote integrated approaches by addressing major environmental health risks - indoor air quality, water quality, sanitation facilities, and hygiene behaviours to create healthy homes benefiting 30,000 women and children. The implementing period of the project is four years.

The project aims to contribute towards sustainable improvement in health and well being of vulnerable population especially, women and children residing in urban and peri-urban settlements of Bharatpur, Butwal, Gularia and Tikapur Municipalities. The project

will focus on few urban environmental problems of neighbouring municipalities and small towns of Ratnagar, Ramgram, Sidharthanagar, Sunawal, Bardaghat and Kawasoti.

By the end of the project implementation phase, expectations are i) improved indoor air quality standards in 10,000 HHs leading to 50 per cent reduction in indoor smoke related diseases ii) improved access to safe drinking water iii) improved access to better sanitation facilities iv) improved hygiene practices among 30,000 women and children leading to water-borne diseases reduction and health costs by 25 per cent v) institutionalisation of environmental health improvement measures through improved linkages among state, non-state and private sector actors.



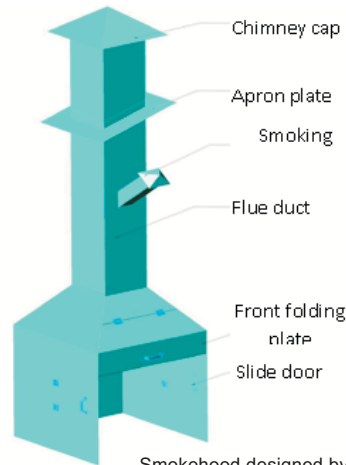
Municipal Association Nepal (MuAN) and Environment and Public Health Organisation (ENPHO) are the key partners of the project. The project is funded by European Union under its Non-State Actors in Development programme and co-financed by UN-Habitat's Water for Asian Cities Programme and ISLE of Man Government.

Technology - smokehood



Smokehood is designed to suck away the smoke produced during incomplete combustion of fuel wood while cooking. It is built against the wall, and beneath it, improved tripod stoves are surrounded by a mud base. Smokehood can vary in sizes depending on stove models and kitchen design. RECAST - a research and development organisation is working on the effect of smokehood to help reduce IAP. Practical Action Nepal, an INGO has designed a smokehood model in Rasuwa in a participatory way suitable for high-hill areas. While designing smokehood, different requirements are considered to meet the needs of high hill region where room heating is one of the prime requirements besides cooking. By incorporating a grill rod inside the smokehood provisions are made for smoking meat and agro-based products.

Smokehood designed by Practical Action Nepal Office is made of metal sheet and costs about NRs.5500 per piece. The cost can be further reduced by more than 60 per cent if local materials such as mud, stone/brick are reinforced with the binding materials like husk, barn, straws or any other dry fibrous agro products, dung or red oxide soil.



Smokehood designed by Practical Action Nepal Office



Previous studies, researches and experiments have already proved that smokehood reduces the indoor smoke level. A study conducted by Practical Action Nepal Office under SANDEE grant found 66 per cent reduction in Respirable Particulates and 76 per cent reduction in Carbon Monoxide (CO) after the installation of smokehoods. The testing at Aprovecho Research Centre, USA on calm days revealed that the smokehood designed by Practical Action Nepal Office reduces IAP by 95 per cent to 100 per cent.

The demand for smokehood is very high in Rasuwa, Dhading and Gorkha. Under the Practical Action Nepal Office, Healthy Home project, about 600 HHs have installed smokehood in their kitchen and 20 local manufacturers are actively involved in scaling-up activities. Smoke extraction through smokehood, improved combustion through improved stoves and wall insulation are three interventions promoted during the Healthy Home project implementation in Rasuwa, Nepal. The installation of smokehood has not disturbed the traditional cooking practices and light from the fire is amply available.

News and events

- Practical Action Nepal and the Ministry of Environment, Science and Technology (MoEST) prepared a draft on "National Indoor Air Quality Standard and Guidelines." The draft is available in <http://www.moest.gov.np> for public review. A public notice was issued in national newspaper requesting open feedbacks from the general public on the draft report. Likewise, regional workshops were organised in Nepalgunj, Biratnagar and Pokhara to collect feedbacks on the draft.
- AEPC/ESAP organised a half day consultative workshop on "Interim National Stove Performance Testing Protocol" on 5 December 2008 at AEPC Office, Lalitpur, Nepal. The research team from STARIC Pvt. Ltd. presented the draft of the protocol at the workshop.
- A radio documentary on IAP produced by Mark Whittaker, BBC, won the 'Best In-Depth Radio' award from the Society of Environmental Journalists in the US (<http://www.sej.org/contest/index4.htm>).
- The documentary was produced at the Practical Action Nepal project site in Rasuwa and Bhutanese refugee camp in Damak, Nepal.
- AEPC organised a stakeholder consultative workshop on "RET Carbon Financing, Revenue Utilisation and Biogas CDP project" on 15 August 2008 in Kathmandu, Nepal.
- With support from World Health Organisation (WHO), Forum for Justice (FORJUST) translated and published the

WHO publication on "25 Questions and Answers on Health and Human Rights" in Nepali and launched the publication in a workshop on 29th December 2008 at Lalitpur.

- A weeklong training programme on "Improved stove" was organised at Ghoghaldiya, Bara by Local Environment and Sustainable Economic Development Center (LEED) supported by District Forest Committee, Bara. People from 12 VDCs participated in the training (source: Rajdhani, December 21, 2008).
- Awareness campaign on improved cooking stove and bio-energy was conducted in Dhankuta on 14th December 2008 by a NGO - Swabalambi Bikas Kendra. The NGO has plans to install about 1500 improved cooking stoves in its first phase (source: Kantipur, December 15, 2008).
- The Better Air Quality 2008 (BAQ 2008) workshop on "Air Quality and Climate Change: scaling up win-win solutions for Asia" was held in Bangkok, Thailand on 12 -14 November 2008. Partnership for Clean Indoor Air (PCIA) organised a pre-event entitled "Monitoring the Co-Benefits of Reducing Emissions from Home

Cooking and Heating" there. Mr. Min Bikram Malla from Practical Action Nepal presented a paper on "Indoor Air Quality Monitoring - Experience of Practical Action Nepal" and "Cost Benefit Analysis of IAP Alleviation Efforts" in the workshop.

- National ICS Network organised "National ICS Network Experience Sharing cum Planning Workshop" on 28th January 2009 in Kathmandu, Nepal. Member organisations shared their experiences on impact of networking and also discussed on future of the network.
- National ICS Network and Regional Renewable Energy Service Centre (RRESC), Kathmandu jointly organised "Information and Awareness Campaign on Indoor Air Pollution and Kitchen Management cum Biomass Energy Technology Exhibition" at Dhadingbeshi from 29-30 December 2008. The programme was organised with collaborative support from AEPC/ESAP. The programme was locally managed by Rural Mutual Development (RMD), Dhading. Prayash Nepal representing Practical Action Nepal demonstrated the smokehoods technology at the workshop.
- National ICS Network managed by CRT/N organised a three day stove performance

test training from 17-19 November 2008 with support from ARECOP. The main objective of the training was to raise awareness among the participants on stove testing protocols and provide practical knowledge on standard stove testing methodologies (source: CRT , ICS Dispatch, December 2008).

- Community Improvement Forum, Nepal (CIF-Nepal) organised "Bio-Briquette Production Training to Local ICS Promoters" in Kavrepalanchowk district from 11-15 September 2008 with support from ARECOP, National ICS Network CRT/N (source: CRT, ICS Dispatch, December 2008).
- National ICS Network organised a "Proposal Writing and Project Management Training" to District ICS Network members from 25-27 December 2008 at Jawalakhel, Lalitpur.
- ENERGIA, CRT/N, Rural Energy Development Programme (REDP/UNDP) and Biogas Sector Partnership Nepal (BSP-Nepal) organised a "National Training Workshop on Mainstreaming Gender Concerns in Energy Projects in Nepal" from 22-24 September 2008 at Dhulikhel, Kavrepalanchowk.

Forthcoming events

- The 4th Biennial Partnership Forum of PCIA will be held in Kampala, Uganda, from 23-28 March 2009. The Forum will provide its partners an excellent opportunity to share results, best practice, and lessons learned, and set goals for reducing global IAP (for detail: <http://www.pciaonline.org>).
- Ministry of Environment, Science and Technology (MoEST) and Practical

Action Nepal Office will jointly organise a national workshop to share the "National Indoor Air Quality Standards and Guidelines" on 3 March 2009 in Kathmandu, Nepal.

- Third International Conference on Renewable Energy for Rural Development (RETRUD) will be held from 2-4 April 2009 in Kathmandu, Nepal. The workshop is a joint venture of Center

for Energy Studies (CES), IOE, TU and Nepal Solar Energy Society (NSES) supported by Alternative Energy Promotion Centre (AEPC), Nepal (for detail: <http://retrud.ioe.edu.np>).

- Integrated Research and Action for Development (IRADe) will organise "Energy & Climate Summit-2009" from 3-4 February 2009 in New Delhi, India (for detail: <http://www.irade.org>).

FOR FURTHER INFORMATION

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