Letter from the Secretariat

March/April 2006

ASIA REGIONAL COOKSTOVE PROGRAM

ARECOP

Dear colleagues,

A number of important events had been organized reginally as well as nationally. The South Asia Regional Workshop on Household Energty and Indoor Air Pollution, has been a significant effort to facilitate exchange among stakeholders in the region.

In Lao, the National University of Lao, in collaboration with ARECOP, conducted the "Stakeholders' meeting on biomass energy potential and constraints in Lao". The event has been an initiative from The University and ARECOP, to enhance development stakeholders' knowledge and skill to address biomass energy needs and problems in the country.

The Indonesian Stove Network had just completed an ICS training for the Sulawesi Region. The training is part of the series of such training covering different regions Java, Northern Sumatera, Southern Sumatera, Kalimantan, Sulawesi and East Nusa Tenggara.

Other news on the progress of activites in ARECOP Network in the last two month are also in this edition of LfS.

SOUTH ASIA REGIONAL WORKSHOP ON INDOOR AIR POLLUTION&HOUSEHOLD ENERGY, KATHMANDU, NEPAL | 27-28 Feb, 2006 |

The event brought together a wide range of stakeholders to share knowledge, experience and ideas; to nurture partnerships, specifically on South Asia regional level cooperation. Countries represented in the event were Bangladesh, Bhutan, Nepal, India, UK, U.S.A and Pakistan.

Through presentations, the event provided updates on the status of intervention actions (IAP reduction projects), health and IAP exposure studies, IAP and household energy policy, financing issues and approach to IAP mitigation and household energy programs. While group discussions provided a forum for further exchange on the topics of technology, policy, health and financing as the main aspects that will determine the direction of future interventions in IAP mitigation. At the end of the workshop, participants took the initial step in building cooperation, through the creation of South Asia Regional Network on IAP.

Highlights of presentations

›› Global concerns on IAP mitigation

WHO statistics estimate that indoor air pollution from solid fuel use is responsible for more than 1.6 million annual deaths and 2.7% of the global burden of disease (in Disability-Adjusted Life Years or DALYs). This makes this risk factor the second biggest environmental contributor to ill health, behind unsafe water and sanitation. While the United Nations Millennium Project proposes to confront the energy issue directly and calls on countries "by 2015, to reduce the number of people without effective access to modern cooking fuels by 50 percent, and to make improved cooking stoves widely available". Further addressing indoor air pollution strongly relates to the reduction of child mortality as part of the Millennium Development Goal commitment.

›› Status of health and exposure studies

1.Development of cost effective methods to measure indoor air pollution, carried out by TERI, India in cooperation with University of California, Berkeley and Univiersity of Maryland.

2. Development of guidelines for indoor air quality assessment and house building for health, carried out by Dr. Sunil Kumar Joshi, sponsored by Nepal Health Research Council (NHRC). The presentation highlights prevalence of respiratory diseases and symptoms in relation to fuel types (solid biomass versus non biomass), house types and eco-development regions and area type.

3. Study of low birth weights and exposure to biomass smoke, carried out by S. M. Pathiratne & K.R.R. Mahanama, Department of Chemistry , University of Colombo, Sri Lanka.

›› Policy on IAP

1. A review of policy linking renewable energy and mitigation of indoor air pollution in Nepal, presented by Jagan Nath Shrestha(Center for Energy Studies,IOE/TU) and Ram Prasad Ghimire (WECS, HMG/N).

2. Gender aspects in indoor air pollution mitigation, presented by ENERGIA and GEWNet/Nepal.

3. Present situation of IAP/household energy policy in Pakistan, presented by Abdul Shakoor of Sindhu Rural Development Policy Institute (RDPI).

›› Status of indoor air pollution mitigation interventions
The presentations range from ICS programs carried out in Bangladesh (Practical Action Bangladesh&Association for Alternative Development), kitchen improvement program (ARECOP), participatory approach in IAP mitigation in high altitude region of Nepal (Practical Action Nepal) and cooking/heating and lighting improvement for communities in high altitude region (Kathmandu University). Practical Action U.K. presented an international based intervention, which is currently being carried out in Sudan, Kenya, Nepal.

›› CDM based financing for household energy program, presented by Winrock-Nepal

›› Assessment of demand by users for technologies for IAP mitigation, presented by Krishna Prasad Pant, Nepal.

›› International partnership - Partnership for Clean Indoor Air US EPA (PCIA-USEPA), offers various forms of partnership in indoor air pollution mitigation and household energy based activities.

Discussion highlights

›› Technology

1. Awareness on different proven technologies to control indoor air pollution
2. Sharing of regional best practices and experiences on technologies
3. Common protocol to be established for air quality monitoring and methodological aspects and regional indoor air quality standards

›› Health

1. Identify the most vulnerable and risk groups
2. Health impact study should be designed and implemented including awareness programs
3. Impact study on interventions should also be conducted and shared widely

›› Financing

1. Focus should be made on financing through establishing effective mechanism at different levels
2. Wide replication of successful community financing for IAP reduction
3. Need to have collective effort among the region on carbon trading

›› Policy

1. Capacity building for central and local level policy makers
2. Focus on partnerships between public, private and civil society
3. Regulatory framework through designing of a KIT box (Knowledge Information Technologies)
4. Multi-sectoral approach should be promoted to counter burdens of indoor air pollution and health

Partnership & Networking

Participants also agreed to form a South Asia Indoor Air Pollution Network, with the temporary secretariat at the office Practical Action, Nepal. An initial commitment of the network will be to facilitate exchange of information.

SOLAR ENERGY RESEARCH INSTITUTE AND ARECOP CO-OPERATION

Collaboration on Regional Training on Biomass Gasification for Small Scale Thermal Applications

From 3-6 March 2006, Aryanto Sudjarwo and Erwan Kow visited the Solar Energy Research Institute (SERI) of Yunnan Normal University, Kunming to discuss

the cooperation between ARECOP and the Institute in organizing the Regional Training on Biomass Gasification for Small Scale Thermal Applications, to be held in Kunming. ARECOP representatives were received by Prof. Xia Chaofeng (Director of SERI) Prof. Xie Jian (Deputy Director of SERI) and Ass. Prof.Pu Shaoxuan.

INDONESIA

Training on ICS Dissemination Technical and Programmatic Skills, Tiwoho, North Sulawesi |27-31 March 2006|

Indonesian Stove Network in cooperation with KELOLA organized the training on technical and programmatic skills on ICS Dissemination for Sulawesi Region. Participants include representatives of NGO's, provincial level government departments (Health and Mining departments) and community cadres - from North Sulawesi, Gorontalo and Central Sulawesi provinces.

FISH SMOKE HOUSE IN SULAWESI

This fish smokehouse was designed to improve upon traditional fish smoking practices in North Sulawesi. The traditional method of smoking fish in North Sulawesi is over an open flame in a semi-protected or unprotected space [usually with fish about 30-45 cm above the flame much like grilling]. This method has negative impacts to health (smoke inhalation by practitioners) and is inefficient both in terms of cooking time, and fuelwood use as smoke is not captured or distributed evenly to fish. It is also not effective at curing fish with smoke, as fish flesh is cooked with heat more than it is smoked which results in a shorter shelf life, especially with a thick fleshed fish such as tuna. Increasing the shelf-life of a smoked fish product in turn assists small fisher folks in marketing the fish as long as the taste of the smoked fish still meets with consumer satisfaction.

This improved smokehouse design is composed of a firebox made of sand and clay, a smokehouse made of bamboo poles and woven bamboo walls, racks for hanging fish made of bamboo and wire and a separate roof structure made of bamboo and Nypah palm thatch to protect the smokehouse from rain. See attached illustrations for an idea of how to build the smokehouse.

The firebox and smokehouse are separate and connected by a hole, so that fish does not cook by flame but rather is cured by smoke only, this method is called cold smoking. This keeps the fish from drying out and hardening, but also extends the shelflife of the finished product as smokes cures the meat. The fuel used is coconut husk and some fuelwood including drift-wood collected from the beach. Fuelwood must be cut to fit into the firebox. The capacity of the smokehouse is 100 large size mackerel or 60 small skipjack tuna.

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LAO P.D.R.

STAKEHOLDER WORKSHOP ON BIOMASS APPLICATION AND ITS CONSTRAINS IN LAO PDR | 6-7 April, 2006 |

The workshop was by the Faculty of Engineering of National University of Lao (NUOL), with the support of ARECOP. The event is meant as an initial step to enhance participants knowledge and skill to address the biomass energy needs and problems in Lao

ARECOP supported two resource persons, Ms. Tong Chan Teang of Wood Energy Network of Cambodia (WENetCam) and Ms. Tran Thi Hong of Vietnam Women Union (VWU). Additionally, Mr. Iwan Baskoro of Cambodia Fuelwood Saving Project (CFSP) was also invited as a resource person.

The two day workshop consisted of presentations, a group discussion and field visit. Participants included representatives of government ministries and departments, Lao Women Union and universities.

The workshop was opened by the Dean of the Faculty of Engineering of NUOL, Mr. Boulinh Soysouvanh. This was followed by presentations on the following:

- Biomass energy in Lao (Mr. Khampone Nanthavong, NUOL)
- Women and the Firewood Cycle (Ms. Bouachanh Syhanath, GRID/LWU)
- Experience on improved cookstove dissemination programs in Cambodia (Ms. Tong Chantheang, CEDAC) and

An Overview of Biomass Energy Status in Lao P.D.R

Based on presentation by Dr Khamphone Nanthasong (NUOL) in Stakeholder workshop on biomass application and its constrains in Lao PDR, 6-7 April 2006

ESTIMATED POTENTIAL OF BIO-ENERGY IN LAO

biomass sources	annual energy output, kWh	equivalent diesel fuel, L
Wood and wood processing wastes	16,890,000,000	1,710,000,000
Agriculture residues	6,285,000,000	640,000,000
Husbandry wastes	4,381,000,000	445,000,000
total	27,556,000,000	2,795,000,000

CONSUMPTION OF BIO-ENERGY IN LAO PDR

>> **The use of fuel wood is counted for about 88% of total energy requirement**

>> **Dependency on firewood fuel in rural areas is as high as 99%**

>> **Main consumption of biomass energy**

- **Households: for cooking, heating**
- **Rural industries: brick making, salt boiling, etc**

Women and the Firewood Cycle

Extracted from presentation by Bouachanh Syhanath (GRID/LWU) in Stakeholder workshop on biomass application and its constrains in Lao PDR, 6-7 April 2006

Wood as cooking energy

>> NSC data shows that 97% of households in the Lao PDR use wood or charcoal as their source of fuel for cooking.

>> The issue of wood fuel is closely connected to the daily lives of women; Women should have main responsibility for the collection of firewood for family use.

Wood and Women's burden

Collection of firewood used the time and labour of women

> A women who collect wood for a family of 5-6 must carry 120-150 loads of wood per year

> Each load, carried on the back or shoulder, weighs 15-20 kilos and use 1-3 hours of walking and cutting time.

> Based on reports of daily usage and size of wood piles, estimated amount collected is 1 M^3 / person / year

Health effects and wood fuel

>>Women talked about eye and lung irritation from smoke

>>The difficulty of carrying heavy loads of firewood

Recommendations

>>Look at the usage and preferences of women and find way to increase the availability of their preferred fuel wood.

>>Protect the fuel wood supply close to the village.

>>Use participatory techniques to involve women in the planning process. Women's role in decision making should be enhanced.

>> Discussion of the division of labour should be done routinely as part of any discussion on development at the community level.

>>Encourage use of energy saving stoves.
Make income generation part of conservation and forestry projects.

>>Conduct more research on commercial sale of firewood, in order to make the trade a sustainable source of livelihood for poorer households.

in Vietnam (Ms. Tran Thi Hong, VWU)
› Regional networking program (Ms. Christina Aristanti, ARECOP)

During the group discussion, participants were divided into groups and discussed problems and challenges of biomass fuel in Lao. Response to the problems and challenges that were outlined during the group discussion.

A field visit was made to ICS production center, owned by Mr. Vanna. Participants observed the production process, guided by Mr. Vanna. He also shared his experience on the development and establishment of the ICS production center.

International Training Workshops

Kiln Construction (June 21-28, 2006)

&

Advanced Charcoal And Briquette Production (August 9-18, 2006)

Davao City, Philippines

The City Government of Davao and APPROTECH ASIA
The Asian Alliance of Appropriate Technology Practitioners, Inc.
The Asia Regional Cookstove Program (Technical Assistance)

Approtech Asia proposes the state-of-the-art kiln, the first in the country, in Davao City, where Davaoeños will pioneer advanced charcoal and briquette production in the country and host the international training workshop in August 2006. The charcoal production method will produce wood vinegar used as ingredient for human and animal medicine which will cost more than the charcoal and imported by Japan, Taiwan and Korea. The charcoal product is highly efficient and of good quality using twigs and branches while the briquette will be made from corn husks and cobs, rice hulls and straws, dried leaves, and other wasted biomass. We clean the city and the environment and make money out of otherwise wasted resources.

Participants
>> Kiln Construction, 15 participants (first come, first served basis)
>> Advanced Charcoal & Briquette Production

Invited countries: Asia (Southeast and South); Africa (selected countries), Latin America (network members)

Methodology: Hands-on experience with theory and discussions

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Better Air Quality (BAQ) 2006

13-15 September 2006
Shetaron Mustika Hotel
Yogyakarta, Indonesia

The Better Air Quality (BAQ) 2006 workshop will be held on 13-15 September 2006 in Yogyakarta, Indonesia. Over 1,000 people are expected to participate, making this event the largest workshop in 2006 on air quality management in Asia. BAQ 2006 is hosted by the Ministry of Environment, the Province and City of Yogyakarta, and the Clean Air Initiative for Asian Cities (CAI-Asia).

BAQ 2006 is supported by the Asian Development Bank (ADB), the World Bank, Air and Waste Management Association (A&WMA), Asian Environmental Compliance and Enforcement Network (AECEN), GTZ, Hans Seidel Foundation, Health Effects Institute (HEI), Institute for Transportation and Development Policy (ITDP), Swedish International Development Cooperation Agency (Sida), United Nations Centre for Regional Development (UNCRD), United Nations Environment Programme (UNEP), and the US Environmental Protection Agency (US EPA). More information of the event: http://www.baq2006.org