



CleanAirSIG e-conference:

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**“Taking ACTION to rid the world of Indoor
Air Pollution”**

Status: Draft

The role of knowledge sharing and networking

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In 2004, the Appropriate Rural Technology Institute, Pune, India (ARTI) received a grant from Shell Foundation (SF) for “Commercialization of improved cook stoves in the State of Maharashtra, India.” It was a pilot project. As an extension of this project SF gave grants to conduct household energy and health monitoring in the rural households for quantifying the effect of the implementation of the improved stoves in rural homes on household energy and health of participants.

Project staff from ARTI were provided training in monitoring and evaluation of indoor air quality and health by Dr Kirk Smith’s group from University of California, Berkeley, USA and Dr Nigel Bruce’s group from University of Liverpool, UK respectively. We were provided with equipments and instruments along with software and training manuals for conducting the study.

Thus we at ARTI gained knowledge through these training workshops conducted for the Shell Foundation project grantees. As a result, now in ARTI, we have a Air Quality Monitoring and Stove Performance Testing Department. We have a small team of 3 members including me.

We share this knowledge gained through training in the following ways:

1. We test all the in house stove models developed by ARTI both for performance and emissions.
2. We also undertake contracts from organizations to test their stoves for their performance both in the field and the laboratory and stove emissions. At present we are testing the stove models developed by Philips.
3. The HEH Shell Foundation project which included IAQ monitoring and stove performance tests both in the field and laboratory and effectiveness trials of stoves in the field has been completed; I was the Project Coordinator of the entire project. The work has been completed and the results of the monitoring and evaluation have been published in the recent issue of ESD journal.
<http://www.hedon.info/goto.php/953/news.htm>
4. During the knowledge sharing sessions of a PCIA meeting, Winrock approached us for conducting a study in Bangladesh to which we agreed. Winrock International subcontracted ARTI in 2006, to conduct training in manufacturing and use of improved Cook stove, monitoring stove performance of both traditional and improved stoves in the lab. and field and IAQ monitoring (PM and CO) as a part of their project entitled, **"Reduction of Exposure to Indoor Air Pollution through Household Energy and Behavioral Improvements."** The project area was the urban slum of Saidpur and Parbatipur in Bangladesh. The entire project was designed and implemented by the ARTI's IAQ and SPT monitoring staff with field assistance from Village Education Research Centre (VERC) the local NGO in Dhaka, Bangladesh.

ARTI provided training to the VERC field staff in

- Manufacturing Improved stoves from moulds
- Importance of proper use and maintenance of Improved stoves.
- Conducting household surveys with questionnaires prepared and provided by us
- Conducting Kitchen Performance Test (KPT)
- Conducting Controlled Cooking Test (CCT)
- Data entry in excel sheets in forms prepared by us
- Handling the UCB monitors and HOBO monitors in the field

ARTI staff conducted the

- Water Boiling Test (WBT) in the lab to identify improved stove models which perform well and field test to test their performance in the field following dissemination.
 - Quality Control checks through WBT and measurements of the stoves based on the measurements specified for each stove model.
 - Before and After monitoring of IAQ with UCB PM monitors and HOBO CO monitors
 - Data analysis of the KPT, CCT, WBT, PM and CO and before and after household questionnaires
 - Submission of Report.
 - The Final report of the project has been submitted to Winrock International in June,2007.
5. Right Track Kolkata, a Kolkata-based NGO, subcontracted ARTI for conducting a project entitled, "**Reduction of Exposure to Indoor Air Pollution through Household Energy in 5 urban slums of Kolkata.**" This is a part of a larger integrated project which includes water and sanitation etc and has been sponsored by GOAL, India. ARTI was actually approached by GOAL, India to help Right Track in this project. GOAL became aware of ARTI's activities through the HEDON website (www.hedon.info) and networking. The work involved in this project is similar to the Winrock International project which was conducted in Bangladesh, except that it also includes the health parameters and qualitative and quantitative health and stove impact surveys. So as an additional responsibility ARTI provided them training in **Focus Group Discussion** and **Key Informant Interviews**.

In both the above mentioned projects, the study design, questionnaires, forms etc were prepared by me based on the initial field visit to the project sites and/or discussions with the local NGO or contact person. Finally data analysis, preparation of the reports etc are also my responsibility.

So through networking we at ARTI make the others aware of our knowledge in Monitoring and Evaluation and share it with them when approached.