

Consensus reached by participants at the International Workshop on Rural Energy, Stoves, and Indoor Air Quality in China

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A workshop, held in Beijing in January 2005, brought together representatives and experts from universities, research institutes, non-government organizations, provincial and national government agencies, rural energy industries, and international organizations from China, South Asia, Europe, North America, and Africa. They came together to discuss the results of an independent study and evaluation of the Chinese National Improved Stove Program (NISP) conducted by the University of California, Tsinghua University, Renmin University, and the Centers for Disease Control of China.

As with other developing countries, most of the Chinese rural population relied on biomass fuels (wood, crop residues, and animal dung) for their household energy about 20 years ago. Such fuels are traditionally used in inefficient stoves that waste resources and produce substantial amounts of indoor air pollution. NISP, which operated from the 1980s through the 1990s, was the largest and most successful improved stove programme ever implemented anywhere in the world. Similar successful programmes were initiated at provincial and local levels in many parts of the country. Nearly one thousand million rural Chinese citizens have benefited from improved efficiency and reduced indoor air pollution from the improved stoves promoted by these programmes.

Biomedical research in recent years in China and elsewhere, however, indicates that indoor pollution caused by incomplete burning of solid fuels – both biomass and coal – is still an important factor threatening the health of rural residents. Thus, although the high pollution levels caused by traditional biomass stoves seem to have decreased, remaining pollution from

coal and biomass stoves needs to be brought down further to reach health standards, including the new national indoor air pollution standard.

Having reached consensus on these points, the workshop proposed recommendations to the relevant agencies of China.

- The successful undertaking initiated and implemented by the Ministry of Agriculture and its Rural Energy Offices should be widely acknowledged and highly praised.
- There were many new technologies developed largely by the private sector in China, offering possibilities for using biomass fuels in a much cleaner and more efficient way. Such advanced biomass stove technologies should be encouraged, and new policies should be formulated to deploy such technologies on a larger scale.
- As China has changed since the initial stage of NISP in the early 1980s, there is a need now to find ways to promote sustainable commercialization of the stoves in the private sector, rather than relying on direct intervention by the government, except in the poorest areas. The China Association of Rural Energy Industry (CAREI) can play an important role in this effort.
- As important players, the central and local governments need to continue their efforts in many areas, including the development and enforcement of energy efficiency and environmental standards, protection of intellectual property of advanced technologies, public education regarding health hazards, training of technicians, and support for focused health and environmental studies.
- From the viewpoint of health, it is necessary to speed up the development and dissemination of improved coal stoves with chimneys if coal is to be used as fuel for rural communities for a prolonged period.
- As time goes on, and expectations of rural residents for environmental and health protection continue to rise, there will be a need to provide high-quality fuel to all users that can be efficiently and cleanly burnt in household stoves.
- There is an urgent need to address the serious problems created by use of poisonous coals in the country. This should be addressed through an inter-ministry effort of the Chinese Government: in the short term by immediately providing improved stoves with chimneys, and as soon as possible, by banning the sale and use of coal from the most poisonous coal deposits, and by providing access to alternative clean fuels to the local populations.
- Taking advantage of significant progress made by NISP and other past successes, China should re-emphasize the importance of modern energy supplies, especially gas fuels and electricity, for all households as part of its laudable efforts to bring the benefits of economic development to all of its people.
- The participants of the workshop agreed that China should work collaboratively with other developing countries to assist them in achieving similar successes, including providing an ongoing compendium of new biomass and coal stove technologies and working to share those technologies and lessons for organizing development and dissemination programmes.