

Honorable Minister Shri Kannappan, Dr. Pachauri, Prof. Smith, colleagues, Ladies and Gentlemen:

We are coming to the end of a very successful event.

Before trying to give you my perspective of what I see coming out of this workshop, let me start by expressing my most sincere thanks to all of the people who have made this event possible – to the Tata Energy Research Institute, and in particular to Dr. Pachauri and his tireless colleagues, for organizing the workshop; to the many speakers, session organizers and chairpeople, rapporteurs, and my own colleagues. We are dealing with a problem that is a symbol of what poverty is all about – one which not only takes the lives of hundreds of thousands of people each year in India alone, but also causes a lot of hardship, illness and suffering. More than that, it is a problem that falls disproportionately on women and children, and in so doing sheds light on the complex nature of poverty, and the difficulties in overcoming habits and customs.

I am confident that the conclusions of this workshop are meaningful and sound. Why? Because you have recognized that there are no easy technical solutions, and that even the necessary policy and even social changes are complex and will take time. We are talking about a deep social transformation that will tackle some of the root causes of poverty and help address not only the problem of indoor air pollution but many other concerns as well.

Indoor air pollution is a reflection of poverty more generally. What is new in what you are doing is that we are starting to learn the different dimensions of poverty, and to deal with these dimensions in a more systematic manner. Thus, it is no longer good enough to just put in place a central government program to supply fuel-efficient cook stoves to as many households as possible, and hope that sustainable results will emerge.

Now we must recognize:

- **First the multidimensional character of the problem** – the need to optimize both health benefits and efficiency as well as address the socio-cultural implications of promoting behavioral changes. Who does most of the work in the household? Who controls the purse? Who decides on whether the children go to school?
- **Second**, we need to be far more aware of what it takes for initiatives to be successful and sustainable. No central scheme – whether at the national or the state or provincial level – can do justice to **what communities and individuals really need and want**. Ultimately, we need to find ways to empower communities and households to make demands that will be satisfied by a private sector which will respond to these demands in an efficient manner. In an open and transparent system, sellers of cook stoves – whether for biomass fuels or gas – will want to make sure they are responding to the needs of buyers at a price the

buyers can afford, and that their products keep working reliably. This can only work if there is a level playing field for the private sector, and decisions are left to those who are in the best position to understand customer needs. I should emphasize that I am using the term “private sector” in the broadest sense. In many cases, NGOs, Community-Based Organizations, and other Civil Society Organizations are likely to find ways to fill the needs, depending on the size of the market and the nature of the needs.

- **Third**, there remains a need for some **support from government**. What this workshop has shown is that far more attention needs to be given to the health dimension in programs to disseminate improved cooking stoves (and also, I might add, in programs to promote water supply). So there is scope for better government-supported research & development on better stoves for different fuels, and on housing design to improve ventilation. The government also can put in place a quality assurance program, and consider innovative schemes that combine housing finance with improved kitchen design. Above all, the government has an important role to play in awareness raising and in providing education on the health impacts of poor cooking practices. Much of this can be easily built into ongoing programs, such as women & child development projects, and health & hygiene education programs. Rural energy projects, such as for rural electrification, could include a cooking fuel component. The World Bank, for instance, is supporting a Rural Water Supply & Sanitation project in Karnataka which includes both community-driven water supply & sanitation schemes as well as improved cook stoves.

As I mentioned before, the government – whether at the state or national level – also has an important role to play in making the policy environment more conducive to better services for all, including the poor. I have followed with interest the discussions related to the innovative subsidy scheme in Andhra Pradesh. They show that there are no easy solutions. Price subsidies almost inevitably end up favoring the rich, often at the cost of the poor. At the same time, targeted schemes are very hard to implement and monitor. I understand that there is follow-up work going on that will shed more light on what might be required to improve access by the poor to modern fuels.

I am pleased to commit to doing whatever we can to help address the issues that have been raised here – not on our own, but in collaboration with all of you. More importantly, we want to learn from your experiences, and avoid the mistakes of the past. In that sense, my colleagues and I were particularly interested to hear about the experiences in other countries, such as:

- In **China**, where the Ministry of Health is taking the lead in promoting a program for improved coal stoves, motivated by a desire to optimize health objectives. The program also involves education, awareness raising, and the monitoring of health impacts.

- In **Mongolia**, where a cook stove project that was originally designed only to improve fuel efficiency now also is considering health benefits.
- In **Kenya**, where the promotion of clean stoves goes alongside a better design of houses.

So this is an issue that is in good hands. It makes me feel more optimistic about the fate of Geeta whom I talked about in my opening speech. Inside that mud hut, squinting in the darkness over that mud stove, with her baby on her back. Geeta's life needn't be so hard, and her little child should be able to look forward to a long and productive life.