

Improved cook stoves for better lives

The traditional cooking practice in Bangladesh uses a “three-stone” cooking stove. Only 5%-10% of the households in Bangladesh use fossil fuels such as kerosene or liquefied petroleum gas for cooking. The majority use a mix of agricultural residues, twigs, leaves, cow dung and fuel wood. The combustion of some of this biomass in the traditional cooking stoves generates a variety of gases including carbon dioxide (CO₂), carbon monoxide and other particulate matter. The replacement of traditional stoves by improved cooking stoves (ICS) improves heat transfer, which reduces the total amount of fuel required for cooking and the amount of emissions. Altogether, the improved cook stoves have the following benefits.

Environmental benefits:

- *Air quality:* Air pollution from cooking with solid fuel is a key risk factor for childhood pneumonia as well as many other respiratory diseases and cancer. By using ICS units children and mothers are exposed to fewer air pollutants through reduced emission of not only CO₂ but also carbon monoxide and particulate matter.
- *Biodiversity:* ICS reduce the demand for wood and the impact on remaining forest reserves in Bangladesh.





Social and Economic benefits:

- *Employment:* The program gives rise to employment opportunities for new ICS technicians, assistants, office staff and other related jobs in Bangladesh.
- *Livelihood of the poor:* The circumstances of poor families are improved since the stoves reduce fuel cost, providing financial savings. The reduced wood consumption also means less time spent collecting fuel, which is a relief from drudgery and provides more opportunity for other productive activity.
- *Access to energy services:* The ICS require less fuel, which in many areas can be a scarce, expensive resource. Users also have found ICS more convenient, as it shortens the cooking time.
- *Human and institutional capacity:* The project has a positive effect on local skills and institutional capacity. By initiating large-scale promotion and advertising campaigns, quality control and branding initiatives, together with the introduction of improved production and accounting systems, the local population is developing various business skills.
- *Technological self-reliance:* The introduction of a locally manufactured technology with optimized energy efficiency helps to build technological self-reliance.