

Benefits of ICS(s)

- Improved cooking stoves can decrease indoor smoke levels up to 90%
- Carbon monoxide and particulate matter inhalation is minimized, thus reducing respiratory disease associated with polluted indoor air as well as eye infections.
- Serious diseases such as pneumonia will be reduced if levels of indoor air pollution are minimized.
- Improved cooking stoves use up to 50% less biomass than traditional cook stoves
- Where biomass is scarce, efficient cooking practices reduce pressure on forests and other sources for biomass.
- Cleaner air in the home benefits the health of new mothers and promotes healthy child brought up.
- Less exposure to indoor air pollution helps prevent health complications for pregnant women and the developing embryo, including stillbirth and low birth weight.
- Time and energy spent caring for sick family members is reduced while cutting health costs and increasing household income capacity.
- Children will have more time for study and other extracurricular activities if they spend less time collecting biomass fuel.

Instructions to use ICS(s)

1. Place chimney on cook stove and adjust it properly.
2. Place 2-3 small wood pieces in the chamber of cook stove and ignite them with the help of paper/kerosene oil and match stick.
3. Keep adjusting wood pieces to ensure that they are burning properly and use the back hole appropriately for proper combustion.
4. Do not touch the outer body of ICS because it is very hot.
5. When stop cooking take out remaining woods and charcoal. Remove ash from the stove to clean it.

The primary objective for the establishment of the Centre is to have a regional institution of excellence for the initiation, coordination and facilitation of SAARC programs in energy.

SAARC Energy Centre

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**Promotion of SAARC Chullahs
(Improved Cooking Stoves ICS)
for their
Commercialization / Marketing
in the SAARC Member States**

**Organized by
SAARC Energy Centre, Islamabad**

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World Health Organization (WHO) released its 2012 estimates of the global burden of disease from air pollution and reports that globally, about 4.3 million deaths were attributable to household air pollution, mostly in low and middle income countries.

The estimates make it clear that reducing air pollution could save millions of lives and underscore the need for clean cooking technologies for the close to 3 billion people who obtain their household energy for cooking and heating from solid fuels (wood, coal, charcoal, dung and crop wastes) burned in open fires and traditional stoves.

SAARC countries have a population of 1.6 billion and majority of them living in the rural areas not having access to modern means of energy are dependent on use of biomass as main source of energy. Main applications of biomass are in the domestic sector and small-scale industries, but it is also increasingly consumed in modern systems for combined heat and power generation.

SAARC Chullahs (Improved Cooking Stoves ICS)

SAARC Energy Centre (SEC) had conducted a programme of designing/ developing and manufacturing Energy Efficient Improved Cooking Stoves (ICS) in the SAARC Member States. The three developed models of ICS(s) by SEC were energy efficient, low cost and environmentally friendly. They were deployed in the field for trials in different climatic regions of Pakistan simulating different climatic regions of SAARC Member States. The results of the field trials reveal that the households were using inefficient fixed three stone traditional stoves and ICS(s) developed by SEC were responsible for reduction in smoke, cooking time and considerable biomass savings.



Types of ICS

| SAARC-I | SAARC-II | SAARC-III |
|----------------------------|--|------------------------------|
| Round shape, metallic body | Round shape, metallic body, water tank (11 litres) | Round shape, metallic body |
| Cold areas | Cold areas | Hot areas |
| Cooking, space heating | Cooking, space heating, water heating | Cooking |
| No insulation | No insulation | Combustion insulated chamber |



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