



Clean and Environment Friendly Cooking Solution for Urban Slum/Village Dwellers- ‘CEFICS’ Project

Location: Gautam Buddh Nagar, UP
Phase: Oct’19-Jun’21, Dec’21-Mar’22

Background: In India a large proportion of households still rely on solid fuels (wood, animal dung, charcoal, municipal and industrial waste and coal) burned in inefficient stoves. According to a World Health Organization (WHO) report [2014](#), over 145 million Indian households use traditional cook stoves for their daily cooking with use of solid biomass as fuel, which produce high levels of HAP with a range of health-damaging pollutants, including small soot particles that penetrate deep into the lungs. Similar is the situation in Noida, where for daily cooking the community mostly depend on kerosene, solid fuel (firewood, animal dung, charcoal, municipal/ industrial waste, and coal) This results in HAP emitting health-damaging particulate matter and climate warming pollutants in the environment and sometimes also cause fires (Noida slums - [May 2018](#) , [January 2019](#), [May 21](#)), putting their lives at risk and wiping out everything they own. Report reveals that in rural areas of Noida, the pollution stems from biomass burning for cooking and keeping warm contribute in increase of [AQI](#).

In view of this, CARE India has initiated a project on clean cooking solution with support from HCL foundation during 2019 – 2022. The project has contributed in successful adoption of improved Cook Stove by 703 slum/village dwellers households from four village of Dadri Block in Gautam Buddh Nagar.

The use of cleaner and more efficient improved cook stoves (ICS) and fuels can dramatically reduce exposure to traditional cook stove’s smoke, provide a myriad of economic opportunities for the communities, and can contribute in mitigating the risk of climate change by reducing the greenhouse gas emission. Clean cook stoves also reduce the time

people — usually women and girls — spend collecting fuel, freeing up their time for income generating activities or schoolwork.

Adoption and transition to Improved Cook Stove(ICS) through this initiative also contribute directly to SDG 7 (**access to affordable, reliable, sustainable, and modern energy**), and improved health (SDG 3). The impact of interventions also reflected in **gender equality (SDG 5)**, **climate action (SDG 13)** and the **elimination of poverty (SDG 1)**. In other words- without a shift towards universal clean cooking solutions, achievement of most SDGs will also be affected adversely.

Given below the overall Goal and Objectives of the project -



Goal

To Promote Transition/Adoption of Traditional Cook Stove Depended Slum/Village Dwellers Household (SVDH) to Sustainable Clean Energy Cooking Solution



Objectives

1

To Empower 10500 Individual from 2100 SVDH to take an informed decision for adoption/Transition to Clean Cooking Solution

2

To Develop Enabling and Supportive Environment for Women and Their Households to Make Sustainable Clean Energy Transition

Project Geography and Targeted participants



Geography

4 villages of Gautam Buddh Nagar in Dadri Block



Target Participants

2100 slum/village dwellers households



Intervention Strategy/Framework

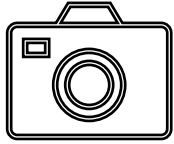
The strategy is built based on learnings from CARE's experience on ICS projects implemented in other parts of India. The project is promoting already tested and demonstrated appropriate ICS model for the urban slums/villages, build capacity of SVDH on clean cooking energy adoption/ transition and facilitate their switch to ICS from the polluting stoves through SHE school Platform. Broad project strategy are as follows-

- **Organise clean cooking camps at village level:** Organise clean cooking camps at village level to demonstrate and test the efficiency of ICS
- **Formation of Sustainable Household Energy Schools (SHE):** A SHE School consists of members from Self Help Group and they provide a platform for participatory learning and experimentation ICS and biomass briquette. There is no teacher, no student, no book and no examination in SHE School. Here, women are coming together to share their experience in cooking and learn about better cooking energy solution. SHE-Schools also provide space for gender dialogues, especially when men from TCDHs and other influential community actors participate in.
- **Creation of SHE Champion:** There is one SHE Champion in each village and responsible for all SHE school for that village.
- **Use of well-structured SHE school Curriculum**, which broadly include harmful impact of traditional cook stoves, types of fuel and its impact, impact of carbon emission on Household Air Pollution (HAP) & environment, fuel management, introduction of ICS, its benefit and use, how to form and maintain SHE school, roles and responsibilities of SHE champions etc.
- **Identify, empower, and sensitize other relevant stakeholders** such as panchayat members, village youths, financial service provider on impact of carbon emission on climate shift, need for clean cooking energy access etc.
- **Community mobilization** on impact of carbon emission on environment, climate shift and economic costs for ICS use.



The Overall Progress of the Project is as

- In the span of 2 years we have distributed **703 Improved Cook Stove** among slum/village dweller households across project locations in Greater Noida.
- ICS usage has reduced average cooking time on normal day from **2.33 hrs to 1.96 hrs** for Slum/Village Dweller Households across project locations.
- Due to fuel efficiency, less operational cost and time saving there is shift observed for preference from LPG Cookstove to Improved Cook Stove
- The awareness among men in the household regarding harmful effects of traditional stoves has increased from **27% (as per Baseline)** to **46% (as per Endline)**
- In the span of 2 years higher Percentage of women are making decision about the purchase of chulha in the house from **86%(baseline)** to **94% (endline)**
- In the last 2 years percentage of women making decision about purchase or collection of fuel has increased from **79% (baseline)** to **93% (endline)**.
- In comparison to baseline now higher percentage of women make decision about the maintenance of chulha from **86% (baseline)** to **96% (endline)**.
- There is increased awareness about importance of clean cooking solution among women member of households and now **64%** women feel very confident to change cooking methods in the baseline only **42%** felt the need to change cooking methods.
- Women from slum/village dweller households has improved awareness about environmental and health related problem for traditional stoves. SVDH women has also reported reduction in cooking related drudgery



Project Photos



Bio Classic Chulha



ICS Distribution



Awareness Generation



Cooking Camps