



## Evolving a Women-centred Model for Improved Cook Stoves Extension (SWITCH-Asia II)

Location: Chhattisgarh and Odisha

### Project Sheet

#### SUMMARY

Access to energy is a key component of alleviating poverty and an indispensable element for human development. Over 45% of the country's population is currently denied energy access. In India, nearly 70% of the population lives in villages and shares a much larger burden of poverty as well as energy poverty which manifests itself as shortage of power for agricultural operations; increased drudgery associated with collection of fuelwood and water; and inadequate lighting that adversely impacts household functioning, children's education and safety of women and girls. This project seeks to increase the adoption of sustainable lifestyles among Forest Dwelling Households (FDHs) in the Indian State of Odisha and Chhattisgarh. The action adopts an incremental approach to increase the awareness of women on clean energy options for household use, facilitate acquisition of Improved Cook Stoves (ICS) financial and technical interventions, and influence men and other stakeholders in the ICS ecosystem to be supportive of women's endeavours for clean energy transition. Towards this, the project is adopting innovative, women-led extension methodologies and tools, and engaging women leaders from existing Self Help Groups (SHGs) as Sustainable Household Energy (SHE)-Champions for peer influence and education on Sustainable Consumption and Production.

CARE is leveraging its existing knowledge, known good practices, technical partners and implementing the project directly with forest-dependent women and their households in three project districts – Jashpur in Chhattisgarh and Kalahandi and Kandhamal in Odisha, India.

#### PROJECT DESCRIPTION

Both Chhattisgarh and Odisha states have a substantial poor and tribal population (Chhattisgarh- poor 45% and tribal 31%; Odisha- poor 36% and tribal 23%) who are largely forest dependent. Forests in these states are the main source of fuel wood for cooking for around 19 million residents. This action is working directly with 10,000 women from FDHs, 381 women's collectives, and 2,000 men from FDHs in 107 villages of the three project districts. The action aims to engage and influence around 100 ICS Value Chain (VC) actors (e.g., financiers, ICS manufacturers and suppliers, distributors, retailers, field technicians) for strengthening the VC and making it inclusive through women entrepreneurs' participation.



The action adopts an incremental approach to increase the awareness about household air pollution (HAP), clean cooking energy options among women from FDHs. The ICS market and ecosystem actors will help the women make a transition from polluting stoves to clean cooking options. The action is supporting the women to test ICS options against parameters like device functionality, affordability, "smokelessness", ease of use and other individual and FDH preferences and take an informed decision. The action is engaging women SHG members as Sustainable Household Energy (SHE)-Champions to lead testing and facilitate adoption of ICS by FDHs. The SHGs participating in this

action are running SHE-Schools along the lines of the Farmer Field School (FFS) methodology for women-empowering extension of ICS. Intensive training and on-field support extended to this women's cadre and to SHGs will enable them to run the SHE-Schools and to make an informed choice regarding ICS and its associated cooking system (including utensils and the ICS user).

The action works with village level actors and institutions (like school teachers and the Gram Sabhas), and government functionaries from relevant departments (viz. Forest Department, Rural Development Department) at the district and State levels, to create a favourable environment for ICS adoption. Another level of engagement will be with Government of India (GoI) agencies such as the Chhattisgarh Renewable Energy Development Agency (CREDA) and Odisha Renewable Energy Development Agency (OREDA), and flagship programmes like the new *Unnat Chulha Abhiyan* (UCA) to inform the policy and institutional environment through policy briefs and consultations. The action will learn from and contribute to the global household cooking energy discourse by publishing articles and discussion papers and networking with agencies like GIZ, Practical Action, and the Global Alliance for Clean Cook stoves (GACC).

The action addresses four key constraints that hamper sustained ICS adoption – **awareness, availability, access and affordability** – by building women users’ capabilities and capacities, working with men and other actors who influence adoption, and strengthening the ICS VC. Adoption of participatory approach to problem analysis, solution testing, adoption and dissemination ensures that there is greater buy-in and ownership of the promoted ICS solutions among users as well as other ICS VC actors, both public and private. Concurrent and participatory monitoring enables CARE India to generate evidence for informing the evolving extension model. The resulting women-centred extension model is being documented and disseminated widely among different ICS stakeholders to promote adoption of ICS at scale.

## OBJECTIVES

*The overall objective of the proposed action is to promote sustainable adoption of Improved Cook Stoves (ICS) as a clean cooking energy solution among forest-dependent households (FDH), through a combination of capacity building, collectivization, market development, and multi-stakeholder engagement actions, resulting in 10,000 women from FDHs using ICS and developing a sustainable ICS adoption model for replication among 800 million rural households in the country who use traditional and polluting cook stoves. The specific objectives are:*

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- *SO1: Capacitate 10,000 women from FDHs to adopt ICS as a clean cooking energy option*
- *SO2: Develop an enabling and supportive environment for women and their households to make clean cooking energy transition*
- *SO3: Promote adoption of ICS at scale*

## KEY APPROACHES

Key approaches of the action include:

- Collectivisation
- Inclusive ICS VC promotion (including Women’s Entrepreneurship Development)
- Participatory Extension through innovative SHE-Schools, modelled on FFS approach

## EXPECTED RESULTS

- Women from FDHs have identified ICS options to suit their needs, by price and design
- Women from project villages take and inform household decision to procure and use ICS
- Men and key ICS supply chain stakeholders become sensitive and respond to women’s needs for appropriate cooking solutions
- ICS Value Chain becomes strong and inclusive
- A women-centred model for clean energy transition by poor, FDHs documented and disseminated for wider replication



## MEASURING CHANGE

Under this project, progress along specific indicators will be tracked by CARE through baseline, end line, and periodic KAP studies.

### **Key Outcome Indicators**

- Number of households acquiring and using ICS as a clean cooking energy device (for a minimum of 2 years)
- Number of ICS suppliers, technicians, and financiers available by the end of the project, to support and service ICS users in project villages
- Number of target group households where men have supported women in switching to ICS
- Number of new ICS VC actors (ICS manufacturers, suppliers, financiers) servicing the target group by the end of the project

### **KEY ACTIVITIES UNDERTAKEN**

- A Technical Core Group (TCG) comprising of agencies working in ICS space like Technology Informatics Design Endeavour (TIDE), CTRAN Consulting Ltd., Indian Institute of Technology-Delhi, and CARE India has been constituted, which is providing guidance and technical supervision over implementation of the project.
- A comprehensive situational analysis to understand the existing socio-economic conditions, gender and cultural context, cooking practices and improved cook stoves related demand and supply situations in the project areas
- A baseline study to establish benchmarks where key components of the project are concerned and, to enable measurement of the project's impact and outcomes.
- 50 SHE Schools over SHG platforms have been promoted in 50 project villages spread over in the two states and each SHE School is led by a SHE Champion selected from the participating SHGs.
- Sessions on problems faced from traditional cook stoves in terms of household air pollution and, adverse implications on health, forest and environment through pictorial posters in the SHE Schools.
- A database of certified and non-certified improved cook stoves along with information on their characteristics like; thermal efficiency, emissions (CO/CO<sub>2</sub> ratio), fuel saving, particulate matters and CO, durability and affordability developed for facilitating discussion with women users during demonstration of ICS.
- A scientific study on performance of traditional cook stoves in field conditions has been carried out with a purpose to understand primarily the performance of traditional cook stoves on parameters like; i) emissions and household air pollution [i.e., emission of carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and particulate matters (PM<sub>2.5</sub>)], ii) thermal efficiency, iii) fuel efficiency (fuel per kilogram of food cooked).
- Interactive sessions between women from FDHs and ICS VC actors (manufacturers/distributors/suppliers) have been initiated to demonstrate ICS models to enable the women to shortlist ICS for further testing in SHE Schools.

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