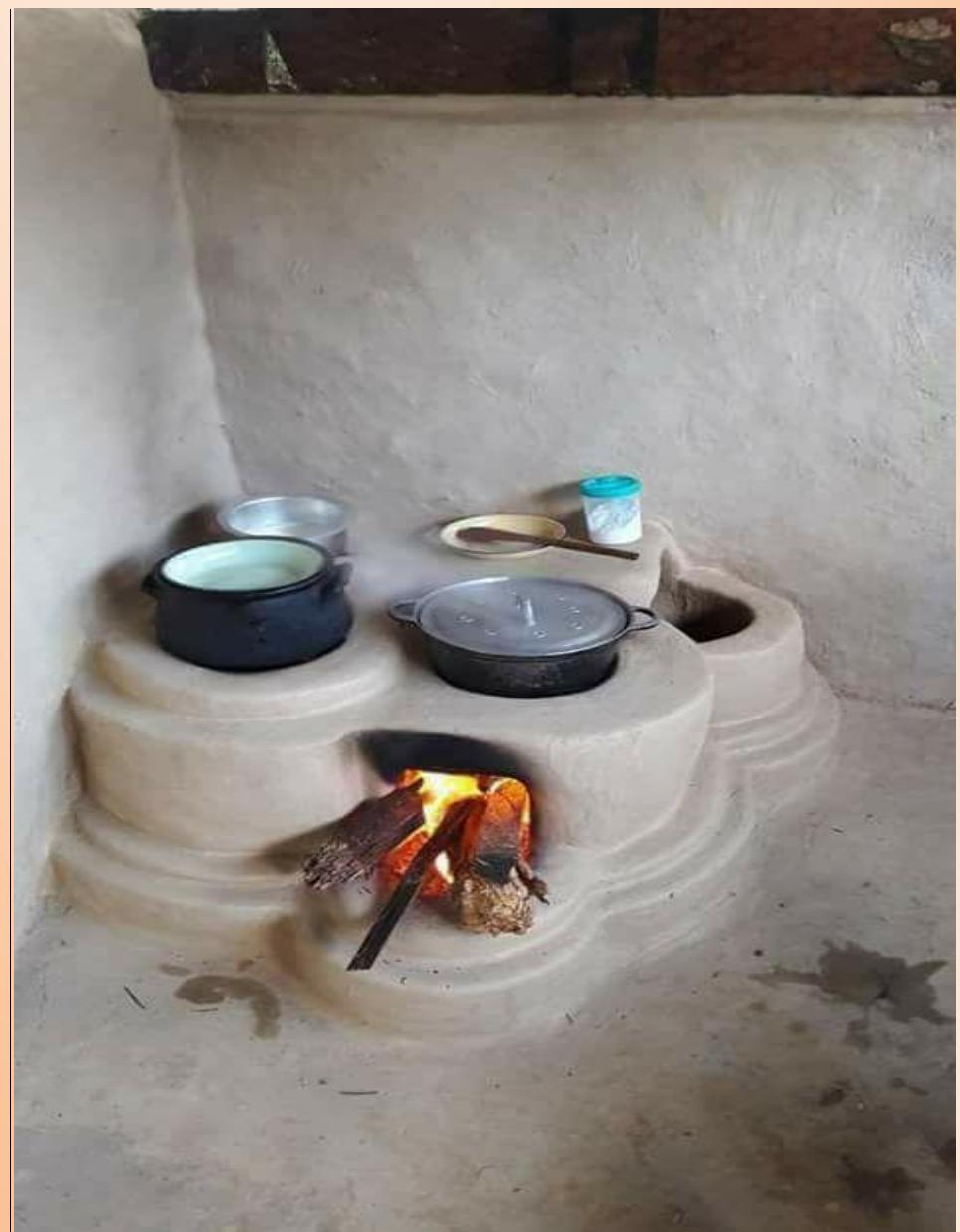




Killer smoke snuffed out of 315 rural households

A Case study with inputs from Deoghar team



Action for Social Advancement, ASA



Women in villages of Chakai and Jama blocks are adopting healthy cooking techniques

The traditional method of cooking in rural areas is on Chullha. The fuel is burnt under cooking pot. A stove is a very basic device used for cooking by burning wood. Most of the people living in rural areas use wood as fuel. The women in the villages would travel every day for 3-4 kms just to get firewood. After spending a good five to six hours in finishing this tedious task, they would come home and cook food on their regular chullhas which would create a huge amount of smoke leading to air



Bahamuni Besra, Vill. Chatro, Chakai cooking rice on her smokeless chulha

pollution in the house. Tribal (Santhal) houses generally do not have a proper ventilation system, the smoke expelled from the chullha remains in the house (single room house) for several hours affecting the health of women and the children playing or studying in the house. Health problems particularly respiratory problems and eye ailments are very common.



Smt. Durgi Devi from village Atki, Block Dumri, Giridih is happy that the smoke doesn't bother her any more

uses only five or seven.

Thanks to the intervention of low smoke chullhas, women in Chakai Block have started living a healthier life now. The food cooks early and the utensils are cleaner as they don't get very dark at the base. Also, the usage of fuel has reduced by 30 percent. Earlier, if cooking one meal required ten wood logs, this chullha

uses only five or seven. Smokeless chulha does not mean the one without smoke. It generates smoke but is vented out of the room using pipe. The natural draft stove is a unique solution for cooking. This natural draft stove gives you high performance at a low cost, making it the most economical solution that has no adverse health effects. In addition to this, the chulha is also bringing down deforestation in the area. Implementation of this chulha has reduced the cutting down of trees.



Sarita Kisku, Vill. Atki, Dumri, Giridih explaining steps of chulha making to the SHG members through pictorial method

In 2015, ASA while working on a project; Gender in Agriculture (GIA) in Chakai block of Jamui district, Bihar came up with the idea of low smoke chullhas to address the issue of smoke inside the house. The first part of project was based upon an iterative process of creation of a low-smoke chulha with the engineering student's team from U.S.A, ASA staff and the local community in order to support adaption and sustained

uptake. A qualitative study was conducted to gain insight into the cooking practices and challenges faced with the traditional stoves. Along with the support of UCCS (University of Colorado Colorado Springs, U.S.A) engineering students (Volunteers), a design of low smoke chullha was finalised and demonstrated in the villages. The model became popular due to low cost method .The chullha is made from mud and bricks. **Average cost per chullha comes out to Rs. 500-700.**

Through ASA's support, 110 smokeless chullhas were created by the self help group women. Not only this, ASA has made sure that this initiative does not die an early death. ASA trained women from local SHGs in the manufacturing of these chullhas.

In 2016-17, 145 more such chullhas has been self- created by the SHG women in the Chakai block and another 60 in Jama block, without any financial support from ASA.

A total of 315 such chullahs are in operation, as on date and more in the making.....



Smoke ventilating from the outlet outside the house.