



SHARING
EXPERIENCES

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Conserving local wood resources by diffusing improved cook stoves

Objective :

In the arid zones of Sub-Saharan Africa, 90% of energy use is linked to the consumption of forestry products. Our approach has three objectives :

- Reducing fuelwood consumption and energy loss.
- Sparing wood resources in rural areas, pending the development and the popularization of alternative energy sources.
- Alleviating women domestic tasks.

Methodology:

The improved cook stove is a technique that uses less wood, to be used until there is a wide diffusion of alternative sources of energy.



The simple improved cook stove



The « Eritrean-type » hearth



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Highlights

The improved cook stove is a recognized technique to combat desertification. It allows a reduction in the consumption of fuelwood of 70 to 80% .

This simple technology contributes to the preservation of the wood potential (tree, bushes and herbaceous carpet, otherwise used as combustible)

Using improved cook stove is a recognized, simple and reproducible method to combat desertification.

Technology

A classic hearth is made of three stones on which is placed the pot; in this system energy loss is important. With the improved cook stove, heat losses are minimized and heat is therefore conserved. This is made possible by accumulating heat in a clay combustion chamber, and by directing its diffusion towards the pot. The construction is in clay, cemented by cow dung and covered with a paste made of baobab leaves.

The team of the Actions Dakar project of SOS SAHEL was also interested in a new prototype, introduced via the VPI (*Village Projects International*), the “Eritrean-type” model. This model is 2.5 times richer in clay.

These models save 70 to 80% of wood: while 1,350 grams of wood were necessary to cook 300 grams of rice on a traditional hearth, the simple improved cook stove and the improved Eritrean-type model only necessitate 450 grams.

Disseminating the innovation is done through a simple method

The project team relies on women focal points acting as relay and trained to build improved cook stoves using local materials. They share in turn this new know-how with the women of their respective villages. During visits, auto evaluations are undertaken by the project team. It was observed that households rapidly adopted the methodology (close to 3,500 improved cook stove between 2006 and 2008) and that networks of women trained to build improved cook stove were easily constituted.

The ‘improved cook stove activity’ is often associated with assisted natural regeneration (ANR) for reducing the pressure on wood resources.

Results :

1. A reduction in firewood consumption of 70 to 80 %.
2. A reduction in abusive cutting of wood resources, limiting ecosystem degradation and weakening
3. More free time for women who can dedicate it to other activities, including some that are income-generating.

Sources :

Actions Dakar program and project Filao, initiated by SOS SAHEL International, in partnership with : Amaury Sport Organisation (for the “Action Dakar” project). Fondation Ensemble and l’IREM/LCD – CILSS (for « Filao » project).