

Eritrea efficient stoves

This project provides energy efficient stoves across Eritrea, to people who cannot afford the capital cost of the stove. It aims to address the problems of deforestation, rural poverty and rural energy shortage in Eritrea, by replacing traditional cooking stoves with improved stoves that use half the amount of wood fuel.

Organisation : Energy Research and Training Centre (ERTC), part of the Eritrean Government's Department of Energy.

The carbon reductions are calculated and verified by the Berkeley Lab, University of California, according to a specific methodology developed by the Berkeley Lab with the outline provided by UNFCCC (United Nations Framework Convention on Climate Change).

Preservation of Eritrea's remaining trees is desperately needed. The country lies across the arid and semi-arid regions of the Sahel and has been almost entirely deforested. The land degradation and loss of soil fertility that has resulted from the deforestation is severe. It is estimated that 82% of the country's energy needs are met by biomass sources, principally wood, so the pressure on the remaining forests and trees is enormous.



Traditionnal stove



New efficient stove

Traditionnal stoves are smoky and dangerous and often difficult to start, requiring a lot of blowing, and large amounts of kerosene, to get them going. They are very inefficient and require a lot of woodfuel to complete the cooking process.

The ERTC stove project is addressing this situation directly by promoting a stove that reduces household consumption of biomass by more than 50%. Because the stove works as well with small sticks and leaves as it does with large pieces of wood, the users can gather fallen branches and twigs for their stoves and leave living trees standing. Although fuel still needs to be collected and prepared for the stove, the family doesn't have to spend so long doing this as they no longer need to fell whole trees and split logs.

ERTC is teaching women how to build the stoves themselves and also paying them to teach other women, who are, in turn, teaching others. 10,000 stoves are installed each year, each stove reducing carbon emissions of 3 tons.

This project received the Ashden Award for sustainable energy in 2003, annual competition to identify and reward organisations which have carried out truly excellent, practical, yet innovative schemes, demonstrating sustainable energy in action at a local level.