

Ensuring safe access to energy for all

Almost three billion people globally rely on wood, coal, charcoal or animal waste as sources of fuel for cooking and heating. Collecting fuels – fuelwood in particular – is often women and girls' responsibility and can be an arduous and burdensome task, and sometimes, outright dangerous. Unsustainable harvesting of the scarce wood resources further degrades the environment. FAO addresses these challenges by promoting the use of fuel-efficient stoves, reforestation activities and livelihood activities that can replace woodfuel production and selling, especially in prolonged crisis and emergencies.

Ensuring access to energy in protracted crises requires solutions to address multiple challenges at once. Firstly, extensive harvesting and production of woodfuels often reduce forest resources and cause forest degradation which can increase soil erosion, desertification and the risk of disasters caused by natural hazards. Secondly, women and children who walk long distances to collect fuelwood are exposed to harassment, assault, rape and other forms of violence.

Thirdly, if women from poor and vulnerable households have limited access to cooking fuel, they may resort to skipping meals, undercooking food and bartering or selling food to obtain fuel. Fourthly, cooking on a three-stone fire is a common practice in rural areas and produces large amounts of toxic smoke which exposes women and children to lethal respiratory illnesses. Finally, the collection of fuelwood and production of charcoal are risky and unsustainable livelihood activities and the use of inefficient cooking methods, such as the three-stone fire, may cause households to spend much more of their savings and time on wood than they would with more efficient cooking technologies.

(charcoal or wood) and a significant reduction in their time spent to collect fuelwood. The fuel-efficient stoves have made the living environment healthier – with less exposure to respiratory and eye diseases related to smoke – and safer, with reduced cases of fire outbreak or exposure of children to burns. As a result, women's exposure to harassment, assault, rape and other forms of violence is reduced.

Women's groups in the region have played a prominent role in disseminating the message on the improved stoves and fuel-saving practices. They have offered support in mobilizing and monitoring participation at the camp and community levels. This process has also triggered the spontaneous emergence of new women leaders. Through 'learning by doing' many women are now able to train others to produce stoves, and can apply these skills also in other disciplines.

Safe Access to Fuel and Energy (SAFE)

Through the Safe Access to Fuel and Energy (SAFE) initiative, FAO is engaged in partnerships with other UN agencies and NGOs, including the World Food Programme (WFP) and the United Nations High Commissioner for Refugees (UNHCR).

SAFE was initially established with the aim of identifying actions to reduce the exposure to violence, contribute to the protection of and ease the burden on those populations collecting wood in humanitarian settings worldwide. Today SAFE projects and activities are coordinated through a Steering Committee, chaired by the Global Alliance for Clean Cookstoves and the Women's Refugee Commission, which includes FAO, WFP, UNHCR, Mercy Corps and the International Lifeline Fund.

The rationale behind SAFE is to address the fact that more than a third of the world's population relies on traditional fuels – wood, coal, animal dung, and agricultural waste – for their energy needs. This fuel is used for cooking meals, heating homes and shelters, and lighting communities.

In order to address these challenges, FAO is working to ensure that vulnerable households have access to sustainable fuel, access to cleaner and safer technologies that can significantly reduce the amount of wood needed for cooking and improve the sustainable management of natural resources.

Improved mud stoves in Darfur

After more than a decade of prolonged conflict and crisis, the region of Darfur (Western Sudan) continues to be at the center of conflict, crisis and related displacement. In camp settings, fuelwood collection is one of the main reasons why women leave the camp, thereby putting their lives at risk.

This is one of the reasons why FAO, along with other agencies, has been promoting the use of improved mud stoves in the area since the 1990s. Women have been trained to train others in the manufacturing and maintenance of the stoves, as well as on efficient cooking practices.

Today, about 99 per cent of the targeted women use the mud stoves frequently. These women report at least 50 per cent cash savings on fuel

Experiences in South Sudan

The successful experience in Darfur inspired another FAO project to respond to communities in Yei County, South Sudan, which had identified the lack of cooking fuel as one of their main challenges. FAO addressed this in 2013 through a Japan-funded project, in close collaboration with a local partner, the Kagelu Forestry Training Centre (KFTC). The communities themselves selected twenty women to be trained to produce fuel-efficient mud stoves as an income-generating activity. During the project, they constructed 1,500 stoves, which were delivered to 1,500 vulnerable households.

The stoves were built using flexible designs developed with the participation of the women. To accommodate their wishes, the stoves were designed to allow the use of both firewood and charcoal on one stove, and both fixed and portable models were designed. Fixed stoves were built directly into the houses and often included a chimney to draw the smoke out of



A woman builds her own mud stove clay oven

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the house. The participating women learned first by observing the production process, then built the stoves themselves before learning to teach others how to use the stove. During the training, the women acquired skills on how to prepare mud bricks and use them for stove construction, making a durable foundation in the kitchen, stove maintenance, and improved wood handling.

In addition to reducing the need for fuel by improving fuel-efficiency in cooking, the project also contributed to increasing the availability of fuelwood. A number of men and women were selected from the communities for a training of trainers programme on tree nursery establishment and agroforestry techniques, in order for them to train other farmers. The formation of groups – women groups in particular – for tree nursery establishment and management was encouraged. A simple training manual on agroforestry techniques was also developed.

Lessons learned

In South Sudan, women who used the stoves noticed a reduction in the amount of fuel wood needed for cooking, reduced smoke, a reduction in the cooking time leading to more time

for other activities, while leaving food safely on the stove to simmer. The stability of the stoves, as opposed to a three-stone fire, has allowed women to carry out farm work while leaving their sauce to simmer on the stove. Women have also learned the correct procedures for using the stoves and reported that the smell and taste of the food is better after being cooked on the mud stoves. Women therefore reported that they spend less time cleaning after cooking.

However, some problems persist. The distance walked by women to collect fuelwood is still quite significant since nearby fuelwood resources have been depleted. Therefore, increased attention needs to be given to reforestation activities, even if this will not provide an immediate solution. While not being used for cooking the main meals for the household, the three-stone fire is still used for various purposes such as heating, boiling water, roasting cassava, heating water for giving children a bath and as an area for socializing.

The experiences in both South Sudan and Darfur indicate that attention to energy issues can reduce the pressure caused by depleting natural resources and related security threats,

and thus relieve women’s disproportionate burden. Giving women a voice when planning interventions leads to solutions that address the multiple challenges faced by the communities, while contributing to more resilient development.

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- Video: Safe Access to Fuel and Energy
www.youtube.com/watch?v=EPw_7S7nvnM