



# BEYOND FIREWOOD:

## Fuel Alternatives and Protection Strategies for Displaced Women and Girls

Every day, millions of women and girls venture out of refugee and internally displaced persons camps, risking rape, assault, abduction, theft, exploitation or even murder. Why? To collect enough firewood to cook for their families or to sell to meet their basic needs.

The risks associated with firewood collection have been well known for years, yet few effective fuel-related protection strategies are in place to combat the problem. The Women's Commission for Refugee Women and Children (Women's Commission) therefore initiated a project to investigate methods for reducing the vulnerability of displaced women and girls to gender-based violence during firewood collection. The project set out to assess alternative fuel options, firewood collection techniques and other protection strategies, appropriate to the local context and in all phases of an emergency. To accomplish these goals, the Women's Commission undertook desk reviews of fuel provision, collection and physical protection strategies in various internally

displaced persons (IDP) and refugee situations worldwide and conducted site visits in Darfur, Sudan and in the Bhutanese refugee camps in eastern Nepal.

Physical protection strategies can actively prevent attack during the collection of firewood. The development of alternative sources of cooking fuel, on the other hand, can help to lessen the potential for attack. Another way of viewing a potential response strategy is by dividing it into two categories: decreasing the *threat* to women and girls; and reducing the *vulnerability* of women and girls.

The issue of gender-based violence during firewood collection requires a multi-faceted response by the United Nations and other international agencies. The humanitarian community has generally responded to the problem with one or more of four *ad hoc* strategies: the direct provision of fuel; physical protection during fuel collection; promotion of fuel-efficient technologies; and development of alternative fuel sources.

*However, these strategies must be coordinated and accompanied by the development of alternative income generation activities to be effective.*

Cooking fuel is traditionally thought of as a "women's" issue, since it is a part of the cooking process. Rarely is cooking fuel provided by the humanitarian community, and even more rarely do men collect the wood. The burdens associated with collecting fuel fall almost exclusively on women and girls.

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## Providing fuel for refugees

If humanitarian agencies provide fuel, it can significantly reduce the need for women and girls to leave the camps in search of firewood. Direct provision is expensive and difficult to sustain in the long term, and it tends to increase the dependency of refugees or IDPs not just on the providing agency, but on the fuel in general. However, distribution of even partial fuel rations could be a necessary component of a protection strategy in the earliest stages of an emergency.

### Key Recommendation

- ☆ Direct provision should be considered in the early stages of an emergency but must be accompanied by a phase-out plan and longer-term fuel strategies.

## Physical protection

Physical protection can be improved by providing transportation for women and girls to firewood collection locations. In addition, when national or international security forces or human rights monitors patrol firewood collection routes, refugee women and girls may benefit. Direct consultation with displaced women regarding their needs and concerns before beginning such patrols, as well as ongoing, frequent communication, is crucial to ensuring their success.

### Key Recommendation

- ☆ United Nations and/or regional peacekeepers or human rights monitors should provide transportation to collection points and expand patrols by security forces along collection routes, in consultation with women.

## Fuel efficiency

Fuel efficiency can reduce both the frequency and amount of firewood collection. Fuel-efficient rations and cooking techniques, such as pre-soaking beans and sheltering cooking fires, are inexpensive, easily implemented techniques that should be promoted in all camp settings as a complement to any fuel strategy.

In addition, reducing overall wood consumption can both reduce the distance that women and girls must travel in order to collect wood and protect the environment surrounding refugee and IDP camps.

A wide variety of models of fuel-efficient stoves is available for use in camp settings, from hand-made mud designs to pre-manufactured stainless steel products. Fuel-efficient stoves reduce firewood consumption from 20 to 80 percent. In addition, they can be very inexpensive and burn relatively smoke free, which reduces the risk of respiratory infections. The contained fire is also safer.

Despite the potential of fuel-efficient stoves as a protection tool, most trainings and stove distributions in refugee and IDP camps have, so far, been *ad hoc* in nature. There has been little sharing of best practices, resulting in significant inefficiencies in stove design and programming.

The use of fuel-efficient stoves may help reduce the threat to women and girls by decreasing the amount and frequency of firewood collection. However, women and girls remain vulnerable since the use of stoves does not eliminate the need for firewood and therefore the potential for attack.



## Key Recommendation

- ☆ The humanitarian community should promote the use of fuel-efficient stoves, but must simultaneously support the development of non-wood-based fuel sources. It should also promote the use of fuel-efficient rations and cooking techniques.

## Fuel alternatives

### Firewood

Wood is easy to use, provides flexibility in cooking time and temperature, cooks quickly and displaced women are familiar with it. Fire often plays a central role in the cultural life of a community, so many displaced women are reluctant to accept cooking fuels that do not create fire. In addition to the risks associated with collection, firewood creates significant smoke and can be unsafe in windy, unventilated or crowded environments.

### Briquettes

Wood or coal-based charcoal briquettes provide a fire, allow flexibility of cooking time and temperature and can be re-used if not fully burnt. They cook quickly but produce more smoke than many other non-wood based fuels. Coal may be difficult to find near camp settings.

Biomass briquettes are produced in or near camps from locally available materials. They burn without smoke and are fairly inexpensive. Production

tends to be labor-intensive, requires a large amount of raw materials and presents a potential for tension between refugees and host communities regarding use of forest products.

Most briquette fuels require more energy to produce than they emit during use.

### Kerosene

Kerosene cooks quickly, burns cleanly and can be used both indoors and outside. It is a tradable commodity, which can be sold for cash or ration supplements. However, users not familiar with the fuel have experienced complications, including explosions and fire. Kerosene may be appropriate in the short term at the beginning of an emergency, but is unsustainable in the longer term due to its high cost.

### Biogas

Biogas is a methane-based fuel made from the fermentation of human or animal waste. The gas itself costs nothing, but requires significant capital investments and physical space. Using biogas makes sense in protracted situations or where there is a direct additional benefit to host populations.

### Solar energy

There are three main types of solar cookers, varying in size, portability, cooking speed and cost. The weather in most camp settings is conducive to their use, and the cookers are beneficial in arid environments.

Women can safely use solar cookers in the vicinity of their huts, without having to put themselves at risk of attack by collecting firewood.

However, there are practical and cultural barriers to the use of solar energy. The solar cooker model that cooks food quickly requires abundant land and is expensive; the model that is small, portable and inexpensive cooks slowly. Achieving effectiveness and acceptability of solar cookers in camp settings is often prohibitively expensive for humanitarian agencies alone, though where private funds are available, solar energy could be considered for use in combination with other fuels or fuel technologies.

## Key Recommendation

- ☆ Any fuel or fuel technology considered for medium- to long-term use in a camp setting should meet a series of criteria or priorities that include, but are not limited to, the following:
  - safe provision and use
  - culturally acceptable
  - locally available raw materials
  - locally producible fuel
  - secure transport
  - sustainable in terms of cost and environmental impact, and/or with clear transition plan to a more sustainable fuel
  - appropriate for use with traditional staple foods or supplied rations
  - will not increase tensions with local communities



## Coordination

Fuel-related initiatives spur the involvement of a wide range of actors with a diverse set of interests, yet the coordination of fuel-related initiatives has been problematic because the United Nations does not have an established capacity to deal effectively with cross-sectoral issues.

As part of the ongoing humanitarian reform process, specific cluster and agency roles and responsibilities for ensuring the implementation of a coordinated, multi-sectoral fuel strategy must be clearly outlined and agreed to. Such a strategy has been developed by the InterAgency Standing Committee Task Force on Safe Access to Firewood and alternative Energy in Humanitarian Settings (IASC Task Force SAFE). More coordination will result in more creativity, a larger donor base, reduced costs and increased opportunity for lessons learned.

### Key Recommendations

- ☆ All humanitarian actors should share responsibility for multi-sectoral, holistic interventions to address fuel-related concerns.
- ☆ The outputs of IASC Task Force SAFE provide guidance on developing a coordinated, multi-sectoral fuel strategy and should be implemented by all relevant humanitarian partners.
- ☆ Donors should support, including via members of the International Network on Household Energy in

Humanitarian Settings ([www.fuelnetwork.org](http://www.fuelnetwork.org)), the development of alternative fuels and energy technologies appropriate for use in humanitarian settings.

## Income generation activities

Many displaced families rely on fuel as a key source of income as well as for cooking. Women and girls may collect firewood to sell, or may sell fuel rations and collect firewood for personal use. The development of alternative fuel sources must be accompanied by the development of income generation activities.

*Women and girls must have a legal means of earning income other than the collection and sale of firewood.*

Activities with the most chance of success are as practical as possible, use locally available materials, and have an identified market. They must offer financial returns equal to or greater than those accrued from the sale of firewood.

### Key Recommendations

- ☆ Income generation activities should be an integral part of any fuel strategy.
- ☆ A market survey should guide the development of any income generation activity.

## Conclusion

The role of cooking fuel as a

protection tool is often overlooked. However, a variety of strategies can serve to reduce the threat to and vulnerability of displaced women and girls collecting firewood, as well as to increase the income opportunities available to them.

To decrease the *threat* to women and girls, responses such as direct provision of cooking fuel and physical protection are needed. The promotion of fuel efficient technologies can also reduce the threat by reducing the frequency and amount of firewood collection.

To decrease the *vulnerability* of displaced women and girls to gender-based violence, alternative fuel sources must be developed. The availability of fuels other than firewood offers displaced women and girls a choice as to whether or not they will leave the camp to collect wood, since they are no longer dependent on firewood for cooking purposes.

Women and girls will only be truly protected, however, if they have a means of earning income other than the collection and sale of firewood. Any fuel-related initiatives must therefore be accompanied by the development of alternative income generation activities.

Read *Beyond Firewood: Fuel Alternatives and Protection Strategies for Displaced Women and Girls* at [www.womenscommission.org/pdf/fuel.pdf](http://www.womenscommission.org/pdf/fuel.pdf)