



Funded by
the European Union

Technical Assistance: Production of Affordable Solar Ovens in Region Threatened by Deforestation in Bangui

Location: Bangui, Central African Republic

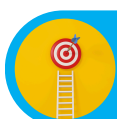
Solution: Solar Thermal Cookers and Heat Retention Baskets

UNEP CTCN grant: USD 180,300



Solar cooking techniques tested in Bangui, CAR © UNEP-CTCN

In the Central African Republic, especially in Bangui, deforestation driven by unsustainable biomass use for cooking is a critical issue. Women and girls often spend hours collecting firewood, putting them at risk of violence, while families rely on expensive, inefficient cooking fuels. This project introduces affordable solar thermal cookers and heat retention baskets as an alternative to wood and charcoal. By supporting local production and distribution, the project will reduce pressure on forests, improve health, and empower women with new economic opportunities.



Objectives

The project seeks to address the widespread use of biomass for cooking by introducing solar cookers in Bangui, helping mitigate deforestation and improve livelihoods. The project will establish domestic manufacturing of solar cookers, benefiting 150 households directly. In addition, the project particularly benefits women and girls, as solar cookers save time and effort, and reduces the need to collect firewood which often exposes them to risks of violence.

- **Reduction in deforestation:** Decrease the reliance on wood and charcoal by promoting solar cooking technologies.
- **Capacity building:** Train local stakeholders and youth in the production and maintenance of solar cookers.
- **Empowerment of women:** Involve women in solar cooker production and training, creating income-generating opportunities.



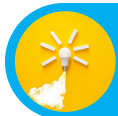
Climate Impact

- **Reduced greenhouse gas emissions:** Solar cookers reduce biomass use, reducing carbon emissions and deforestation.
- **Sustainable energy source:** The project leverages solar energy, which is renewable and available year-round in CAR.
- **Conservation of forests:** By reducing wood consumption, the project directly contributes to forest preservation.



Security Benefits

- **Reduced violence risk:** By lessening the need for firewood collection, women and girls are less exposed to violence in unsafe areas.
- **Economic stability:** The project creates stable income opportunities through solar cooker production, reducing financial precarity.
- **Reduced conflict over resources:** Solar cooking technologies reduce competition over scarce wood resources, promoting community stability.



Social Impact

- The project will benefit approximately 150 households (approx 800 direct beneficiaries) in Bangui by providing access to affordable, clean cooking solutions.
- Women, who are primarily responsible for cooking, will reduce firewood collection and save time, which can be redirected to education and income-generating activities.
- Moreover, solar cookers will create jobs in the manufacturing and maintenance of these devices, particularly for women and youth.



Food Security

- **Improved household savings:** Families save money by reducing the need to purchase wood or charcoal, allowing more resources for food and other essentials.
- **Healthier cooking environment:** Solar cookers significantly reduce indoor air pollution, improving respiratory health for families.



Climate Technology

- The project uses solar thermal cookers and heat retention baskets, locally produced to meet the needs of Bangui households.
- These technologies are designed to minimize fuel consumption and reliance on biomass.



Replication Potential

- The solar cooking model developed in Bangui can be replicated in other regions of the Central African Republic facing similar challenges with deforestation and biomass reliance.
- The project builds local capacity, ensuring sustainability and scalability.

