



**Awardee: ECOCA East Africa**

**Project Title: Institutional Solar Electric Cooking System (ISECS)**

The objective of the project is to design, develop, and implement a sustainable solar electric cooking system for institutions with large-scale food service operations, reducing reliance on fossil fuels and mitigating environmental impact.

Institutional kitchens, such as those in schools, hospitals, and military bases, consume significant amounts of energy for food preparation. Traditional cooking methods using fossil fuels contribute to greenhouse gas emissions and air pollution.

**Project Aims:**

1. Conduct energy audits and assess cooking requirements for the participating institution
2. Design and install solar photovoltaic (PV) systems to power electric cooking equipment.
3. Integrate energy-efficient cooking technologies, such as induction cooktops and electric steamers.
4. Develop a monitoring system to track energy consumption and performance.
5. Provide training and maintenance support.

**Expected Project Outcomes:**

- Reduce greenhouse gas emissions by 70-80%.
- Decrease energy consumption by 50-60%.
- Lower operating costs.
- Improve indoor air quality.
- Enhance sustainability and environmental stewardship.

**Project Implementation Plan:**

- Partner with institution to identify pilot sites.
- Conduct feasibility studies and energy audit.
- Design and install solar PV and cooking systems.
- Monitor and evaluate performance.
- Refine and replicate the model.

**Project Benefits:**

The Institutional Solar Electric Cooking System will contribute to a cleaner environment, will reduce energy costs, and improve public health, while serving as a model for sustainable cooking solutions in institutions worldwide. This project supports global efforts to mitigate climate change and promotes eco-friendly practices in the food service industry.

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