**Background Information:**

The Solar Mitad Initiative emerged from recognizing the challenges in traditional Ethiopian cooking methods. While initially perceived as affordable, the inefficiencies of these methods incur significant expenses and impact the household economy. Additionally, despite available cheap electricity, unreliability during peak times hinders its adoption for cooking purposes.

**Goal of the Project:**

To develop an affordable and user-friendly solar cooking stove, "Mitad," addressing costly and polluting cooking methods. This initiative aims to reduce dependence on traditional practices, promote clean energy, and provide access to safer cooking technologies.

**Primary Users and Decision-Making:**

Primary users involve local communities, NGOs, businesses, and environmental organizations. Project outcomes will inform decisions on community health, economic development, and environmental sustainability.

**Expected Deliverables:**

**Project Description:**

Objectives: Develop the Mitad solar cooking stove to replace costly and polluting cooking methods, promoting clean energy and safer baking practices.

Expected Outcomes: Increased Mitad adoption, improved indoor air quality, reduced carbon emissions, enhanced awareness of clean energy, potential economic benefits, and overall community quality of life enhancement.

**Challenges in Ethiopian Household Cooking Practices**

The significance of cooking, particularly baking injera, in Ethiopian households masks underlying inefficiencies, leading to increased expenses and prolonged cooking durations. Urban areas face electricity supply challenges during peak times, fostering a lack of confidence in electric energy for cooking. Additionally, rural-urban energy strain remains a concern due to the dominance of electric power consumption in households.

**Mitigating Energy Demand Strain through Transition**

Mitigating rural-urban energy strain involves transitioning from traditional fuelwood usage to cleaner energy sources, such as electricity, to reduce dependence on less efficient sources. This energy transition aims to alleviate the burdens faced by rural areas due to the energy demands of urban centers.

**Energy Consumption Analysis and Predictive Modeling**

To fortify my research, I initiated an in-depth analysis of energy consumption patterns, focusing on variables like cooking habits, geographical location, and environmental conditions. Collaborating with Ministry experts provided essential data, laying the foundation for my analysis. Leveraging these critical features, my goal is to create a robust predictive model.

**Predictive Analysis as a Decision-Making Tool**

The objective behind predictive analysis lies in its potential as a powerful decision-making tool. Considering predictions as informed estimates, I aim to evaluate energy distribution across the country. Real-world feedback will refine the model to address cost constraints and adapt strategies through collaboration with local communities. This approach ensures the true value of predictive analysis by guiding decisions and fostering continuous improvement.

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