

# TECHNOLOGY FACTSHEET SOLAR HOME SYSTEMS (SHS)<sup>1</sup>

## **Introduction**

Kenya lies along the Equator. Solar energy resources are available in many areas of the country in quantities that are commercially viable. In addition, small scale systems for households and institutions such as schools, hospitals in especially in isolated rural areas not connected to the grid can be developed for local community utilization.

Solar Home Systems provide households lights, and electrical power for televisions, cassette players and small appliances.

Solar electricity if adopted fully in the country could be widely used in rural Kenya to power wireless communications technologies that are linked to processes of economic integration and greater rural-urban connectivity.

## **Technology Characteristics**

Solar electricity is the electric power generated from sunlight using devices called solar cell modules. Electric devices transform solar energy into electricity for lighting, pumping water, powering radios, and so on.

## **Country Specific Applicability and Potential**

Solar Home Systems has very high potential given the fact that the country is located on the Equator.

## **Status of technology in country**

Solar Home Systems is yet to get wide acceptability and application in the country especially in rural areas not connected to the grid due to high initial costs of investment and insecurity of solar panels.

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<sup>1</sup> **This fact sheet has been extracted from TNA Report – Mitigation for Kenya. You can access the complete report from the TNA project website <http://tech-action.org/>**

## **Benefits to economic/social and environmental development**

- Employment creation
- Social and health benefits include:
  1. Better health as the technology does not emit any pollution as opposed to use paraffin lamps
  2. Good learning opportunities for students in the evenings
  3. Improved health. Traditionally families in rural areas use paraffin candles as source of light. These candles produce fumes which are harmful to human health

## **Climate change mitigation benefits**

SHS can replace use fossil fuel for energy generation. The mitigation potential is in the range of 1,000ktCO<sub>2</sub> /year in 2030 (IISD (2012))

## **Financial requirements and costs**

On average costs about US\$ 625 to install a Solar Home a 100W panel