

## **ABSTRACT**

Increased energy demand has forced societies to rely on traditional fuel sources with negative health and environmental impacts. In most developing countries, solar energy is available for long hours and in ranges that if exploited can reduce dependence on biomass and fossil fuels. However, despite its potential, uptake of solar cooking devices is low due to intermittent radiation, technological challenges, lack of awareness and slower cooking rates compared to other energy sources. There are four traditional types of solar cookers, box, panel, parabolic and tube. The latest technology is the PV conversion to electricity. Since the advent of solar cooking, numerous experiments, designs and improvements of solar cookers have been successfully developed. Research has focused on improving solar cooker performance such as; improved design, sun tracking mechanisms, solar thermal storage or “hybrid” designs that remove limitation of nighttime cooking or periods of poor irradiance. These improvements have increased the efficiency, reduce the cost of the solar cookers, and addressed sociocultural challenges such as sheltered cooking, visual appearance, and the ability to cook traditional recipes. However, more needs to be done to increase ease of adoption, the capacity of energy storage and flexibility. The cost of domestic workloads and environmental degradation should also be a factor in energy policy formulation.