**Solar Cookstoves**

Solar cookstoves, often called solar cookers, can be used in areas where solar energy is abundant for most of the year, which NASA's solar insolation maps indicate is between 30 degrees north and south of the equator, consequently where much of the developing world is located. There are three types of solar cookers: panel, box and parabolic, all of which generate heat by directly capturing the sun's solar thermal energy.

* **The panel cooker**, the least expensive and most portable design, works like an oven. It can heat a cooking pot to temperatures between 250 and 300 F (121-177C). Panel solar cookers use reflective foil bonded to a plastic, metal, wood or cardboard backing which is folded into a clamshell shape to collect sunlight.
* **Box cookers** work on the same principle as a panel cooker. They are bigger and less portable than panel cookers and can be made with cardboard, wood, metal or plastic. Larger models can hold several cooking pots. Solar box cookers reach temperatures between 350 and 400F (177-204C) and like panel cookers present no fire danger.
* **Parabolic cookers** resemble satellite dishes. They cook as fast as an open fire by concentrating sunlight on the bottom of a cooking pot. Parabolic solar cookers can be used from sunup until sundown. They generate temperatures above 450F (232C) even in sub-zero weather.

**Fuel Type:** Direct solar thermal energy

**Health Impacts:** Solar cookers produce no smoke and do not contribute to any health impacts associated with cooking.

**Climate Impacts:** Solar cookers emit no greenhouse gasses and do not contribute to climate change.

**Efficiency:** While the efficiency of solar stoves depends on the strength of the sun at any given time, the “fuel” is available at no cost, making it a cost-effective solution, especially for populations with limited access to other fuel sources.

Adapted from: http://www.cleancookstoves.org/our-work/the-solutions/cookstove-technology.html