**Annex-D**

**LOT4: Technical Specification for Solar Cooker for Emergency Response**

1. **Background**

As a humanitarian support for refugee and Internally Displaced People (IDP), UNDP Sudan provide support UNDP intends to supply and delivery of the solar cooker box type and parabolic type for household and community for its emergency assistance among the refugee and internally displaced people.

1. **Solar Box Cooker**

* Box-type solar cookers consists of an insulated box, metallic cooking pots inside the box, glass lid on the cooking tray, and a reflecting mirror fitted on the underside of the lid of the box. The cooking tray is insulated on the sides and bottom.
* Minimum dimension of the solar box cooker shall be 550mm\*550mm\*180mm
* Two black coated cooking pots made up with rust and corrosion free materials with lids suitable for solar cooking application shall be included.
* The cover plate of the box should be double glazed glass and fitted with gasket to avoid any heat loss.
* Technical specification with its dimension be provided. The reflectivity of the mirror be greater than 70%
* Warrantee for 1 years needs to be provided with signed guarantee card signed by the supplier with its seal and date of supply.

1. **Solar Parabolic Cooker**

* The solar parabolic disc cooker made with a reflective mirror of polished glass, metal or metallized film that is used to concentrate light and heat from the sun into a small cooking area with more concentrated energy and increasing heating power from the sun.
* The reflecting disc be made up of single or multiple reflectors fixed firmly to a rigid frame. The size and shape of the reflector be such that when joined or fixed they automatically form a perfect parabolic dish which when exposed to sun in normal direction a point focus is formed to heat the heating object.
* The disc area by minimum 1.4 Sq. m and the parabolic disc will focus the reflected rays exactly to the cooking utensil
* The reflector fins should be pasted to the supporting rings with an anti-rust metallic cord which does not wear out over span of time.
* Technical specification with its dimension be provided. The reflectivity be greater than 80% with concentration ratio of heat more than 75% when exposed to sunlight.
* The dish supporting structure should be rigid enough to avoid any deformation or the bowl shape during manual handling or under wind pressure.
* Disc stand should be anti-rust coated MS steel with an arrangement to hold cooking utensils of different sizes that is adjustable (pot holders) and the size needs to be provided.
* Warrantee for 1 years needs to be provided with signed guarantee card signed by the supplier with its seal and date of supply.

1. **Solar Community Cooker**

* Solar Community cooker are intended for preparing food for mass community having reflector mirror concentrating light and heat from the sun into special designed large dish holder to increase the heating power from the sun.
* The reflector fins should be pasted to the supporting rings with an anti-rust metallic cord which does not wear out over span of time.
* The disc area by minimum 8 Sq. m and the parabolic disc will focus the reflected rays exactly at the cooking utensils
* The dish and pot supporting structure should be strong enough to avoid any deformation under manual handling and under wind conditions.
* Technical specification with its dimension be provided. The reflectivity be greater than 80% with concentration ratio of heat more than 75% when exposed to sunlight.
* Disc and pot stand should be anti-rust coated MS steel with an arrangement to hold cooking utensils of different sizes that is adjustable (pot holders) and the size needs to be provided.
* Warrantee for 1 years needs to be provided with signed guarantee card signed by the supplier with its seal and date of supply.

**Important Note: The selected vendor/s make sure that all imported solar item into Sudan has to be certified by Sudanese Standards and Meteorology Organization (SSMO)”**