

### Annex 3

#### Questions for public inputs in relation to the development of a solar cooker methodology

1. The SSW WG is considering developing a new methodology for small-scale solar cooker CDM Projects and Programmes of Activities and is seeking public input on the issues presented below. This methodology is expected to focus specifically on household solar cookers, as it is the view of the group that projects involving solar cookers for community or small business applications may use other methodologies. The methodology will calculate emission reductions associated with the displaced cooking fuel that would have been consumed by conventional stoves if the solar cookers had not been utilized.
2. Issues on which feedback is requested:
  - (a) Solar cooker technologies to be included: while most household solar cooker projects in the CDM pipeline use parabolic/concentrating cookers, the SSC WG is aware of the value and importance of other technologies such as solar box cookers and panel cookers. Thus, we would like to include these technologies under the methodology if there is an interest on the part of project developers in using them under the CDM and if a reliable approach to determining emission reductions can be developed for these devices. Our questions are: what is the potential for developing CDM projects using other cooker types? Have there been methodological barriers for bringing forward projects with box or panel cookers (for example lack of an appropriate methodology or low baseline emission factor)? Or should we focus the methodology solely on parabolic cookers?
  - (b) Long-term use of solar cookers: the SSC WG believes that a key approach to sustained use of solar cookers is initial training and ongoing community support for the use of solar cookers. Our question is: should, and if so, how can the methodology define requirements that encourage sustained use of the solar cookers?
  - (c) Lifetime of Solar Cooker Technologies: the lifetime of a solar cooker varies significantly for the various solar cooking technologies, and depends on the materials used, the manufacturing/construction process, as well as on user habits and maintenance. Our questions are: do manufacturers and suppliers of solar cookers generally specify the expected lifetime of their products? How significantly will the lifetime depend on use? Do the manufacturers/suppliers generally provide suggested maintenance procedures to prolong the life of the cookers? For solar cookers constructed with wood or other biodegradable materials (e.g. cardboard, straw) what types of lifetimes are generally expected? Has experience shown that cookers last as long as expected?
  - (d) Baseline Fuels: solar cooking projects are generally introduced in areas that use biomass fuels (e.g. wood, dung, etc.) and fossil fuels (e.g. kerosene, coal). Our question is: are there also cases where electricity would be displaced by solar cookers, or would this be minimal and not need to be taken account within the methodology?
  - (e) Approaches for Determining Emissions Reductions: two options have been put forward for determining emission reductions from the use of solar cookers: (1) based on the difference in fuel consumption in conventional stoves before and after the solar cookers are introduced; and (2) based on the operating hours

of the solar cookers, the power rating of the solar cooker (likely appropriate only for parabolic cookers) and the efficiency of the baseline stove used to determine the heating value of fuel that has been displaced by the solar cookers. Both options present challenges, in particular in the monitoring stage, for determining real, verifiable emission reductions. Our questions are: are there views and experience with these approaches that would be useful for defining the methodology? As well, are there any other approaches that may be more credible? If so, details on those approaches would be welcome;

- (f) Monitoring for Option 1: under option 1, household fuel consumption at a representative sample of households would have to be monitored both before the solar cookers are introduced and after the solar cookers are introduced. Our questions are: how feasible is this in rural households? Can credible, representative data be obtained? How easily can seasonal operation of the solar cooker be taken into account, i.e. would monitoring be required for two seasons a year, for four seasons? Are there suggestions on the best approaches for obtaining fuel consumption data, that are acceptable to user households?
- (g) Monitoring for Option 2: the second method requires monitoring of the operating hours of the solar cookers, either based on self-reporting by the user, or by a metering device on the pot in the cooker (that determines cooking time based on a temperature gauge of the pot). Our questions are: what have been the best approaches for obtaining reliable self-reported data from solar cooker users? Has there been experience using temperature devices for measuring operating hours of the cooking pots in the solar cookers? With regards to power ratings of solar cookers, are these generally specified by the manufacturer of the equipment? How reliable are these power ratings and how relevant are they to determining the resultant reductions in fuel use of avoided conventional stoves?
- (h) Usage Studies and Default Factors: some estimates in the literature indicate that solar cookers can result in fuel savings of between 25-50%. Savings vary from one region/country to another and are dependent on technology used, prevalent cooking methods, climatic factors and cultural factors and therefore it may be very difficult to come up with credible default factors for fuel savings or for rates of usage for solar cookers. Our question is: can you please provide any studies that have been carried out that have documented usage rates and/or fuel savings for solar cookers in specific regions?
- (i) Cross-effects: there could be cross-effects between solar cookers with room heating/cooling, since outside cooking may affect the thermal conditions inside home. Our question is: can you please comment on whether it should be taken into account and how, if so?