# Collective Solutions

# Workshop Syllabus Water Heating: Design & Construction

## Number of Participants: 10-20 people

Skill Level: Beginner

Total Workshop Length: 2-4 Days

Classroom: 1-2 Day

Project Installation: 1-2 Days

### Required Materials (subject to vary):

(Depending on which system is chosen) materials may include: black piping or garden hose, solar water heaters (assembled), glass, 2x4s, nails, water tank, valves, rope, hardware to attach to roof, copper piping, fasteners, pipe bender. Water pressure is required for these systems

**<u>Participants</u>**: Note pad, pen, general construction tools (if they own them)

Host Organization: Classroom, lunch, and above materials to be determined between CS and Host Organization

<u>Average Cost of Project</u>: Depending on type of system, average cost would be: \$450- \$2200\* (\*All prices are in US Dollars)

Host: Minimum 30% of cost to be paid for by host organization

#### Participant Cost: Free

**<u>Objective</u>**: To look at several basic systems for heating water and connecting heating devices to household plumbing.

#### Workshop Description:

Many people throughout the world operate without the luxury of hot water. The purpose of this workshop is to examine various easy –to- manage and affordable options for heating water. Systems may include roof piping, solar oven heating, heat exchangers for stoves, and solar water heaters. Depending on the structure and needs of the host site, participants will construct an appropriate system.

