

Solar cooker performance evaluation

Julie Greene, Executive Director
Solar Cookers International



Solar cooker performance evaluation



Julie Greene (Executive Director, Solar Cookers International, SCI Associate) -

Overview of solar cooking and responding to the need for solar cooker evaluations

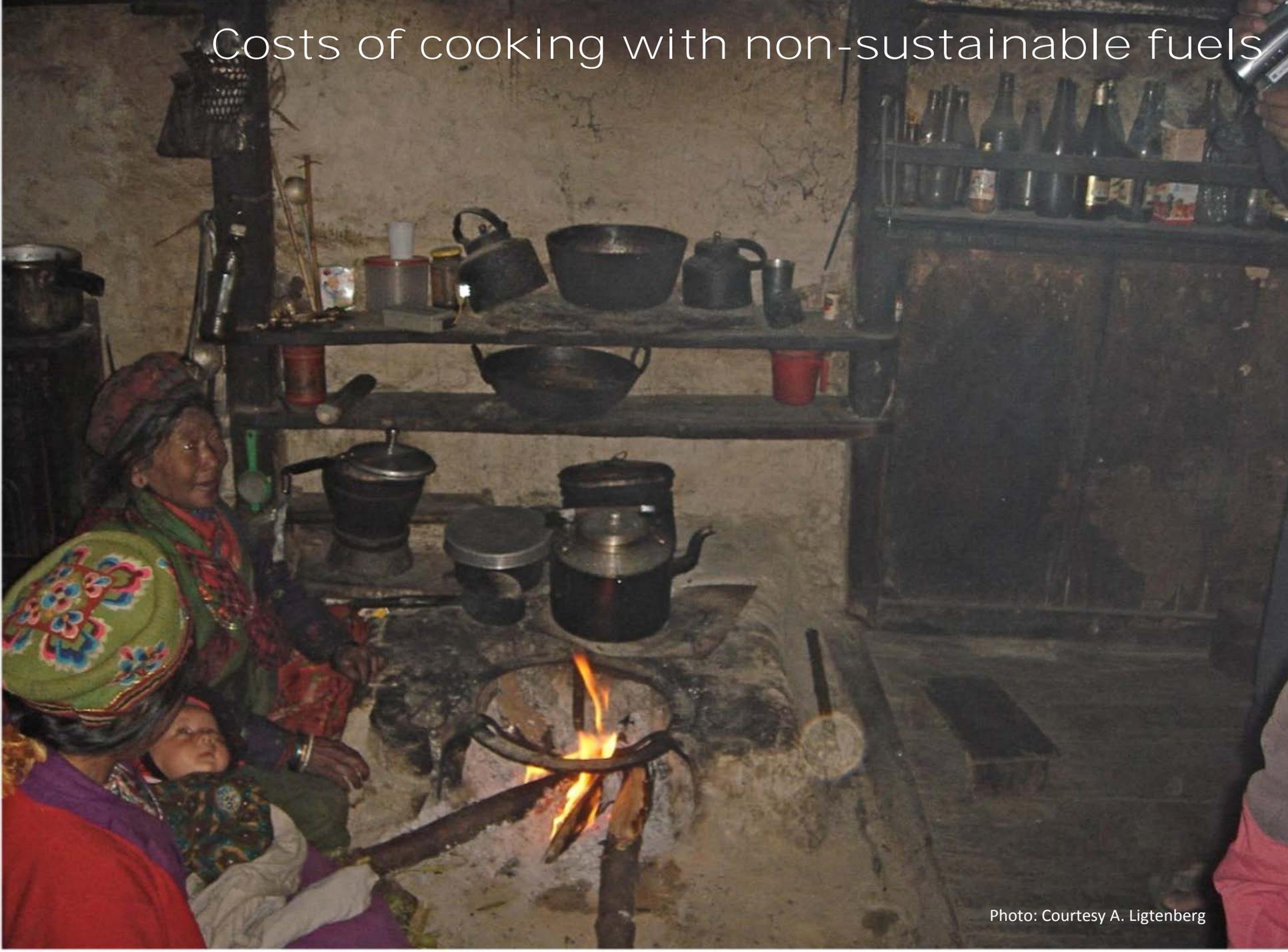
- Costs of cooking with non-sustainable fuels
- Benefits of sustainable cooking solutions
- The need for a solar cooker performance evaluation process

Dr. Paul Funk (Member, American Society of Agricultural and Biological Engineers) - The ASAE S580.1 protocol for Testing and Reporting Solar Cooker Performance

Dr. Alan Bigelow (Science Director, Solar Cookers International) - Implementing the SCI Performance Evaluation Process (PEP)

Anne Patterson (Founder and CEO, Solavore) - The value of solar cooker PEP results: a manufacturer's perspective

Costs of cooking with non-sustainable fuels





Solar cooks reported their smoke-related health problems fell from 77% to 33% in their first 10 months of solar cooking. Tanzanian solar cooks used the SCI Adoption and Impact Survey. To learn more go to: <http://www.solarcookers.org/Tanzania> You can participate.

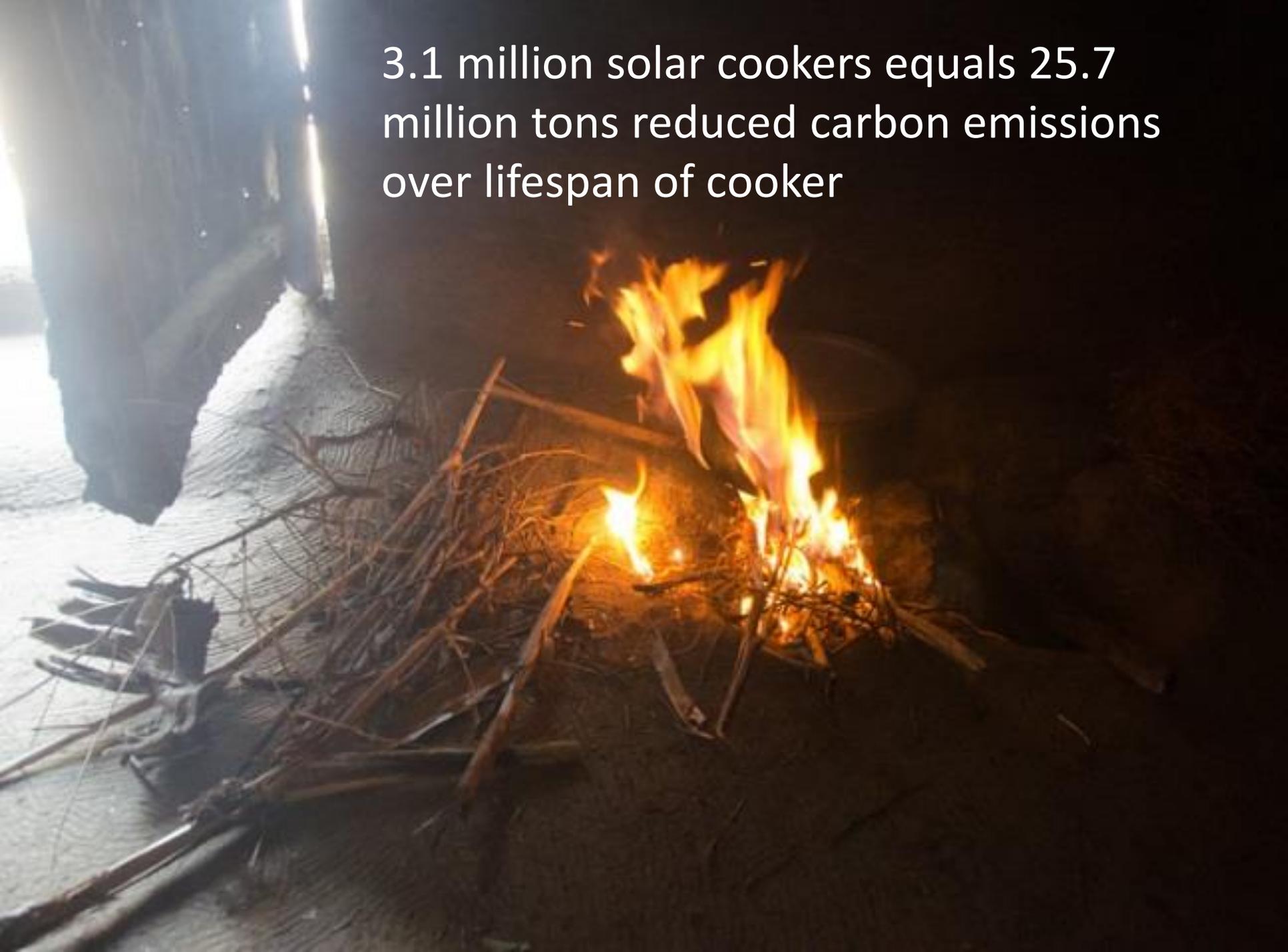
Imagine a mature forest as big as South Carolina, US, preserved. That's one way of thinking about the number of trees conserved by 3.1 million solar cookers over their lifespans. SCI and its partners have distributed that many solar cookers already. **Our GOAL: to triple that.**

3.1 million known solar cookers will reduce carbon dioxide emissions by an estimated 25.7 million tons over their lifespan. That's like taking 5 million cars off the road for a year See a map online at: <http://www.solarcookers.org/map>.

A woman who solar cooks in the world's poorest regions saves a large portion of her household budget. This is life-changing when you live on less than US\$1.90 per day.

Benefits of sustainable cooking solutions

3.1 million solar cookers equals 25.7 million tons reduced carbon emissions over lifespan of cooker





Land erosion,
Nepal

Photo: Courtesy of A. Ligtenberg

Panel



Parabolic



The Solar Cooking Wiki

135 Countries · 350 NGOs · 279 Individuals
166 Manufacturers · 400 Designs · 92 Plans

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Institution

Box

Comparison of solar cookers by Watts (examples)

Solar Panel Cooker	27 Watts
Solar Box Oven	51 Watts
Parabolic Reflector	256 Watts

The need for a solar cooker performance evaluation process
Preliminary SCI PEP results



“....having an ISO standard [that includes] solar cooking technology will make governments take it seriously as a green energy option.”

Godfrey Mawira, World Food Programme - Kenya



Photo: Courtesy G. Mawira 2017

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Learn more at

<http://www.solarcookers.org/our-work/performance-evaluation-process/>



www.solarcookers.org