EPA
United States
Environmental Protection
Agency

EPA Cookstoves Research

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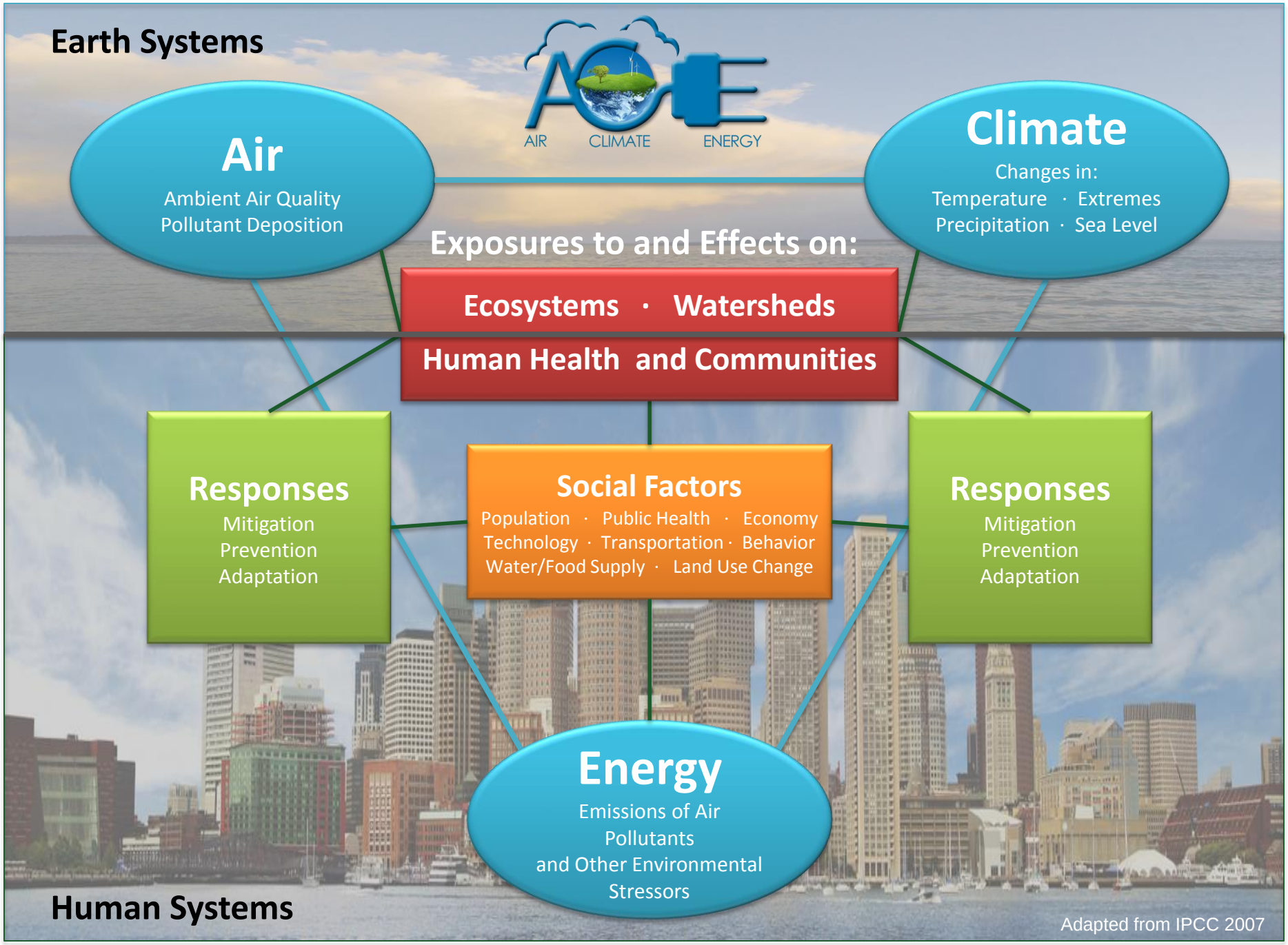
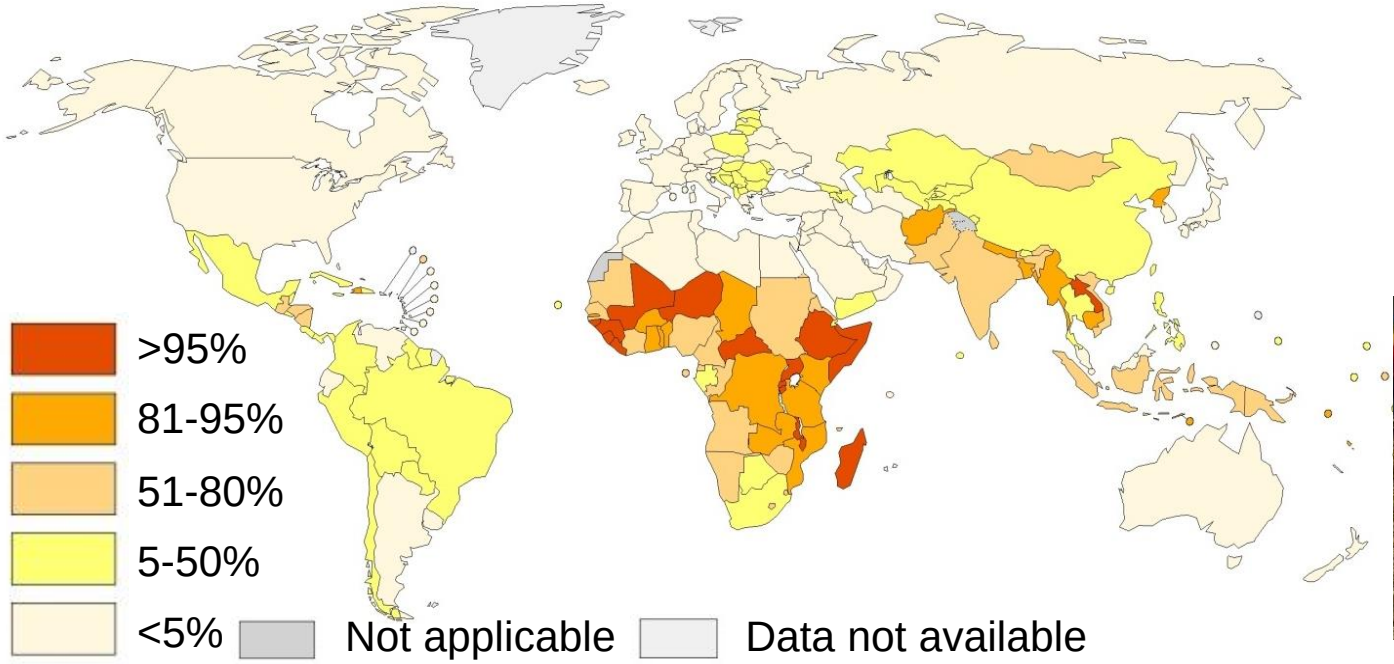
Key Issues for ACE

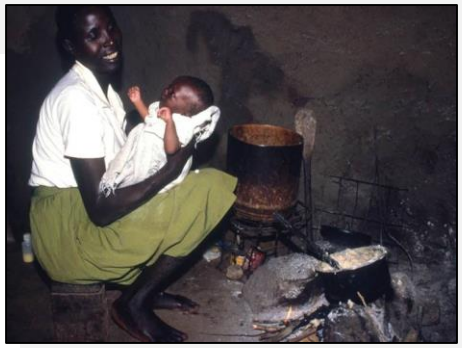
- The multipollutant nature of air pollution: air quality management
- The expanding and contracting scales of environmental problems that range from global to local
- The impacts of climate change and the development and evaluation of sustainable adaptation and mitigation options
- The social, behavioral, and economic factors that influence the effectiveness of air quality and climate policies
- The human health and environmental impacts of current and future energy alternatives


Earth Systems
AIR CLIMATE ENERGY
Air
Ambient Air Quality
Pollutant Deposition
Climate
Changes in:
Temperature · Extremes
Precipitation · Sea Level
Exposures to and Effects on:
Ecosystems · Watersheds
Human Health and Communities
Responses
Mitigation
Prevention
Adaptation
Social Factors
Population · Public Health · Economy
Technology · Transportation · Behavior
Water/Food Supply · Land Use Change
Responses
Mitigation
Prevention
Adaptation
Energy
Emissions of Air Pollutants
and Other Environmental Stressors
Human Systems
Adapted from IPCC 2007

About 2.8 Billion People Still Use Solid Fuels for Home Cooking and Heating

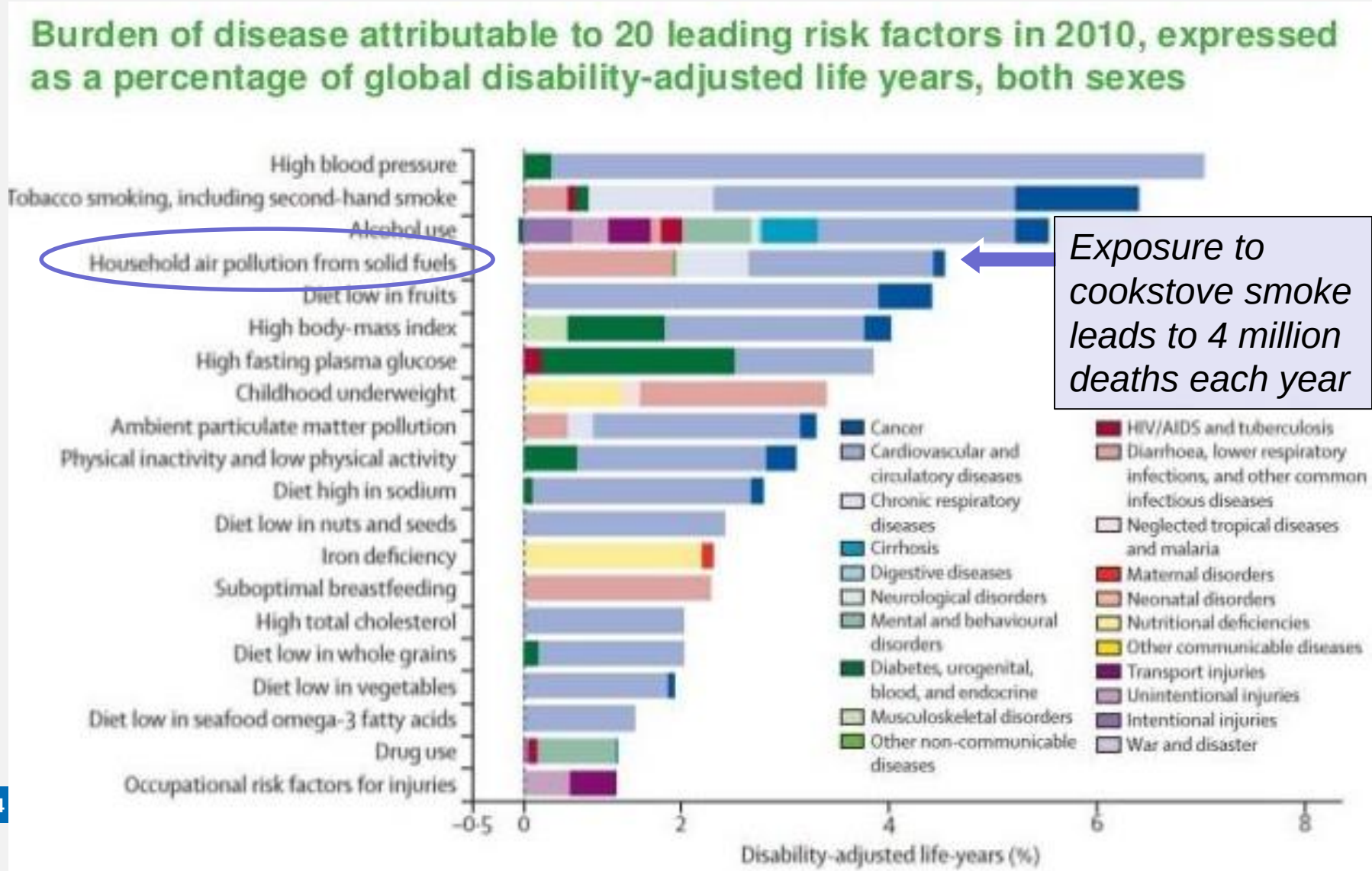
Population % using solid fuels, 2010





GLOBAL BURDEN OF DISEASE STUDY (WHO, 2012):

Exposure to cookstove smoke is the 4th largest health risk factor in the world – and the 2nd largest for women and girls



ORD Expertise in Cookstoves Research

Stove Testing

- Performance (NRMRL)
- Emissions (NRMRL)
- Toxicology (NHEERL)
- Health and Climate (NCER/STAR)
  STAR – Science to Achieve Results
- Exposure (NERL)

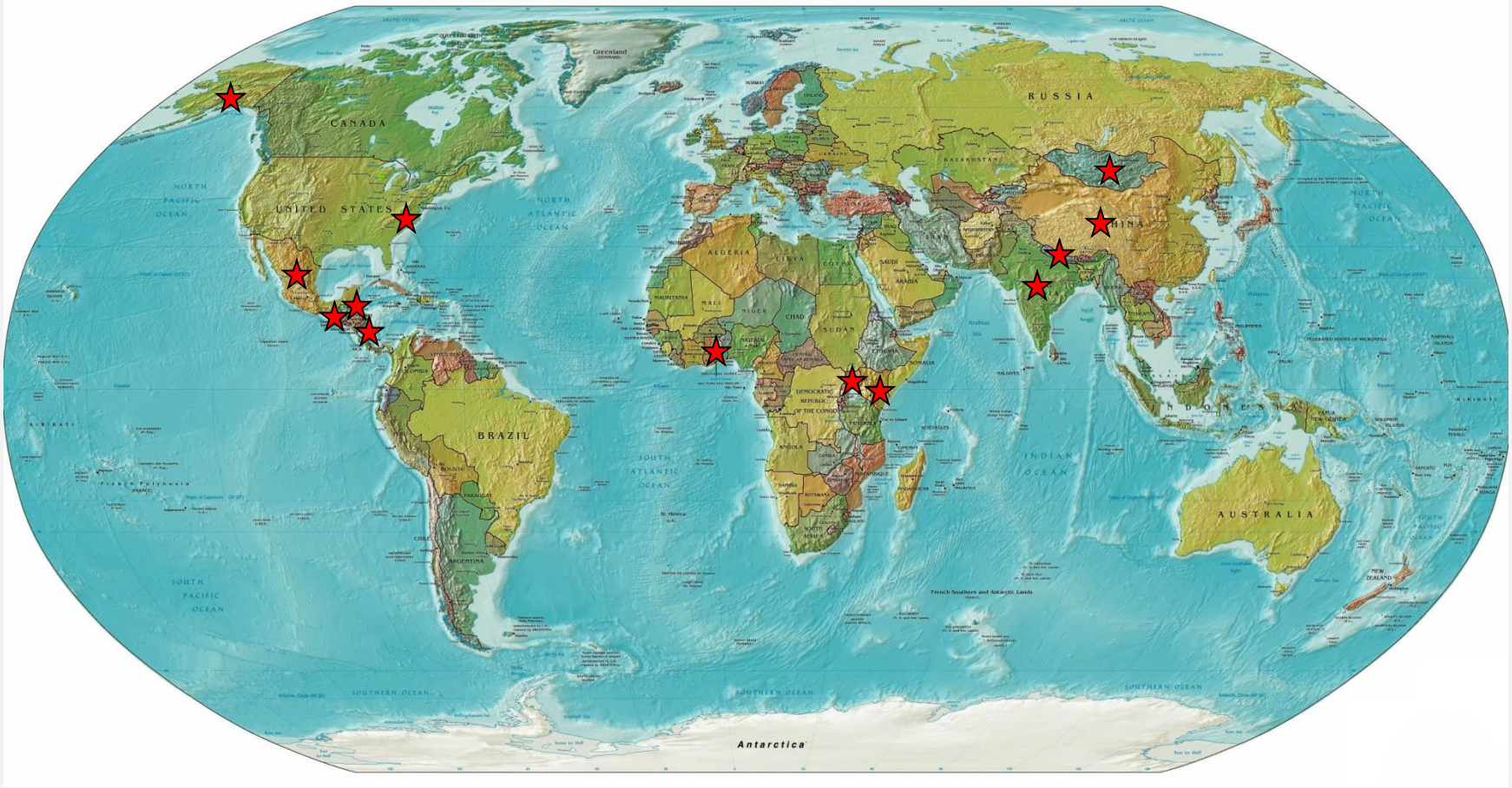
EPA-ORD Cookstoves Research

STAR Grants to quantify health and climate benefits of cookstove changes in the context of long-lived GHG

- EPA Administrator Gina McCarthy announced 6 new awards, May, 2014, to the Global Alliance for Clean Cookstoves
- Cooperative agreements, significantly leveraging internal EPA research
- $9 million total over three years to:
  - Measure health outcomes of stove interventions in the field
  - Measure and model climate impacts including direct and indirect effects on radiative forcing at multiple scales
  - Measure and model air quality & human exposure to air pollution at multiple scales (from the home to globally)

EPA Cookstoves Research

Geographic Distribution



Cookstoves Research on 3 Continents in 13 Countries

Speakers on the Agenda

- U.S. Environmental Protection Agency
- U.S. National Institutes of Health
- U.S. Department of State
- U.S. Centers for Disease Control and Prevention
- U.S. Department of Energy
- U.S. Agency for International Development
- Global Alliance for Clean Cookstoves
- 13 Universities and Research Centers