

Winrock's Expertise

Winrock International offers sustainable solutions to the complex challenges people face worldwide. Integrated programs provide strategies to address problems comprehensively. With a proven record of success and presence in more than 65 countries each year Winrock is able to respond rapidly to changing economic, environmental, and social conditions – in developed countries or emerging nations.

Winrock's three program groups provide technical assistance and development services in more than 50 specialties.

Empowerment & Civic Engagement - Winrock empowers people to transform their lives, institutions, and societies. It focuses on civil society strengthening, women's empowerment, and youth education and leadership.

Enterprise & Agriculture - Winrock's integrated programs support establishment and growth of small and medium-sized enterprises and agricultural initiatives that target sustainable production driven by market demand.

Environment: Forestry, Energy & Ecosystem Services - Winrock promotes sustainable use and management of natural resources to support the food and income needs of growing populations and the health of the planet. These activities encompass a broad range of programs and services including: Clean Energy, Ecosystem Services, Forest Management Services, and Forestry & Natural Resource Management.



Chad - Metal stove artisan.



Winrock International is a **nonprofit** organization that works with **people** in the United States and around the world to **increase** economic opportunity, **sustain** natural resources, and **protect** the environment.



Funders & Collaborators

The following organizations have provided funding to Winrock's household energy and health programs:

US Agency for International Development
Partnership for Clean Indoor Air,
US Environmental Protection Agency
Shell Foundation
Energy Sector Management Assistance Program,
World Bank
Vanguard Charitable Endowment Program
Healthy Environment for Children Alliance
Dometic AB

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Cover Photo: A Peruvian family enjoys their new and improved stove.

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Household Energy for Improved Health & Livelihoods



 **WINROCK**
INTERNATIONAL
Putting Ideas to Work

Integrated Strategies

Over 2.5 billion people, primarily the poor in developing countries, depend on biomass for basic cooking and heating. This often results in extreme concentrations of indoor smoke and associated health problems.

Winrock uses innovative and integrated health and energy strategies to reduce health risks, conserve resources, and improve livelihoods. Improved cooking technologies and practices generate less smoke, benefiting those at greatest risk - the more than 1.5 million people, primarily women and children, who are estimated to die every year from indoor smoke exposure. Winrock designs solutions that are locally-appropriate, comprehensive, and scaleable.

Advancing Technology Design - Adapting local stove models to incorporate clean and efficient design and meet local preferences and traditional cooking needs. Improved stoves can use up to 70 percent less wood and reduce emissions by a similar percentage.

Changing Behavior - Increasing awareness of smoke-related health risks is critical to modifying key cooking-related behaviors and improving family wellness. Product-based social marketing generates demand for appropriate solutions and fosters adoption of improved cooking technologies and practices.

Developing Enterprises - Building capacity among local entrepreneurs to produce and sell improved cooking technologies generates jobs and local income, increases access to these products and develops a sustained market for them.

Measuring Indoor Air Pollution - Measuring levels of carbon monoxide and respirable particulate matter (PM_{2.5}, PM₄) in kitchens confirms the effectiveness of project interventions, informs program design, and serves as a proxy for health symptom impacts.

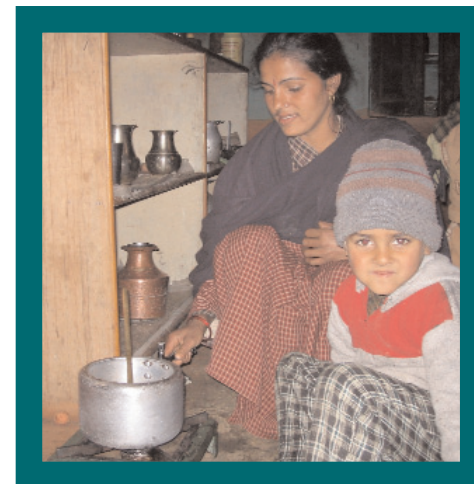
Improved Home Health & Energy Solutions

In Asia

Bangladesh - Winrock and two local health and energy partners are targeting households in urban slums that suffer from high levels of indoor smoke. Three models of efficient and locally-appropriate improved cookstoves are now available from entrepreneurs who have received assistance to launch their own small businesses. Communication materials educate families about the health risks of indoor smoke and promote adoption of healthier cooking practices.



Nepal - A school program for children and environmental science teachers raised awareness on the risks associated with indoor and outdoor air pollution and ways to reduce exposure. With the University of California at Berkeley, Winrock is currently studying indoor air pollution and acute respiratory infections in children under age three as part of study by the Child Health Research Project. Micro- and carbon financing strategies support widespread dissemination of household energy technologies, including improved cookstoves, biogas, and solar PV systems.



In Africa

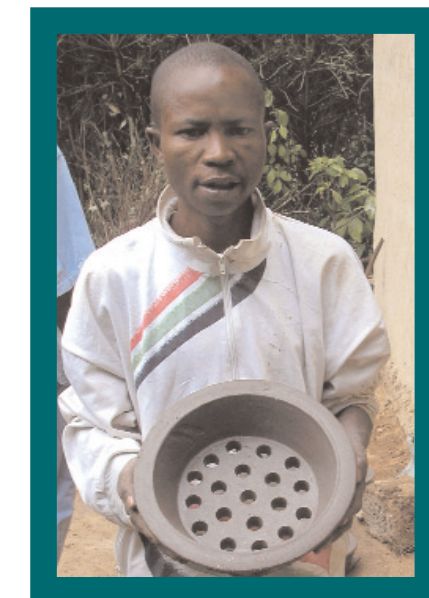
Chad - The Chad Household Energy Project increased household and small business income through the commercial production and sale of the Mamoun, a fuel-efficient charcoal stove. Winrock provided technical training for metal artisans and ceramists, and helped

establish a stable supplychain for stove sales. A promotional campaign introduced the Mamoun using radio, billboards, and live demonstrations. Purchasers of the 3,000+ stoves sold in the first 12 months save an average of \$100 per year each on charcoal costs.

Kenya - Winrock addressed health problems and fuel shortages faced by women living in the urban slums of Ngong and Rongai. Women's groups in these communities learned to manufacture and sell improved cooking products and establish small enterprises to generate income. Winrock and its partners promoted the benefits of these technologies through a nationwide social marketing campaign that reached thousands and boosted interest through radio programs and demonstrations.



Rwanda - Winrock is helping the Kigali Institute for Science and Technology develop a commercial program design to promote energy efficient, charcoal-burning stoves. Work includes market assessments, technology testing and selection, and strategies for stove production and distribution, marketing and promotion.



In Latin America

Peru - The Healthy Kitchens project promotes the use of improved cookstoves by increasing awareness of smoke-induced health risks and availability of new stoves supplied by local entrepreneurs. A revolving micro-credit program will enable families to continue to purchase the new stoves



following program closure. Winrock training builds the capacity of community leaders, health workers, and entrepreneurs in more than 20 communities to support adoption of clean cooking strategies.

Brazil - In partnership with Project Gaia, Winrock is

promoting ethanol cookstoves and exploring local capacity to manufacture stoves and produce ethanol via small distilleries in rural communities. Winrock is also researching local cooking habits and developing a market strategy for dissemination of information and improved technologies.

Nicaragua - Winrock and local partners are developing new approaches for dissemination of improved cookstoves. Carbon credits are providing funding to women micro-entrepreneurs who want to modernize their commercial wood stoves. Colorado State University and Winrock are developing and testing a cutting-edge, integrated system for household energy, wherein excess heat from wood stoves is captured to generate electricity for lighting rural homes.



Raising Global Awareness

The Partnership for Clean Indoor Air (PCIA) works to reduce exposure to indoor air pollution from household energy use in developing countries. Winrock is the primary cooperator for the Partnership and works to increase communication, share experiences among partner organizations, and build capacity of local groups. Two important communication vehicles are the Partnership website: www.PCIAonline.org, and the Partnership Bulletin.