

SOLUTION

WATER AND FOOD SECURITY



COMPLEX PROBLEM:

Across the globe, conflict, natural disasters, and human and environmental pressures on ecosystems leave billions of people at risk of not having enough food and water. According to the United Nations, 1.5 billion people live without clean water, and over 800 million are chronically undernourished. By 2050, the world's population is expected to reach nine billion people and require a 60-percent increase in food production.

INTEGRATED SOLUTION:

Winrock International addresses this complex problem at multiple levels with an integrated set of services and tools that improve the management of water, natural resources, and agricultural production and delivery.



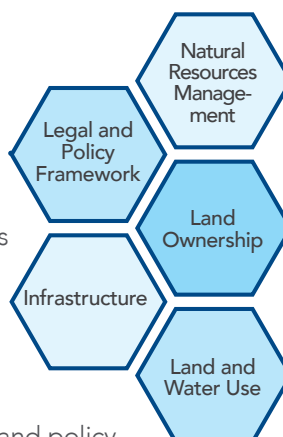
METHODOLOGY:



Improving governance, planning and priority setting

Food and water security depend on factors ranging from adequate production and affordability to reliable storage and processing facilities. Targeted investments and interventions are necessary to ensure robust food production, equitable management of shared resources and reduced weather-related risks. Winrock International designs tools that collect, analyze and disseminate data, informing smart decisions about everything from land and water use to the financing of storage and distribution infrastructure.

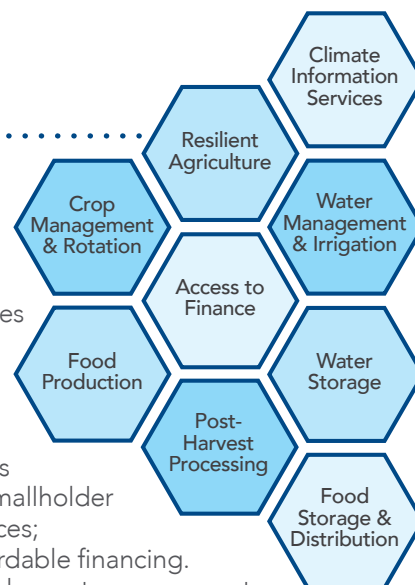
Equitable and sustainable resource allocation and land use require a strong legal and policy framework. Winrock works with policymakers to identify what data is needed to develop policies and rules to manage competing demands for water and land use. We then partner with local research institutions to gather, analyze and share information that informs smart policymaking.



Making agricultural production more resilient

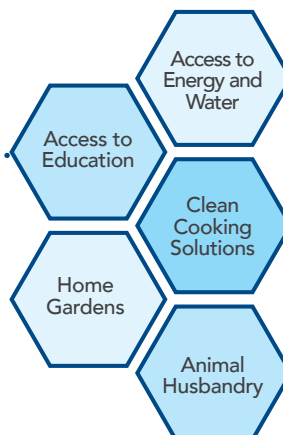
Winrock's work is concentrated at the farm and community levels. Our programs:

- Build local capacity to transparently and equitably manage community assets and resources to support diversified agricultural production systems, pinpoint and develop new sources of income, and promote women's empowerment;
- Help local communities identify sources and uses of water management systems that sustainably supply water for household and productive uses;
- Test and distribute information and communications technologies that efficiently deliver climate, weather, soil and market data to smallholder farmers and help them embrace climate-smart agricultural practices;
- Help smallholders connect to markets and expand access to affordable financing.
- Introduce processing and cold storage solutions to improve post-harvest management, reduce food spoilage and loss, and increase rural incomes.



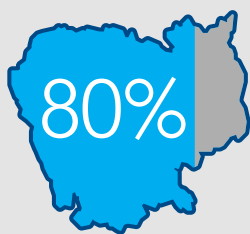
Strengthening households

At the household level, the burden for collecting fuel and water falls disproportionately on women. Winrock provides energy-efficient, low-cost technology solutions – including clean cookstoves and solar water pumps – that help women provide for their households. With better information and more time, women can better address food insecurity by growing household gardens and running small livestock husbandry operations. Diversified sources of nutrition and income are key to improving food security.



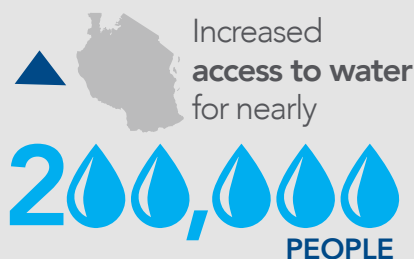


SUCCESS:



WESTool calculates ecosystem services for 80% of CAMBODIA

In Cambodia, Winrock developed the Watershed Ecosystem Services Tool (WESTool). By working with satellite data to analyze changes in water availability, soil sediment and nutrient loss, water pollution, and greenhouse gas emissions, the tool provides insights to help determine the best policies and practices for agriculture and land management. The WESTool can help guide policies and management practices to improve land and water use for 80 percent of Cambodia, an area with a total population of 8.7 million people.



In Tanzania, our integrated approach has increased water access for nearly 200,000 people, allowing households sufficient water not only to meet domestic needs, but also to plant home gardens and raise chickens and goats. The program has trained 95 private sector firms in the provision of water-related equipment and services, including well drilling, pump technologies and construction, and water filtering.

After training, beneficiaries **DOUBLED** THEIR ANNUAL INCOME $\$ = \$\$$

In Nepal, Winrock provided training to 54,000 small producers (81 percent women) to produce off-season vegetables and fruit, as well as to raise goats, fish and poultry. Beneficiaries more than doubled their annual income, with an average increase of \$412 USD per year. Perhaps more importantly, they improved their nutrition; 96 percent of participants increased their protein consumption, and 99 percent increased their vegetable consumption.

CROSS-CUTTING THEMES:

Winrock's integrated solutions are rooted in the following principles:



Results-Focused

We measure our success in terms of impact by delivering direct, demonstrable results.



Human-Centered

Our solutions are developed and sustained by the people they are designed to serve.



Science-Based

We apply the best available science to solve development problems. When key evidence is missing, we conduct our own research to find it.



Market-Driven

Our solutions are rooted in long-term economic viability. We provide business training as well as access to markets and finance in the communities we serve.

Winrock's integrated solutions incorporate the following tools and processes:

Evidence

Research and Analytics

Data Visualization and Analysis

Capacity

Leadership Development, Training, Advising and Mentoring

Youth Development and Empowerment of Women and Girls

Shared Vision

Communications, Policy and Advocacy

Community Organizing

Partnerships

Coalition-Building

Public-Private Partnerships and Finance

