INTEGRATED WATER RESOURCES MANAGEMENT AT WINROCK:

SOLUTIONS FOR AGRICULTURE, ECOSYSTEMS, AND ECONOMIES

The Global Water Crisis

Water sustains ecosystems, agriculture, communities, and economies. Yet changing precipitation patterns, pollution, and overuse are accelerating water scarcity, degrading water quality, threatening livelihoods, and deepening the global water crisis. Tackling these challenges requires comprehensive solutions that protect water resources and long-term water security for people and nature.

WINROCK'S APPROACH

Winrock is a leader in developing and implementing integrated water resources management (IWRM) strategies to address water management challenges across human and natural systems. Our IWRM approaches link modern science, local knowledge, and private sector innovation to design and implement nature-based and market-driven solutions to protect water supplies and water quality.

Water for Agriculture

Availability of and access to water for agriculture is a critical need across food systems in the U.S. and globally. Winrock engages the private sector and develops markets to increase adoption of high-efficiency irrigation systems and manage irrigation infrastructure improvements. We provide technical assistance and capacity building to farmers and agricultural institutions to scale adoption of soil and water management practices that reduce nutrient losses, protect water quality, reduce impacts of drought and extreme precipitation, and improve long-term productivity. In addition to field-scale interventions, we work at landscape and watershed scales to implement nature-based solutions (NbS) that restore more natural hydrology to agroecosystems, improve temporary water storage and supply reliability, and help reduce natural disaster risk to productive lands.

Watershed Management & Ecosystem Restoration

We work with local stakeholders to design and implement NbS that rehabilitate degraded landscapes, reduce soil erosion and nutrient losses that contaminate water sources, restore and protect headwaters and riparian areas, and better manage water flow through soils and landscapes. Our approaches strengthen ridge-to-reef water management and help communities balance water use for livelihoods, public health, and ecosystem conservation. Through our partnership with BlueGreen Water Technologies, we deliver a comprehensive approach to addressing harmful algal blooms (HABs) that damage ecosystems, public health, and economies. BlueGreen's cutting-edge, non-toxic HAB treatment

RESULTS AT A GLANCE

- Improved water services for more than **2 million people**
- Improved management practices on **500,000+ hectares**
- Developed Municipal Water Security Plans across **3 countries**
- Leveraged **$12+ million** through cost share and co-financing

WINROCK INTERNATIONAL

provides communities with an immediate remediation solution while Winrock works with local stakeholders to design and implement long-term watershed management strategies that reduce the severity of future HABs.

Community Water Access

Winrock manages water infrastructure construction and rehabilitation and designs and facilitates market-driven service delivery models that expand reliable, equitable water access. We scale adoption of affordable technologies, such as solar-powered pumps and decentralized water treatment, to serve remote and underserved areas, paired with innovative business models for dependable, long-term service delivery. We deliver technical assistance and develop capacity of water service providers to improve the reliability and quality of water services.

Disaster Risk Management and Climate Adaptation

By aligning water resources planning with climate adaptation goals, we help communities, governments, and businesses increase reliability of water supplies and protect infrastructure investments by reducing vulnerability to floods, droughts, and seasonal variability. Our work includes implementing NbS that reduce flood and drought impacts, developing early warning systems and other climate and weather services, increasing agricultural water efficiency, and facilitating participatory national and subnational adaptation and disaster risk planning processes.

Water governance

Winrock delivers technical assistance and builds the capacity of rural water boards, user associations, local governments, and corporations to plan and carry out sustainable WRM. We facilitate multi-stakeholder platforms, improve use of data and information in water governance and planning, and build consensus among water users.

Financing

We help unlock sustainable financing for water and ecosystem management by designing innovative mechanisms like Payment for Ecosystem Services and public-private investment models. We work with communities, governments, and the private sector to design and implement context-specific financial strategies that reward conservation, sustain service delivery, and scale successful WRM approaches.

CORPORATE WATER STEWARDSHIP

Winrock provides end-to-end technical assistance to corporations working to conserve the water supplies that support their operations and reduce their impact on water quality. Winrock brings capabilities in integrated watershed management, ecological restoration methods, regenerative agriculture practices, climate-resilient infrastructure, geospatial analysis, data science, and stakeholder engagement. Our experts design methodologies to assess corporate water security risks and water footprints, set science-based water targets, identify and evaluate WRM options, implement the most effective and cost-effective solutions, and monitor and adaptively manage corporate water initiatives.

FEATURED INITIATIVES

Upper Lempa Watershed Project. Winrock led integrated watershed planning across a transboundary watershed in El Salvador, Guatemala, and Honduras. We worked with governments, basin authorities, and communities to develop water security plans, facilitate cross-border cooperation, and implement nature-based solutions that reduce watershed degradation and build flood and drought resilience across the watershed.

TerresEauVie. Winrock supported communities in Burkina Faso and Niger to improve water security, land management, and management of climate shocks. Operating across 40 communes, the project restored degraded land, rehabilitated water points, strengthened water governance, and reduced water-driven conflict.

Improved Access to Safe Drinking Water in Liberia. Winrock worked with public utilities, private operators, and local authorities to construct drinking water infrastructure in four communities, strengthen water sector governance, create scalable models for reliable water service delivery, and increase adoption of positive water use behaviors. This work helped advance Liberia's efforts to increase water access and improve public health in rural communities.

Sustainable Water Partnership. Winrock led global efforts to strengthen water security in water-stressed regions around the world. From Kenya's Mara River Basin to Cambodia's Stung Chinit Watershed, SWP worked with governments, communities, and private sector partners to assess water risks, improve watershed governance, and implement IWRM solutions. By combining technical tools with stakeholder-driven planning, SWP built local capacity to manage water for people, ecosystems, and economic growth, reducing conflict and strengthening climate resilience in some of the world's most vulnerable basins.