



WINROCK INTERNATIONAL

A GLOBAL MISSION



WINROCK
INTERNATIONAL



Access to training and resources created new opportunities for women in Ghana to earn additional income for their children and families.



Cover photo: In Nepal, literacy and agricultural training are increasing incomes and economic opportunity for women and youth.

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



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CONTENTS

HISTORY & MISSION

A global mission



4



8

EMPOWERMENT

Empowering the disadvantaged



12

Creating an environment where girls
can realize their full potential

A success story



18

FOOD SECURITY & ENTERPRISE DEVELOPMENT

Increasing economic opportunity



22

Elevating food productivity and
incomes in Bangladesh

A success story



28

CLIMATE CHANGE & THE ENVIRONMENT

Sustaining natural resources



32

Sustainable energy brings increased
opportunities to rural areas in Guatemala

A success story

HISTORY & MISSION



Winthrop A. Rockefeller



John D. Rockefeller 3RD

A global mission

Winrock International, a nonprofit organization headquartered in Little Rock, Ark., traces its roots to a charitable endeavor established by Winthrop A. Rockefeller at his ranch on Petit Jean Mountain, near Morrilton, Ark. Winrock International Livestock Research and Training Center was created to improve animal agriculture, in part utilizing expertise developed in raising Santa Gertrudis cattle at the mountaintop Winrock ranch.

In 1985, that institution merged with the Agricultural Development Council and the International Agricultural Development Service, both founded by John D. Rockefeller 3RD, to form Winrock International Institute for Agricultural Development (Winrock International).

Today, Winrock International has continued and expanded its mission: working with people in the United States and around the world to empower the disadvantaged, increase economic opportunity and sustain natural resources. Winrock's significant innovations in agriculture, the environment, clean energy and leadership development help people improve their livelihoods while protecting the resources on

which they rely. "We are part of the Rockefeller family's continuing philanthropic mission," Winrock International president and CEO Frank Tugwell says. "We are committed to rural development in the United States and to global development as well, following our mission of bettering the lives of the poor and disadvantaged of the world."

Winrock employs more than 800 people in the United States and around the world, and Tugwell speaks for all of Winrock when he says that now, more than ever, is a time for focusing on a global future. "We're in the midst of a global transition that's happening very quickly and is much more important than almost anyone realizes," he says. "Winrock as an organization has the opportunity to contribute constructively."

With its depth of experience and the breadth of fields in which it works, Winrock is uniquely positioned to help address the interrelated environmental, social and economic issues facing the planet. "These problems can't be viewed separately," Tugwell says. "They're all coming together in kind of a perfect storm. We're facing one of the most challenging periods in history."



John D. Rockefeller 3RD and Blanchette Hooker Rockefeller visit with Field Marshall Pibulsonggram, prime minister of Thailand, at his residence in 1957.



Winrock has demonstrated its commitment to sustainability through the Little Rock headquarters (inset) and the Arlington office — both of which have earned LEED certifications.

Winrock's work around the world has already created models of sustainable development. In Bangladesh, a community-based project brings higher incomes to farmers and fishers while helping restore the biological diversity of a vast wetland. In Vietnam, riparian residents are paid to protect forests in a watershed, increasing livelihoods while improving drinking water and generating electricity downstream. The high scientific standard of Winrock's American Carbon Registry® brings a premium price for carbon credits to reduce greenhouse gases, increasing

motivation for landowners to protect forests and the wildlife that depends on them. These are only a few examples among scores of successful projects, from entrepreneurship classes that protect young Moldovan women from human trafficking to improved cookstoves in Africa that cut pollution, save lives and reduce deforestation.

These successes have not gone unnoticed, as Winrock has long been recognized as a leader in international development. In recent years, Winrock has been honored with the 2008 Mildred Robbins Leet Award for the Advancement of Women, an Environmental Award in 2009 from the Parliament of Brazil for Winrock's work in renewable energy, the 2011 Rockefeller Foundation Innovation Kitchen award, the 2011 Friend of CDI Award by the Community Development Institute at University of Central Arkansas, and the Energy Globe award in 2009 and 2011.

A commitment to sustaining natural resources also extends to Winrock's Arkansas headquarters and office in Arlington, Va. Built in 2004, the Little Rock office earned the Gold Leadership in Energy and Environmental Design (LEED) certification from the U.S. Green Building Council and uses about 30 percent less energy than a similarly sized building in the area. In Arlington, Winrock's office was relocated

to an established office building in the Crystal City area, offering employees more commuting options and greater access to local bike-path networks. Sustainable and recyclable materials cover the majority of surfaces inside the office, and like the Little Rock location, Winrock's Arlington office diverted more than 75 percent of construction waste from landfills. It received Silver LEED certification in 2010.

Heading into a future of continued, rapid change, an attitude shift among development finance groups has already had an impact on Winrock International. After a two-decade decline in funding for agriculture, a renewed emphasis on food security signals that people are beginning to recognize it as a major issue. "Around the world, agriculture, which has always been a vital part of Winrock's mission, is now part of everyone's discussion on the state of development," Tugwell says.

Winrock International is prepared to do more than simply be part of that discussion by offering solutions tied to the strong values that guide its work: a commitment to good science and sound economics, an appetite for innovation and new ideas, a belief in the power of knowledge to improve lives, an understanding that ideas must be proven on the ground, a commitment to equity and the empowerment of women and



the disadvantaged, respect for partners, and a long-term vision. Despite the daunting challenges facing the world, this is "a very exciting time," according to Tugwell. "We're going to have to find a stable basis for human existence on this planet, and getting involved in that transition — helping think about it and design answers — is really an incredible privilege," he says. "Even with all the changes, our main lines of work remain the same and remain important. It's going to be a tumultuous world, one in which we nevertheless need to make more and more effort to involve everyone in the transition."

In Cambodia, Winrock has worked to withdraw and prevent children from hazardous child labor through education and training.

EMPOWERMENT

A photograph of two African women standing outdoors. The woman on the left has short, dark, curly hair and is wearing a light blue pinstriped blazer over a black collared shirt. The woman on the right has short, dark hair, wears glasses, and a bright red blazer. They are both looking towards the camera. The background shows a paved path and some greenery.

African Women Leaders in Agriculture and Environment

Empowering the disadvantaged

The world has seen significant advances in social justice over the past century, in fields ranging from women's issues to workers' rights to democratic governments. However much remains to be accomplished — a challenge addressed by Winrock International's long-standing goal of helping poor and disadvantaged people around the globe.

Winrock focuses on building capacity — of individuals, families, communities, organizations and government agencies — by sharing expertise and technology that can lead to an enduring ability to solve problems and create economic and social progress.

An essential part of this process is empowering people who have been excluded from equal participation in political, educational and social opportunities. Whether they are women, ethnic minorities, poor people or young people, everyone should have an opportunity to improve his or her life. Developing countries and communities trying to break the cycle of poverty, poor health conditions and lack of education can't afford to ignore

the potential contributions of any segment of society.

Winrock helps transform individuals, who in turn transform their communities for just development. Many Winrock programs focus on some of the world's most marginalized populations, using a framework of human rights, social justice and economic development.

Capacity-building programs implemented by Winrock have supported educational opportunities for women, fought human trafficking, reduced incidences of the worst forms of child labor, given young people a voice in their communities, combated the spread of HIV/AIDS and the stigmatization of victims, and improved the livelihoods of hundreds of thousands of families.

The impacts of empowerment can spread far beyond the goals of a particular program. Expanding educational opportunities for all children, opening doors for women and minorities, giving all citizens a voice in governmental policies, providing access to the skills and tools necessary for employment — all create hope for better lives and lessen the sense of helplessness that feeds social disorder.



Training on motorcycle repair brings economic opportunities for disadvantaged youth in Nepal.



*Through an **AWLAESM** scholarship, Chinyere Aniedu earned her master's degree and now applies her knowledge to train and support vulnerable women farmers.*

EDUCATING & EMPOWERING AFRICAN WOMEN

One of Winrock International's most successful and influential programs was conceived to address gender equality in Africa: While women produce 40 to 60 percent of the region's food, they have mostly been ignored by government extension programs, have had little influence on agricultural policy, and were essentially unrepresented in high-level government ministries. In most areas, women were not even allowed to own the land they were farming, and they lacked the organizations and political power to

change their status. Outreach programs aimed at improving farm productivity were conducted by men and aimed at men — although women were doing the bulk of the work.

Not only does this situation deprive women of productive skills and rights they deserve, it also hinders economic growth and food production in a region with pervasive hunger problems.

A Winrock-implemented endeavor called African Women Leaders in Agriculture and the Environment (**AWLAESM**), launched in 1989, has been a catalyst for reforms that have greatly expanded the role of women in agriculture in sub-Saharan Africa. **AWLAESM** aimed to work simultaneously at the grassroots and governmental levels to provide women farmers with knowledge, leadership skills and technology while changing policies and programs affecting them.

A vital part of the program involved providing scholarships to women for higher education in agriculture, which resulted in almost 700 women getting assistance in their pursuit of an advanced degree. Another 2,000 women received leadership training. Thanks in large part to Winrock, several countries have instituted gender-sensitive agricultural policies, and women now hold senior positions in ministries of agriculture and the environment.

In Nigeria, Chinyere Aniedu used an **AWLAE**SM scholarship to earn a master's degree and went on to receive her PhD. Now holding a leadership position at the National Root Crops Research Institute, she also hosts a weekly television program on food and nutrition. "**AWLAE**SM gave me the boldness to do things and speak in public," Aniedu says. "If enough women were empowered with the idea of doing positive things for themselves and society, you would see Africa becoming a developed region."

After participating in "Leadership for Change" training, Grace Mitoko was inspired to push for greater opportunities for women in Kenya. She rose to a senior position in the country's Ministry of Agriculture, and says, "If men and women worked together to achieve improved results, we'd be in a better place."

Although the word "women" is in the name, in **AWLAE**SM — as in other Winrock programs related to gender — men are partners in the process of reaching equality. Raphael Achola Kapiyo of Kenya's Maseno University supported **AWLAE**SM's work from the beginning, especially its outreach toward fellow male policymakers. "We felt that if men came out to advocate for gender issues," he says, "then maybe more men would care."



OPPORTUNITIES FOR CHILDREN TO SUCCEED

Winrock International's commitment to capacity building is shown through its work in preventing the worst forms of child labor. Children represent the future of our planet, and investments in their knowledge, skills and decision-making abilities are vital for communities and nations.

In Cambodia, Winrock works to eliminate child labor, which occurs mainly in home-based subsistence agriculture. Related programs also address the need for improved educational oppor-

More than 4,000 Cambodian children have been assisted — including help in returning to school — as part of a program to reduce and prevent child labor.

tunities, hampered in Cambodia by a severe teacher shortage and nonexistent or inadequate schools in many rural areas.

In the first two years of the program, more than 4,000 Cambodian children had received assistance, including help in returning to school, vocational training and non-formal education for older children, scholarship support for at-risk

children, and teacher training. With input from Winrock, a high-level panel that includes several government ministers is reviewing national laws related to child labor and education.

Ten-year-old Lach Chantrea dropped out of school to help with family expenses, earning about \$1.25 a day working on a farm. While her work provided short-term assistance for a poor

Creating an environment where girls can realize their full potential

Madagascar, occupying the world's fourth-largest island off the eastern coast of Africa, has long suffered from poverty

and limited educational opportunities. Girls and young women, especially, lack chances to attend school because of

traditional cultural attitudes toward the role of women in society, coupled with high rates of early pregnancy and marriage. As many as half of all Malagasy women are illiterate and fewer than 2 percent attend institutions of higher learning.

Madagascar is one of 13 countries in sub-Saharan Africa that benefitted from Winrock International's implementation of the highly successful Ambassadors' Girls' Scholarship Program (AGSP). By 2011, Winrock awarded approximately 150,000 scholarships to vulnerable girls and boys under AGSP.

Winrock has partnered with a Malagasy organization called



An essential ingredient for human empowerment is access to knowledge and education.

family, Lach's resulting lack of formal education would have limited her chances for success in life, almost certainly preventing a break in the cycle of poverty perpetuated by an incomplete education. Winrock efforts encouraged and assisted Lach in re-enrolling in school. "I am happy that I am going back to school again," Lach said, "and I want to be a teacher in the future."



Sehatra Ivoaran'ny Vehivavy (SIVE), which works for women's rights, women's empowerment and improving women's health and education. Founded in 2000, SIVE is dedicated to creating a social and cultural environment that assists women in realizing their full potential.

Together, Winrock and SIVE implement AGSP in Madagascar under the leadership of Dr. Ravakiniaina Ranivoarianja. More than 3,000 young people, mostly girls, received help not only through scholarships and other educational assistance, but through training in nutrition, civic leadership, gender roles and health — including awareness of issues related to HIV and AIDS.

Dr. Ranivoarianja praises Winrock's role in building the capacity of SIVE, including technical support, financial responsibility, website development and creation of a data bank.

"We are particularly thankful for the ... mentoring resource guide, which has been used during the program," Dr. Ranivoarianja says. "Winrock has been patient and comprehensive in following SIVE's progress. We have made some mistakes, but Winrock has been there for checking, explaining and allowing SIVE to correct things."

As part of the capacity-building effort, Winrock has helped

SIVE staff members travel to training workshops in other countries. "Through this, our team has been able to get international experience in ways to conduct workshops, to share our successes with others, and to learn from the best practices of other organizations," Dr. Ranivoarianja said.

Thanks to the experience and skill gained from working with Winrock, SIVE was designated by UNICEF in 2009 to implement a post-primary scholarship for vulnerable girls in the northern Malagasy region of Sofia.

"Our success is yours," said Dr. Ranivoarianja. "Many, many thanks!"



Educational classes in agricultural activities are an integral part of combating child labor in Côte d'Ivoire.

In West Africa, Winrock partners with governments and the cocoa industry to equip youth and their families with skills to improve their cocoa production and to earn a dignified living.

Cocoa production is a vital part of the economy in rural areas of Ghana and Côte d'Ivoire, two nations that together produce 65 percent of the world's cocoa. The crop is so important that income from its cultivation makes a large contribution to political stability in both countries.

Winrock's work in the cocoa industry involves community-integrated programs, in which education is only the beginning. Programs bring together community leaders, who learn about good governance and managing meetings. Farm demonstration plots ensure that students

have practical experience and opportunities: learning math and science by testing alternative seeds, practicing alternative management of crops, and analyzing soil in the classroom. Students learn entrepreneurship so they can budget costs and sell crops.

The scholarships allow poor children to go to school while boosting their mothers' ability to earn income. In the first year, a child receives a scholarship for books and school uniforms. In the next two years, the program invests in the mother's small trade activity or enterprise in return for her commitment to repay the loan. So successful is this effort, the repayment rate is 91 percent in Ghana and 99 percent in Côte d'Ivoire.

The result is an education program that serves as an

integrated community-development model, using students as the catalyst for change. Children go to school, while economic opportunities in the community are expanded.

THE POWER OF A STRONG CIVIL SOCIETY

Ensuring that individuals, families and communities have the opportunity to better themselves often means dealing with issues of good governance and human rights. Winrock International is active in many countries around the world in preventing exploitation and strengthening the ability of governments, organizations and businesses to offer economic alternatives to disadvantaged and at-risk children and adults.

Human trafficking remains a troubling problem in many areas, as people — due to desperation



At-risk women in Moldova are assisted through trafficking prevention, entrepreneurship and life-skills training.

linked to poverty or the promises of unscrupulous promoters — find themselves trapped by sexual exploitation or forced labor, often in foreign countries where they have no means of extricating themselves.

In Brazil, women may be sold into virtual sex slavery. In Africa, parents may take their daughters out of school and send them to urban areas for employment as domestic servants. In Moldova, young women may be tempted by fantasies of glamorous foreign travel and trapped in prostitution far from their homes. In Bangladesh, thousands of poor men, women and children are forced into bonded or abusive labor.

Winrock programs fight trafficking in more than 20 countries through multiple solutions, which include: providing economic

alternatives, eliminating social and gender biases that undermine basic human rights and perpetuate trafficking, awarding scholarships to allow young women to remain in school, and warning at-risk people about the dangers of trafficking through broadcast and printed materials. In addition, Winrock programs educate police, judges and government agencies about the extent of trafficking in their countries, ways to recognize and combat it and how best to prosecute those responsible.

Poor and hungry people are often tempted into political extremism, undermining democratic governments and damaging civil society. Winrock's efforts in this situation are typified by its work in Nepal, where a violent Maoist insurgency has disrupted the lives of tens of thousands

of residents, forced people off their traditional lands and destabilized the government. Winrock programs offer literacy classes, life-skills education, technical and vocational training, and training to increase agricultural productivity and raise incomes of rural people, who make up more than 90 percent of the Nepal population. The program aims, especially, to assist disadvantaged young people, displaced persons, low-caste groups, ethnic minorities and girls.

In rural areas, thousands of women are, for the first time, generating income while receiving training in financial literacy and management of high-value crops. In urban areas, many more women are getting vocational training and being placed in jobs — in many cases doubling their incomes. Jobs range



Winrock is combating HIV/AIDS through community outreach methods such as mobile HIV testing units.

from some traditional women's occupations such as food and embroidery to very nontraditional roles such as electricians, carpenters and security guards.

IMPROVING HEALTH AND WELL-BEING

HIV/AIDS has taken a huge toll on public health in many countries, especially in Nigeria. The nation has the second-largest incidence of HIV/AIDS infection in sub-Saharan Africa and the third-largest incidence in the world. The number of HIV-positive people in Nigeria was estimated to exceed 10 million in 2010, making it one of the most

important nations where Winrock International works to prevent HIV/AIDS and assist those who are affected.

Nigeria is fortunate to have a number of community-service and faith-based organizations that serve as respected leaders in the fields of health care and education, reaching rural areas as well as cities. Many of these organizations are newly established, however, with weak management structures and poor linkages to individuals or groups that might assist them. Winrock has worked with a number of these groups to increase their capacity to expand and improve their work, thus laying the groundwork for strong and enduring locally based AIDS education and prevention.

Winrock partnered in the AIDS Impact Mitigation (AIM) project in Nigeria, funded through the President's Emergency Plan for AIDS Relief (PEPFAR). This comprehensive program was created to provide care and support services to reduce the impact of HIV/AIDS among widows, single mothers, commercial sex workers, orphans, and vulnerable children. AIM helped local service organizations improve HIV/AIDS preven-

tion and support services in their communities, and assisted groups in bettering the quality of life of HIV-infected individuals and their families.

Help from AIM allowed Agnes Michael to leave the brothel where she worked, providing her with a knitting machine that she uses to make baby clothing. A beneficiary of AIM training and small-scale grants to vulnerable women, Michael says, "The AIM project has inspired me and taught me independence." She sometimes visits the brothel where she once worked, urging women there to find other employment and helping them with some of her business profits. "I always encourage them to believe in themselves," she said. "I believe that everything I imagine life to be for me is possible."

Poverty almost forced Mallama Amina Abdullahi to become a sex worker. When her husband died she was desperate for a way to support her four children. "Survival was a struggle," she said. "We could hardly afford a single meal per day and my children couldn't go to school."

The AIM program provided Abdullahi with a machine to



extract oil from nuts to make soap and detergent. She started her own business, and with its profits she started a second business buying and selling fabrics. Today, Abdullahi can pay for her children's education, provide her family with nourishing meals, and has remarried. She has organized a weekly meeting for women to discuss openly the problems and issues they face as women in society.

"I believe there is nothing I cannot do if I put my mind to it," she says. "A big thank you to the AIM project for teaching me to think positively and for giving me a new approach to life."

Winrock is helping women improve their livelihoods through business literacy training that brings increased incomes.



FOOD SECURITY & ENTERPRISE DEVELOPMENT

Maximizing Agricultural
Revenue and Key Enterprises
in Targeted Sites



Join Us in the Challenge

Winrock emerged in 1975 from the vision of Winthrop Rockefeller, who challenged the trustees of his estate to be “venturesome and innovative” in finding ways to help people help themselves. Today, this vision still guides our approach, embodied in the phrase “Putting Ideas to Work.” We pride ourselves on combining science and theory — and entrepreneurial spirit — with innovative field implementation.

Winrock’s mission to empower the disadvantaged aligns with the Millennium Development Goals to end poverty by 2015. Framed by the United Nations and agreed to by countries and development institutions worldwide, these goals tackle poverty from multiple angles.

Join Winrock and partner organizations around the globe in meeting the challenge to end poverty during this decade.

Donate to support a local organization in responding to urgent needs in a poor community. **Volunteer** by sharing your expertise and experience with farmers, businesses, organizations or governments through a short-term assignment. **Partner** with Winrock to empower the disadvantaged, increase economic opportunity, and sustain the natural resources on which we depend. Our achievements take place through long lasting partnerships. For additional information on joining us, visit www.winrock.org.



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WINROCK INTERNATIONAL

Through lasting partnerships, Winrock is helping countries achieve the United Nations Millennium Development Goals by 2015.



8,100,000

people in 55 countries increased productivity and income by an average of 30% per year with the help of Winrock experts and volunteers.

100,000

people in Nepal, including 30,000 youth, increased their income through jobs, self-employment, and production and sale of high-value crops.

150,000

people in sub-Saharan Africa have access to multiple-use water services for irrigation, drinking and other uses.



150,000

African scholarships have kept vulnerable girls and boys in school and provided mothers with enterprise start-up funds.



50,000

disadvantaged girls have received an education, and 600 women have pursued advanced degrees through the African Women Leaders in Agriculture and Environment (AWLAESM) program.

130,000

women and children were prevented or withdrawn from trafficking and hazardous labor.

90,000

vulnerable women earned income for the first time or found jobs — in many cases doubling their incomes — through Winrock trafficking prevention programs.



1,400,000

improved cookstoves in 61 countries reduce indoor air pollution.

ACHIEVEMENT HIGHLIGHTS

135,000

African farmers — more than half of them women — adopted agricultural techniques leading to improved family nutrition and income.



30,000

widows, single mothers and vulnerable children reduced the impact of HIV/AIDS in their lives through education, services and opportunities to earn income.



4 billion

kilowatt-hours of renewable electricity powered schools, health centers and businesses in rural communities through installation of 70,000 clean renewable energy systems.

more than
1,100,000

hectares of land were brought under sustainable management approaches.

800,000

people in Asia improved their livelihoods through better management of irrigation water.



more than
\$1 billion

were leveraged for renewable energy services in rural communities.

\$25,000,000

in private sector partnerships brought information, communication and other technologies to the disadvantaged.



Winrock International

is a nonprofit organization that works with people in the United States and around the world to empower the disadvantaged, increase economic opportunity, and sustain natural resources.

"Winrock is a mission-driven nonprofit business committed to improving the lives of the rural poor throughout the world. We have an incredibly dedicated and hard-working staff, and every day I am amazed and proud of what they accomplish in behalf of our mission — despite the many obstacles we face as a global organization working in very challenging locations."

— Frank Tugwell, president & chief executive officer, Winrock International

WINROCK INTERNATIONAL'S CORE VALUES

Commitment to
good **science** &
sound **economics**

Apply good science and sound economics to find solutions to global challenges

Understanding
that ideas must be
proven on the
ground

Adapt and scale up successful models to reach more people and places

Appetite for
innovation &
new **ideas**

Develop innovative ideas and models to address stubborn problems in new ways

Respect
for our partners

Forge partnerships of the private and public sectors, and of diverse groups from the community to policy levels, to maximize and expand available resources

Belief in the power
of **knowledge**
to improve lives

Harness the power of knowledge to improve lives

Commitment to
equity & the
empowerment
of women

Work toward the equity and empowerment of women

Increasing economic opportunity

In the coming decades, the combination of global climate change and increasing human population will pose unprecedented challenges to society. The World Bank estimates that demand for food will increase 50 percent by 2030 — a figure that does not include factors related to climate change. Impacts from the increased demand will fall disproportionately on the world's poorest countries, whose populations are often the most rural and most dependent on agriculture for their livelihoods. If crops fail, no safety net exists for these people.

Now, more than ever, our planet will benefit from the experience and expertise developed by Winrock International through its work around the world. Winrock's creation and mission are inextricably linked to the land and its resources, and its goal of helping the poor and disadvantaged live better lives centers in large part on finding and sharing ways to grow more and better food in a sustainable manner.

To prepare for the future of agriculture means dealing with issues of climate change, food security, sustainability and community-based food production now. It means doing so while

building capacity — transferring knowledge and skills to help people and organizations in developing countries build on aid programs and continue their progress independently.

Our planet will face a series of balancing acts as we attempt to protect the biodiversity of natural landscapes while increasing agricultural output, and as we find ways to bring energy resources to rural populations while reducing greenhouse gases, which contribute to climate change. Because of a broad range of experience, Winrock is able to find solutions to problems that, more and more, cut across traditional boundaries of development programs.

The Green Revolution of a generation ago transformed agriculture to an unprecedented degree, yet our planet must reach even greater productivity. Winrock is at the forefront of creating better crop yields through improved seeds, irrigation and techniques, which allow more food to be produced per unit of land. At the same time, Winrock looks to the future in considering how changing weather patterns and water availability will affect land use, especially in regard to food-security issues.



Training in agriculture opens new income-generating opportunities for women in Nepal.



Providing multiple-use water services in rural areas improves both health and wealth.

Old ways must be questioned and new questions asked. If a long-term decrease in rainfall is forecast in an already drought-prone area, for example, should farmers be encouraged now to change to more drought- and heat-resistant crops, even if that means abandoning long-standing traditional crops?

Capacity building is an integral component of Winrock's work, in agriculture as in other fields. Winrock-implemented programs don't simply teach people how to grow more; they also increase the ability of individuals and organizations to continue improving people's

lives into the future. Winrock's goals reach far beyond immediate results — no matter how significant — to strengthen a government's abilities to provide services to its people, or to develop ways for people to articulate their needs and hold their government accountable.

IMPROVING THE PROFICIENCY OF FARMERS

Winrock International's dedication to capacity building is exemplified by its work in the war-ravaged nation of Sudan, where violence and insecurity have displaced more than 4 million people inside the country and caused an additional 550,000 refugees to flee to neighboring countries. Residents of Southern Sudan face serious problems resulting from years of conflict and the pressure of sudden population growth in some areas.

Communities with large numbers of new residents need access to agricultural development, training and other critical services, as well as water systems, schools and transportation. Winrock, in cooperation with partner agencies, has been effective in promoting community development and strengthening the ability of state and local governments to deliver agricultural, educational, water and sanitation services. By supporting the government and enabling communities to rebuild after decades of conflict, such efforts assist South-

ern Sudan's transition from reliance on relief services to self-administered economic and social development.

Thirty-three community water-use committees have been established and provide training on management of safe water sources and basic hygiene, resulting in access to improved drinking water for more than 44,000 people in target areas. Experts have provided technical assistance to 43 farmers' groups (including 18 women's groups), helping them increase production of vegetables, cereal crops, fruits and fish.

Members of the Ayien Amol vegetable producer group in Twic County, for example, were assisted in improving irrigation of crops such as tomatoes, eggplants, onions and sweet peppers, supplementing families' traditional diet of sorghum and okra. Farmers hope to have surplus crops soon to sell in markets, raising their incomes. Winrock's work in Southern Sudan has also assisted communities in rehabilitating schools and helped teachers and government education officers improve the quality of education.

The availability of clean water in sufficient quantity remains a serious issue in many nations, with water-borne diseases such as dysentery causing millions of deaths annually, especially among children. Lack of water



also harms crop yields in many places, hindering efforts to combat hunger. Winrock promotes the Multiple-Use Services (MUS) approach to water provision, which illustrates the organization's commitment to innovation in looking beyond traditional methods that involve only short-term improvements.

MUS deals not just with irrigation or water for drinking and other household uses, but examines people's multiple needs in planning, financing and managing integrated water services. While transfer of technology is important, MUS involves building the capacity of

Winrock is addressing the availability of clean water in many nations.

governments and communities to develop and manage water services for multiple purposes.

MUS has significant advantages over single-use services: As well as the expected benefits to health, it generates additional income through better crop yields, with a focus on community ownership that leads to greater sustainability. Winrock has brought MUS benefits to communities in several countries, including Niger, Mali, Tanzania and Nepal, where irrigation boosts agricultural productivity and clean water improves community health.

In the central Asian nations of Tajikistan, Uzbekistan and Kyrgyzstan, farmers generally depend on irrigation to grow crops on the soils of the high, arid steppes. An exten-

sive system of canals brings water to fields of rice, wheat, corn, apricots, grapes and other agricultural products.

The system deteriorated badly in recent decades, however, and conflicts arose over water distribution because of unfair or nonexistent allocation systems.

Winrock has supported the creation of local water user associations, which have enjoyed great success in repairing and maintaining irrigation systems and instituting democratic means of sharing water supplies. Through fair election of leaders, transparent decision making, financial accountability and conflict mitigation, the associations build the capacity of farmers to govern themselves and operate water systems on their own.

Elevating food productivity and incomes in Bangladesh

The southeastern Asian nation of Bangladesh ranks among

the world's poorest and most densely populated countries.

For millions of Bangladeshis, hunger is either an everyday reality or an ever-present threat.



Productivity of poultry, eggs, fish and dairy products in Bangladesh has traditionally been low, in large part because of the poor quality of feed for farm animals and aquaculture. Raw materials for feed came from foreign sources of inconsistent quality, and processing technology was below modern standards.

Feed producers in Bangladesh have benefited from expertise provided by The John Ogonowski and Doug Bereuter Farmer-to-Farmer (FTF) program, a Winrock-implemented effort that connects knowledgeable

Through improved agricultural techniques, small-holder farmers can increase crop production.



persons in various fields with individuals, groups and businesses in developing countries. The resulting rise in agricultural productivity has brought increased income to farmers and farm-related businesses and more food to feed Bangladeshis.

At Quality Feeds Limited, in the city of Dhaka, volunteer Jim Andrews developed ways to provide consistently better nutrients at lower cost while reducing maintenance of factory machinery. The result was improved poultry growth with less expense to farmers.

Ihtesham B. Shahjahan, managing director of Quality Feeds, says, "The use of least-cost

formula provided by Jim Andrews enabled us to dramatically reduce the cost of feed production by about \$7,500 per month based on monthly sales of 2,000 metric tons of feed. We have been able to transfer this benefit to farmers by reducing feed prices."

Farmer-to-Farmer volunteer Dr. Roy Chapin worked with the Bangladesh dairy industry to develop a computer-assisted program for formulating rations for lactating cows, young calves and growing heifers. "Making dairy feed is the intermediate step in having more milk, meat, money and manure produced in Bangladesh so people there will have more protein, energy,

vitamins and minerals in their diets, more money in their pockets and more rice straw converted to fertilizers to increase soil fertility," Chapin said. With improved feed, milk production increased by an average of 40 percent, leading to higher demand for the new formulation.

"The technical assistance we have received from Winrock has been immensely helpful to us," Shahjahan said. "I would really like Winrock to continue the splendid work they have been doing for so long. In a developing country such as Bangladesh, with huge inherent potentials and lack of basic information and technology, an entity such as Winrock acts as a pillar."



Winrock volunteers share their knowledge and experience to improve livelihoods all over the world.

VOLUNTEERS SHARING KNOWLEDGE

Winrock International volunteers have lived, worked and made lifelong friends while sharing their expertise in a wide variety of fields around the globe. “There’s nothing like the satisfaction you feel when you see how your work has changed lives,” is a typical statement from a volunteer returning from an assignment.

Many volunteers work in agriculture, especially in the highly successful John Ogonowski and Doug Bereuter Farmer-to-Farmer (FTF) program, which has helped aquaculturists in Nigeria, horticulturists in Egypt, dairy farmers in Kazakhstan, vegetable farmers in Mali, and poultry farmers in Kenya, to name only a few of the 4,600 assignments completed in 55 countries.

But there’s more to the Winrock volunteer effort than farming. Volunteer journalists have assisted with publications and broadcast media, business people have shared their experiences with budding entrepreneurs, and policy experts have consulted with high-level government officials on finance and other issues.

In one example, volunteers traveled to El Salvador to help increase the productivity of the Central American nation’s dairy industry. A Winrock volunteer introduced Salvadoran farmers to improved feed formulas. The results were impressive: In less than six months, dairy farmers saw the benefits of producing better milk while also saving money on feed. Winrock also works to create marketing chains for farmers to improve their efficiency in selling



Winrock is addressing food security issues across the U.S., where many people suffer from hunger or diet-related diseases due to a lack of accessible and affordable healthy food.

products so they can keep more of the profit. Dairy farmers have received help in meeting standards that will allow them to export to the United States.

Multiply that story over and over again, and you'll see why one Winrock volunteer summed up his experience by saying, "These assignments have been the most professionally and personally rewarding of any work I have ever completed," while another said, "I never knew that I had so much to offer."

HEALTHY AND SUSTAINABLE FOOD IN EVERY COMMUNITY

The Wallace Center at Winrock International is dedicated to building and strengthening links in the chain of businesses and civic efforts focused on making healthy, affordable and

sustainably produced food available in every community.

A significant part of the Wallace Center's work encompasses support for "community food enterprises": locally owned businesses (often small, but sometimes large in their reach) involved in harvesting, processing, marketing, distributing or serving food that requires less energy for transport from grower to consumer; uses shorter supply chains less liable to disruption; is produced with respect for workers and environmental sustainability; and benefits local economies.

The Wallace Center's study of community food enterprises is part of its mission of research, innovation and education to drive change that benefits farmers, rural and urban communities, natural resources and public



In the United States, Winrock has helped farmers switch to high-value crops.

health. In today's world, where food security looms increasingly large in political and social discussions, finding local and regional market-based solutions for food production and distribution ranks high on the list of public policy priorities.

The Wallace Center at Winrock International plays a crucial role in gathering knowledge about sustainable food systems and sharing it with a wide range of stakeholders, from national governments to development organizations to small-scale farmers trying to get their products to market. It's all part of the Wallace

Center's goal of "bringing more good food to more people."

CONNECTIONS FOR ENTREPRENEURS & COMMUNITIES IN THE UNITED STATES

In many areas across the Mid-South, small farms struggle to compete against large producers in growing commodity crops such as soybeans or corn.

Winrock International has helped farmers in Arkansas switch to high-value seasonal crops such as sweet potatoes and has arranged meetings between vegetable farmers and large processing firms to connect producers and buyers. Winrock has helped farmers who grow traditional field crops to pool their resources to access better markets and improve their profits by adding value to products.

Winrock is also addressing the issue of entrepreneurs leaving small towns and rural areas to begin businesses in urban areas, thus depriving rural economies of opportunities for improved livelihoods. Winrock assists entrepreneurs outside big cities in evaluating strategies that improve market systems and lead to faster adoption of improved technology. Through a program that assists with patent searches to software to market research, Winrock helps keep entrepreneurs and their essential skills and economic inputs in regions needing economic development.

In Arkansas, the percentage of women who own a small business is on the rise and Winrock is encouraging this trend by helping provide them with the skills and tools necessary to compete and grow a successful business in the marketplace. Since small businesses are a key driving force behind economic development, Winrock offers training, technical assistance and access to capital services to women entrepreneurs through the Arkansas Women's Business Center.

Assistance at the center includes training opportunities, support for business plan development, help with market feasibility studies, mentoring assistance and support to locate federal, state and local fundraising assistance. Also, computers are available at the center so clients can prepare business documents, participate in online training activities and access other business information.

Capacity building is the driving goal of an Arkansas-based effort that grew from the fact that many small, local nonprofit groups, while dedicated toward highly admirable charitable or development goals, lack expertise in day-to-day operational necessities such as budgeting, technology use, grant applications, financial accountability and general office management. Winrock staff members share their

wide-ranging knowledge on subjects such as financial audits, contracting systems and oversight, donor management, and other areas needed by nonprofit organizations. This knowledge-sharing improves the capacity not only of rural nonprofit groups, but also of small towns that lack the knowledge and experience to apply for grants or meet the paperwork requirements of infrastructure projects. With Winrock's help, nonprofit groups have become more efficient and effective, and small towns have acquired fire stations, sewer systems, walking trails and many other community enhancements.

Winrock is helping women-owned small businesses start, grow and compete in global markets by providing access to counseling, training and capital.





CLIMATE CHANGE & THE ENVIRONMENT

*Asia Regional Biodiversity
Conservation Program*

Sustaining natural resources

With each new report of warmer ocean temperatures, rising sea levels, melting glaciers, prolonged droughts and out-of-season storms, humankind faces the growing urgency of global climate change. While many simplify the issues as “global warming,” conservationist Hunter Lovins’ phrase, “global weirding,” may better describe the anomalous changes taking place, including expanding drought-prone regions, erratic and unpredictable rainfall, warm Arctic winters, more (and more severe) hurricanes and other disruptions in traditional climate patterns.

The worst effects of global climate change will fall on some of the world’s poorest countries and their poorest people, especially in sub-Saharan Africa and southern Asia. The countries most affected by climate change are likely to be those most lacking in resources, infrastructure and overall capacity to deal with problems. The people who will suffer most already live closest to the edge of survival.

Issues related to food security loom largest in their potential to create or exacerbate problems of hunger, health (especially water-borne diseases), social conflict

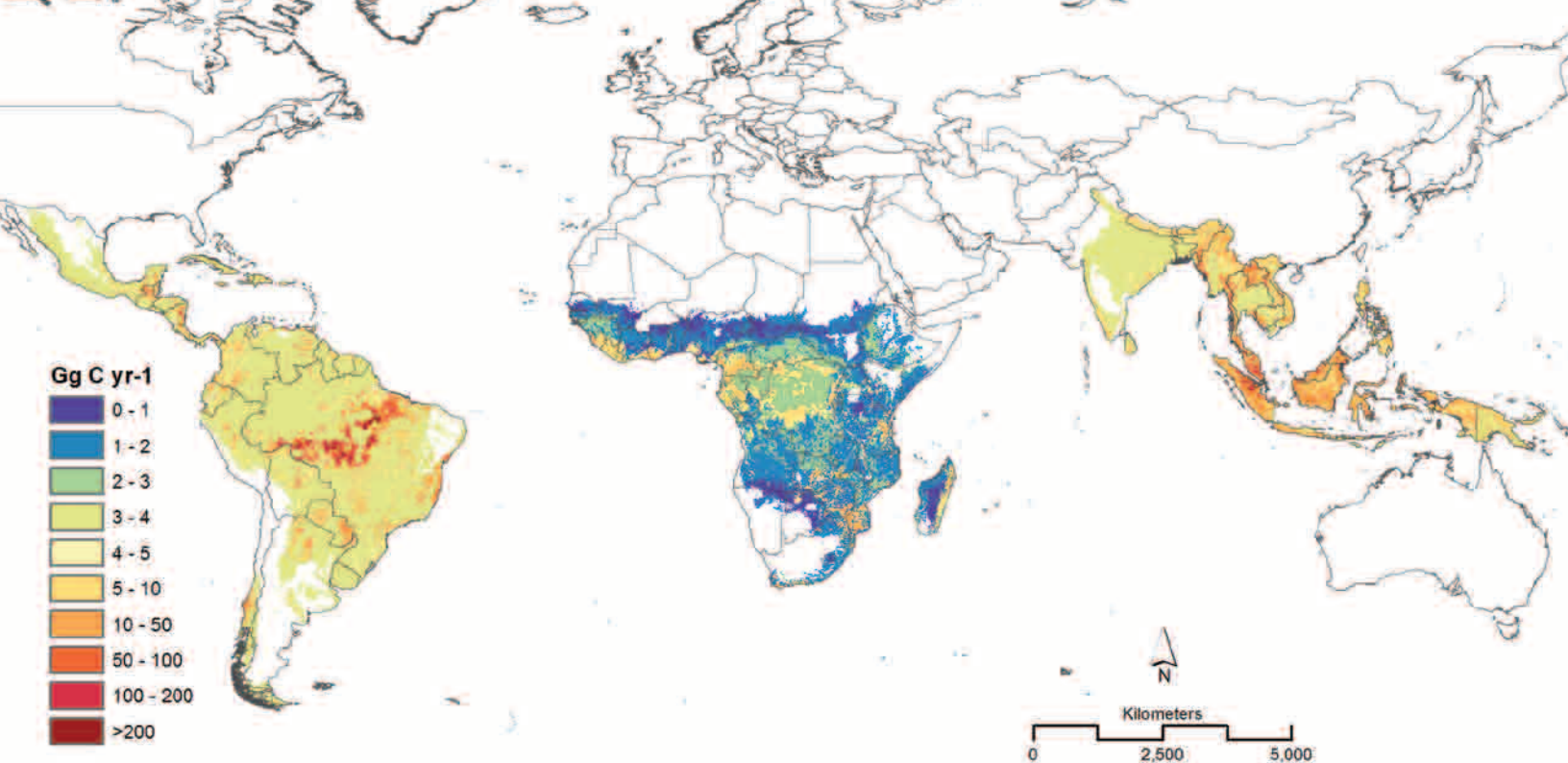
and political instability. To help meet the challenges of global climate change, Winrock International offers a wide range of expertise: knowledge and practical skills gained from long experience working to improve the lives and livelihoods of disadvantaged people around the world.

This expertise comprises not only on-the-ground skills such as improving crop yields and building irrigation systems, but also knowledge of cutting-edge technological advances that have made Winrock a recognized leader in carbon measurement and monitoring, bioenergy, payment for environmental services and geo-spatial information systems.

Nations are beginning to address issues relating to greenhouse gas emissions that contribute to climate change and to carbon sequestration that combats the buildup of greenhouse gases. First, however, experts need to be able to accurately measure how much carbon is stored in forests and other vegetation; determine how much is released into the atmosphere through logging, burning and other methods of deforestation; and define the benefits of avoiding deforestation and reforesting cleared areas.



Farmers in Vietnam plant bamboo seedlings that will enrich natural forests and provide a sustainable resource for the production of bamboo handicrafts.



Winrock scientists illustrate the distribution of annual carbon emissions from deforestation between 2000 and 2005 mapped across tropical countries. (1 Gg C yr-1 = 1 million metric tons of carbon per year.)

Such measurements are a critical first step in the process of payment for environmental services (PES), a term for the broad concept of rewarding individuals and communities for protecting natural resources and using them sustainably. In areas from the United States to Madagascar, Winrock is helping rural residents and communities take advantage of opportunities to generate income from programs such as REDD+ (Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries), which has the potential to protect important habitat while providing sustainable livelihoods.

Winrock is a leader in identifying the climate change impacts of land use change and potential

mitigation opportunities using GIS-based models and other spatial analysis tools. Winrock's expertise is strong across multiple activities such as spatial projections of deforestation and degradation baselines, estimating potential carbon supply under different economic scenarios, assessing the potential greenhouse gas (GHG) mitigation impact and economic costs of specific policies and programs, creating tools to track GHG emissions and removals from projects and investments, and developing planning tools to allow the maximization of sequestration and minimization of emissions while considering economic opportunity costs.

Winrock's American Carbon Registry® (ACR), the leading carbon offset standard and registry in the United States, operates in the global voluntary carbon market, serving as an innovator





Winrock is engaging regional governments, forestry and climate mitigation specialists, and universities in a capacity building program focused on REDD+ readiness.

and incubator to newly emerging compliance regimes. Organizations and individuals seeking a premium brand have confidence in ACR to ensure that the offsets they purchase and retire are of the highest quality. ACR promotes large-scale transformative emission reductions as well as innovative offset opportunities that can improve livelihoods in rural communities and reduce poverty around the world.

Agriculture and forestry are two sectors with enormous emission reduction potential, as well as potential to bring new revenue streams to agricultural and forest-based communities. ACR has pioneered new methodologies for reducing emissions from deforestation and degradation, improved forest management and improved cookstoves as well as methodologies for emission reductions through fertilizer

management, rice production and livestock management. ACR is also developing quantification methodologies for co-benefits such as poverty alleviation and water quality.

Towards the objective of promoting innovation in new markets, Winrock and ACR have made ground-breaking links with the developing carbon market in China as co-founders of China's first voluntary carbon standard, the Panda Standard. Working with partners the China Beijing Environment Exchange (CBEEX) and BlueNext, Winrock is taking steps toward developing standards and methodologies for agriculture, forestry and other land use (AFOLU) projects that reduce emissions and alleviate poverty.

Such ties to one of the world's largest economic powers will

be vital in global cooperation to reduce greenhouse gases and fight climate change. The use of voluntary trading in carbon financial markets remains the most promising tool for such action, and the standards set by Winrock help create the parameters that make such markets possible.

PROTECTING BIODIVERSITY & RESTORING LIVELIHOODS

Winrock's major goals include protecting global biodiversity in the face of growing human populations, the need for higher food production and efforts to bring expanded energy sources to developing nations to improve the livelihoods of poor rural people. Here, too, Winrock has been at the vanguard

in finding ways to balance development and conservation.

In Vietnam, a Winrock-implemented project has facilitated protection of part of the Mekong River watershed — the second-most-diverse river basin in the world after Amazonia — while providing new sources of income for members of a disadvantaged ethnic minority. This innovative and historic undertaking is being replicated across Vietnam and has attracted study teams from other southeastern Asian countries aiming to duplicate its success.

In many countries, the use of firewood and charcoal has been traditional for both cooking and heating. Such practices create a variety of problems: Tree-cutting

Sustainable energy brings increased opportunities to rural areas in Guatemala



causes deforestation that leads to biodiversity loss and denudes hillsides, creating mudslides and siltation of rivers. In addition, smoke from interior fires creates indoor air pollution that is harmful to health, especially for women and children, who are more likely to spend greater time indoors. Winrock has pioneered the development and use of efficient, clean-burning cookstoves that reduce indoor air pollution and reduce deforestation around rural communities.

In Bangladesh, Winrock has helped local villages in wetland areas restore lakes and marshes, protecting their traditional livelihood of fishing as well as conserving important habitat for migratory wading birds and other wildlife. With

Winrock's guidance, community groups have been established to manage wetlands in ways that are environmentally sustainable while providing equitable harvests for local residents.

REDUCING THE EFFECTS OF CLIMATE CHANGE

Promotion of clean energy ranks with the most important weapons in the fight against global climate change. Winrock has long been an innovator in the use of clean energy, with programs that create synergies with education, information technology, health and enterprise development.

One of Winrock's longest-running and most successful clean-energy programs has brought electricity to hundreds

Years after the negotiated end of a decades-long civil war, the Central American nation of Guatemala continues to face problems of class divisions, poverty and unequal access to employment and education. Many rural villages, especially those that are home to indigenous Maya people, lie far from the national electricity grid, have inadequate or no schools, and rely on firewood for cooking, heating and interior lighting, contributing to deforestation and causing smoke-related health problems.

In Guatemala, Winrock International partners with the local organization Fundación Solar, a nonprofit group which for 19 years has been dedicated to sustainable development and

resource conservation while promoting a society based on equality of gender, class and ethnic background. Fundación Solar is a member of the Partnership for Clean Indoor Air (PCIA), of which Winrock is a co-coordinator, along with the U.S. Environmental Protection Agency.

Together, Winrock and Fundación Solar have brought hydroelectric and photovoltaic systems to the Atlantic coast region of Punta de Manabique, allowing economic development while protecting the area's unique natural areas.

In the isolated village of Chel, a micro-hydropower plant increased local income and initiated new opportunities

for business development. With USAID funding, Winrock and Fundación Solar brought energy services to the archeological park at Cancún and surrounding communities, including communications and lighting for community centers, schools and a local agricultural facility.

When a national energy law enacted in 2000 failed to include renewable energy, Winrock supported Fundación Solar in the preparation of important studies resulting in the Renewable Energy Generation Incentive law, approved in 2003. Since then, Winrock helped develop a new policy initiative proposing a general energy law in the country.



In New Orleans (top photo), solar panels provide clean energy for schools and educational opportunities for students, while stand-alone systems in the Philippines (bottom photo) bring distance learning to students.

of small rural communities in the Philippines, using solar power and small hydropower generators. Today, many schools can now offer audio-visual presentations and distance learning to students via satellite, vastly broadening their educational opportunities. Approximately 300 schools have been electrified using stand-alone solar systems, and the availability of electrical power allows children to read and study at night, while opening the door for new entrepreneurial activities such as small-scale manufacturing in rural communities. Existing businesses can stay open

after daylight hours, allowing small entrepreneurs the opportunity to earn much-needed additional income.

Winrock has a long history of work with bioenergy technologies, ranging from the use of farm waste in Nepal and Brazil to palm-oil biofuel in Indonesia to biodiesel from jatropha in Mali. In many cases — especially in the case of booming palm-oil cultivation in southeastern Asia — Winrock has helped nations plan production to minimize the loss of natural habitats resulting from forest clearing.

In Jamaica, the crushed stalks left over after sugar cane processing once largely went to waste. Winrock has helped sugar mills use these stalks to power their operations, saving money as well as providing reliable and much-needed electricity to nearby communities. A similar story can be told about sawmills in the Russian Far East, where residue such as sawdust and bark, at one time discarded,

now operates boilers that generate electricity to power mills, reducing the use of diesel fuel and cutting emissions. In places such as Liberia — where less than 10 percent of the population in Monrovia and less than 2 percent of the rural population have access to electricity — renewable energy can play a vital role in social sustainability.

Through vast amounts of untapped hydropower and biomass resources, the Liberia Energy Sector Support Program is helping to bring affordable and sustainable clean energy to the region. As a result, local citizens benefit from strengthened social and economic development, as well as more accessible and improved social services.

Energy conservation is a major component of wise energy use, and Winrock has shown its leadership through its headquarters in Little Rock and office in Arlington — recipients of a Gold and Silver LEED certifications, respectively, from the U.S.



Green Building Council for its energy efficiency and use of sustainable building materials. Elsewhere, Winrock has helped retrofit schools, hospitals and other buildings in the former Soviet Union nation of Georgia for energy conservation.

Winrock's work in the field of clean energy extends from feasibility studies, project design and financing mechanisms to enterprise development, maintenance and training. In all, Winrock has helped bring 4 billion kilowatt/hours of electricity to power grids in developing nations and installed more than 70,000 rural and renewable energy systems.

Winrock is helping bring sustainable clean energy to communities in Liberia. Here, river flow is measured to help determine the size of the power plant that can be accommodated.



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