



Roots for the Future

The Landscape and Way Forward on
Gender and Climate Change



This publication was produced by the International Union for Conservation of Nature (IUCN) Global Gender Office (GGO) under the auspices of the Global Gender and Climate Alliance (GGCA) joint programme, which has been made possible by the generous support of the Government of Finland. A wide range of collaborators, including from across the diversity of the GGCA membership, have contributed content, case studies, and peer review. The views expressed in this publication do not necessarily represent the whole of IUCN, nor the views of all collaborators.



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Roots for the Future: The Landscape and Way
Forward on Gender and Climate Change

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The GGCA, founded by IUCN, United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP) and Women's Environment and Development Organization (WEDO) in 2007, is a unique alliance comprised of nearly 100 members—UN, intergovernmental and nongovernmental organizations from around the world, working together to ensure climate change decision-making, policies and initiatives at all levels are gender responsive and improve the lives and livelihoods of women and men.

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Finally, inside the GGO, this publication was a team effort: Global Senior Gender Advisor, head of the GGO, Lorena Aguilar was supported by publication coordinators Cate Owren and Margaux Granat, who were in turn joined by Ana Rojas, Jackeline Siles, Molly Gilligan, A.E. Boyer, and Maggie Roth in writing sections of chapter narrative, reviewing dozens of drafts, identifying illustrative cases, formatting and researching citations, and analyzing and including original data, including from the GGO’s own Environment and Gender Index (EGI). GGO team members Itza Castaneda, Natalia Armijo, Barbara Clabots, Erin Knight, and Maria Prebble also contributed research and support—and nothing in the GGO is possible without the financial and administrative backbone provided by Celia Steele and Roxanne Halley. GGO moreover expresses its appreciation to IUCN and especially to the Washington, D.C. office for its support.

Prologue

Women living in developing countries face two different, but intrinsically linked scenarios when it comes to climate change.

On the one hand, they are disproportionately vulnerable to the effects of climate change. On the other hand, they are powerful agents of change.

Because these women are the ones adapting to droughts, floods and other extreme weather events right now, they are at the front lines in the battle against climate change. This puts them in a better position to recognise some of the opportunities that climate change presents.

For example, nearly 2.4 billion people—the majority of them women—still cook on open fires inside their homes. New, clean technologies are allowing many of these women to switch from open fires to fuel-efficient cookstoves that improve their health, use less wood and cut down on emissions.

At the UNFCCC, we work hard to showcase the critical role women play in responding to climate change through our Momentum for Change initiative. The initiative highlights women-led activities that are making a real difference in the fight against climate change—activities that can be replicated and scaled up at the local, national and international levels.

We tell the stories of women making transformational change, such as the Thai industry leader who has turned her solar company into a billion-dollar business, or the Australian trailblazer who is creating a movement to get 1 million women across the country to act on climate change, or the Ghanaian entrepreneur who is bringing bamboo bicycles to the global market.

But if women are to be true agents of change, real and measurable action at all levels must be ramped up.

This new publication is a valuable tool to help increase the capacity of policy and decision makers to develop gender-responsive climate change policies and strategies that ensure women are engaged at all levels of the decision-making process. This publication comes at a crucial moment in time, as governments around the world work toward a new, universal climate change agreement in Paris, France, this year.

It is my sincere hope that the practical examples contained in this publication will strengthen efforts toward a new agreement, one that enables women to act as agents of change at all levels.



Christiana Figueres,
UNFCCC Executive Secretary

Foreword

Climate change will have direct or indirect impacts on everybody's life. It is unfair that it will affect most the lives of the poorest people, in the poorest regions, who have contributed least to the causes. The majority of these deeply affected are women. What we can do first to change this injustice is to ensure that those perspectives and experiences shape and drive our action on climate change.

In the recent years, our collective understanding of the various roles and responsibilities of men and women in our societies has increased considerably. It has convinced us that the engagement and leadership of both men and women, equally, are needed to make our global response to climate change fully effective. Women's contribution is essential, for example, in moving toward sustainable consumption and production, as women do most of the purchasing in developed countries and decide on consumption patterns in households and in some workplaces. In developing countries, women play a powerful role in sustainable agriculture and food security, in particular, as well as conservation of soil, forests and water resources.

Understanding of these roles led to the establishment of the Global Gender and Climate Alliance (GGCA) in 2007, when negotiations were launched toward a

new international climate agreement. The founding partners decided to consolidate and strengthen efforts toward gender equality in combating climate change. Finland has supported the work of the GGCA from the very beginning and cooperated with interested partners to make progress toward a truly gender responsive agreement.

Our objective in this cooperation has been to act against climate change in the most efficient way and prevent it from further exacerbating gender inequality. We cannot allow climate change to undermine our efforts toward poverty eradication. Lifting millions out of poverty is still the overall target of the Sustainable Development Goals. They build on the best achievements of the Millennium Development Goals. Combating climate change and promoting gender equality are both explicitly among the new goals. I am particularly pleased that gender equality is also integrated in a horizontal way in many activities under the other goals and is a stand-alone priority in spotlight.

This vision is shared by all partners of the GGCA. It has grown under our cooperation from four founding members to a powerful, unified actor of nearly a hundred organizations. This is a convincing indication that there is a growing understanding of the need to

advance gender equality in all development efforts and support for the participation of women in international and national work on climate change.

The co-operation of the GGCA members and active Parties has brought many arrangements, which encourage women to participate on full and equal basis in efforts to fight climate change.

Together, we have contributed to great results in the international cooperation within the UNFCCC. These include establishment of “Gender and Climate” as a permanent agenda item under the Conference of Parties and more than 50 decisions by the Conference on various climate actions. They cover all major programmes of the Convention and a specific Lima Work Programme on Gender agreed in 2014. Gender issues are highlighted during a Gender Day in the Conference and the official web page of the Convention also includes now a dedicated page on Gender. The UNFCCC Secretariat now benefits from a Gender Focal Point, too.

These points of progress would not have been achieved without the tireless efforts of the International Union for Conservation of Nature (IUCN) and other GGCA members. The Women Delegates Fund conceived by Finland

and the Women’s Environment and Development Organization (WEDO) within the GGCA has supported the least developed countries female delegates participation in the negotiations. Capacity building of developing countries’ female delegates, training and awareness raising of all delegates and decision-makers as well as national Climate Change Gender Action Plans (ccGAPs)—all discussed more in depth in this publication—are practical steps that have empowered women and amplified their voices in global negotiating spheres.

Finland is proud to be a partner in this cooperation. The best lessons and experiences are described in this publication. It is a forward-looking testimony of success stories, and I hope it inspires us for strong partnerships and further practical steps promoting successful work for combating climate change and gender equality.



Tarja Halonen,

President of the Republic of Finland 2000-2012

Introduction

In 2008, under the auspices of the Global Gender and Climate Alliance (GGCA)—a first-of-its-kind multi-stakeholder network to advance gender-responsive climate change policies, plans, and actions—the International Union for Conservation of Nature (IUCN), together with key partners including especially UNDP, WEDO, and the Government of Finland, created the Training Manual on Gender and Climate Change (https://cmsdata.iucn.org/downloads/eng_version_web_final_1.pdf). This was, at the time, one of the first comprehensive collections of information on gender and climate themes—ranging from the normative international policy framework to support then-nascent gender-responsive decision making, to gender mainstreaming across adaptation, mitigation, technology, and finance.

Translated into all the UN languages, the Training Manual has been used in dozens of technical trainings, including Trainings of Trainers with women's organisations and thematic orientation sessions for delegates to the UNFCCC, and was—and continues to be—downloaded tens of thousands of times from all over the world. The appetite for user-friendly training information and tools on gender and climate concerns proved to be strong. Given that the Training Manual is still widely used, and requests for updated information have increased in light of significant progress in recent years, the demand appears only to be growing.

Given that, seven years later—thanks in part to the technical support and capacity building for a range of stakeholders; awareness raising and advocacy; and progress in gender-responsive climate planning at regional, national, and subnational levels that the

GGCA joint programme has undertaken—significant progress has been made and thus updates to the 2008 version are necessary to aid the global community in remaining proactive and intently focused on advancing a gender-responsive climate agenda.

Purpose of this publication

While not a training manual per se, this publication is intended as a full update and overhaul to the 2008 manual content. In other words, this publication was inspired by the 2008 manual, its authors, and its thousands of users, who have continued to request up-to-date information on policy, planning, and—especially—concrete examples of action on the ground. It is therefore a celebration of progress and results achieved. Even more importantly, this publication joins the global call for implementation that is fair and equitable—and demonstrates that is possible.

The target audience is wide: from policy makers at international level who seek a political framework upon which to advance decision-making in line with women's rights and gender equality mandates; to grassroots practitioners who might benefit from best-case project strategies; to those entirely new to these topics but curious to understand the basics or the links—this publication is written for you. Some readers may be gender experts while some may be climate change or sector-specific professionals; this publication aims to fill knowledge gaps and possibly inspire new questions, as well as solutions. The language, while technical, has been drafted to be as 'user-friendly' as possible.

Inside the pages ahead

The line-up of chapters aims to serve as a comprehensive presentation of major issues related to gender and climate change decision making; international, regional and national policies; adaptation and mitigation; sustainable cities; and finance mechanisms. The chapters are intended to flow together but, especially as they have been uniquely authored, they are also meant to stand independently and can thus be individually accessed online. There is overlap across the chapters, as the nature of gender and climate change concerns are inextricably linked. This is as true for gender equality issues as it is for climate and climate mechanisms: the Clean Development Mechanism (CDM), for example, is touched upon in both the energy chapter, Chapter 4.1, as well as the finance mechanisms chapter, Chapter 6. These overlaps are not errors—but signals that one issue cannot be taken in isolation from others.

Along those lines, the table of contents that shapes this publication is far from exhaustive. Important issues and sectors have been left out as subject headings—not for any political reasons, but only because of space, time, or capacity. Education, capacity building, information sharing across broad traditional and untraditional modes, and other public outreach issues, for example, are not addressed here as an independent chapter; profoundly important issues relative to social protections and welfare are likewise not adequately delved into as stand-alone issues.

Many of these concerns, however, find home in the targeted recommendations that culminate each chapter; ‘Moving Forward’ sections aim to both summarise key issues but also trigger new ideas and approaches for a range of stakeholders and decision makers. Even more importantly, capacity building and information exchange drive the numerous programme and project examples featured throughout this publication: from women solar engineers empowering and training other women entrepreneurs, to advocates employing best practices across levels to inform forest, agriculture, or disaster risk reduction policy reform, cross-sectoral and cross-contextual learning and collaboration shines as a key issue of importance throughout the chapters.

Also useful to note: there are tools offered in specific chapters that are most certainly applicable or valuable to others. The gender analysis tools in the energy chapter, Chapter 4.1, might be applicable to cross-sector adaptation projects, as well, for example, while the tools provided in the REDD+ chapter, Chapter 4.2, echo some of the resources suggested in the chapter on sustainable cities, Chapter 5. Readers are invited to consider the numerous ways in which lessons and tools from one sector can benefit the policy making and programming in another.

A special focus of this publication has been on spotlighting new ideas and real examples of positive change, of transformation, happening all over the world. Tremendous gains at policy level go hand-in-hand with an upsurge of innovative implementation approaches with tangible results—from national policy

reform programmes to village-level projects that are resulting in enhanced resilience, food security, safety, and more. The last chapter of case studies¹ celebrates this in particular.

Taking advantage of the diverse, unique ways in which, especially, the GGCA membership working across all levels have programmed 'gender and climate change', the final chapter presents a range of case studies, which, in brief, showcase effective strategies and outcomes toward climate mitigation, adaptation, resilience, and sustainable development, and—in tandem—toward gender equality.

The Momentum for Change: Women for Results initiative of the UNFCCC Secretariat recognises activities that demonstrate the critical leadership and participation of women in addressing climate change. These activities show measurable results, which can be potentially replicated and scaled up at the local, national and international levels. They celebrate a wide range of activities happening across sectors all over the world, from women energy entrepreneurs in Indonesia to women transforming waste to reusable products in Peru.

1. It is important to note, as the case study chapter itself states, that the case studies presented in this publication have been drawn from GGCA member submissions and websites, as well as public information on UNFCCC Momentum for Change: Women for Results, applicants and winners, and from other sources, such as the Climate and Development Knowledge Network (CDKN). IUCN has not vetted the results claimed by the implementing organizations, nor has it verified or made an assessment of the value of their strategies.

Look for these tags throughout the chapters to learn more about specific examples of these initiatives:

READ MORE IN CHAPTER 7!

THROUGHOUT THIS PUBLICATION, 'READ MORE' TAGS SUGGEST SPECIFIC INITIATIVES INCLUDED IN THE CASE STUDY CHAPTER AHEAD – 'LEADING THE WAY: CASE STUDIES ON GENDER-RESPONSIVE INITIATIVES' OFFERS 35 EXAMPLES OF PROJECTS AND PROGRAMMES HAPPENING ALL OVER THE WORLD AND ACROSS SECTORS.



Learn, apply and share feedback

Given that this publication is not a training manual—but, again, builds upon and updates thematic content of the 2008 manual—it is suggested that readers carefully consider the narratives, cases, and recommendations posed and explore meaningful ways to take action in their own trainings, project activities, programme design and evaluation processes, and decision making spheres.

As lessons and best practices continue to emerge and knowledge evolves, IUCN GGO welcomes your feedback and your updates. Please send them to:

GlobalGenderOffice@iucn.org



LEADING THE WAY:

Case studies of
gender-responsive initiatives





Drawing from the breadth of expertise from across the GGCA membership, as well as from the UNFCCC Momentum for Change initiative, this chapter presents 35 examples from around the world of innovative mitigation and adaptation programmes and projects that have successfully integrated gender equality concerns. From quantifying emissions reductions to transforming the livelihoods and food security of local villages; from implementing women's unique renewable energy projects to ensuring that their voices shape forest policy at all

levels, the outcomes of these efforts illustrate that gender-responsive actions are not only possible but necessary for maximum efficiency and efficacy. While the publication authors have not vetted the results of these cases, the strategies alone provide concrete evidence, opportunity for cross-sectoral and cross-contextual learning, and inspiration for action.

The following examples, loosely categorised by national/subnational and international/regional levels (with due respect to important overlap), include:

National and subnational

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Tags

The following tags loosely categorise projects and programmes and are meant to spotlight particularly interesting aspects of design, implementation, and results.



International



National



Rural



Women's leadership / participation



Women as beneficiaries / economic empowerment



Momentum for Change



GGCA



Policy/reform



Agriculture/food security



Water



Disaster risk reduction



Energy



Forests



Waste/recycling



Cities/urban



National and subnational

Life Out of Plastic (L.O.O.P.) in Peru

Women innovating new ways to clean up Peru's coasts

L.O.O.P. with support from Conservamos Por Naturaleza and the Peru Ministry of Environment



In Lima, Peru, coastal plastic pollution poses a threat to the health of the surrounding marine ecosystems and communities. Two young women saw this as an opportunity to create up-cycled plastic merchandise, while simultaneously raising awareness about human dependency on plastic and cleaning up Peru's beaches. Life Out of Plastic (L.O.O.P.) is a women-led enterprise that commercialises up-cycled products and organises plastic pollution awareness activities, including art shows and *HAZla por tu Playa*, an annual beach clean-up event. L.O.O.P. has delivered results:

it has engaged over 24,000 people participating in its clean-up activities, removed over 92 tonnes of debris from beaches and the ocean, and—using over 1.3 million PET bottles—up-cycled rubbish into commercial products. In 2015, L.O.O.P. succeeded in expanding the *HAZla por tu Playa* cleanup event to Mexico and Hawaii, with plans to include three more Latin American countries in 2016. Women's leadership and participation is not only prioritised in the L.O.O.P. organisation itself but throughout the value chain, including women-led recycling centers and women



website developers. Women's empowerment and participation is central to L.O.O.P.'s successful and innovative mitigation actions that help to foster a more conscious consumer culture.

Project overview

Through marketing tools, campaigns, and women's leadership, L.O.O.P. is playing a key role in cleaning up Peruvian coasts and raising awareness about plastic use. Moreover, it is building an industry for up-cycled products.

Strategies include:

- Championing women's innovation and prioritizing women's involvement.
Founded by women, L.O.O.P. has a women-only hiring bias. While not gender inclusive, the organisation is committed to sending a strong women's empowerment message to clients and followers. Campaign coordinators are also always women, while campaigns are planned with outside organisations and men lead many of them. Finally, L.O.O.P. involves women-led organisations along the value chain, such as website developers and recycling centres.
- Expanding women's skills.
L.O.O.P. provides the opportunity for women to gain new skills by paying for courses and trainings.
- Building environmental and gender awareness.
Using social media, press releases, and campaigns, the organisation is helping to raise awareness about plastic pollution in Peru.
- Mitigating plastic pollution.
L.O.O.P. up-cycles PET bottles to produce plastic products, which it then sells to raise awareness,

and organises *HAZla por tu Playa*, an annual clean up event to help clean up oceans and beaches as well as make people aware of plastic use.

Results to date include:

- Economic empowerment.
Currently, five women receive a salary from L.O.O.P. Women involved outside the company vary, but around 20 women have indirectly benefitted from being campaign coordinators, website developers, and product developers and around 17,000 women have been involved as volunteers.
- Diverse public engagement and awareness strategies reach wide audience:
 - L.O.O.P. has over 20,000 followers over its several social media outlets where it regularly posts updates about campaigns and news releases,
 - Approximately three press notes are released per month through television, websites, and radio stations, helping to reach more people interested in participation, and
 - 'Conscious-art' art shows that have reached over 4,000 school-age children and have aided in teaching about plastic pollution.
- Communities are activated.
Clean-up events have involved over 24,000 people and removed 92 tonnes of debris from Peruvian coasts. In 2015, the events spread to Mexico and Hawaii, and in 2016 there are plans to expand to three additional Latin American countries.
- Environmental benefits.
To date, the organisation has up-cycled about 1.3 million PET bottles in its products that would have normally ended up in landfills or in the ocean.



Gaps/challenges include:

- L.O.O.P. prioritises women's engagement, which could be construed as gender-biased; however, it proactively engages men and youth, as well, in awareness and mobilising efforts.

For more information:

Contact: info@lifeoutofplastic.com

Facebook: facebook.com/lifeoutofplastic

Website: lifeoutofplastic.com

Women greening industries in Colombia

Creating women's knowledge networks to lead cleaner production processes

Genstainable with Cinara Research Institute of the University of Valle, Constructora El Castillo, and Industrias El Leon



In Colombia, industrial pollution devastates the natural environment and negatively impacts people in the community and those working in industrial sectors. Many women in the traditionally male-dominated industrial sector, such as construction, are taking it upon themselves to implement cleaner production (CP) strategies to mitigate pollutants and

foster a healthier community. While successful in several sectors, women's leadership and knowledge is often ignored in local and policy making and across the industrial sector, more generally. To highlight these women as leaders, promote the dissemination of CP strategies, and share knowledge with other women and men in the community, Genstainable



facilitated the creation of women's knowledge networks, or alliances. These alliances are made up of women from various fields, including academia, utility companies, public organisations, and large and small scale industries and provide a platform for women to share successes and implement new strategies in their fields. Having already benefitted over 25 women, these learning alliances have the potential to grow and expand across multiple sectors.

Project overview

Genstainable seeks to promote women's knowledge alliances in order to share and create cleaner production practices in Colombia. By highlighting women and providing a platform to disseminate ideas, Genstainable is helping women to be heard on a local and national level.

Strategies include:

- Prioritising women's knowledge.
Women who have successfully implemented cleaner production strategies are empowered as industry leaders through capacity building and knowledge sharing.
- Forming partnerships between sectors.
The alliances fostered a partnership between women in local non-governmental organisations (NGOs) and women in a construction company to find innovative solutions to mitigate pollution from construction companies.
- Promoting women's leadership.
Cleaner production training activities, such as workshops, certificate programs, and research programmes, were developed to encourage and empower women in the field.
- Creation of promotional materials to highlight women.

Women in knowledge alliances have created videos and magazines to share experiences with other women, as well as men, in Colombia.

Results to date include:

- Women's CP capacity built and networks formed.
Genstainable has worked with 25 women who are now a part of learning alliances dedicated to implementing cleaner production technologies and sharing knowledge.
- Women's networks transforming industry.
Women from different industrial sectors and organisations are working together to make regional cleaner production proposals to mitigate pollution from 450 small-scale industries located in the city of Cali. The first draft of these proposals has been written.
- Improving CP and mitigation initiatives.
In a housing construction project, women led many mitigation initiatives during construction, such as using photovoltaic energy for lighting and pumping water, a waste recycling program, and the distribution of bicycles for transportation on site (replacing motorcycles).
- Improving sustainability of resources.
Women also worked to reduce the amount of drinking water used for construction processes, as drinking quality water is not needed for industrial purposes. Cleaner production activities are also supporting training in pollution prevention techniques and technologies to women in water and sewage companies, hydraulic and sanitary installation firms, and metallurgy and finishing construction companies.
- Widespread promotion of CP.
The first cleaner production superheroes magazine has been written and intends to showcase, in plain language, the successes of women in these



alliances. A video was also created and intends to highlight projects from around Colombia (see link).

For more information:

Watch the “Women and Cleaner Production” video here: <https://youtu.be/atq0u1Knxcc>

Mangrove Restoration Project (GMRP) in Guyana

Women increasing coastal resilience through mangrove cultivation

Government of Guyana, Guyana Women’s Leadership Institute, Guyana Office for Climate Change, and National Centre for Education, Research and Development (NCERD) with funding from the European Union





In Guyana, 90% of the population lives along the coasts, which fall 1.04 metres below sea level. These low-lying communities are particularly vulnerable to the impending impacts of global climate change, including flooding, storm surges, and sea-level rise. Many of the country's existing sea defense structures need updating as storm surges are exceeding their capacity. The Guyana Mangrove Restoration Project (GMRP) addressed the threats to coastal Guyana by championing community cultivation of mangrove trees, which aid in wave attenuation, decreased erosion, and provide a buffer during storms. From the beginning of the project, women—recognised to be at higher risk from the impacts of flooding and coastal erosion—were centred as project beneficiaries by prioritising their leadership in restoration projects, providing resources for economic empowerment, and conducting capacity building trainings on various subjects. Trainings included mangrove seedling cultivation, restoration and management strategies, and beekeeping. These allowed women to explore economic opportunities through honey production, tourism activities, and mangrove cultivation. Women made up 80% of the community participation and successfully organised Village Mangrove Action Committees—women-led volunteer organisations involved in continued mangrove awareness and restoration activities—along with the Mangrove Reserve Producers Cooperative Society, which provides trainings and resources for poor coastal women seeking to benefit from beekeeping. With the help of these women leaders, the project planted over 460,000 mangrove seedlings, restoring over 10km of coastal mangrove forests, and increasing the resilience and security of coastal communities.

Project overview

Women's leadership and participation in mangrove cultivation helped the GMRP improve resilience to storm surges, flooding, and sea level rise for coastal communities in Guyana.

Strategies include:

- Prioritised community involvement.
From the beginning, the GMRP felt that successful mangrove management could not happen without regard to local communities and their needs. During the project, women's leadership and participation was sought out and prioritized as women were recognized as among the most vulnerable to the impacts of flooding and coastal erosion.
- Trainings to build the capacity of women.
Women were given the opportunity to participate in trainings on various subjects related to mangrove management and restoration. Subjects for trainings included:
 - Climate change and the role of mangroves,
 - Mangrove ecology, restoration, and management,
 - Mangrove seedlings propagation,
 - Project management,
 - Tour guiding,
 - Bird identification,
 - Strategies for strengthening organisation, and
 - Beekeeping.
- Combining economic opportunity with environmental restoration.
By providing financial support to women interested in beekeeping and agro-processing, this project is ensuring that the mangroves are well managed and protected while providing additional income for families.



- Building resilience in coastal Guyana.
Underlying the whole project is the need to protect coastal communities from the impacts of climate change. By restoring mangrove forests along coastal Guyana, this project provides natural protection to coastal communities against storm surges, flooding, and coastal erosion.

Results to date include:

- Women are project participants and leaders.
Women made up 80% of the participants in mangrove cultivation, restoration, and management. These women organised and formed many volunteer groups—Village Mangrove Action Committees—to continue upkeep and conservation of the mangrove forests.
- Women are empowered as environmental leaders.
Over 50 women were trained to cultivate mangrove seedlings in community nurseries. These 250,000 seedlings were sold for coastal planting and earned the women involved a total of USD 115,000.
- Creation of sustainable, income generating activities.
Through initial beekeeping training, women formed the Mangrove Reserve Producers Cooperative Society. This society provides trainings and resources to poor coastal women interested in beekeeping. Along with providing income through

honey generation, this activity helps to promote additional mangrove growth and provides incentive for families to protect the mangroves from being harvested.

- Environmental benefits from ecosystem-based adaptation.

Between 2010-2013, the project planted over 460,000 Black mangrove seedlings, restoring 10km or 48 ha of coastal mangrove forests. This was combined with 30km of existing forests to protect them from further depletion. With existing sea defense systems, the additional forested land has reduced risk in coastal communities from the impacts of flooding and saline intrusion.

Gaps/challenges include:

- Traditionally, livestock farmers used mangrove land as grazing grounds and the efforts to protect the land has led to some conflict among community members. However, the project worked to find a solution to benefit all parties by seeking out alternative grazing lands.

For more information:

Project Website:

<http://www.mangrovesgy.org/home/>



The Electrification Project of Nicaragua (PELNICA)

Creating conditions for gender equity in public projects for rural electrification

Nicaragua's National Electricity Transmission Company (ENATREL) with support from the Foreign Affairs, Trade of Canada



Nicaragua is the poorest country in Central America and many of its rural populations do not have access to reliable electricity. Seeking to address this issue, Nicaragua implemented a rural electrification program. The programme framework set strategies to improve rural development and the Nicaraguan government ensured that the project included gender considerations. In 2009, the Electrification Project of Nicaragua (PELNICA) began construction of electricity grids in several Nicaraguan districts and in 6 years has improved the quality of life for over 90,000 people. Reaching 379 communities in rural Nicaragua, the program prioritised residential electrification to meet women's electricity needs. Along with financial assistance from this program, the increased access to energy improved entrepreneurial ventures of both men and women. In addition, PELNICA ensured women's



voices were being heard during decision-making processes by increasing leadership and participation of women in local and community organisations. As a result of these and other proactively gender-responsive initiatives, Nicaragua has been increasingly recognised for leadership on gender and energy concerns.

Project overview

PELNICA improved rural electrification to housing and residential sectors in 379 communities, benefitting over 90,000 people in six years. This project not only meets the energy needs of women in rural communities, but also prioritised participation of women in local organizations.



Strategies include:

- Promoting gender equality.
To meet this goal, PELNICA ensured:
 - Equal opportunity and access to energy infrastructure financing tools, and
 - Equal opportunity to extra income and work on temporary contracts during the grid construction.
- Increasing women's participation in the decision-making process.
PELNICA fostered an increase in the percentage of seats held by women in community and decision making councils.
- Implementing gender-sensitive trainings.
PELNICA hired a gender specialist and conducted trainings for staff members.
- Providing trainings for women in communities.
Trainings were held on various topics, from leadership to entrepreneurship, to provide women with support networks as they entered the work place.
- Increasing rural energy access.
Through the construction of rural grids, PELNICA seeks to promote sustainable development.

Results to date include:

- Advancing understanding of gender equality co-benefits.
Communities, and in particular men, have noted better understanding of why gender equality is pursued and promoted, an understanding of and

recognition of women's rights, and an interest in promoting women's positions in society.

- Women's participation increased.
Women's participation at the municipal level increased leading to more input concerning the design and implementation of local projects.
- Women's capacity built.
Women received training to work in brick making, masonry, and carpentry. Electrician certification was obtained by 60 women and 267 women became entrepreneurs as a result of additional training.
- Increased energy access.
Greatly improving quality of life, 90,100 people in 379 communities gained reliable and clean energy access.

Gaps/challenges include:

- PELNICA faced some challenges in trying to explain the importance of a gender-sensitive project to its technical staff; continued capacity building will be important.
- ENATREL, the implementing organisation, is concerned with continuing and building upon the gender-responsive approach in its future projects.

For more information:

Contact: Irma Gutiérrez at
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Visit: <http://www.enatrel.gob.ni/>



Geothermal energy empowers women in El Salvador

Empowering women through the use of geothermal energy and its residuals

LaGeo, S.A. de C.V. with FundaGeo



In the Berlin district of El Salvador, geothermal energy aids in the country's mitigation of greenhouse gas (GHG) emissions. However, potentially useful residuals from geothermal energy, such as condensation and released heat, are currently being wasted. These residuals provide tremendous opportunity for women in the surrounding community to earn additional income and learn new skills. Women from 15 communities are taking advantage of these opportunities, using water condensation to grow and sell roses; heat residuals to dehydrate fruits; and the reservoirs—a result of well drilling for the plants—for fishing. Women have been involved in community meetings concerning the project and attend technical training workshops to expand their skills and understanding of the project. Approximately 40 women have already benefitted

from this holistic project. *LaGeo* and *FundaGeo* plan to expand participants and activities to other plants. This transformative project serves to mitigate GHG emissions and empower women to take on leadership roles in their communities.

Project overview

LaGeo and *FundaGeo* sought to use the residuals from geothermal energy, which are usually wasted, to empower women economically and encourage leadership in the communities surrounding their geothermal plants.

**Strategies include:**

- Targeting women as beneficiaries.
Women in the communities are brought into the process of developing uses for the geothermal residuals meaning that women are managing projects that will lead to the most benefit.
- Providing women opportunities to learn new skills.
By providing technical training to women, *LaGeo* and *FundaGeo* have helped women to expand their abilities to earn income.
- Mitigating GHG emissions.
By using water and heat that would normally be wasted to the surrounding environment, communities are aiding to further mitigate emissions from production processes and energy uses.

Results to date include:

- Women's livelihoods enhanced.
So far, 40 women from 15 communities surrounding the geothermal plants in the Berlin district have benefitted from the project through

growing and selling roses, dehydrating fruit for consumption and sale, and fishing in reservoirs.

- Women's skills built.
Women have received technical assistance and training from *LaGeo*. They also have been involved in community meetings and three women are now a part of *LaGeo's* staff.
- Climate change mitigation results.
The project has helped to decrease emissions by 1.8 tonnes of CO₂ per year by using byproducts that would normally be lost to the surrounding environment.

For more information:

Visit the LaGeo website: <http://www.lageo.com.sv/>
See the FundaGeo page for more information on this project and others:
<http://www.lageo.com.sv/?cat=12&title=Funda-Geo&lang=es>



Productive Uses of Renewable Energy (PURE) in Guatemala

Creating conditions for gender equality in rural energy projects

Solar Foundation with funding from the Global Environment Facility (GEF)



Over half of Guatemala's population lives in poverty with little to no access to clean, sustainable energy. The Productive Uses of Renewable Energy (PURE) programme, funded by the Global Environment Facility (GEF), was created to foster access to renewable energy and stimulate development in rural areas, as well as mitigate greenhouse gas emissions from traditional energy production and transmission. While the original programme did not include gender considerations, the process of implementation revealed gender gaps in women's participation in decision-making and access to renewable energy training and technology, prompting the need to address these issues. Including gender considerations in the programming proved to have unintended successes with women gaining access to economic

ventures and reporting and consequently feeling more empowered in the decision-making processes. In addition to making a concerted effort to include gender in the project design, PURE provided access to renewable energy technologies to ten communities, reaching over 130,000 people.

Project overview

Although gender was not an original consideration in the program, PURE's successful rural renewable energy access project made efforts to include women in decision-making and economic ventures to make an equitable and inclusive programme.



Strategies include:

- Increasing rural renewable energy access.
PURE's process consisted of eight stages to effectively increase access to renewable energies. These steps were:
 - Identification and selection of communities to participate in the project,
 - Sensitisation of actors and preparation of social conditions,
 - Determination of the technical feasibility of the project,
 - Knowledge of the social and institutional environments,
 - Training and education of stakeholders,
 - Technical studies,
 - Management of projects for renewable energy technologies, and
 - Implementation of the renewable energy technologies.
- Including gender considerations grounded in programming learning and evidence.
Although gender was not an original consideration, the inclusion of women in decision-making processes and ensuring they have access to renewable energy trainings and technologies proved to make the project more successful.
- Providing economic opportunities for women.
By facilitating activities to help women identify micro enterprises, PURE increased access to economic ventures and secure additional income for families.

Results to date include:

- Women empowered as decision-makers.
PURE helped empower women as participants in decision-making groups in a culture in which women are traditionally not encouraged to speak

up and participate. Within the project communities, 40% of women participated in community organisations and were involved in the planning and implementation of the project (economic, tourism, environment and conservation planning and also through natural resources councils).

- Women engaged in micro enterprises.
Through support from PURE, women had access to many different micro enterprise and economic opportunities, including women-led mobile charging initiatives, electrician training, and household money saving activities through the use of the less expensive, renewable energy sources.
- Increased renewable energy generation.
Through its implementation strategy, PURE developed and promoted 1.5 megawatts (MW) of off-grid renewable energy for productive use and 13.5 MW of renewable energy for private sector use on the national energy grid.

Gaps/challenges include:

- The project experienced challenges promoting gender equality in rural areas because women's work is generally undervalued, there is limited access to participation outside the domestic space, and women's capacity building for economic ventures is limited.
- An unstable political environment, divided leadership, a weak energy economy, and social fragmentation were also cited as challenges in obtaining loans and attracting investors to the project.

For more information:

Visit: <http://www.fundacionsolar.org.gt/proyectos/ usos-productivos-de-la-energia-renovable-en-guatemala-pure/>



Gender-equitable rights and access to forest and tree resources and benefits

A mixed methods approach in Uganda and Nicaragua

Center for International Forestry Research (CIFOR) and Makerere University, Uganda; NITLAPAN Institute for Research and Development; Central American University, Nicaragua



Many communities around the world suffer from the adverse impacts of tree cover loss and decreased access to forest resources. Women continue to be disadvantaged in this field through insecure access and property rights to forests, trees, and land resources; discrimination and male bias in the provision of services, including credit, and technology; and exclusion from decision-making at household, community, and national levels. CIFOR aimed to address this gender disparity in Uganda and Nicaragua by improving sustainable forest management, equitable distribution of benefits, and household food security. Effective gender inclusion through understanding women's participation in

forest decision-making, analysing the roles of external actors, facilitating participation through adaptive collaborative management (ACM), and evaluating success ensures credible and effective policies and has allowed for targeted interventions. This project helped researchers to understand women's varying roles and participation levels in Nicaragua and Uganda and supported them in making effective policy recommendations. Through ACM strategies, women are now more confident and more willing to share their ideas with their male counterparts and, in some villages, are increasing their leadership and participation in forestry projects.



Project overview

Linking research with action, this project aims to study the roles of women in forestry projects in Nicaragua and Uganda. By increasing leadership and participation of women through ACM, CIFOR is helping to enhance sustainable forest management.

Strategies include:

- Fostering understanding of women's roles in the forestry sector.
Through focus-group interviews of men and women's participation in decision-making strategies, researches analysed the current roles of women in both Nicaragua and Uganda. This helped gain an understanding of cultural expectations to better inform policy recommendations.
- Ensuring gendered monitoring and evaluation.
Sex-disaggregated household-level surveys were used to establish a baseline and capture impacts from the study.
- Strengthening women's rights and access to forests.
ACM strategies were employed to identify and implement actions to improve women's participation in and influence over decision-making.
- Creating networks with outside actors.
Partnerships between local universities and women's organisations were created to strengthen coordination between forestry driven organisations and ensure women's participation.

Results to date include:

- Women's diverse roles and experiences documented.
Through the focus groups and surveys, researchers found that women in Nicaragua tended to be more involved in decision-making, have more

access to resources, and are more likely to restrict consumption to increase sustainability than women in Uganda. However, women in both countries experience decline in decision-making capacities beyond the household-level. Researchers also found, particularly in Uganda, that women are traditionally not allowed to plant certain trees on household land and that membership in forestry organisations is highly correlated with resource harvesting. This insight allowed researchers to understand the varying roles of women in the forestry sector and make tailored recommendations for study sites.

- Women's access to the forestry sector improved.
Through the ACM process, women's confidence in sharing ideas increased and in some cases, particularly in Uganda, their leadership and effectiveness improved, leading to increased acceptance by men.
- Multi-stakeholder partnerships fostered, across levels.
Nicaragua's National Forestry Institute donated 10,000 seedlings for reforestation and signed agreements to collaborate with local universities. In Uganda, the National Forestry Authority organised community trainings in tree nursery establishment and beekeeping, and SCC-VI Agroforestry and Tree Talk provided up to 10,000 seedlings for communities. The participation of these organisations has supplemented community knowledge and strategies with resources and skills.

Gaps/challenges include:

- Without clear strategies that specify gender targets and monitor progress toward them, it is unlikely that gender-responsive laws and policies on paper will transform women's rights and access.
- Adequate budgets and gender capacity (training of



implementers) are necessary to ensure continued and meaningful impact.

- In Nicaragua, weak or conflicting governance at communal and territorial level affects progress on women’s participation in governance.
- It is difficult to make substantial changes in communal or public levels of governance without also addressing household level inequities.

For more information:

Uganda contact: Esther Mwangi at e.mwangi@cgiar.org

Nicaragua contact: Anne Larson at a.larson@cgiar.org

Visit: <http://www.cifor.org/gender/gender-equitable-rights-access-forest-tree-resources-benefits-mixed-methods-approach-uganda-nicaragua/>

For more information on ACM visit: <http://www.cifor.org/acm/>

Energy opportunities for women in Senegal

Improving community wellbeing through increased energy access

Global Village Energy Partnership (GVEP) International in partnership with the Social and Ecological Management (SEM) Fund and ENERGIA



Low energy access plagues the rural regions of Tambacounda and Kedougou, Senegal, where only 9% and 4% of the populations, respectively, have reliable access. Energy poverty is especially pressing for

women and girls who are often charged with using smoky, inefficient wood stoves for cooking and rely on poor lighting for household chores. Integration of efficient cookstoves remains low—less than 4%—



while the health impacts of traditional cookstoves kill approximately 6,300 Senegalese people a year. In order to address these issues and provide new economic opportunity, GVEP International, with support from SEM Fund and ENERGIA, support the growth of 250 women-run micro and small enterprises (MSEs). Participants receive financial and business support and tailored mentoring from GVEP for up to three years to help them enter the energy market and increase access to energy in their communities. It is estimated that 4,500 family members will benefit from this extra income and that 400,000 men, women, and children will have improved access to clean energy. Through supporting women entrepreneurs, GVEP's activities are helping to reduce the adverse impacts of wood burning stoves and empower women as energy leaders in their communities.

Project overview

GVEP supports 250 women-led micro and small enterprises in entering the energy access market in the regions of Tambacounda and Kédougou, Senegal. Through tailored mentoring and financial support, GVEP aims to empower women to educate and improve their communities through increased clean energy access.

Strategies include:

- Empowering women entrepreneurs.
Participants receive training in business, financial support, and mentoring for up to three years to support participation in the energy access market.
- Supporting growth of MSEs.
Aside from training and financial support, GVEP

ensures that women-led MSEs will be engaged and connected to key players, such as suppliers, distributors, financial institutions, and other MSEs.

- Building gender awareness and understanding.
Men in the communities have the opportunity to attend gender-sensitivity meetings in order to gain insight on the importance on women's participation in the project and education on negotiating domestic arrangements.

Results to date include:

- Women's economic empowerment.
Currently, 250 women-led MSEs in two regions in Senegal are the target beneficiaries of this project; results include women earning income and improving the wellbeing of an estimated 4,500 family members.
- Improved energy access.
Approximately 400,000 men, women, and children will have improved access to clean energy.
- Health and environmental co-benefits.
Reduced reliance upon traditional sources of fuel for wood stoves—translating as well into reduced health impacts from smoky cookfires.

Gaps/Challenges include:

- Lack of access to resources, training, and education can make it difficult for women to participate in the energy market. This project intends to provide these resources to women to support them in entering the market.
- Women also face troubles at home and in the community with households being inflexible in domestic arrangements and prejudice about gender



roles from male suppliers and distributors. GVEP hopes to dispel these prejudices through gender-sensitive trainings and education sessions.

For more information:

Visit: <http://www.gvepinternational.org/en/business/energy-opportunities-women-senegal> or <http://www.gvepinternational.org>

Gender-responsive integration of climate change adaptation in local planning in Morocco

Empowering women farmers and entrepreneurs

UN Women and the Swiss Agency for Development and Cooperation, implemented with local partners in 8 pilot municipalities; Annama Association for the Development of Rural Women



Morocco’s agricultural sector is particularly susceptible to the adverse effects of climate change and as a result is currently experiencing many changes, including in access to groundwater resources, farm size, production systems, technologies, markets, and public policies. Rural women in Morocco—who often lack resources and

training, and face an unequal distribution of family responsibilities and threat of exposure to violence—are particularly impacted by these changes, as they are often invisible in decision-making, and their contributions go unrecognised. However, women are in a critical position to help their communities develop resilience and adapt to climate change. UN Women



and partners are working with regional programmes in Morocco to advance gender equality and enhance women's livelihoods, and to foster an understanding amongst policymakers that women farmers' perspectives must be integrated into the formulation and implementation of sound, sustainable climate-related policies. A key activity has been to engage and empower women in an emerging agricultural sector: the preserving and commercialising of aromatic and medicinal plants (AMPs); women have been trained in business management and other key skills, adding to their improved livelihoods and increasing resilience for their families. Among interesting results to far, using gender-sensitive indicators for the project allowed the 8 pilot municipalities to have the socioeconomic and environmental data necessary to adapt their communal development plans to the reality of climate change challenges.

Project overview

UN Women-Morocco's project aims at strengthening gender mainstreaming in climate change understanding and adaptation, including by fostering women's economic empowerment in pilot communities and by focusing on key aspects in local planning and development processes through:

- Enhancing communal information systems with gender-sensitive indicators, and
- Supporting three pilot communities' community development plans taking into account gender concerns in climate change adaptation.

Strategies include:

- Technical and business skills-building for women in AMP.
Women in pilot communities were supported with trainings to engage and further develop AMP sector.
- Comprehensive gender and climate change capacity building workshops at local level.
local partners and community supported through trainings to enhance their skills, particularly focusing on how to integrate gender-sensitive and climate risk reduction indicators in their communal information systems.
- Local, regional, and national training.
 - Key modules covered topics, such as:
 - Morocco's international and national commitments to the implementation of the UNFCCC and the integration of gender in climate change adaptation strategies,
 - Gender-responsive risk prevention tools, prevention plan for climatic hazards, and early warning systems,
 - Gender-sensitive territorial approach integrating adaptation to climate change, through Geographic Information System (GIS), risk mapping, and development of a Prevention Plan, and
 - Local leadership and women's empowerment, especially in the context of climate change.

**Results to date include:**

- Women's economic empowerment.
In the community, 120 women from eight pilot communities engaged in AMP sector, while women also benefitted from business training to develop their own AMP initiatives.
- Multi-stakeholder engagement.
The project fostered an Economic Interest Group, bringing together 12 cooperatives and 15 NGOs to reinforce the production and commercialisation of AMP.
- Community plans enhanced.
There have been eight community development plans that have fully integrated gender issues and commitments.
- Sex-disaggregated data collected and employed.
Gender-sensitive indicators provided socioeconomic and environmental data that has been used to adapt community development plans to climate change impacts. Also, gender-

sensitive Communal Information Systems have been implemented, enriching risk reduction in community development planning.

Gaps/challenges include:

- Men in the community criticised women for their lack of skills and resources to successfully manage AMP businesses and as a result, gender-inclusive training and capacity building for men on gender concerns would be a necessary next step.
- Bridging the gap in women's technical skills was a challenge—and yet it reinforces the importance of the project itself, to build women's capacity and leadership.

For more information:

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Bamboo Bikes Initiative in Ghana

Empowering women through the production and use of high quality, affordable and sustainable bamboo bicycles

Ghana Bamboo Bicycles with funding from the Global Environment Facility (GEF) Small Grants Programme.



Traffic congestion, environmental degradation, rural-urban migration, low youth employment and poverty are some of the major issues impacting communities in Ghana. Bernice Dapaah, a young female entrepreneur, saw a way to tackle these problems while empowering women in rural communities through the cultivation of bamboo and the production of bamboo bicycles. The Ghana Bamboo Bikes Initiative, funded by the GEF Small Grants Program, addresses transportation needs, climate change, youth unemployment and poverty by creating jobs for young people, especially women. These high-quality bikes are lightweight and stable, but can still handle rough terrain and large farm loads and passengers, making them excellent replacements for traditional metal bicycles, which are more carbon intensive to produce. In addition, bamboo forests that are not used for bicycles have led to more carbon being sequestered, less deforestation of Ghanaian

forests, and decreased soil erosion. Women have specifically benefited from this female-led project through manufacturing trainings, the creation of 30 jobs—20 bicycle assemblers and ten farmers—and the increased access to an affordable and sustainable form of transportation. The expansion potential is significant—and the Initiative is currently exploring options to scale, both in size and impact. Organisers aim to build thousands of bikes—by Ghanaians, in Ghana, for Ghana.

Project overview

Through the cultivation of bamboo and the building of high-quality bamboo bicycles, the women-led Ghana Bamboo Bikes Initiative helps mitigate climate change impacts while empowering women through economic opportunities and access to durable, sustainable transportation.

**Strategies include:**

- Prioritising women's participation.
This Initiative, founded by a young woman entrepreneur, sought to create opportunities for women in rural Ghana to participate in and benefit from the creation of these bamboo bicycles.
- Providing reliable transportation alternatives.
These handmade bicycles are lightweight and durable, but can still withstand the rough terrain of the area as well as handle large farm loads during commutes.
- Mitigating emissions via the production process.
Bamboo bikes require much less energy than traditional steel framed bikes, which produce about 5 kg of CO₂ per bike during production. In addition, growing bamboo aids in sequestering carbon and improving local climate conditions.

Results to date include:

- Women's economic empowerment.
Through this initiative, 30 jobs—20 bike assemblers and ten farmers—have been created to employ female youth. Additionally, the technology has spread to two other communities, employing an additional 25 women. The initiative also sets up trainings for women to start small-scale production bases and employ five or six other people to help expand the project around Ghana.
- Reduced dependence on fossil fuels and increased forest restoration.
The project has stimulated the cultivation of bamboo in the area, and while some is used to construct the bikes, the remaining bamboo forests serve to decrease soil erosion and sequester carbon, which improves local air and water quality. The switch to bamboo has also helped to preserve and rehabilitate Ghana's dwindling forests.

For more information:**Momentum for change submission site:**

http://unfccc.int/secretariat/momentum_for_change/items/7842.php



Solar Market Gardens in Benin

Transforming food and income security for—and by—women farmers

Solar Electric Light Fund (SELF) with l'Association pour le Développement Economique, Social, Culturel, et l'Autopromotion (ADESCA)



In one of the driest regions of Benin, communities suffer severe malnutrition and deepened poverty during the long dry season when agricultural production is erratic at best. Women and girls are especially impacted as they spend more time trying to collect water and less time in school and pursuing economic activities. By targeting women farmers, the Solar Market Garden program in Kalalé uses solar panels to support drip irrigation systems for watering year-round crops—resulting in dramatically improved nutrition, increased income for the women farmers, increased school enrollment for the farmers' children, and empowered women entrepreneurs, educators, and leaders, among other outcomes. To date, women from 11 farming districts have elevated their community status and are paving the way for sustainable mitigation and adaptation techniques in their communities. The program's women-run administrative board plans to expand the project



to the 32 remaining districts in Benin, enhancing wellbeing for families and communities across the country.

Project overview

The SELF with the input from community members and a local non-profit, ADESCA, is implementing Solar Market Gardens to efficiently water year-round crops with drip irrigation systems fuelled by solar energy, increasing food and income security in rural Benin.

Strategies include:

- Ensuring that women farmers are project beneficiaries.
By prioritising women's farming cooperatives as direct project actors and beneficiaries, the Solar Market Gardens project adds community value



to women-led organizations, rewards innovative women, and empowers women to become agricultural leaders.

- Having women lead every aspect of project design and governance.

Women farmers choose plot sites and help to clear the area, build the plant beds, and construct the irrigation lines. Representatives from the garden groups were then trained to take over administration of the project.

- Championing women's knowledge.

Through continuous seminars and skills-building trainings, women are empowered as experts in sustainable agriculture; women in the gardening groups are then able to provide advice to neighbouring farmers and organise additional community projects.

- Uniting mitigation and adaptation.

Solar pumps replace diesel-fueled pumps, reducing costly fuel purchase as well as greenhouse gas emissions and water waste, and intercropping tree planting adds to mitigation power and crop fertility.

- Fostering a project that is comprehensive and sustainable.

Future trainings will include sessions on nutrition, marketing, and photovoltaic technology to encourage the project to become self-supporting.

Results to date include:

- Increased capacity of women.

Eleven women's farming cooperatives, or 400 individual women, participate in the Solar Market Garden program. The project has set women up to create long-term social change by affording women unprecedented agency and independent income.

Also, leadership of the NGO was handed over to a board composed entirely of representatives from the garden groups, giving autonomy and ownership to women in the community.

- Economic benefits for farmers.

In 2014, the gardens yielded 27.7 tonnes of produce and provided an average weekly income of USD 7.50 for each farmer.

- Water saving technology.

The solar powered pump drip irrigation system has reduced water waste by 50% and has relieved women and girls from the time-consuming burden of hand-watering crops.

Gaps/challenges include:

- Logistical delays, e.g., in transporting solar panels to the village sites.
- Political delays: the project has, in some places, attracted so much attention that local authorities became involved, resulting in lengthier approval processes.

For more information:

Visit: <http://self.org/benin/>



Food and Trees for Africa (FTFA) initiative in South Africa

Women leading South African communities to a healthier and more sustainable environment

Food and Trees for Africa (FTFA)



Since 1990, Food and Trees for Africa (FTFA) has been addressing issues of food security, poverty and climate change in South Africa by teaching women skills and fostering their leadership to create a healthier and more sustainable environment. There are six programmes under FTFA—Trees for All, Trees for Homes, EduPlant, Food Gardens for Africa, Bamboo for All and FEED—that focus on tree planting and climate change education to meet goals of emissions reductions, food security, education and women empowerment. Women's leadership is at the heart of FTFA's programmes. For example, the Trees for Homes, Trees for All, EduPlant and Food Gardens for Africa programmes are led by female programme managers, supported by female entrepreneurs and have a positive impact on women from South Africa's poorest communities. To date, these women-led



programmes have helped to establish thousands of permaculture food gardens, bamboo projects, and organic farms, and have planted 4.2 million trees, which have sequestered more than 1.5 million tonnes of carbon. In addition, FTFA's Bamboo for All and Trees for Homes programmes were the first in the world to be internationally recognized through the Verified Carbon Standard. With the help of women in South African communities, FTFA continues to innovate, adding new creative approaches to greening, sustainable natural resource management, behavioural change, and climate change mitigation, adaptation and awareness.



Project overview

FTFA strives to improve food access, alleviate poverty, mitigate climate change, and empower women through fostering women's leadership in tree planting, gardening and farming projects.

Strategies include:

- Fostering women's leadership.
Women's leadership is prioritized in all FTFA programmes, with a focus on teaching women the skills they need to improve their own livelihoods and their communities through agricultural activities.
- Mitigating climate change while improving food security.
The six programmes under FTFA use various activities to improve livelihoods in South Africa. Some of the main activities include tree planting, establishing permaculture gardens and organic farms, and setting up bamboo projects in communities.

Results to date include:

- Women are being championed as community leaders.
Some of FTFA's programmes, including Trees for Homes, Trees for All, EduPlant and Food Gardens for Africa, are led by female programme managers, supported by female entrepreneurs and have a

positive impact on women from South Africa's poorest communities. By focusing on women's leadership, FTFA is delivering social, environmental and economic benefits to disadvantaged women across South Africa.

- Increased carbon sequestration and improved livelihoods.
Through the various programmes, FTFA has helped women in South Africa plant over 4.2 million trees that have sequestered over 1.5 million tonnes of carbon, drastically improving the local climate conditions in communities. In addition, projects have helped to establish thousands of permaculture gardens and organic farms, which not only improve food security but provide opportunity for women and children to learn new skills.
- Potential for growth and expansion.
Activities through this project have increased every year since its inception in 1990. Various government departments, including a group of schools in Mexico, have modelled their community work on FTFA's initiatives, illustrating the replicability of these activities.

For more information:

Momentum for Change submission site:

http://unfccc.int/secretariat/momentum_for_change/items/7840.php

Organisation website: <http://www.trees.co.za/>



The Nyimba Forest Project (NFP) in Zambia

Building capacity and participation of women to strengthen Zambia's REDD+ Readiness Programme

Center for International Forestry Research (CIFOR) in partnership with Forest Department, Zambian Wildlife Authority, District Women Development Association (DWDA), Community Youth Concern (CYC), Traditional Authorities and the District Council, and USAID's Zambia Economic Growth Programme



The Nyimba Forest Project (NFP) was a two-year programme with the purpose of supporting Zambia's REDD+ Readiness Programme. Through in-depth analysis and assessments, this research project aimed to report on the availability and utilisation of forest resources and provide recommendations for Zambia's national REDD+ strategy (NRS). CIFOR made a concerted effort to include gender considerations in the project to capture knowledge from women that would influence future distribution of benefits and to ensure a balanced and inclusive activity. To reach this goal, CIFOR focused not only on conducting workshops and seminars about building the capacity of women, but also sought out participation from women in decision-making processes and research throughout the project. Appropriate stakeholder

participation, a representation framework, and the inclusion of both genders in distribution of benefits allowed for effective equitable decision making on the project. At a project level, these strategies helped achieve a gender ratio of 53 women to 47 men participating in 51 community meetings and study activities, and 26 women in decision-making positions over the course of the NFP implementation. At a national level, the project aided in producing recommendations and guidelines for addressing gender issues in projects and policies. It succeeded in fostering an environment where concerns of gender disparities could be addressed and where women could have equal opportunity to participate in the NFP implementation.



Project overview

By ensuring the participation of women to create inclusive and gender-responsive research, the NFP created recommendations to strengthen Zambia's REDD+ Readiness Programme.

Strategies include:

- Targeting women's participation.
CIFOR requested the participation of women and girls in all the implementation activities, including the selection of Village Based Researchers.
- Gender mainstreaming at all levels.
Several activities ensured that gender issues were being addressed throughout the project. These included:
 - Gender analysis.
Reviewing NFP work plans to see how addressing issues would impact the project,
 - Capacity building on gender.
Sensitisation of staff in the NFP structures and partners, and
 - Monitoring and evaluation:
Tracking women's and men's participation/ leadership and decision-making in the project and the activities of partners and stakeholders.

Results to date include:

- Increased participation of women.
Women were heavily involved at the project level with a women to men ratio of 53:47 participating in 51 community meetings and study activities. There was also equal representation of men and women at focus group discussions and during formation of village forest action plans. The project also involved 26 women in decision-making positions for the action plans.
- Gender guidelines in policies.
Nationally, guidelines on addressing gender issues in implementation of projects were formed and recommendations on how to incorporate gender in the National REDD+ Strategy were formulated.

Gaps/challenges include:

- Social and cultural norms still inhibit women's broader participation in implementation activities. However, this could change as women's roles begin to shift and they are seen as respected and valuable members of projects.

For more information:

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Visit: <http://www.cifor.org/gender/gender-integration-nyimba-forest-project-zambia/>



The Sustainable Village in Kabeza, Rwanda

Pro-poor pilot for sustainable natural resource management and climate change adaptation and mitigation

Rwanda Environment Management Authority (REMA)



Soil erosion from heavy rainfall, over-cultivation, and climate change plagues the village of Kabeza—a typical hillside village, 1507 m above sea level—in Rwanda. As a result, villagers suffer from low productivity and food insecurity, with women being especially impacted particularly due to their traditional roles as caregivers and as those responsible for the collection and management of water and firewood for energy needs. To address these issues, the UNDP-UNEP Poverty-Environment Initiative (PEI) has been supporting efforts by the Government of Rwanda led by Rwanda's Environment Management Authority (REMA) to pilot pro-poor sustainable natural resource use and technologies, aiming to reduce poverty, pursue holistic climate change adaptation and mitigation, and further gender equality

via the Sustainable Village Project, initiated in 2009. Rainwater harvesting, biogas systems, tree planting, and terracing resulted in increased food security in the community, increased income for women through the sale of excess goods, decreased instances of respiratory ailments, less time spent collecting water and firewood, and reduced landslide occurrences. Furthermore, a women-led cooperative was trained to manage the project, which has empowered more women to take on leadership roles.

Especially with national counterparts and UNDP-UNEP PEI ensuring that local lessons learned influence national policymaking and programming on climate change, this pilot project sets an example of how one community can have major impact through inclusive,



sustainable infrastructure and gender-inclusive natural resource management. Moreover, the effective pilot has a catalytic effect for scale and replicability, in addition to influencing national and district policy processes.

Project overview

The project set out to reverse environmental degradation and climate change by empowering communities and in particular women and reducing poverty through the implementation of several sustainable technologies in the Kabeza Village.

Strategies include:

- Guiding and training women and men in spearheading local technologies.
Strategies for rainwater harvesting, biogas systems, tree planting, and terracing were identified, installed, and constructed by the local community, fostering community ownership.
- Transferring management of the project to local authority.
A woman-headed cooperative currently manages the project.
- Building capacity and linking key actors.
Local project managers are supported by UNDP-UNEP PEI, especially to build capacity and establish linkages with district authorities and sector ministries. For example, the Ministry of Agriculture supported the initiative by providing hybrid cows under the “one cow programme”, the Ministry of Local Government supported the construction of homes through the resettlement programs, the Ministry of Infrastructure provided filters for water harvesting systems and the Ministry of Education supported the establishment of the new village school. The Gicumbi District is

also working closely with the cooperative to ensure proper management and raise awareness about environmental sustainability. The cooperative is currently engaging with the Ministry of Information and Communication Technology (ICT) to see how ICT can be better integrated into the project.

- Creating networks.
By fostering partnerships and networks, the results of the project and lessons learned can be used to influence local and national policy processes.

Results to date include:

At local level:

- Food security for the 43 families in the community has increased, and excess production is being sold in the market, further enhancing economic security.
- The women-led cooperative has an annual income of USD 26,000, supporting the livelihoods of around 200 people (62% of whom are women).
- Technologies/NRM strategies have been effective, e.g., terracing has helped to reduce landslides on the steep slopes of the village.
- Owing to the use of biogas plants, the community has a clean, nontoxic fuel source for cooking and lighting, thereby reducing health issues related to the inhalation of smoke from firewood.
- Reduced dependency on firewood has decreased the deforestation rate: an estimated 14 hectares has been saved due to the strategies of this programme.
- Women and children, with reduced burden in water and fuel collection, are now afforded more time to pursue productive activities including schoolwork and economic ventures.
- The female-led cooperative has been successfully managing the initiative since 2010, following UNDP-UNEP PEI capacity building sessions,



demonstrating the sustainability of the project and highlighting how the community, in particular women community members, has been empowered to take the lead on local sustainable development planning and implementation.

At policy level:

- The project influenced Rwanda's second Economic Development and Poverty Reduction Strategy (EDPRS), which includes gender as a cross-cutting issue, to include aspects of environmental sustainability for poverty reduction in the thematic area of rural development.
- The Ministry of Local Government has requested all districts to establish at least one demonstration village based on the best practices from this pilot project.
- With support from the Government of Rwanda and the Swedish International Development Agency (SIDA) the green village model is currently being replicated in Muyebe district.

- In 2015, three districts (Karongi, Muhanga and Musanze) have been granted funds from Rwanda's Environment and Climate Fund (FONERWA) for establishing green villages.

Gaps/challenges include:

- Budgets to transition to 'sustainable villages' are still missing in many districts.
- Project implementers have found it difficult to measure quantitative and monetised impacts of the project; measuring this impact, however, via a cost-benefit analysis is a project focus of 2015.

For more information:

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Energy efficient stoves in Malawi

Addressing gender and environmental issues through efficient technologies

United Nations Development Programme and the United Nations Environment Programme (UNDP-UNEP) Poverty-Environment Initiative (PEI)



Malawi's rich natural resources play an important role in sustaining citizens' livelihoods, contributing to the national economy, and providing a significant amount of energy to the country. An estimated 93% of the national demand for energy is met through forest resources. However, unsustainable use of resources, including the production and burning of charcoal, is leading to rapid deforestation, exacerbated climate change, and threatened communities. Women—who are often charged with collecting firewood and using charcoal for cooking—are feeling the impact of this unsustainable use through increased respiratory ailments from burning charcoal and more time spent collecting scarce firewood. To address this issue, the Ministry of Energy with support of the UNDP-UNEP Poverty-Environment Initiative (PEI) coordinated a pilot project to produce, market, and distribute energy efficient stoves and briquettes in four districts of Malawi—Balaka, Dedza, Ntcheu and Machinga.

During the project, 345 local people (193 women and 152 men) participated in trainings on how to use the stoves and produce the briquettes. Conversely, the Department of Forestry is revisiting the 1996 National Forest Policy with the support of PEI to better reflect the connections between forest resources, livelihoods of the poor, and energy use in the country. Local women have also noted that, in addition to saving women time, opening up other economic opportunities, and reducing respiratory ailments, the energy efficient initiatives have also reduced the risk of sexual assault threatening women when they collect firewood in the forest.

Project overview

By introducing energy efficient stoves and briquettes to local communities, the pilot project sought to alleviate issues faced by women as a result of



unsustainable resource use and energy demands in Malawi.

Strategies include:

- Tackling gender and environment issues in tandem.
Recognising the impact of reduced energy access on women, the pilot project sought to target both gender concerns and environmental sustainability concerns in synergy.
- Economic empowerment of local communities.
Through training on how to produce, market, and distribute efficient stoves and briquettes, this pilot project is opening up the energy market to locals in the targeted Malawi communities.
- Creating community networks.
Communities were connected to the Malawi Industrial Research and Technology Development Centre (MIRTDC), which is the sole producer of machinery necessary to produce briquettes.
- Reforming policy.
The Malawi Department of Forestry is revisiting the forestry policy from 1996 with support from PEI to better reflect the links between natural resources, improving livelihoods, and energy use.

Results to date include:

- Women are project beneficiaries.
This pilot project has had numerous positive impacts on women in the Balaka, Dedza, Ntcheu and Machinga districts, including:
 - Because of the energy efficient technologies, women and children do not have to spend as much time collecting firewood and now have more time to pursue other economic activities,
 - The saved time also lowers women's risk of being sexually assaulted while collecting firewood in the forest, and

– The briquettes have reduced the exposure to smoke for women leading to a decrease in respiratory illnesses.

- Broad community reach.
245 local community members participated in trainings to produce, market, and distribute energy efficient technology. The success of the project has inspired other organisations to become involved in funding the expansion of the project into other districts in Malawi.
- Plan for expansion.
The Government of Malawi has developed a cookstove roadmap to aid implementation of cookstoves in communities all over Malawi.
- Policy reform.
The 1996 National Forestry Policy has also been revisited and objectives have been rewritten to reflect the links between resource use, the livelihoods of the poor, and energy use. The draft has been written and is expected to be approved by the Malawi Cabinet in 2015.

Gaps/challenges include:

- Some women have found it difficult to find markets for briquettes. Future projects could benefit from intensified trainings on marketing and distribution of technologies to aid uptake in communities.

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Project Website: <http://www.unpei.org/our-stories/the-malawi-government-builds-on-pei-pilot-projects-to-support-the-use-of-energy-efficient-stoves-that-also-improve-the-lives-of-women>



Women's wind energy cooperative in Sweden

Creating economic opportunities for women to invest in clean, alternative energy

Qvinnovindar



In 2007, Wanja Wallemyr—a farmer and rural activist living near Falköping, Sweden—had the opportunity to invest in a community wind farm project, however, she wasn't able to afford the USD 154,000 minimum investment. Recognising an opportunity to bolster women's involvement in the energy industry—a sector largely dominated by male leadership—Wallemyr, along with nine other women, started *Qvinnovindar* and gathered enough funds to invest in the community wind farm project. Combining the Swedish words for 'wind' and 'women', *Qvinnovindar* has since grown to over 80 members and invested more than USD 1.5 million in other projects, including a wind project on Wallemyr's farm. Members of the cooperative—who come from a diverse set of careers, including a retail clerk, a florist and a dentist—invest anywhere from

USD 77 to USD 46,000 each. However, no matter how much money is invested, each member gets an equal vote about how the company is run. While the idea of an all-women energy cooperative has not always been well received by others in the community, *Qvinnovindar* has been essential in boosting the rural economy, promoting clean energy, empowering women and opening up the energy market in Sweden to be more inclusive.

Project overview

Qvinnovindar is a Swedish, all-women energy cooperative focused on investing in energy projects with the goal of empowering women economically and promoting clean, sustainable energy.



**Strategies include:**

- Empowering women economically.
The lack of access to finances can be a barrier for women looking to enter the energy market. Through a community effort, this company was able to gather enough funds to become an investor in the wind farm community project and gain members to expand the reach of other projects.
- Inclusive business practices.
Qvinnovindar focuses on the equal representation of all members, regardless of the member's initial investment. The company also includes women from all fields of work to be a part of the cooperative and access the energy market.

Results to date include:

- Expansion of investment opportunities for women.
Since the initial 2007 investment, *Qvinnovindar* has grown from nine to over 80 members and has invested over USD 1.5 million in other wind energy projects around Sweden. Wallemyr has also had the opportunity to speak with women in other countries, including Spain, Mexico and Turkey, in hopes that this same model will spread around the world.

- Promotion of clean energy in Sweden.
Wallemyr hopes that a renewed focus on wind power will help to displace nuclear energy in Sweden, which, through mining practices, has negative effects on the groundwater.

Gaps/challenges include:

- The cooperative is exclusively for women, which can be seen as being gender exclusive. However, Wanja Wallemyr and her daughter Sara are not opposed to helping men and others in the community start their own wind energy cooperatives, believing that this all-women company is essential in empowering women in the energy market.

For more information:

A news article about *Qvinnovindar*: <http://grist.org/climate-energy/swedish-co-op-creates-a-stake-for-women-in-wind-industry/>

***Qvinnovindar* website:** <http://qvinnovindar.se/>



Pilot Programme for Climate Resilience (PPCR) in Tajikistan

Gender mainstreaming in the Building Climate Resilience in the Pyanj River Basin project

The Government of Tajikistan with the PPCR



With an agriculture-dominant economy, mountainous terrain, and large rural population, Tajikistan is one of the most vulnerable countries to climate change in Central Asia. Higher temperatures, floods, droughts, and more frequent storms degrade farmland and impact rural communities, especially women and children, who make up a majority of the country's poorest populations. In 2009, realising that a 'business as usual' approach would not adequately address these risks, the Government of Tajikistan was nominated and participated in the Pilot Programme for Climate Resilience (PPCR). The PPCR is the first operational program developed under the Strategic Climate Fund (SCF)—one of the three funds under the Climate Investment Funds (CIF)—and it provides an opportunity for countries to integrate climate risks into development planning by building on National Adaptation Programmes of Action (NAPAs). The PPCR



in Tajikistan consists of two phases. The first identified 6 technical assistance activities currently being funded and defined an investment plan, and the second focused on implementation of the investment plan.

One of the six activities identified was the Building Climate Resilience in the Pyanj River Basin project. The largest of the five primary basins in Tajikistan, the Pyanj River Basin houses 1.3 million residents and contains a large proportion of agricultural land, making it particularly susceptible to climate change impacts. PPCR Phase 2 investments for this project focus on climate resilience in critical ecosystems, communities, and infrastructures with a priority for addressing the needs and participation of vulnerable groups. Initial vulnerability assessments highlighted the specific issues that climate change poses to women, prompting the project to take on



a gender mainstreaming approach in planning and implementing resiliency activities. To ensure women's participation, the project conducted a Gender Action Plan that included actions to encourage action from local women's groups; include women in irrigation, drinking water, and disaster risk reduction groups; and provide access to micro-finance opportunities to foster adaptive and resilience measures. Communities have already benefited from PPCR and have shown a desire to replicate and scale up successful activities.

Project overview

Through an investment from the PPCR and a Gender Action Plan, the Building Climate Resilience in the Pyanj River Basin project focused on building resilience to climate change impacts while prioritising the participation and needs of women.

Strategies include:

- Conducting initial vulnerability assessments.
By assessing the needs of the community, this project could adopt socially inclusive and gender-responsive approaches during activity planning and implementation.
- Developing a Gender Action Plan.
Gender-inclusive features were included in many of the project components, including supporting participation of local women's groups and their participation in sector specific groups, as well as providing micro-financing to women for adaptation and resilience projects. Gender Action Plan indicators included:
 - 20% of employment opportunities in the project are filled by women,
 - 30% of women are trained on operations and maintenance of project-related infrastructure,

- 50% of participants in trainings are representatives of women's organisations, and
- 30% of loans are given to women, or enterprises with a majority female-ownership.
- Building resilience in the Pyanj River Basin.
The project's overarching objective is to prepare the communities to successfully navigate various climate change effects that will impact this area.

Results to date include:

- Women are project beneficiaries.
By building in gender responsive strategies into activities, this project improved women's access to water resources, heightened their knowledge on climate-resilient agriculture, and increased their access to micro-financing opportunities.
- Community buy-in and leadership.
There is a strong community desire to further successful activities. Many families in the district consider the PPCR important to improving their livelihoods.
- Expansive reach at local level.
This project will benefit over 13,000 households—about 100,000 people—in this area, 17% of which are female-headed.

Gaps/challenges include:

- The PPCR for Tajikistan is in Phase 2, meaning that implementation is still taking place. The full results and challenges are not available at this time.

For more information:

Visit: <http://www.ppcr.tj/index.php>



Bhungroo water management in Gujarat, India

Empowering women to build farming resilience through improved irrigation technology

Naireeta Services Pvt. Ltd. with funding from the Rockefeller Foundation



Drought and flash floods pose significant threats to farmers in the western Indian state of Gujarat. Water logging during peak cropping season and water scarcity in the rest of the year severely impact crop yields, especially those of vulnerable female farmers whose livelihood depends on the monsoon. However, these same women are taking this crisis and converting it into opportunity through improved irrigation management. Bhungroo is a water management system that stores water underground during excess rainfall, then lifts it out for irrigation during dry spells. This technology has not only increased fresh water supply and decreased salt deposits on fields, but it has also helped women gain land ownership, participate in local government, improve food security, and increase



income. From selecting farmers, erecting technology, and maintaining the Bhungroo system, this is a fully women-driven process empowering them to become leaders in their communities. Because it is open source and scalable (although it must be used to benefit poor people only), this project has far-reaching benefits in drought stricken areas.

Project overview

Seasonal floods and droughts in Gujarat, India, make it extremely difficult for poor farmers to have productive crop yields. With Bhungroo technology, farmers—especially women—are benefitting from increased fresh water access and more consistent crop yields.



Strategies include:

- Empowering women in farming communities.
Through implementation of Bhungroo technology, crop yields of farmers, especially poor female farmers, increase leading to more income for families and more opportunities to take on leadership roles.
- Building resilience in farming communities.
The Bhungroo water management system stores water underground during rainy periods, decreasing issues of water logging, and making it available during dry seasons.
- Pro-poor focus.
Technology for this project is open source, making it easily accessible for other communities with one non-negotiable being that it must be used to benefit poor communities.

Results to date include:

- Women's leadership is valued and promoted.
Women beneficiaries have taken over managing current and future projects. From selecting farmers, erecting technology, and maintaining the systems, women are building their knowledge of water management and agriculture, leading to more leadership and participatory opportunities in local governments and communities. Women are also getting out of debt and attaining land ownership, serving to improve societal status.

- Ensuring a more resilient future.
Bhungroo units (132) have been installed all over India, with some projects being implemented in parts of Africa. In India, the technology harvests water for ten days and stores up to 40 million litres of water, providing a stable source of fresh water for farmers. This improved land fertility has helped communities to profit off their crops, rejuvenate local biodiversity, and provide nutritious foods for their families and communities.
- Enhanced food security and sustainable livelihood.
To date, over 18,000 marginal Indian farmers—and their some 96,000 dependent family members—have benefitted from Bhungroo technology. Annual income for families has also improved, increasing from USD 210 to USD 700.
- Environmental benefits.
This process is curtailing desertification, which helps to preserve biodiversity and provides conditions for growing more nutritious food on farms.

For more information:

Naireta Services Pvt. Ltd. Website:

<http://www.nairetaservices.com/>

Momentum for Change submission site:

http://unfccc.int/secretariat/momentum_for_change/items/8694.php



Dissemination of three million improved cookstoves in Cambodia

Women entrepreneurs improving the lives of women end-users

Groupe Energies Renouvelables, Environment et Solidarités (GERES) with the European Union, Ministry of Mines and Energy (MME) of Royal Kingdom of Cambodia, and Nexus-Carbon for Development



Cambodia experiences widespread and unsustainable degradation of forestlands. This is not only leading to a scarcity of a central fuel source for communities, but also contributes to global climate change.

There is an opportunity, however, for women to take charge in mitigating emissions from deforestation while expanding their economic ventures. *Groupe Energies Renouvelables, Environment et Solidarités* (GERES), with support from local and international partners, introduced the New Lao Stove (NLS) into the Cambodian market with a focus on engaging women as entrepreneurs and end-use beneficiaries. Through technical and business training and investment support, GERES supported capacity building in the improved cookstove sector of Cambodia. In a 10-year period, 115 women leaders employed 235 women who were able to help disseminate three



million cookstoves, directly benefitting over 800,000 end-users, slowing deforestation, and mitigating greenhouse gas emissions. In 2004, GERES established the women-run, Improved Cookstove Producers and Distributors Association of Cambodia (ICoProDAC), to ensure long-term growth and local ownership of the project.

Project overview

GERES seeks to empower women entrepreneurs, improve the lives of cookstove end users, and reduce emissions from deforestation through the distribution of the New Lao Cookstove in rural Cambodia.



Strategies include:

- Empowering women as entrepreneurs.
By providing capacity building activities, technical training, introductory business skills, investment support, and leadership training, the project is ensuring women are ready to enter the improved cookstove market.
- Improving women's livelihoods.
By developing and distributing an improved cookstove, women will spend less time and money on acquiring biomass for cooking. In tandem, women's health will improve with more efficient, less smoky stoves.
- Prioritising women's leadership.
Although GERES facilitated the implementation of the project, ensuring women are long-term decision makers through the future of the project is an important strategy.
- Reducing GHG emissions.
Improved cookstoves provide the opportunity to reduce the amount of biomass needed for cooking activities in the home. This reduction in deforestation will lead to more carbon being stored in forested areas.

Results to date include:

- Women's livelihoods enhanced.
The project improved the income of 115 women entrepreneurs and 235 women employees. This allowed women to expand their business enterprise and fund their children's education. These women also helped to improve Cambodia's economic situation with over USD 11 million of added value in the initial 10-year period.

- Household costs reduced.
In a 10-year period, three million cookstoves were distributed to benefit 800,000 end-users. The cost savings from these stoves is about USD 38 a year, which is significant given that the national median income is USD 39.25 per month.
- Institutional capacity built.
GERES fostered an enabling legal framework for improved cookstoves in Cambodia to ensure national long-term support. Also, in 2004, GERES helped to establish the Improved Cookstove Producers and Distributors Association of Cambodia (ICoProDAC) to support local ownership and sustainability of the project.
- Environmental benefits.
From 2003-2013, the project has helped to save 1.6 billion tonnes of wood from being used as fuel and in turn reduced carbon emissions by 2.4 million tonnes of carbon dioxide equivalent.

Gaps/challenges include:

- While cookstoves have eased some demand on biomass as fuel and there are efforts to increase protected areas, dependency on wood is still high, making deforestation a pressing issue in Cambodia.
- There are concerns about the ability to scale up production for increased distribution of cookstoves while still preserving the quality of the stove.
- There is still a need to establish national industrial standards for the cookstove sector.

For more information:

Visit: <http://www.geres.eu/en>



Climate Change Adaptation and Disaster Risk Reduction in Bangladesh

Women leading community-based action to build resilience in Bangladesh

ActionAid Bangladesh



Flooding, drought, cyclones and water salinization are among the top climate change threats to people in Bangladesh, especially women who are among the poorest and most vulnerable to climate change. Climate Change Adaptation and Disaster Risk Reduction in Bangladesh is a women-centred initiative that sets out to curb and adapt to these negative impacts by bringing together groups of women who are charged with conducting vulnerability assessments of climate risks and identifying action plans. These same women helped communities to install improved cookstoves in 110 households, build ten temporary dams to avoid salinisation of fresh water, and create a raised cluster village for landless families in flood-prone areas while sharing knowledge and experiences



with community members. This community-based approach empowers women to express their needs and increase their resilience to climate change. Using a model that builds partnerships between national research and civil society organisations, this initiative disseminates best practices to other parts of the country, ensuring that these women-led pilot projects are having maximum impact and reach.

Project overview

Through vulnerability assessments of climate risks and community-based action, women led actions to build community resilience to climate change impacts in Bangladesh.

**Strategies include:**

- Building capacity for women's leadership.
Bangladesh is traditionally a patriarchal society, but this initiative set out to further gender equality and women's rights in disaster risk reduction planning by focusing on women's leadership in conducting vulnerability assessments.
- Implementing locally appropriate climate change adaptation projects.
Groups of women in the communities conducted climate risk vulnerability assessments and formulated actions to combat specific risks in each community. This community-based approach helps to address women's needs and increase climate change resilience.

Results to date include:

- Women are seen as agents of change.
Women were involved in planning and implementing strategies to combat climate change effects and their knowledge is championed as the project is scaled up in other communities.
- Increased community resilience.
The initiative yielded several adaptation actions in communities, including:

- Installing improved cookstoves in 110 households,
- Building 10 temporary dams to avoid fresh water salinisation, and
- Constructing a raised cluster village for landless families in flood-prone areas.

Gaps/challenges include:

- Engaging the scientific climate community in project design has been noted as a challenge. Bridging this gap will be important in communicating localised climate change vulnerabilities during future projects.

For more information:**Momentum for Change website:**

http://unfccc.int/secretariat/momentum_for_change/items/7841.php

ActionAid Bangladesh website:

<http://www.actionaid.org/bangladesh>



Strengthening institutional capacity for disaster risk management in Viet Nam

Ensuring gender and women's concerns shape legislation and preparedness, including for addressing climate change related risks

Ministry of Agriculture and Rural Development (MARD), with UNDP, UN Women, OXFAM and Australian Aid



Viet Nam is recognised as one of the most disaster prone countries in the Asia Pacific Region. Over the last 30 years, disasters have been a major contributor to fatalities, injury and economic losses totalling about 1.0–1.5% of the gross domestic product (GDP). The Climate Vulnerability Index ranks Viet Nam as one of the countries at “extreme risk”. Women, among those considered to be most vulnerable, have typically been marginalised from disaster information, preparedness and policymaking. In response, and with disasters becoming more frequent and intense due in part to climate change, the Ministry responsible for planning, together with UNDP, UN Women, Oxfam and a range of national and local stakeholder organizations, most notably the 14 million-member Viet Nam



Women's Union (VWU), have been conducting an expansive initiative focused on building women's capacity to lead in Disaster Risk Reduction (DRR) planning, implementation and management and involving women at all levels of DRR and Disaster Risk Management (DRM). Together with enhanced capacity and participation at all levels, close engagement with parliamentarians resulted in the first gender-sensitive legislation on the issues.

Project overview

The major objective of this initiative is to prepare a cadre of women leaders to take leadership positions in the disaster risk management system



in Vietnam, while at the same time broadening women's participation at all levels of DRM. This is to be achieved by building the capacity of key DRR stakeholders and the Women's Union on gender equality to facilitate gender mainstreaming in DRR legislation and to promote women's leadership in DRM; by ensuring women's representation in the Central Committee for Flood and Storm Control (CCFSC); and by strengthening women's voice and capacity to mainstream gender in DRM at the community level.

Strategies include:

- Fostering community-based participation.
The project targets all the 63 provinces in the country to participate in implementing community-based DRM (CBDRM) in 6,000 communes through training material and guidance made available to 23 to 25 core group members (male and female leaders, DRR experts and CBDRM trainers,) per province.
- Strengthening and formalising the women's union capacity.
The project lobbied for the VWU to be recognised as a legal entity and become active constituents in DRM as well as gain official membership of the CCFSC.
- Identifying, validating and overcoming gender concerns by multi-stakeholder engagement and advocacy.
The extended partnership has allowed for a wide range of gender-related issues and structural barriers to be discussed, validated through research and policy papers, and then reflected in the revised draft DRM legislation and in the legal and technical guidelines.

Results to date include:

- Strengthened climate resilience and attention to gender gaps.
Twenty disaster-prone provinces have seen an improvement in resilience, disaster risk management, and gender equality.
- Increased women's participation.
Women's representation in communal and provincial disaster prevention and relief committees in 63 provinces and most of the 11,400 communes in Viet Nam. Also, the VWU has been formalised and granted membership within CCFSC, significantly increasing women's influence in DRM.
- Gender integration in policies.
Gender has been mainstreamed in the draft DRM legislation and the revised legal and technical guidelines of the CCFSC. A number of knowledge tools, policy briefs and training materials have been produced; the close interaction with policy makers and members of the National Assembly helped in influencing policy, resulting in integrating gender in the revised draft DRM legislation, which had previously largely neglected gender concerns.

Gaps/challenges include:

- Resource mobilisation for the promotion of gender equality remained a challenge with this initiative. An important gap is the limited evidence-based research on the effectiveness of DRM practices when gender is mainstreamed into it. More investment in research would possibly make it easier to negotiate for additional resources, both from government and donors.

For more information:

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Low Emission Capacity Building (LECB) in Bhutan

Taking steps toward gender mainstreaming NAMAs and LEDs

National Environment Commission of the Royal Government of Bhutan, UNDP's Low Emissions Capacity Building (LECB) Programme, funded by the European Commission and the Governments of Germany and Australia, in cooperation with The Global Gender and Climate Alliance (GGCA), UNDP Asia-Pacific Regional Centre (APRC), UNDP Bhutan, World Bank, and the Global Environment Facility (GEF)



In Bhutan, widely considered to be a matriarchal society, gender disparities are perceived to be low, and the law outlines equal status for both men and women. However, UNDP's Low Emission Capacity Building (LECB) Programme—which identifies measures to reduce greenhouse gas emissions while delivering on the nation's top priorities—uncovered via stakeholder consultations that development strategies across the transportation, housing, and waste management sectors are largely 'gender blind'. This prompted the LECB Programme in Bhutan to create capacity building arrangements to include gender as a major component in Bhutan's Nationally Appropriate Mitigation Actions (NAMAs) and Low Emission Development Strategies (LEDs). Through a

three-day gender mainstreaming and capacity building workshop and a Rapid Gender Assessment (RGA), relevant stakeholders identified gender gaps and entry points for gender mainstreaming in climate projects. Demonstrating significant outcomes, this project resulted in the establishment of a Mainstreaming Reference Group (MRG) that played a crucial role in implementing gender awareness in policies and programs, including NAMAs and LEDs, setting targets for women's direct participation, and incorporation of gender in key climate change-related projects. By building technical capacity of women in decision-making, the LECB Programme in Bhutan has helped to identify and alleviate previously 'invisible' gender gaps.



Project overview

By mainstreaming gender in climate change initiatives, the LECB Programme in Bhutan is working to build women's capacity in decision-making and promote low-emission, gender responsive development strategies in Bhutan's NAMAs and LEDs.

Strategies include:

- Conducting a Rapid Gender Assessment (RGA).
By integrating the findings into the National Environmental Strategy, the LECB Programme is helping to build the capacity of stakeholders to mainstream gender at all levels in climate projects.
- Organizing gender capacity building workshops.
UNDP organised a three-day gender workshop to help build capacity to mainstream gender in the transportation, housing, and waste management sectors.
- Directing gender-responsive budget allocations.
Since 2014, the LECB Programme has dedicated 10-15% of its budget for direct gender interventions.

Results to date include:

- Gender action plan.
The workshop and RGA, which identified key sectors to focus on, resulted in the development of a gender action plan for the LECB Programme; for example:
 - In the transport sector, new employment opportunities were identified for women, such as drivers and conductors on public transportation, and
 - In the waste management sector, it was found that more women held management positions but had insufficient training. Thus, the project focused on improving the training these women receive.

- Gender integrated into projects.
Gender considerations and strategies were integrated in five climate change projects, including a commitment from the LECB Programme team to ensure that 30% of participants in its trainings, seminars, workshops, and management forums are women.
- Established gender stakeholder group.
The Government of Bhutan created a Mainstreaming Reference Group (MRG), which represents various sectors, to ensure that gender issues are being implemented in policies and projects, including the NAMAs and LEDs.

Gaps/ Challenges include:

- Despite the popular opinion that there is equality between men and women, the perception persists that women lack both confidence and capacity to be fully engaged as equal partners in development activities; women's empowerment and men's gender sensitisation strategies could be enhanced.
- Despite laws establishing men and women as equal partners, national capacity on gender issues is insufficient. Knowledge building activities for women need to be expanded so they can effectively participate in climate change projects.
- There is a large turnover of trained staff, demanding that gender trainings need to be repeated and renewed regularly; enhancing institutional structural capacity would be a key remediation.

For more information:

Contact: lowemission@undp.org

Website: <http://lowemissiondevelopment.org/lecbp/case-studies/bhutan>



Applying the W+™ Standard to a domestic biogas programme in Indonesia

Saving carbon emissions and women's time

Humanist Institute for Co-operation with Developing Countries (HIVOS) in collaboration with the Indonesian Ministry of Energy and Mineral Resources and the Netherlands Development Organization (SNV), with Women Organizing for Change in Agriculture and Natural Resource Management (WOCAN)



Increasing fuel prices and wood scarcity have led to a widespread interest and adoption of alternative, sustainable energy sources. In 2009, HIVOS seeing an opportunity for small scale biogas projects, implemented the Indonesia Domestic Biogas Programme (IDBP). Aimed at the dissemination of domestic biogas digesters as a sustainable source of energy, the program is currently in its second phase, set to end in 2015, and has helped to install over 13,000 domestic biogas systems in nine Indonesian provinces. The installations have had significant impacts on the communities, especially for women who save a substantial amount of time that would usually be spent collecting fuel.

HIVOS decided to use the W+ Standard for women's empowerment, developed by WOCAN, to quantify the benefits to women within two of the project areas, East Java and West Nusa Tenggara. Following the Standard's procedures and Time Method to measure project outcomes on women, WOCAN calculated and verified a time saving of 61 minutes per day for each woman biogas user. This time can be spent to pursue economic activities, take on leadership roles, care for children, and provide beneficial leisure time. HIVOS is interested to next use other methods of the W+ Standard to quantify other outcomes that are possible using the time saved by biogas installations, to measure changes in their income/assets and leadership.



Developed by WOCAN, the W+ Standard is a certification scheme that endorses and quantifies the results of successful projects focused on furthering social and economic benefits for women participating in economic and environment development projects. Projects select relevant domains to measure from 6 categories: time, income and assets, health, leadership, education and knowledge, and food security, then conduct baseline and results measurements using W+ methods for each domain they select, to quantify results. Independent W+ auditors verify the results and WOCAN issues W+ units that can then be sold to corporations, investors, and individual buyers to meet Sustainable Development Goals (SDGs), climate financing, or Corporate Social Responsibility (CSR) targets. A portion of the revenues are then distributed to women beneficiaries, usually women's groups, involved in the project to use as they best determine, to further their empowerment and support their organisations/groups.

Project overview

Through the application of the W+ standard, HIVOS plans to provide additional benefits to women using biogas installations in Indonesia.

Strategies include:

- Maximising benefits for women.
Applying the W+ Standard to this project will allow for additional monetary support for women using biogas digesters, through the revenue-sharing mechanism.
- Providing opportunities to women.
Biogas digesters save women time from having to collect fuel. This time saved can be used to pursue economic ventures, leadership activities, childcare, and leisure time.

- Introducing an alternative sustainable fuel source.
As traditional fuel sources become scarcer, the interest and need for alternative fuels is growing. Biogas digesters, in addition to saving women time, provide a cleaner fuel source that comes from livestock waste, saving money spent on other fuels. The bio-slurry after product can also be used as nutrient-rich fertilizer to benefit food production and be sold to provide additional income for women.

Results to date include:

- W+ time units.
The time saved by 4500 women as a result of the biogas installations is about 61 minutes per day per user in two provinces in Indonesia. The total amount of time saved for these women using biogas for 2 years or less is about 16,041,962 hours, which translates to over 2,000,000 W+ time units. There is also an opportunity for the project to expand as the sale of accumulated W+ units takes place, returning revenues to HIVOS and to the women, to support additional activities that benefit women.
- Biogas digesters installed.
As of October 2014, 13,035 biogas digesters were constructed in nine Indonesian provinces. These installations are saving women time, opening up new opportunities for women, providing an organic nutrient-rich fertilizer, and helping to decrease deforestation and mitigate GHG emissions.

For more information:

Project website: <http://www.wplus.org/projects/measuring-time-savings-generated-indonesia-domestic-biogas-programme-idbp>

To learn more about the W+ Standard:

<http://www.wplus.org/>

Contact: info@wplus.org



Solar Power Company Group in Thailand

Women leading and expanding solar energy growth

Solar Power Company Group with funding from the International Finance Corporation and the Clean Technology Fund (CTF)



Thailand's growing energy and electricity sectors, which are dominated by fossil fuels, have helped to lift its population out of poverty. However, these markets have also had an adverse impact on the environment, increasing greenhouse gas emissions by almost 70% from 2000 to 2010. One woman, Dr. Wandee Khunchornyakong, saw an opportunity to lead the country down a cleaner energy path while still driving economic growth in some of the most impoverished regions of the country. Through early-stage investments from the International Finance Corporation and the Clean Technology Fund, Dr. Khunchornyakong founded the Solar Power Company Group, which is now a billion-dollar industry and the largest solar power generation company in Thailand.

The company has constructed a total of 36 solar photovoltaic farms in northeast Thailand, attracting upwards of USD 800 million in investments. In 2014, the solar farms accounted for 250 MW of installed capacity, which translates to a savings of 200,000 tonnes of CO₂ per year. Dr. Khunchornyakong is working to expand the project to other Southeast Asian countries and has focused on providing clean energy jobs to women, directly empowering the next generation of businesswomen and entrepreneurs who will continue to catalyse renewable energy projects in the developing world. This immensely successful project has helped lead the way toward a low-carbon, gender-inclusive energy path in Southeast Asia.



Project overview

The Solar Power Company Group focuses on expanding the solar power industry in Thailand to reduce GHG emissions, stimulate economic development, and empower women to become future renewable energy leaders.

Strategies include:

- Expanding women's opportunities.
Led by Dr. Khunchornyakong, a woman entrepreneur, this project focuses on providing clean energy jobs to women in Southeast Asia.
- Utilising climate financing mechanisms to build industry.
Private financing ensured this project's expansive reach and capacity in Thailand.
- Mitigating Thailand's GHG emissions.
By stimulating solar energy projects in Thailand, this project is reducing the country's dependence on imported energy.

Results to date include:

- Empowered women's leadership in the renewable energy sector.
This project is directly empowering the next generation of Southeast Asian businesswomen and entrepreneurs to lead the dissemination of clean, renewable energy projects in the developing world. In 2013, Dr. Khunchornyakong was recognised for her leadership and named Women Entrepreneur of the Year by the Asia Pacific Entrepreneurship Awards.
- Building a solar energy market in Thailand.
By securing private funding from the International Finance Corporation and the Clean Energy Fund, this project tapped into the underutilized solar energy market and evolved into a billion-dollar industry, drawing upwards of USD 800 million in investments.
- Providing clean energy to communities.
To date, this project has installed 36 solar farms in northeast Thailand, which accounted for 250 MW of installed capacity in 2014 and reduction in emissions translating to over 200,000 tonnes of CO₂ per year. This has helped to reduce Thailand's carbon footprint and has contributed to improving local air quality.

For more information:

Momentum for Change submission site:

http://unfccc.int/secretariat/momentum_for_change/items/8693.php



Developing and implementing Provincial REDD+ Action Plans in Viet Nam

Promoting gender-responsive REDD+

UN-REDD Programme and United States Agency for International Development funded Lowering Emissions in Asia's Forests (USAID LEAF)



In 2014 and 2015, building on the gender work under its UN-REDD Phase I Viet Nam Programme and responding to recommendations and targets contained within its 2013 UN-REDD Gender Analysis, Viet Nam took steps to build on and further promote gender considerations and women's empowerment activities into its UN-REDD Phase II Programme. Through a joint collaboration between the UN-REDD Programme and USAID LEAF, this work has involved integrating gender equality issues into the Provincial REDD+ Action Plan (PRAP) for the Lam Dong province in Viet Nam and supporting gender capacity building efforts for stakeholders implementing REDD+ across the six REDD+ pilot provinces. Working closely with

the Vietnamese government, gender champions, and stakeholders in Lam Dong, USAID LEAF and the UN-REDD Programme helped identify opportunities and strengths, as well as develop recommendations for gender integration into the Lam Dong's PRAP framework. In this process, government officials, stakeholders, and key decision makers involved in climate change activities in Viet Nam were trained and capacity building workshops on integrating gender considerations in REDD+ programs were held. These activities helped decision-makers to understand the importance of gender in the context of REDD+ planning as well as influence the integration gender considerations throughout Lam Dong's PRAP.



Project overview

With assistance from the UN-REDD Programme and USAID LEAF, Viet Nam took multiple steps to integrate gender considerations and women's empowerment activities into the design and implementation of its UN-REDD Phase II Programme.

Strategies include:

- Integrating gender considerations into Lam Dong's PRAP.

In October 2014, the UN-REDD Programme and USAID LEAF, working closely with Vietnamese government officials, stakeholders and USAID LEAF's and UN-REDD Programme's supported gender champions in Lam Dong, undertook a gender assessment of Lam Dong's PRAP framework, to indicate strengths, identify opportunities, and develop and validate recommendations on how to strengthen its gender responsiveness.

- Leveraging gender champions' expertise and credibility to sustain the process.

In the process, gender champions from Viet Nam were strengthened in terms of their technical competencies, leadership and negotiation skills through the USAID LEAF Asia-Pacific Leadership Initiative on Gender and Climate Change so that they could act as catalyst to advocate and implement the changes as indicated in the Lam Dong's PRAP gender assessment.

- Supporting knowledge exchange and capacity building on gender equality and REDD+.

The government of Viet Nam, with support from the UN-REDD Programme, held a capacity building workshop on gender mainstreaming for staff from the National Programme Management Unit (PMU) and the 6 pilot Provincial PMUs. Additionally, USAID LEAF supported key REDD+ implementing institutions from three pilot provinces (Lam Dong, Nghe An and Thanh Hoa) to better understand the relevance of gender equality in REDD+ safeguards, wherein it conducted two trainings on 'gender-integrated safeguards analysis in climate change' to better address gender issues during PRAP's implementation.

Results to date include:

- Gender considerations integrated into the PRAP for Lam Dong.

The final, condensed and approved version (21 January 2015) of Lam Dong's PRAP incorporated gender elements across the assessment of drivers of deforestation and forest degradation, identification of interventions, policies and measures, financial management mechanism, implementation arrangements, monitoring and evaluation, including on safeguards, as well as highlights the key roles of Provincial Ethnic Minorities Committee, Provincial Women's Union and Department of Labor, Invalids and Social Affairs in its implementation.



- Gender sensitive engagement and accountability mechanisms promoted in PRAP processes.
Vietnamese government officials, key stakeholders, and experts involved in the development of PRAP discussed preliminary findings, how gender could be successfully promoted in PRAP, and created a tentative work plan for gender integration.
- Knowledge exchanged between provinces.
The workshops conducted by the Government of Viet Nam, the UN-REDD Programme and USAID LEAF provided space for the REDD+ pilot provinces to share knowledge and good practices on how to integrate gender sensitive actions into their PRAP processes and reporting frameworks. In this process, the six provincial PMUs of the UN-REDD Viet Nam Phase II Programme identified gender focal points and entry points for gender mainstreaming into PRAPs and their relevant REDD+ guiding documents, which included creating suggestive corresponding gender sensitive indicators.
- Building understanding of the relevance of gender and climate change.
Trainings and capacity building workshops have provided space for decision-makers and practitioners directly involved in climate change and REDD+ activities to better understand the relevance of gender issues in the context of climate change.

- Key gender champions were strengthened to take forward the work.

The Gender Champions, through their efforts and leadership in PRAP, have secured a credible space for furthering gender equality work. This helps ensure the sustainability of gender integration in PRAP implementation.

Gaps/challenges include:

- Efforts need to be taken to ensure that gender-responsive actions incorporated into the REDD+ strategies are implemented properly across provinces. Finalised gender work plans and monitoring frameworks will help in this implementation.

For more information:

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To see the gender analysis of Lam Dong's PRAP visit:

http://www.unredd.net/index.php?option=com_content&view=article&id=2076:gender-analysis-of-lam-dongs-provincial-redd-action-plan-in-vietnam-now-available&catid=98&Itemid=749

To learn about USAID LEAF gender champions visit:

<http://www.leafasia.org/videos/gender-and-climate-change-champions>



Promoting climate-resilient water management and agricultural practices in rural Cambodia

Empowering rural women as adaptation leaders

*GEF's Least Developed Countries Fund (LDCF),
Government of Canada, and UNDP*



In Cambodia, women mainly work in the household—unpaid, unrecognised, and unaccounted for by the formal economic system. Women are further disadvantaged with few opportunities for education and training and limited access to agricultural inputs and information. Studies have shown, however, that if women were able to equitably access information and technology, their increased agricultural output would dramatically improve food security and decrease Cambodia's hunger

rate. As a result, the climate change adaptation interventions under Cambodia's National Adaptation Programme of Action (NAPA) were strongly focused on gender issues in recognition of the particular vulnerabilities and the opportunities for rural women's empowerment. A NAPA follow-up project launched in 2010 and scaled up in 2013 under the Canada-UNDP Climate Change Adaptation Facility was designed in response to results of a gender assessment identified priorities for gender-responsive adaptation. These



included improved access to climate information for women, along with better access to water resources, climate-resilient farming practices and seed varieties, and extension services. The project has delivered results at multiple levels, empowering women as leaders in Water User Groups (WUGs), improving access to resources, and building institutional gender capacity of sub-national and national authorities responsible for climate change. Since the project's implementation, women have become contributors of household income, key drivers of climate change adaptation, and have also been empowered to make decisions regarding domestic water use—an area affecting them directly and of which they have valuable experience and expertise.

Project overview

Through the provision of training, new technology, and resources, and by harnessing women's knowledge and understanding of natural resources and the environment, this project empowers rural women in Cambodia and strengthens their capacity as leaders of climate change adaptation.

Strategies include:

- Conducting a gender assessment.
A Rapid Gender Assessment was conducted to inform the Gender Action Plan, which identified four specified goals: 1) improving the utilisation of climatic information of vulnerable women; 2) ensuring that women have better access to water resources for household use; 3) enabling women to benefit from climate resilient farming practices

and crop varieties; and 4) increasing the number of women receiving extension services on climate change resilient farming techniques. Women ranked access to fresh water as highest priority, thus shaping the design of interventions.

- Strengthening institutional capacity.
The Ministry of Women's Affairs (MoWA) is providing technical and institutional support through Training of Trainers through its Gender Climate Change Committee (GCCC), to Provincial Department of Women's Affairs (PDoWA), commune women and children, focal points, and the sub-national project staff.
- Gender-responsive project management.
Project staff terms of reference included specific gender-responsive lines of action.
- Monitoring progress with gender indicators.
Gender indicators supported project outcomes and targeting in particularly vulnerable families.

Results to date include:

- Women empowered with climate knowledge.
Building confidence and resilience helps women participate and take on leadership roles in WUGs and membership in Farmers Water Users Committees; women have been trained in the management and maintenance of irrigation schemes and in income-earning opportunities like farming vegetables and raising chicken and pigs;
 - In less than a year, 25 WUGs have been established to manage daily irrigation activities. The project adopted the same model to manage domestic water supply: to manage solar pumping systems; to manage pump wells; and



to manage community ponds. For each of these WUGs, three group leaders were elected: a Group Leader, Deputy Group Leader, and Cashier. In all of the villages supported under the NAPA follow-up project, at least one of these group leaders are female, and in 55% of villages, two or three group leaders are female.

- Institutional capacity on gender strengthened.
The Provincial Departments of Women's Affairs have been strengthened to jointly coordinate and implement women's activities,
- Wide network of beneficiaries established.
In 2013, 496 women out of 689 beneficiaries (72%) and 376 women out of 621 non-project beneficiaries (60%) from 27 villages gained knowledge and experience from farmer exchange visits and technical trainings,
- Women leading design and implementation.
With increased access to training opportunities and water resources, many women are now driving the design and implementation of new practices—becoming contributors to household income, decision makers in regards to domestic water use, and champions of climate change adaptation.

Gaps/challenges include:

- Inter-departmental coordination between the departments—Agriculture, Water Resources, and Women's Affairs—must be strengthened at the institutional level.
- Capacity building on gender and climate change, and mainstreaming must be strengthened for project staff and stakeholders at the national and sub-national levels.
- Substantially increased resources—financial, technical, and material—are required in order to mainstream gender and climate change adaptation into sectorial ministries and sub-national line departments.
- Gender and climate change adaptation with respect to food security must be addressed simultaneously with value chains and market access in order to ensure resilience and sustainability.

For more information:

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Visit: <http://undp-alm.org/projects/lDCF-cambodia>
or <http://www.undp-alm.org/projects/ccaf>



Wonder Women of Eastern Indonesia

Empowering women with energy technology

Kopernik, with support from the International Network on Gender and Sustainable Energy (ENERGIA), with funding from the Ministry for Foreign Affairs of Finland, Norwegian Agency for Development Cooperation (NORAD), and Swedish International Development Cooperation (SIDA); Empowering Indonesian Women for Poverty Reduction (MAMPU), a joint initiative of the Government of Australia and Government of Indonesia; and USAID Development Innovation Ventures (DIV) programme. Local partners in eastern Indonesia include PEKKA, the Indonesian association of women-headed households, and Yayasan Masyarakat Peduli



Across Indonesia, more than 80 million people rely on kerosene for lighting, and 100 million people rely on firewood as their primary cooking fuel. The eastern provinces have the least access to an energy infrastructure. For example, in East Nusa Tenggara, a province of more than 500 islands, 85 percent of the population relies on firewood for cooking. Recognizing that women are impacted by the negative financial, health, and environmental impacts of a lack of access to clean, affordable energy sources, Kopernik's Wonder Women Eastern Indonesia initiative aims to empower women to improve their livelihoods and communities through selling clean energy technologies in these remote eastern Indonesian villages. Kopernik has teamed up

with community women—called “ibu inspirasi”, which translates to “inspirational women and mothers,” or in other words, *Wonder Women*—to improve conditions in their communities. By selling solar lanterns, water filters, and clean cookstoves, Wonder Women become social entrepreneurs and build their capacity to own and sustain businesses and provide life-changing technologies that can save families time and money, improve health and safety, ease pressure on the environment, and create economic opportunities. Having targeted 300 women so far, Wonder Women Eastern Indonesia plans strengthen and expand activities to engage 500 women to sell 56,000 clean energy technologies across ten provinces of eastern Indonesia by 2017.



Project overview

Wonder Women Eastern Indonesia brings clean energy technologies to remote communities in the energy-poor eastern provinces of Indonesia and promotes entrepreneurship among community women by teaching business management practices and training in the technical aspects of clean energy technologies.

Strategies include:

- Enlisting women.
Recruiting is done through and with local partner organisations.
- Offering technical training for women.
Women are trained to become clean energy micro-social-entrepreneurs and learn specific skills including technology use and maintenance, sales, marketing, book-keeping, public speaking, and other business management practices. Sector-specific capacity building also includes clean energy supply chain management. Project management, results-based tools, and monitoring and evaluation are also key skills taught.
- Providing technology and resources.
Wonder Women give solar lanterns, water filtration systems, and clean cookstoves on consignment and provide a starter kit of promotional material.
- Offering long-term support.
Continued mentoring and business development services support participants.
- Measuring mitigation impact.
Kopernik calculated emissions reduced and offset.

Results include:

- Women are engaged.
Since 2011, Kopernik has worked with more than 300 Wonder Women micro-social-entrepreneurs

who have helped sell over 10,000 clean energy technologies, benefitting nearly 84,000 people.

- Carbon emissions are reduced.
Wonder Women technologies have reduced CO₂ emissions by more than 5,000 tonnes.
- Environmental and health co-benefits have been realized.
Reduced reliance on traditional sources of fuel for cook stoves has also resulted in reduction of health impacts from smoky cookfires.

Gaps/challenges include:

- Wonder Women often have many other responsibilities—including managing family, farming, and community commitments—all of which require considerable time commitments. In order to ensure that women have time to participate in the Wonder Women initiative, training programs have been consolidated and will consider a time-management workshop.
- Social-entrepreneurs involved with Wonder Women often require additional support after the initial training period to ensure continual growth and success of their businesses. To overcome this challenge, the business development team now provides more long-term support, including hosting technology fairs where the women can present the clean energy technologies to their community and attract new customers.
- Because this initiative aims to build the capacity of women to become social-entrepreneurs within their communities, training women in basic business practices is an essential challenge to overcome. Most women who join the program lack formal business education, and must, therefore, be trained in business management practices such as stock management, cash flow, and profitability. Project implementers have developed a simple business



management training and visit the women on a monthly basis to reinforce the importance of these management practices.

For more information:

Contact: Sally Bolton, sally.bolton@kopernik.info

Visit: <http://www.kopernik.ngo/page/impact-snapshot>

Women taking action on climate change in Australia

1 Million Women are saving energy, reducing waste, cutting pollution and leading change

1 Million Women



Overconsumption and wasteful, polluting lifestyles harm the planet, the climate and future generations. In Australia—a developed country with a high per-capita carbon pollution rate—changes in everyday life can prove to have a significant impact on curbing emissions. Since women make most of the household spending decisions, a major opportunity exists for women to make a difference in local carbon

footprints—as well as save money. In 2009, Natalie Isaacs saw an opportunity to lead the charge and founded 1 Million Women, a non-profit organisation dedicated to getting one million women to pledge to take small steps in their daily lives that save energy, reduce waste, cut pollution and lead positive change. Now the largest women's environmental organisation in Australia, 1 Million Women had over 80,000 women



committed to reducing their impact on the earth by reducing carbon pollution by 100,000 tonnes in 2013. Today, the campaign boasts over 220,000 members and counting. When the campaign reaches its goal of one million women committed to cutting one million tonnes of carbon pollution, this action will be equivalent to removing 240,000 cars off the road for a year. To help achieve their goals, 1 Million Women has helped found and support many successful campaigns and initiatives to expand the reach and influence of women. 1 Million Women started in Australia but has since extended its reach globally with the same message for women all over the world: consuming and wasting less means everyone can have greater quality of life while preserving and promoting environmental wellbeing.

Project overview

More than a name, 1 Million Women is building a movement to empower women to take on climate change in their households, workplaces and communities by reducing carbon pollution through small lifestyle changes.

Strategies include:

- Empowering women to take action on climate change.
This campaign recognises the power women hold to make significant impact on reducing carbon pollution. Because women make most of household spending decisions, they have the most influence on energy saving initiatives at the household level.
- Promoting a parallel message of environmental and economic benefits.
1 Million Women teaches women that they can save money while leading sustainable lifestyles. In 2011, 1 Million Women founded SAVE, which helps members conserve energy and reduce waste while saving money at the same time via more sustainable choices.
- Expanding to other campaign actions.
The 1 Million Women initiative has supported and started several complementary campaigns to further the impact of women's voices and actions, including the 'I'm Declaring the Reef in Danger' campaign, which brought attention to the declining health of the Great Barrier Reef; the Women Power project, which used energy efficient methods to cut home energy consumption; and youth engagement in the IUCN's 2014 World Parks Congress in Sydney.

Results to date include:

- Women are engaged to reduce carbon pollution.
In 2013, the campaign had over 80,000 members committed to cutting over 100,000 tonnes of carbon pollution. Today, the campaign has over 220,000 members and counting. Once they reach the goal of engaging one million women in reducing one million tonnes of carbon pollution, this will be equivalent to taking 240,000 cars off the road for a year.



- Economic benefits for women.
The SAVE program has attracted over 1,500 participants who have been provided with monthly themes to save money and have a positive impact on the planet, including: Food, Drive, Power, Wear, Shop, Build and Invest. In addition, participants are provided with a practical guide to save \$1,000 a year on household bills through waste-reducing activities.
- Raising the visibility of key issues and increasing participation and action of women and youth.
1 Million Women has led and supported several successful initiatives, including:
 - The ‘I’m Declaring the Reef in Danger’ campaign collected 54,804 signatures, bringing the Great Barrier Reef’s declining health into the international spotlight,
 - The Women Power project helped ten women use energy saving technologies to cut household energy consumption by 20%. By the end of the campaign, all the women exceeded this target, some by more than 50%, and
 - 1 Million Women held an event at the 2014 World Parks Congress to explore ‘Youths expression of climate change.’ Six students were a part of the 1 Million Women delegation and were celebrated as ‘voices of tomorrow’.

For more information:**Momentum for Change submission site:**

http://unfccc.int/secretariat/momentum_for_change/items/7844.php

1 Million Women website:

<http://www.1millionwomen.com.au/>



Reef-to-Ridge fisheries management in the Federated States of Micronesia

An integrated gender-inclusive approach to coastal resource management

Secretariat of the Pacific Community (SPC), part of the Coping with Climate Change in the Pacific Island Region Programme.



Over-fishing and unsustainable land management along with climate change threats, like rising ocean temperature and acidification, jeopardises fish populations. The decline in catch has a particularly negative impact for the Federated States of Micronesia, whose population depends on fish for their main source of protein. To address current and future shortages, communities in Yap took a ‘reef-to-ridge’ approach to resource management, meaning they assessed land and sea practices to see how they influence one another. Initially, women—who are traditionally not involved in fisheries—were left out of the conversation. However, after realising that

the agricultural activities assigned to women were having a downstream impact on the fish, it became clear that their participation was imperative to a successful and effective “ridge-to-reef” solution. This holistic approach to addressing issues has paved the way for this project, and future projects, to be inclusive and gender responsive through gender analyses, knowledge-sharing dialogues between men and women, and equal representation on project committees.



Project overview

Through gender responsive planning and knowledge sharing, communities in Yap, Micronesia, are taking steps to an effective 'reef-to-ridge' approach to fisheries management and are helping future projects to be more inclusive of women in the communities.

Strategies include:

- Understanding local gender dynamics.
Through a gender analysis, this project, and future projects, can assess the differences in roles, responsibilities, and decision-making capacities of men and women and effectively find gender gaps in strategies to build the capacity of women.
- Sharing gendered knowledge and experience.
Facilitating dialogues between men and women in the community and including women on project committees helps broaden the ideas for protecting coastal resources and implementing effective resource management strategies.
- Evaluating upstream and downstream impacts.
By looking at this problem in a holistic manner, this project can better understand issues and create more effective solutions to addressing declining fish populations.

Results to date include:

- Greater capacity for women's participation.
Women are more engaged in the decision-making process and as a result there is greater understanding of sustainable land management and the impacts on food security.

- Healthier marine ecosystems.

By assessing impacts of land management on reef health, the community was able to identify increased sedimentation from agricultural activities as one of the major reasons for decreased fish populations and can now create effective solutions to the problem.

Gaps/challenges include:

- Despite women being primary agricultural landowners, men still make decisions on how to manage land and resources, severely limiting the capacity of women. A greater understanding of the value of gendered knowledge can help to build respect and increase the decision-making power of women.

For more information:

The Pacific Gender and Climate Change toolkit:

<http://pacificclimatechange.net/images/Documents/toolkit%20all%20in%20one%20pdf%20final%20copies.pdf>

Further information for the Coping with Climate Change in the Pacific Island Region Programme:

<https://www.giz.de/en/worldwide/14200.html>



International and regional

Gender mainstreaming in REDD+ capacity development

Empowering grassroots stakeholders in Asia

The Center for People and Forests (RECOFTC), in collaboration with nearly 20 partners including government departments, NGOs, and grassroots and women's organisations



While the global debate on climate change and REDD+ has advanced rapidly in recent years, the complexity of the topic and accessibility of relevant information on climate change and REDD+ have limited the active participation of grassroots women in the debate. This has prevented them from putting forth their aspirations and concerns—ultimately making women more vulnerable to climate change

compared to their male counterparts, including in the five target countries of this project: Indonesia, Lao People's Democratic Republic, Myanmar, Nepal and Viet Nam. Across Asia, as elsewhere, the vulnerability of women to climate change is further exacerbated by discriminatory socio-cultural practices, higher incidences of poverty, lack of access to and control over natural resources, new knowledge and



technologies, and inadequate financial credit. This means women have fewer resources to cope with seasonal and periodic weather changes and natural disasters. In combination with reinforced traditional roles, women's ability to diversify their livelihoods, and therefore their capacity to access income-generating jobs, starts diminishing. In addition, due to their relatively low capacity, a lack of knowledge and insufficient access to information on climate change and its impact, women are inadequately represented in key decision-making processes, further excluding them from the global debate on climate change and REDD+. Recognising these gender-related capacity gaps, the Grassroots Capacity Building in REDD+ project aims to develop the capacity of grassroots stakeholders, enabling women to actively contribute to REDD+ planning and policy process, thus putting them in a position to take advantage of potential benefits from REDD+ for local socioeconomic development. With specific reference to gender mainstreaming in REDD+ capacity development, the project followed a systematic approach to identify knowledge gaps and effectively share vital information. In 2014, alone, 1,500 grassroots women benefitted from training on these issues, amongst more than 3,000 total people at grassroots and national level; across three project phases, 40,000 grassroots participants have been engaged.

Project overview

This project ensures that grassroots stakeholders in Asia are enabled to actively contribute to the REDD+ planning and policy process by effectively participating and communicating their perspective to policy makers, and are well positioned to take advantage of potential benefits from REDD+ for local socioeconomic development, including through gender-responsive capacity development.

Strategies include:

- Conducting Capacity Development Needs Assessment (CDNA).
Key in identifying gaps related to target stakeholders, the current status of gender mainstreaming in the forestry sector, and approaches and methods to address capacity gaps.
- Promoting gender in partnership arrangements.
A series of capacity development events were organised to promote gender mainstreaming within partner organisations, as well as uniting with organisations working on promoting gender mainstreaming in the natural resource management sector.
- Employing a cascade model of capacity development.
Based on the results of CDNA, a variety of capacity development programs were designed and delivered using the cascade approach—aiming to build an in-country cadre of resource persons and thus ensuring sustainability of capacity development for REDD+. This approach is also used to document grassroots concerns and issues and share them with policy makers and other key stakeholders at sub-national and national levels.
- Using innovative tools.
For the delivery of training programmes, various participatory and experiential learning methods were used, along with culturally sensitive tools, such as puppet shows, street plays, songs and drama. These kinds of innovative tools used in an informal setting reached wider women constituencies that were less likely to be educated and literate.



- Developing user-friendly knowledge products—integrating knowledge and experience of participants.
Simple and easy to understand communication products were created to support grassroots capacity development, including posters, Question and Answer booklets, radio programmes and short videos; used to promote experiential learning, introducing practical experiences, and examples from participants' own lives, the complexity of REDD+ was broken down by 'real life' illustrations.
- Conducting multi-stakeholder consultations.
A series of multi-stakeholder talks primarily aimed to document aspirations and concerns of grassroots stakeholders in order to communicate them to policy makers, thus advocating for stronger rights for, and, empowerment of women stakeholders in REDD+ policy discourse.

Results include:

- Gender skills enhanced across multiple levels.
Using a cascade approach, training of trainers were organised at national and sub-national level, and engaged the trained participants at subsequent level to deliver the training programs—proving to be a cost effective way to strengthen the sustainability potential of capacity development efforts and developing women's leadership skills.
- Women's participation excels.
Against a target of at least 30% participation of women, the project achieved 41% women's participation in all of its trainings,
- Women's group established.
Viet Nam's Gung Re commune in Lam Dong province established a women-only forest management and protection group after attending gender mainstreaming training. The group works as a watchdog that plays a very important role in the

protection of the community forest, as they not only take part in reducing and monitoring tree cutting (which sometimes is done by their husbands or sons), but they have also initiated new plantations to restore degraded areas.

- Expert workshops targeted national decision makers.
A series of expert workshops at the national level were held and focused on the current status and challenges of gender mainstreaming within forestry and REDD+, identifying capacity gaps among key stakeholders, and gathering feedback on various approaches and methods for addressing gaps.
- Awareness-raising events organized.
Following the cascade approach, a series of awareness-raising events were organised at the grassroots level—some of which included both men and women, while others were exclusively for women.

Gaps/challenges include:

- A fundamental understanding of gender and gender mainstreaming needs strengthening; a lack of practical examples of gender mainstreaming and the dissemination of results and impacts of such initiatives has been an obstacle.
- Absent, or weak implementation of gender mainstreaming policies, particularly in the forestry sector, primarily due to a lack of dedicated resources and poor capacity of the officials responsible for implementing policies.
- Insufficient research inputs: Better data is needed to design gender mainstreaming plans for some countries, such as Myanmar and Lao People's Democratic Republic.


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Women Solar Engineers in Africa and Asia

Empowering rural women to create off-grid solar electrification

A joint initiative of the UNDP GEF Small Grants Programme (SGP), and the Barefoot College for Solar Electrification.



Communities in remote, rural areas rely primarily on kerosene or firewood for basic energy needs, increasing the pressure on the local environment where forest resources are rapidly depleting. Enhancing the capacity of local communities to build and operate solar technologies will contribute to poverty reduction, gender equality, and improvement in access and quality of education and health services. Women can play a catalytic role in realising

such transformation. The UNDP GEF Small Grants Program (SGP) teamed up with Barefoot College in 2008 to support “Women Solar Engineer” pilot projects across Africa and Asia. In this joint initiative, the GEF SPG provides communities with technical support and funding for the solar panel kit, while The Barefoot College, a pioneer in disseminating technology in remote areas, provides a six-month training to the women beneficiaries on their campus in Tilonia, India.



The results have been transformative—both lowering CO₂ emissions and empowering women as technology entrepreneurs and leaders.

Project overview

The objective of this project is to build local capacity to install ‘off-the-grid’ electrification in rural communities using clean, low-cost solar energy. The project generates multiple advantages that include reduction in environmental degradation, promotion of sustainable development and community ownership, improvements in health, education, living standards and quality of life and the empowerment of women.

Strategies include:

- Focusing on women’s economic empowerment.
After returning from training, women solar engineers take up tasks of installing, repairing, and maintaining the solar energy kits for a salary paid by the village solar committee.
- Fostering local implementation.
After a project is approved and funds are released, the community forms a village solar committee to manage the project, including budget negotiations and fee collection, selecting women candidates for solar engineer training, and setting up a Rural Electronic Workshop.
- Promoting country-specific leadership.
National coordinators and steering committees were mobilised in 18 countries across Asia, the Pacific, and Africa to expand partnerships with other development partners and country programmes.
- Championing community-level support.
The project supports monitoring and evaluation and advocacy for the replication of the project concept at the community-level.

Results to date include:

- Women technically trained.
The project has trained 71 women social engineers who have electrified 53 villages providing lighting to more than 22,739 beneficiaries in over 3,778 households, in addition to communal lighting in schools, hospitals, local administration offices, religious buildings and community centres, as well as food processing plants.
- Positive economic outcomes for women.
Substantial savings in expenditures on kerosene and batteries have been experienced, as well as in regards to economic activities continuing after dark—which has made a significant impact on women’s income generation and community-wide economic activity.
- Enhanced social status for women.
Women Solar Engineers have created better living conditions for themselves.
- Increase in information and technology use.
After villages were electrified and each household received an electric plug to charge mobile phones, community members were able to access audio and video information more widely, using it for more efficient information gathering and educational activities.
- Expanded educational opportunities.
Some communities in Bhutan and Ghana installed solar energy kits in school buildings, while many more have started conducting adult literacy classes, and community television and audio-visual education programmes. There has also been a dramatic impact on children’s education, as they can study after dark and communities are experiencing greater flexibility in how they spend their time.
- Health improvements.
The project has resulted in reduced exposure



to toxic fumes and fire hazards from kerosene, firewood and diesel and there is evidence that lighting has improved safety and basic hygiene.

- Decreased environmental impacts.

Assessments have shown the use of solar energy has led to a decrease in kerosene and firewood consumption, further reducing CO₂ emissions and deforestation and land degradation and contributing to declining air pollution.

Gaps/challenges include:

- Funding to scale up and replicate this project on a much wider scale in remote and rural communities where there is limited scope of connecting to the national grid for a long time is limited.

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Upscaling rural technologies for women farmers in East and Southern Africa

Supporting rural women's resilience with technology innovations and exchange

UN Women Regional Office for East and Southern Africa, in partnership with International Fund for Agricultural Development (IFAD), Food and Agriculture Organization of the United Nations (FAO), United Nations World Food Programme (WFP), African Union





In the Eastern and Southern Africa (ESA) region, countless women-led, small-scale innovations are being implemented every day that contribute to better agriculture productivity, enhanced livelihoods, and improved household nutrition. However, these pioneering activities tend to develop in isolation—and yet they represent key opportunities that should be shared, incubated, and taken to scale, not least because studies have demonstrated that removing gender-related barriers and empowering women in agriculture to fully engage in regional economies can accelerate growth, reduce poverty, and improve food security. For this reason, the Regional Sharefair for Rural Women’s Technology, as a part of the African Women in Technology (AWIT) initiative, was held in October 2014 in order to promote technologies and innovations that support rural female smallholder farmers and bring together innovators, policymakers, academics, food producers, investors, financial service providers and other technology innovators.

The ultimate goal of AWIT is for women to have access to technologies that boost agricultural yield, income and food security, eliminate food waste, while decreasing labour inputs and time — thereby empowering women economically. Through innovative and accelerated partnerships and real time monitoring of progress, the AWIT also supports women’s involvement in agriculture, improving their resilience, and also improving their time management. The initiative is driven by the observation that there is a large availability of climate smart solutions, and overwhelming established needs for such solutions, particularly among rural women, but the demand and supply needs to be matched.

Project overview

By promoting technologies and innovation that supports rural female smallholder farmers, the project aims to develop strategies to scale-up transformative technologies, hence unlocking agricultural productivity, promoting mitigation and adaptation to climate change, enhancing household food and nutrition, accelerating women’s economic empowerment, and strengthening rural community resilience.

Strategies include:

- Identifying and exchanging innovations geared toward/by women.
The project aimed to promote specific technology to support women farmers,
- Hosting an up-scaling workshop.
A workshop gathered experts and stakeholders from the UN, private sector, financial institutions, government, research institutions, and more to develop a strategy for technology up-scaling to transform the lives of rural women,
- Organizing stakeholder and partnership consultations.
Meetings with different participants and partners are ongoing in order to define a strategy for program implementation.

Results include:

- The Regional Sharefair for Rural Women’s Technology.
More than 100 innovators from 14 countries in the ESA region showcased their technologies displaying affordable ways to accelerate productivity, mitigate climate change, enhance value addition and income, improve nutrition, save women’s time, and reduce post-harvest losses.



- Wider awareness raised.
The Sharefair leveraged substantive resource and policy attention to women in agriculture and provided a stepping-stone for future programming and policy action.
- A global alliance established for next steps.
The Bellagio Technology Promotion Group, which operates through the evolving African Women in Technology (AWIT) initiative, is in the process of developing a strategy on how to up-scale technologies.

Gaps/challenges include:

- A plan for up-scaling technology, financing and rolling out the initiative is still needed.

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Adaptation Learning Programme (ALP) for Africa

Empowering women through village savings and loans associations to build household resilience and further promote gender equality

CARE International





Since 2010, CARE's Adaptation Learning Programme (ALP) for Africa has been working in 40 communities in Ghana, Kenya, Mozambique, and Niger to increase the capacity of vulnerable households to adapt to climate change through community-based adaptation (CBA). A crucial element of this approach lies in addressing gender inequalities in society, as they compromise rights and affect a community or household's ability to adapt and sustain livelihoods in response to the effects of climate change. Women's often-limited sphere of influence over adaptation decisions made, and their widespread lack of control over valued livelihood resources, tends not to be addressed by adaptation programmes—which can inadvertently deepen gender inequalities and often increase women's workloads further. Gender dynamics—in, for example, labour division, decision-making power, and access to public spaces and services—are often overlooked, and so the contexts in which adaptation programming takes place are often poorly understood. By building an understanding of gender into all levels of CBA, ALP is ensuring that different contributions to adaptation are valued and the most vulnerable socioeconomic groups are empowered to take adaptive action and raise their voices on a local, national, and international scale.

ALP prioritised CBA interventions that aimed to address gender inequality and improve the adaptive capacity of both men and women. One of these activities was the implementation of village savings and loans associations (VSLAs). While many of the interventions had broad reaching impacts across the communities ALP worked with in this project, VSLAs had an impact on gender relations, equity, and adaptive capacity in all ALP communities. VSLAs, through savings and small loans programs, allow people to save up the capital to diversify into less 'climate sensitive' livelihoods. Mainly—but not

exclusively—targeting women, VSLAs have served as platforms for women's economic and social empowerment—with significant impacts on women's self-respect, self-reliance, and self-confidence, as well as men's respect and support for women and their economic empowerment. VSLAs have helped strengthen financial management skills and provide new opportunities for people, which in turn have strengthened both household resilience and gender equality.

Project overview

By implementing gender understanding at all levels of community-based adaptation (CBA) activities, the ALP for Africa is helping to build household resilience in the face of climate change and further gender equity.

Strategies include:

- Integrating an understanding of local gender dynamics and inequalities into programming. To further women's roles and participation in CBA activities and foster a recognition of the value of gender equality for household and community resilience, ALP sought to integrate gender into all its activities through the following strategies:
 - Conducting standalone gender analysis exercises at various stages during activities,
 - Integrating gender into participatory analysis of climate vulnerability for effective local adaptation planning. For example, doing a Climate Vulnerability and Capacity Analysis (CVCA), which ensures men's and women's participation and asks questions about gender issues in climate adaptation, and
 - Integrating gender analysis information into adaptive management of CBA actions.



- Integrating gender into CBA approaches.
To improve the adaptive capacity of women and men, while addressing localized gender dynamics, ALP prioritised the following CBA approaches:
 - Community Adaptation Action Plans (CAAPs),
 - Participatory Scenario Planning (PSP) for communicating seasonal climate forecasts,
 - VSLAs,
 - Appropriate agricultural training, such as farmer field schools,
 - Community monitoring systems, and
 - Innovative communication approaches, including mobile phones and radios.

Results to date include:

While many of the approaches had broad-reaching impacts across the communities ALP worked with in this project, VSLAs in particular had an impact on gender relations, equity and adaptive capacity in all ALP communities.

- Women gained access to financial resources.
VSLAs provide women the opportunity to access savings resources and small loans to finance economic ventures including land management, as well as support social and household costs. Having access to credit has allowed women to prove that they can care for and make productive use of land.
- Women were empowered in climate resilience initiatives.
Women are now able to access resources and make money out of land management and other climate resilient income generating activities. This is transforming women's roles in the household and demanding greater respect from men, leading to more collaborative decision-making, which contributes to more resilient and secure households.

- Women have benefitted from social empowerment.
VSLA's build group solidarity and promote self-confidence and self-reliance that fosters changes in women's behaviour such as increased voice in decision-making processes, access to public spaces, and use of mobile phones.
- Men view women's roles and contributions differently.
Men are starting to value women's empowerment differently, resulting in some men contributing in different ways themselves, changing their own roles and visions of how men should behave.

Gaps/challenges include:

- A better understanding of how to build women's and men's aspirations and to encourage innovation, is still needed in many communities. Continued work to improve access to power and an asset base can help to address this issue.
- There is still a lack of moving past gender sensitivity toward gender transformation. This is challenging to achieve within a few years and requires a more long-term vision and approach.
- The most marginalised communities are still hard to reach with these programmes. Networking and outreach is needed to expand and include more people.
- Limited freedom of movement of women impacts on their ability to adapt and in some countries this is becoming better but in others, worse.
- Whilst there have been some gains, persistent inequitable access to communication technology and the information that it can give access to, coupled with women's higher level of illiteracy and higher workloads limits their ability to make use of these new sources of information.



- Poor access to health services and reproductive and sexual health information impact on women’s ability to adapt.
- Although participation of women in community forums may be encouraged, those who are more vocal and interact in mixed-gender settings are often criticised for their insubordination, and may face social exclusion or violence. These cases show that interventions involving women and men around particular themes like adaptation have implications across other aspects of women’s lives and must be approached in full knowledge of these relationships.

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International Permaculture Network in Africa, the Mediterranean, and the Middle East (IPNAMME)

Empowering women to increase food security and build international connections through leading permaculture activities

International-Curricula Educators Association (ICEA) with Moringa Research Farm, IDEAS for Uganda, Pan African Vision for the Environment, Reading Hamlets, Githunguri Youth Sports Association, and ICEA Academic Resources UK Ltd.





As a holistic approach to the environment, permaculture is a dynamic regenerative ecological-societal design, simulating equilibrium processes in nature and interacting constructively with them, thus is gaining popularity in communities around the world. The International-Curricula Educators Association (ICEA)—along with many other partner organisations—in order to meet commitments for the *Future We Want* in Rio+20, aimed to join current and prospective permaculture educational farms and training centres in Africa, the Mediterranean and the Middle East, so as to connect them to the rest of the world. The project set out to increase food security in communities while building international connections and promoting high-value crops. The project is also taking opportunity to empower women as leaders in activities and communicate the importance of human rights, peace, tolerance, and gender equality to communities practising permaculture. Despite political upheaval in the Middle East region where ICEA was based, the project is thriving by engaging community members in being educators, trainers, and farmers. The project was also helpful in developing models for resilience and sustainable growth that can be duplicated in other areas. Through networking, education, and training, permaculture will continue to grow and thrive in these areas and spread to other communities.

Project overview

The International Permaculture Network in Africa, the Mediterranean, and the Middle East (IPNAMME), by nurturing the human natural disposition to care for the soil, nature, and biodiversity, seeks to connect international actors participating in permaculture activities while communicating the importance of human rights, peace, tolerance, and gender equality.

Strategies include:

- Promoting the unique perspective of the permaculture movement.
The project is designed so as to comprise two aspects: circularity and complexity:
 - Circularity of finance:
There are 2 kinds of low-cost educational programmes that run to support each project. One for the generation of income and global outreach, the other for raising awareness and community development. This way, the projects become self-sustainable,
 - Circularity of self-reform (resilience):
 - The projects are run by the local community representatives and in partnership with governmental entities, and
 - Complexity:
 - As the projects are designed to depend on integrated management of resources (e.g., implementing circular economy concepts to manage waste; promoting high value crops) and integrated leadership (i.e., integrated management to encourage creativity and minimise cost).

Results to date include:

- Community transformation.
The models created by the initiative and other relevant activities by the International-Curricula Educators Association has not only transformed businesses and farms but created replicable small-scale models of resilience, and sustainable growth.
- Capacity strengthening for women and girls.
IPNAMME focuses on educating girls, training women in organic farming; empowering women through sports, networking and social media; and providing motivational support for girls/women



to take control over their lives and wellbeing. The project, as it grows, continues to aim to raise funds so as to help women own land.

- Results triggering more engagement.

The initiative now has picked up and is thriving, particularly in areas that had suffered from political conflict. More enthusiastic young people and community members from countries such as Kenya, Nigeria and Uganda are interested and are now joining in, either as educators/trainers or as farmers (both genders).

Gaps/challenges include:

- The biggest challenge to the success and growth of any organisation is not the lack of resources but the synergetic management of resources including human resources. Therefore, individuals with a sense of altruism and a feeling of responsibility towards the care of the environment and to others are the most valuable of all resources.

- Laws regulating different sectors differ greatly. Orchestrating leadership between the private sector and the civil community remains a big challenge.
- Political upheaval and civil war are the biggest challenge for resilience, growth and community development.
- There is a need for a special fund to encourage the use of solar energy so that it becomes more feasible in comparison to the other energy options.
- A persisting challenge exists for women's empowerment whenever societal change conflicts with tradition. This requires patience, hard work, and better resources. One way to achieve change is to communicate gender equality through encouraging leadership.

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Influencing gender-inclusive climate change and agriculture policies for Latin American countries

Building capacity of agricultural decision makers

International Center for Tropical Agriculture (CIAT) and the CGIAR research program on Climate Change, Agriculture and Food Security (CCAFS)



Latin America is at a critical point in time in which many governments and sectors are developing climate change mitigation and adaptation strategies. When these strategies are gender-sensitive they ensure that both women and men are better prepared to cope with climate change. The project supports policymakers to ensure that gender is being considered in national policies—specifically national climate adaptation and mitigation plans—and that negotiators are well prepared to represent their countries at UNFCCC negotiation meetings. The project aims to build the capacity of decision makers to recognize and integrate gender equality concerns when formulating policies, including by

providing technical tools for gender mainstreaming. Recognising gender units within or linked to Ministries of Agriculture as potential allies and exploring opportunities to coordinate with them has been a key to success, together with capitalising on opportunities for collaboration with other organisations that are involved in gender-sensitive climate change planning, in order to leverage gender policy expertise and networks. Importantly, as well, this fosters knowledge exchange in Latin America, working with several countries on related topics (whereas most of the stakeholders involved typically interact only within their own country).



Project overview

By increasing awareness of the importance of gender to climate change policies, this project aims to enable policy makers and major regional actors involved in agriculture and rural development to incorporate gender into national policies.

Strategies include:

- Building the capacity of women.
A workshop on gender integration was held prior to the COP20 in Lima, Peru, with representatives of rural development organisations and Ministries of Agriculture from target countries—Colombia, Peru, Costa Rica, Nicaragua, Honduras, Guatemala, and El Salvador—to help build understanding of gender and the capacity for women to participate in decision-making.
- Fostering South-South knowledge exchange.
The project has promoted learning about gender, agriculture, and climate change through dissemination of bulletins with success stories and lessons learned across the whole of the region, expanding influence of technical tools on gender mainstreaming.
- Coordinating with key actors across civil society.
Partnerships with civil society organizations promote effective policy development and implementation attuned to men's and women's interests and priorities, at grassroots level.

Results to date include:

- Capacity enhanced for policy makers.
Project workshop participants demonstrated enhanced understanding of gender and climate concerns related to issues of rural development.
- Stakeholders are engaged.
Policy makers from the agricultural sectors have

engaged in the project via a workshop, a regular bulletin, and focused research products that provide guidelines and input on how to integrate gender in climate change policies.

- Gender mainstreaming outcomes have been achieved in sectoral policy.

The project has provided direct technical support to three government ministries and departments in the agricultural and environmental sectors on how to integrate gender in the development of specific climate change policies and strategies.

Gaps/challenges include:

- It will be necessary to develop tools and engagement strategies specific to certain policy makers. For example, those working in climate change and those working in gender, as a lack of collaboration between these units has been observed.
- The cost-effectiveness of workshops needs to be considered and other means of capacity building for decision makers should be explored.

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