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SOUTH-SOUTH COMMUNITY INNOVATION EXCHANGE PLATFORM: **THE EXPERIENCE OF THE GEF SMALL GRANTS PROGRAMME**

The Small Grants Programme (SGP) is a corporate programme of the Global Environment Facility (GEF) implemented by the United Nations Development Programme (UNDP) since 1992. SGP grantmaking in over 125 countries promotes community-based innovation, capacity development, and empowerment through sustainable development projects of local civil society organizations with special consideration for indigenous peoples, women, and youth. SGP has supported over 20,000 community-based projects in biodiversity conservation, climate change mitigation and adaptation, prevention of land degradation, protection of international waters, and reduction of the impact of chemicals, while generating sustainable livelihoods.



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ACRONYMS

AME	Association Mère d'Elèves	IOIA	International Organic Inspectors Association
BCHT	Biocultural Heritage Territories	IPLCS	indigenous peoples and local communities
BNSI	Barbados National Standards Institute	ISE	International Society for Ethno-biology
CBD	Convention on Biological Diversity	JOAM	Jamaica Organic Association Movement
CERD-BENIN	Culture, Éducation et Recherche pour le Développement au Bénin	MOU	Memorandum of Understanding
CEUTA	Centro Uruguayo de Tecnologías Apropriadas	NGO	Non-Governmental Organization
CFA	Communauté Financière d'Afrique, West African Franc	NTFP	Non-Timber Forest Products
CGIAR	(Formerly) Consultative Group for International Agricultural Research	OGCA	Organic Growers and Consumers Association
CIP	International Potato Center	POETCOM	Pacific Organic and Ethical Trade Community
COMPACT	Community Management of Protected Areas Conservation Programme	PPCSL	Placencia Producers Cooperative Society Limited
CSO	Civil Society Organization	SDG	Sustainable Development Goal
FOH	Fragments of Hope	SGP	Small Grants Programme
GEF	Global Environment Facility	SPC	Secretariat of the Pacific Community
GEF SGP	Global Environment Facility Small Grants Programme	SSC	South-South cooperation
GOAM	Grenada Organic Agriculture Movement	TRC	triangular cooperation
ICCAS	Indigenous Peoples and Community-Conserved Territories and Areas	TTT	Tei Tei Taveuni
ICSEE	International Collaborative for Science, Education, and the Environment	UN	United Nations
IIED	International Institute for Environment and Development	UNDP	United Nations Development Programme
INIFAT	Alexander Humboldt Institute for Basic Research in Tropical Agriculture	UNESCO	United Nations Educational, Scientific and Cultural Organization
INMIP	International Network of Mountain Indigenous Peoples	UNOSSC	United Nations Office for South-South Cooperation
		US	United States Dollar
		WHO	World Health Organization
		ZNT	Zai Na Tina Organic Demonstration and Research Farm

FOREWORD

The 2030 Sustainability Agenda is an action plan for people, the planet, and our collective prosperity. The Sustainable Development Goal 17 (Partnerships for the Goals) calls for a strengthening of the means of implementation and a revitalization of global partnerships for sustainable development. This goal calls for the enhancement of South-South Cooperation and for improving developing countries' access to innovative technology to empower them to implement the Sustainable Development Goals (SDGs) in a manner that suits their context. South-South Cooperation is rooted in the principles of equality and trust and supports countries in similar development contexts, and facing similar challenges, to find and share solutions that are easier to adapt to their priorities and needs at the global, national and local levels.



Adriana Dinu



Gustavo Fonseca

For many years, the Global Environment Facility's Small Grants Programme (SGP), implemented by United Nations Development Programme (UNDP), has been supporting exchanges and partnerships across its country programs to encourage South-South Cooperation and sharing of experiences among project grantees. SGP has enhanced these efforts through a dedicated outcome in its Sixth Operational Phase to launch its "*South-South Community Innovation Exchange Platform*".

This publication showcases examples from SGP-supported projects that illustrate the importance of South-South Cooperation as a necessary tool for the achievement of the SDGs, particularly related to environmental and social goals. South-South knowledge and innovation by civil society and communities can fill critical gaps in national action plans and produce timely and significant results.

By developing seaweed farming in response to declining fisheries in Belize and Colombia, or by building and maintaining energy efficient stoves in Tanzania and Kenya, or through the introduction of micro-hydro electrical plants in Haiti, community exchanges demonstrate the value and effectiveness of South-South solutions at the local level. These shared solutions increase local communities' livelihood opportunities, help protect the environment, increase access to health and education, and inspire social inclusion across borders.

The future of the planet relies on humanity's affirmative action to manage and protect the global ecosystems that sustain us. We hope that this publication will provide some evidence of the importance of South-South Cooperation in achieving the SDGs, and further inspire innovation and partnerships.

A stylized, handwritten signature of Adriana Dinu in black ink.

Adriana Dinu
Executive Coordinator
Global Environmental Finance Unit
United Nations Development Programme

A stylized, handwritten signature of Gustavo Fonseca in black ink.

Gustavo Fonseca
Director of Programs
Global Environment Facility

MESSAGE FROM THE GLOBAL MANAGER



Yoko Watanabe

South-South cooperation promotes direct learning and relationship-building between communities in countries that face similar challenges and operate in similar development contexts, to increase self-reliance and share solutions and technologies to overcome these challenges.

The GEF Small Grants Programme (SGP), implemented by UNDP, believes that South-South cooperation and exchanges at the community level are essential for developing solution-based platforms, and enable wider replication and scaling up of good practices in efforts towards conserving the global environment and achieving the SDGs.

The 2030 Agenda for Sustainable Development calls for greater attention to local communities and their inclusion in global development, in terms of food security, clean water, access to quality education and healthcare, and sustainable livelihoods. This is key to the central pledge of leaving no one behind in our achievement of the goals and targets.

As illustrated in this publication, we find that South-South cooperation is an effective modality for reaching those furthest behind first, by actively facilitating and supporting peer-to-peer knowledge exchange and technology transfer of good practices including among remote and hard-to-reach communities.

The example of Barefoot College demonstrates this potential in its support to women from rural communities all over the world by giving them the training necessary to become solar engineers, for the benefit of their families and neighbors.

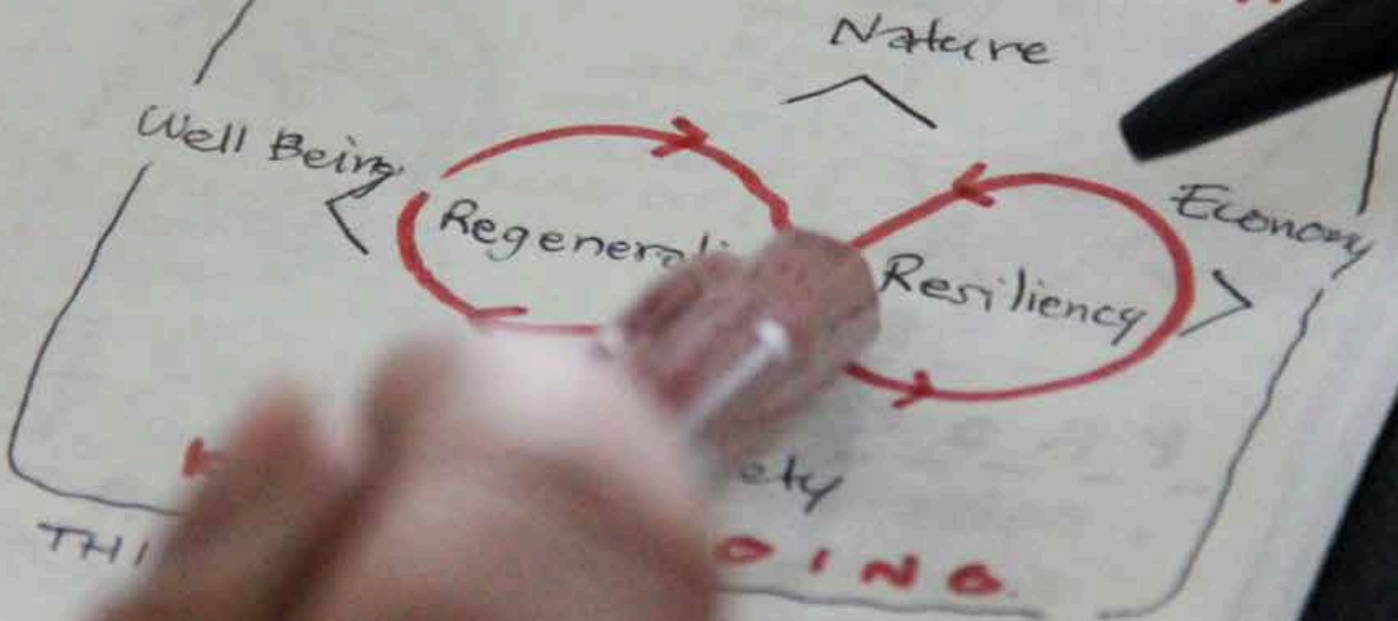
The case of the Potato Park in Cusco Valley, Peru, illustrates how food productive landscapes can be conserved and how traditional knowledge can be used to inform decision-making for the benefit of all stakeholders. The park is frequently visited by indigenous peoples and others from around the world to learn about conservation, the impacts of climate change, and how to increase resilience in food production systems to meet the challenges of the future.

I hope the reader finds these examples instructive and is inspired to help promote further exchanges among local communities-particularly indigenous peoples, women, and youth- who are drivers of progress within their communities. It is this type of innovation and enthusiasm that propels sustainable development.

A handwritten signature in black ink, appearing to read 'Yoko Watanabe'.

Yoko Watanabe
Global Manager
GEF Small Grants Programme

sustainability



INTRODUCTION

In 2015, the world adopted the 2030 Agenda for Sustainable Development and its associated Sustainable Development Goals. This agenda calls for new and inclusive global partnerships, with emphasis on the integral role South-South and triangular cooperation must play in complementing North-South cooperation. In the words of the United Nations Secretary-General Antonio Gutierrez, “South-South cooperation is a powerful tool as we advance, together, towards the Sustainable Development Goals and fulfill the promise to leave no one behind.”

Other key development frameworks that complement the Agenda 2030 - such as the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, and the Addis Ababa Action Agenda - also emphasize the importance of South-South and triangular cooperation.

UNDP’s Strategic Plan 2014-2017 similarly embraces South-South and triangular cooperation as core modalities for sharing tested, scalable development solutions from the South, to strengthen developing countries’ perspectives in global development agendas and decision-making. Likewise, the GEF 2020 strategy promotes South-South knowledge exchange

of successful and potentially replicable experiences among recipient countries of the Global Environment Facility (GEF).

The Small Grants Programme (SGP), funded by the GEF and implemented by the United Nations Development Programme (UNDP), recognizes the importance of South-South and triangular cooperation at the local level, and their role in accelerating the achievement of the SDGs. SGP has been providing technical and financial support to civil society organizations (CSOs) and communities in over 125 countries for the past 25 years. SGP promotes



IIED

innovation and social inclusion, and fosters the development of solutions that produce global environmental benefits and address key sustainable development issues. Through these efforts, SGP helps countries to meet their commitments under key environmental conventions. By working directly with vulnerable communities, including indigenous peoples, women, youth, and persons with disabilities, SGP facilitates peer-to-peer learning and mentoring among CSOs and local communities, and promotes their participation in decision-making processes.

Although SGP has been engaged in South-South cooperation as a supportive partner for many years, it was only in its Sixth Operational Phase (2015–2018) that it launched the “South-South Community Innovation Exchange Platform” as a targeted initiative. The platform responds to the need for a proactive solution to promote cross-country and regional learning, since grantmaking and associated knowledge exchanges often happen at the national level. Through this platform, SGP provides dedicated support for knowledge exchanges between its programme countries. The cross-country exchanges seek to transfer knowledge, encourage the replication of good practices at bilateral and regional levels, increase impact, scale up innovative solutions developed by grantees and partners, and enable broader links between CSOs at the regional level.

In 2015, a survey of SGP country programmes revealed that 40 countries had already engaged in South-South cooperation, in the form of bilateral or regional collaboration, in the past. Partners – such as national civil society organizations, international organizations including UNDP, UNEP, IUCN, UNESCO and local development cooperation agencies or banks – often played a facilitating role. The modalities of these exchanges, which are now reported on annually, included peer-to-peer knowledge exchanges, sharing of solutions at international conferences, and site visits to demonstrate solutions to international partners. As of 2017, over 200 South-South cooperation exchanges had

SOUTH-SOUTH COOPERATION

South-South cooperation (SSC) refers to a broad framework for collaboration among countries of the global South, spanning the political, economic, social, cultural, environmental and technical domains. Involving two or more developing countries, it can take place on a bilateral, regional, sub-regional, or interregional level. Developing countries share knowledge, skills, expertise, and resources to meet their development goals through concerted efforts.

South-South cooperation is a common endeavour of peoples and countries of the South, born out of shared experiences and sympathies, based on their common objectives and solidarity, and guided by, inter alia, the principles of respect for national sovereignty and ownership, free from any conditionalities. South-South cooperation should not be seen as official development assistance. It is a partnership among equals based on solidarity . . . South-South cooperation embraces a multi-stakeholder approach, including non-governmental organizations, the private sector, civil society, academia and other actors that contribute to meeting development challenges and objectives in line with national development strategies and plans.

From SSC/19/3, paragraph 9, as defined by the Member States

TRIANGULAR COOPERATION

Triangular Cooperation (TrC) is cooperation between two or more developing countries, with support from a developed country.

Triangular cooperation involves Southern-driven partnerships between two or more developing countries supported by a developed country(ies)/or multilateral organization(s) to implement development cooperation programmes and projects. Evidence shows that in many instances, Southern partners in development cooperation require the financial and technical support and expertise of multilateral and/or developed-country partners in the course of assisting other developing countries (see TCDC/9/3). Northern partners also benefit by being able to take advantage of increased institutional capacity in the South and to increase the impact of their aid disbursements by leveraging the resources of multiple Southern partners. Developed countries have increasingly expressed strong support for this approach to development and a willingness to share their experience and lessons learned as long as the triangular cooperation process is led and owned by Southern actors in order to achieve development results.

From SSC/19/3, paragraph 11, as defined by the Member States



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UNDP developed a global marketplace exchange platform, “SSMart for SDGs”, an end-to-end system that supports partners from the South to package and exchange their demands and solutions. SSMart fosters real-time knowledge exchange, collaborative thinking, and partnerships among governments and non-state actors for the implementation of the 2030 Agenda.

Free and open to all development stakeholders (governments, civil society organizations, UN agencies, the private sector and academia), the platform:

1. supports the exchange and scaling-up of tested development solutions;
2. provides an opportunity for solution seekers to express their needs vis-à-vis particular development challenges;
3. offers a repository of evidence, with potential to inform the decisions of development organizations to supply technical assistance, capacity development services, or any other kind of support that engaging partners may request, in line with national development plans and SDG priorities.

It includes a **brokering service** that has the capacity to match development solutions with needs in developing countries, and is supported by a **facilitation service**, ensuring quality assurance by vetting all development solutions submitted.

been conducted by SGP countries. These exchanges have increased the capacity and technical knowledge of civil society organizations and led to the replication and scaling up of locally-tested innovative solutions.

As a key partner of UNDP in South-South cooperation, SGP has documented and contributed several of these solutions to the UNDP South-South marketplace platform: SSMart for SDGs.

The portfolio of the SGP focuses on topics such as climate change, land degradation, chemicals and waste, and protection of key biodiversity and international water bodies - issues that are often interconnected, especially at the community level. For example, climate change adaptation and mitigation is intimately linked with the development of agriculture, waste management, water, energy, health, food security, education, conservation, and infrastructure. In view of the interconnected and transnational nature of such challenges, greater collaboration and exchange between developing countries is especially instrumental in addressing them.

As a strategic pathway to tackling such challenges and achieving the SDGs, SGP will continue to develop civil society institutions as centers of excellence. These are organizations that are often created or capacitated in the implementation of SGP grants, and which later play a role as training or demonstration centers to transfer innovative practices, technologies and solutions developed by the communities to others in need of this know-how and experience. Such local level centers play a key role in facilitating South-South exchanges.

For example, in Belize, the Fragments of Hope (FoH) NGO, a 2017 Momentum for Change award winner, operates a prolific coral nursery, offers guided eco-tours to visiting tourists, and further operates as a trainer of trainers. In the past year alone, FoH participated in 15 South-South cooperation exchanges – turning their partner organizations into a nexus of learning and candidates for further development as centers of excellence. In addition to facilitating such exchanges, SGP encourages

and supports grantees to document their solutions through manuals and toolkits, an effort that further promotes sharing and learning across borders.

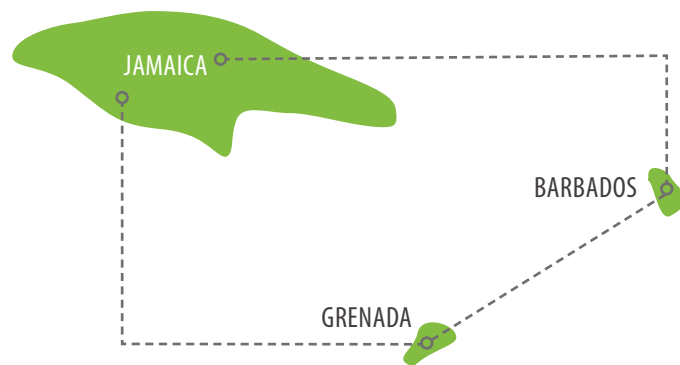
This publication illustrates how SGP leverages South-South and triangular cooperation to tackle local challenges through peer-to-peer knowledge exchanges across different sustainable development issues and geographies. It features ten case studies with

demonstrated solutions emerging from Belize, Burkina Faso, Cuba, Dominican Republic, Kenya, Senegal and Thailand.

The problems tackled are of importance not only locally but also within the context of national sustainable development and global environmental challenges, widening the appeal and relevance of these solutions for broader adoption.



ESTABLISHING AN ORGANIC CERTIFICATION SYSTEM IN THE CARIBBEAN: BARBADOS, JAMAICA AND GRENADA



CONTEXT

In Barbados, there is a growing organic movement to reduce the use of agrochemicals, such as synthetic fertilizers, pesticides, and growth hormones, for food production. The movement is bringing increased public awareness of how industrial agriculture is contributing to pollution in the groundwater supply and in the marine environment. Customer surveys have demonstrated that there is high demand for organic produce among both the tourist and local populations in Barbados, and the market is not able to meet this demand. Organic food production makes up less than 10 per cent of the national food production.

In 2004, through the Barbados National Standards Institute (BNSI), Barbados adopted organic standards based on the Food and Agriculture Organization's CODEX Alimentarius guidelines for organic farming. However, no system for delivery of this standard had been developed, and there was no established methodology for inspecting or certifying these products as organic. The major organic agricultural association in Barbados, the Organic Growers and Consumers Association (OGCA), had no tangible means to verify that the practices of their growers met the standard and merited recognition. The situation was compounded by the lack of a credible, sufficiently independent entity responsible for conducting inspections and awarding organic certification to existing organic growers and farmers wishing to convert to organic agriculture.

In 2014, OGCA received support from GEF SGP to develop and implement a national organic inspection and certification system. The project primarily targeted members of the association by building their capacity to facilitate the certification process and to meet the requirements for organic certification. OGCA saw that there was an opportunity for regional cooperation in learning from the experience in organic farming of Jamaica, which had already trained inspectors in the past. OCGA wanted to build and maintain a Caribbean network to develop local and regional capacity towards a regional organic protocol.

THE EXCHANGE

The objective of the exchange between Jamaica and Barbados was to implement a national organic inspection and certification system in Barbados, based on the experience of the Jamaica Organic Association Movement (JOAM) in implementing their own certification scheme. In supporting OCGA, JOAM reached out to connect the



SGP BARBADOS



SGP BARBADOS

Barbadian NGO with the International Organic Inspectors Association (IOIA). IOIA works to address issues and concerns relevant to organic inspectors, provides training, and promotes consistency and integrity in the organic certification process. They provided an internationally certified training programme to prospective organic inspectors in Barbados.

The exchange between the Jamaica Organic Association Movement and OCGA helped Barbados speed up their processes by learning from the years of experience JOAM had in undertaking a certification process and meeting the international standard for certification requirements.

JOAM also put OCGA in touch with the Grenada Organic Agriculture Movement (GOAM) which extended the South-South collaboration to Grenada, and members from GOAM were able to participate in the training of future inspectors in Barbados, with support from GEF SGP.

RESULTS AND LESSONS LEARNED

As a result, with support from JOAM and the IOIA, OCGA facilitated the training of prospective organic inspectors, educated farmers on organic farming, and developed monitoring and reporting systems for the certification

process. Fourteen candidates were identified as suitable to receive inspector training - one woman from BNSI, a group of three men and one woman from GOAM, one chemist from Antigua, one Barbadian female trainer of youth in agriculture and horticulture, five organic farmers of which two were women, one representative from the Barbados Ministry of Agriculture and one representative from the Inter American Institute for Cooperation in Agriculture. A MoU was signed between OCGA and these trainees for future service arrangements.

Another 22 organic farmers were trained in data collection and farm recordkeeping using available information technology and project management tools. As a part of the project activity, the farmers were introduced to and taught how to use an app called Farmlogs to facilitate electronic record-keeping. A training video was developed, including modules on the principles of organic farming, organic seedling production, the nature and properties of soil, soil fertility management, organic pest and disease management, water management, and organic farm certification. To create legitimacy and commercialize the certified organic brand, as well as to encourage more growers to participate in organic farming, organic farm inspection reports were completed and submitted to BNSI.

The benefits reported by farmers were improved farm management and record keeping. In several cases, farmers who did not keep records are now able to do so and in an electronic format.

A Project Steering Committee - with a gender diverse background and representing the different stakeholders involved - was formed to provide strategic guidance and dialogue on the certification process. The project also benefitted from a multi-disciplinary, supportive, and experienced Secretariat which provided strategic guidance while facilitating the mobilization of financial and non-financial resources. The project now enjoys full support from the Government of Barbados with technical and financial means to operationalize the certification process. The training of government officers in organic farm inspection further demonstrates the Government's commitment. OGCA now has a fully operational certification process in place to ensure genuine organic food production for consumers.

One of the benefits of the exchange is that, in the future, OCGA can have Barbadian inspectors conduct inspections in Grenada, and vice versa. In addition, having certified

organic inspectors available in the Eastern Caribbean will significantly reduce the cost of certification to the farmers and generate income opportunities for the inspectors. Three Grenadians have been certified as organic inspectors under this project, and it is expected to be replicated in Grenada in the coming years.

This organic certification process in Barbados contributes directly to SDG 12: Responsible consumption and production, by drastically reducing the use of chemicals in fertilisation and pest management in food production and improving the health of the consumers. Farmers who receive organic certification will also benefit from improved produce and income from the higher prices that organic products bring in the market.

Based on their role in establishing this certification process, OGCA was identified as a key stakeholder to contribute to the revision of the National Physical Development Plan, Barbados' national sustainable development and growth framework. It is anticipated that in the coming first inspection cycle, OCGA will see as many as five farms inspected and in receipt of provisional certification in 2017.



SGP BARBADOS

PROMOTING SEAWEED FARMING AS A SUSTAINABLE ENTERPRISE: BELIZE AND COLOMBIA



CONTEXT

Belize's coastline has a wealth of globally significant marine biodiversity. Home to seven UNESCO World Heritage Sites, the coastline features a network of marine protected areas (MPAs) that comprises the Belize Barrier Reef Reserve System. The site covers 96,300 hectares and is home to over 500 species of fish, 65 scleraetian corals, 45 hydroids, and 350 mollusks, plus a great diversity of sponges, marine worms, and crustaceans. The area has one of the largest populations of West Indian manatees (*Trichechus manatus*) in the world and is home to two species of threatened crocodiles (*Crocodylus acutus* and *Crocodylus moreletii*).

Rapid and uncontrolled coastal development has resulted in increased habitat loss in Belize's coastal zone. It is estimated that about 75-80 per cent of all coastal land in Belize has been purchased for the development of tourism and residential areas, posing a serious threat to mangroves, coastal wetlands, and other coastal ecosystems.

The Placencia Producers Cooperative Society Limited (PPCSL) was formed in 1962, in an effort to consolidate the local fishers' occupational activities and income. Since the 1950s, Placencia has been a thriving fishing community, however, due to poor regulation and overfishing, as well as anthropogenic pressures on the marine ecosystems, in the 1990s fish stocks were in decline and PPCSL looked for ways to diversify their livelihood.

In 2004, St. Lucian fishers visited the Belize fishers to learn about their seaweed cultivation initiative as a supplemental livelihood alternative.

A few of the PPCSL fishers, having used seaweed historically as an alternative source of income on a small scale, were inspired by the St. Lucian fishers and in 2009 submitted

a proposal to GEF SGP through its Community Management of Protected Areas Conservation Programme (COMPACT), a partnership programme between GEF SGP and the UN Foundation, and were awarded two consecutive grants of US\$90,000 to start a pilot project on commercial seaweed cultivation in Placencia.

The grants supported the development of a market study and subsequent business plan and the project turned out to be a success, with a market and a prosperous industry following suit. PPCSL provided training sessions to improve the capacity of the community on information technology,



accounting and the use of QuickBooks, as well as business administration. Furthermore, support was provided for the establishment of 20 seaweed farms with the necessary equipment for planting, monitoring, harvesting, and processing the seaweed crop for sale locally and internationally. A boat and engine were purchased to carry out these activities.

A Memorandum of Understanding was signed between the Belize Fisheries Department, the Southern Environmental Association, and the Placencia Producers Cooperative Society Limited for a one square mile Special Development Zone within the Gladden Spit and Silk Cayes Marine Reserve, which was intended for seaweed cultivation expansion. A seaweed cultivation manual and seaweed curriculum were also developed.

This led to the establishment of a long-term partnership with a private investor called Coral Caye Limited to replicate, upscale, and mainstream the seaweed industry in Belize. Coral Caye Ltd. is currently constructing the 5,000-square foot processing facility near Independence Village, Stann Creek District to create value added products for use and sale by the PPCSL. Together, the partners continue to develop improved methodologies for seaweed cultivation and additional revenue streams, which they continue to share in exchanges with interested parties.

THE EXCHANGE

The goal of this South-South cooperation exchange was to train fishers from Colombia in seaweed cultivation, harvesting and processing techniques at the Placencia Producers Cooperative Society Limited farms located in the Gladden Spit and Silk Cayes Marine Reserve and Laughing Bird Caye National Park sites near Placencia Village, Belize. To facilitate the South-South exchange, the GEF Small Grants Programme in Belize coordinated with representatives of the Colombian Government, who were sponsoring the exchange.

Through in-office presentations, including on the history of PPCSL and the seaweed cultivation project, as well as the history and the current status of global seaweed aquaculture, and by training in Little Water Caye, the Colombian fishers were introduced to the seaweed cultivating and harvesting methodologies of PPCSL. During the exchange visit to Belize, two women and four men from the Old Providence and Santa Catalina Fishing and Farming Cooperative in Providencia Island, Colombia, learned how to design a seaweed farm, select an appropriate site, construct anchors, set up the farm, and select the best seeds for high crop yields.





After the initial exchange in Belize, a member of the PPCSL travelled to Colombia to provide additional hands-on training to the Old Providence and Santa Catalina Fishing and Farming Cooperative. The initiative has been replicated by both the Turneffe Seaweed Growers and the Sarteneja Fishermen Association in Belize.

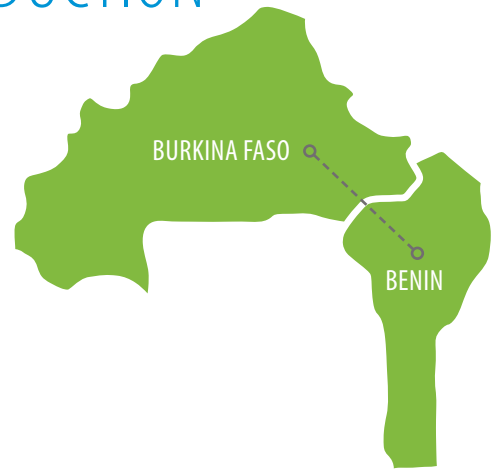
RESULTS AND LESSONS LEARNED

As a result of exchange between Colombia and Belize, the Colombian fishers have put the training they received to use in their own country, where they are involved in a pilot project – “Algae Cultivation Pilot Project and Development of Products Based on its Derivatives”, with Coralina, Utadeo and Fish and Farm C-Enterprise. Through established seaweed farms, they have generated value-added products such as a recently launched, highly nutritious drink called Seaweed Punch. They are now involved in promoting seaweed cultivation as a viable economic livelihood.

In addition to the exchange with Colombia, between July 21st- August 2nd in 2017, GEF SGP Belize hosted another South-South exchange with a delegation of four members from GEF SGP in Cuba. Among other topics, the Cuban delegation shared its considerable knowledge about sponge cultivation and in turn learned about coral nurseries and seaweed cultivation.

Seaweed provides a natural habitat for many marine species, and provides excess nutrient uptake as an ecosystem service. Cultivating seaweed helps to reduce fishing pressure by providing fishers with an alternative source of income, all of which contributes directly to Sustainable Development Goal 14: Life below water. Seaweed cultivation serves as a model for adapting to the effects of climate change, while providing livelihood opportunities for women, men, and youth. These elements highlight the potential use of seaweed farming in many different localities, and this South-South exchange experience shows how replicable seaweed farming is across the region, through peer-to-peer knowledge transfer. Such knowledge transfer gives participants a better grasp of and hands-on experience with seaweed cultivation - a sustainable, environmentally friendly, and highly replicable practice. Direct exchanges provide participants with a better understanding of the seaweed practices and farming, and the opportunity to quickly obtain answers to questions, making them a very effective tool for imparting applicable knowledge.

HOW TO IMPROVE SHEA BUTTER PRODUCTION AND COMBAT LAND DEGRADATION: BENIN AND BURKINA FASO



CONTEXT

The Republic of Benin is located in West Africa, in the Gulf of Guinea. In 2016, the population of Benin reached approximately 10,872,298 people, of which nearly half are youth under the age of 15. Agricultural activity and vegetable production are the predominant economic pursuits of the population and account for 38 per cent of annual gross domestic production. In light of climate change and significant pressure on agriculture due to widespread and severe land degradation, agricultural diversification is critical to ensure future fertility of the land and access to sustainable livelihoods and economic stability for younger generations.

The Boukoubé municipality in the department of Atacora covers 1,036 km², of which 342 km² of land is appropriate for cultivation. Boukoubé is the Sudano-Guinean climatic zone, characterized by a rainy season from April to October and a dry season from November to March. The municipality is located on a vast peneplain, with low availability of water and considerable land degradation due to mismanaged agricultural activity. The soil in this area is marked by low organic content and high sand content, which is particularly susceptible to erosion. The area has also suffered high deforestation rates and only small pockets of wooded areas remain with species such as baobab (*Adansonia digitata*), ronier (*Borassus aethiopicum*), néré (*Parkia biglobosa*), shea (*Vitellaria paradoxa*), kapok tree (*Bombax costatum*), and African mahogany (*Khaya senegalensis*) – which have been preserved for the benefit they provide to the local population.

In 2013, the NGO, *Culture, Éducation et Recherche pour le Développement au Bénin* (CERD-BENIN), sought support from GEF SGP to address the issue of land degradation. Boukoubé has struggled with weak economic activity, and has experienced an increase in youth departing to look for opportunities elsewhere. Land owners have also taken to selling their infertile soil to sustain themselves financially. To address these issues, the community pursued the sustainable production of shea as solution.

In Benin, the production of shea has largely been carried out by women and youth. The production process is strenuous and involves heavy work. Collection of firewood and the money spent on fuel for the mills represent a significant human and financial cost for the local communities and shea producers. Deforestation and the loss of forest cover contributes to land degradation, while smoke from the



SGP BENIN

firewood represents a health hazard and contributes to GHG emissions. The improvement of this process would leave the producers with a greater income, and confer considerable environmental benefits. Producers could use less energy, improve their income and participate in the conservation of natural resources.

THE EXCHANGE

To improve its local shea production, CERD-BENIN requested support from the international NGO TREE AID of Burkina Faso. In the period from January to February 2013, a South-South exchange between Benin and Burkina Faso took place. During the exchange, the Beninese farmers learned how to significantly shorten the production cycle of shea - an exceedingly slow-growing species that takes about 25 to 30 years to reach productive maturity - through a grafting process. With the technical support of an agricultural engineer at TREE AID, the Beninese farmers learned how to use assisted natural regeneration to improve their trees' productive capacity. By establishing a system for rotating the branches to ensure stable fruit yield, they were able to increase shea butter production by 3 tonnes in two years, at a rate of 1.5 tonnes per year.

The Beninese producers also learned how to naturally control parasitic plants, which are a considerable hindrance to shea production. Finally, in Burkina Faso, farmers had come up with an idea of rigorously harvesting the *Tapinanthus*, a genus of mistletoe. They taught the Beninese how to dry the *Tapinanthus*, and add it to ash to manufacture soaps. This provided the Boukoubé with another income generating activity.

RESULTS AND LESSONS LEARNED

As a result of the exchange, improved techniques for shea production were introduced to the local agricultural community by CERD-Benin. Specifically, 12 agricultural leaders from 10 villages in Natta have learned how to graft the shea tree and shorten its production cycle. The project also sought to give poorer populations and landowners access to an income-generating activity by utilizing short growth-cycle shea trees, as well as to provide the local women's organization, *Association Mère d'Elèves (AME)*, with access to sustainable sources of livelihood by creating shea butter from the shea nuts. Seventy-six women have become shea nut suppliers, selling their shea nuts to the Boukoubé production center. Every year, AME produces and sells 3 tonnes of shea butter in 20 rural villages, resulting



SGP BENIN

in a current annual profit of approximately 1 million CFA (USD 1,772). Part of this budget is dedicated to the schooling of orphans and vulnerable children in their communities.

The shea production cycle has also increased the local soil fertility and has contributed to the prevention of land degradation, due to the excess biomass by means of foliage, which is now being returned to the soil as a natural amendment. This reapplication of the foliage helps with the soil coverage and improves the water retentive capacity of the soil. A ten-hectare shea forest has been established in a previously deforested area of Boukombé.

The project has also attracted the attention of the younger generation. The NGO CERD has hired a number of interns from a nearby agricultural technical school, who were interested in learning about shea production as an income

generating activity. From an economic perspective, the shea production activities have also contributed to shea tree prices going up.

During implementation, challenges arose such as where to plant the shea trees to establish a shea production area. The City Council of Boukombé contributed by proposing land use partnerships between landowners and users, to avoid potential conflicts regarding land use, and requiring the negotiation of a fair price for rent, taking into account the potential profit from a productive shea butter farm. A lesson learned from this project is to have town hall negotiation meetings with the local community to determine appropriate land on which to establish shea production activities, with a particular focus on women's rights to access and use land.



SGP BENIN

FOSTERING ORGANIC AGRICULTURE ACROSS THE OCEAN: CUBA AND THE PACIFIC



CONTEXT

The countries of the Pacific are facing the effects of climate change, ecosystem degradation, and loss of biodiversity due to the unsustainable use of both land and marine resources. As a result of mismanaged agriculture, land degradation is rampant and food production is decreasing. At the same time, the agricultural sector is under pressure to feed a bigger population on the same amount of land, and dependence on imported food is increasing. One solution to intensifying production is the introduction of agrochemicals and fertilizers to farming. These methods have unfortunate side-effects, such as leaching into the environment and affecting both ecosystems and human health.

The Pacific Organic and Ethical Trade Community (POETCom) identified the promotion of organic agriculture as a key step to solving these issues. Organic agriculture has the potential to make a significant and positive impact on the sustainable development of Small Island Developing States, while strengthening ecosystem services and increasing resilience to climate change. Its emphasis on resilience and crop diversity stimulates farmers to develop new crop and farming systems in response to climate change. Organic farming at the community level builds smallholder farmers' access to marketplaces and aids in the safeguarding of traditional knowledge, diverse food culture, and food security.

GEF SGP Cuba has been promoting Sustainable Land Management, including organic farming, and has developed an environmentally sustainable agriculture model which increases the resilience of agricultural systems to climate change. In the last few years, GEF SGP Cuba implemented 14 projects that benefitted 23 agricultural

"The Pacific faces enormous challenges in terms of food security with increased land degradation due to poor agricultural practices and chemicals. And the situation is aggravated by climate change."

- Karen Mapusua, Coordinator of POETCom

cooperatives, 1,216 farming families, and 3,055 people. Collectively, these efforts brought 5,527 hectares of land under improved management. Forty-three energy-efficient irrigation systems were installed, as well as two cultivation houses. These results provided the basis for this exchange facilitated by GEF SGP Cuba, Fiji, and the Solomon Islands.

THE EXCHANGE

In May 2015, participants from Cuba, El Salvador, Fiji, Guatemala, and the Solomon Islands met in Havana, Cuba to learn from Cuban farmers about low cost and proven ecological farming practices which are easily adaptable and transferrable to the Pacific as solutions to the pressing issue of food security and the environmental concerns shared by many small island states. During the training, the participants shared a fruitful dialogue on future South-South cooperation in the areas of organic farming, sustainability, and resilience development in the fragile ecosystems of small island developing states. The exchange, facilitated by the GEF SGP and implemented by UNDP in Cuba, further allowed farmers and development practitioners to receive training from academic representatives and from the Ministry of Agriculture in Cuba.



SGP CUBA

The exchange included four farmer leaders of local organizations in Fiji and the Solomon Islands, as well the coordinator of POETcom, joined by participants from the GEF SGP, UNDP, the Secretariat of the Pacific Community, the Alexander Humboldt Institute for Basic Research in Tropical Agriculture, and the Cuban Ministry of Agriculture. Three young farmers from Central America (one from El Salvador and two from Guatemala) also added value to the South-South exchange and established new friendships and partnerships.

During the workshop, the participants visited five local cooperatives which, with support from GEF SGP, have successfully implemented organic and urban agriculture practices. Benefitting from the on-the-ground expertise of local farmers, the main topics discussed included organic fertilizer production using crop residues and excreta from worm culture and composting; local seed production and conservation; plantlet production; agro-ecological pest and disease management; use of semi-protected and multiple cropping systems; and intercropping.

To coordinate the exchange, POETCom, a network of organic producers across the Pacific Islands, selected the Zai Na Tina Organic Demonstration and Research Farm (ZNT)

from the Solomon Islands and Tei Tei Taveuni (TTT) from Fiji. These farmers organizations are community-based leaders in their respective countries. ZNT runs a commercial organic vegetable farm and an internship programme allowing young farmers to reside on the farm and undertake theoretical and practical training in organic farming. TTT is a farmer's organization from the island of Taveuni in Fiji, which in recent years has suffered from extreme soil degradation due to poor farming practices. TTT was formed by farmers to learn how to protect their soils, island and livelihoods. They have worked with schools and established a resource center for farmers.

The exchange also included a visit to the Viñales Valley National Park, where GEF SGP supported a project on agro-ecological practices in a protected area, as well as the development of an eco-tour product which involved local families and had a positive impact on the community of El Capón. Participants further shared views with two representatives of the agricultural community of La Gloria in the municipality of Sierra de Cubitas and of the fishing community of Florida Beach in the municipality of Florida, both located in the eastern province of Camagüey.

RESULTS AND LESSONS LEARNED

Following the exchange, TTT was impressed by the efficiency that close linkages and cooperation between the different stakeholders could bring to their projects. They were inspired by how the Government, the farmers, and the Health and Agriculture Departments were all working together to facilitate and ensure the success of urban gardens and farms in supplying healthy and nutritious food to their communities. On returning to Taveuni, Fiji, TTT used the knowledge they gained during the exchange, with the assistance of a Cuban technician, to experiment with local worms for vermiculture. The organization also started to explore different irrigation methods, including solar powered water pumps, on two demonstration farms.

As of 2017, TTT is working to establish 15 demonstration farms across Taveuni Island, and streamlining the lessons they learned in this South-South cooperation exchange in the farms' management practices. This includes companion planting, vermiculture, composting, seed saving, agroforestry and intercropping of fruit trees to ensure a stable yield and continuous income for the farmers. TTT is also exploring ways of incorporating agrotourism in their demonstration farms.

Similarly, in the Solomon Islands, ZNT implemented lessons learned by building well-planned, raised beds and box beds following the measurements they observed in Cuba. This has been effective in preventing the soil erosion that regularly occurs during heavy rainfalls in the Solomon Islands and is a good climate change adaptation technique.

ZNT has also modified their farm management practices to include systematic composting, with consideration to both the quality and nutrient density of the compost. This has greatly improved the farmers' access to compost. Companion planting has also been implemented, and Marigold and Sweet Basil are now routinely planted in the beds as natural insect repellents. This is believed to have completely eradicated the presence of African snails in their farms. They are also bio-prospecting for suitable, local earthworms to use for composting vermiculture, as import restrictions prevent the use of Cuban earthworms for this purpose.

ZNT was likewise impressed with the agrotourism activities in Cuba, and is now preparing its demonstration farm for educational tours. ZNT has signed a contract with

the Solomon Islands Government to build a Farm Stay for eco-tourists and has been awarded SBD 250,000 (approximately USD 32,000) in government funding.

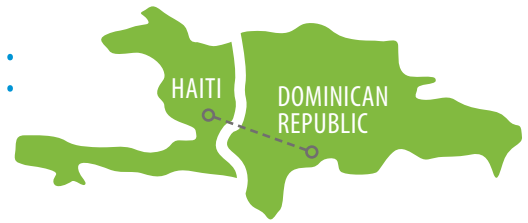
The technologies, extension materials, and lessons learned through the initiative will be further disseminated through the POETCom network. It is expected that the exchange will contribute to improved food production and overall environmental protection for the communities engaged, contributing to the efforts of both countries to achieve SDGs 2: No Hunger, 3: Good Health and Well-being, and 12: Responsible Consumption and Production.

This project received first prize in the South-South Cooperation for Sustainable Development Award, "S3 Award", organized by UNDP in 2016. Cuba's cooperation initiative was one of four winners of the contest, in which 33 projects from 19 Latin American countries participated. The award aimed to showcase and recognize best practices in South-South cooperation from the region, in order to promote more and better initiatives.



SGP SALOMON ISLAND - DEMONSTRATION FARM AFTER THE EXCHANGE.

TECHNOLOGY TRANSFER OF A MICRO HYDRO ELECTRICAL ENERGY SYSTEM: DOMINICAN REPUBLIC AND HAITI



CONTEXT

Since the end of the 1990s, the GEF SGP Dominican Republic has been supporting micro hydro electrical generation as an effective way to guarantee electricity access to isolated rural communities. What began as a 3.5 kW system turned into a successful model of intervention that has been replicated and scaled up across the country.

Thanks to the technical and financial support of the GEF Small Grants Programme in the Dominican Republic, supplemented by the expertise and support of the NGO Guakía Ambiente, 48 community micro hydro electrical systems are now working in the Dominican Republic,

providing electricity to more than 4,500 families and more than 20,000 people, with an installed capacity of more than 1.3 MW. These efforts have been implemented in partnership with other national and international entities which have accompanied local communities in the installation of micro hydro electrical systems, subsequently self-managed by the communities.

Significant basins of the island are protected as a result of the reforestation and conservation measures that beneficiaries are implementing to guarantee sustainability of water sources. More than 25,000 tons of CO₂ emissions are avoided and/or absorbed each year and living conditions have improved significantly. Community micro hydro electrical systems constitute a feasible and sustainable alternative to traditional energy systems.

Inspired by the experience of Dominican communities, Magazen, a community in North-East Haiti, requested support to evaluate the feasibility of a micro hydro electrical project that would provide electricity to families who live there. This marked the beginning of a strong South-South cooperation between the GEF SGP Dominican Republic and GEF SGP Haiti, which continues at present.

Magazen is a small community located in the eastern portion of the Northern Massive, close to the Dominican Republic border. The community consists of 120 families living in conditions of extreme poverty in a highly-degraded environment. People in the community do not have access to essential basic services, such as safe water, health and education services, and electricity. The community has access to light via benzene or kerosene lamps. Magazen is very remote and access the community is limited, with no way to reach it by means of motorized transportation.



SGP DOMINICAN REPUBLIC

The people who live here do not have the ability to travel, and some of them have never seen electrical lightning in their lifetime.

The local economy is mainly based on subsistence farming, which covers the basic needs of the families but produces very little surplus to sell at the local market. Inappropriate farming practices contribute to progressive and ongoing land degradation, resulting in deforestation and loss of tree cover as well as infertile and unproductive soil. The lack of electricity has wide-reaching ramifications for the community and imposes a barrier to its development. Fortunately, Magazen has been integrated into the Quisqueya Verde National Plan, a development plan that focuses on dissemination of environmental knowledge to the people living in the area as well as sustainable development.

THE EXCHANGE

In 2012 GEF SGP Haiti initiated a South-South cooperation exchange with GEF SGP Dominican Republic to draw on their expertise in establishing a community-led micro hydro electrical system. The objective was to provide the Magazen community with a clean source of electricity and increase their opportunities by improving their livelihoods.

Between 2009 and 2010, a group of community leaders from Magazen visited the micro hydro electrical plant in Fundo Grande in Dominican Republic. The following year, an expert from the Dominican Republic conducted a feasibility study in Magazen and submitted a project proposal to GEF SGP Haiti for a grant. With support from the SGP, the project commenced in 2012 with a group of young community members from Magazen visiting the established micro hydro electrical plant communities in Dominican Republic, where they learned about power station management directly from the locals. In turn, experts from Dominican Republic visited Magazen to train the community members on how to assemble and install the system, and how to train Haitian technicians to maintain the system over time.

RESULTS AND LESSONS LEARNED

On June 15th 2016, the Magazen hydro electrical power plant was inaugurated. The system, providing 15 kW of power, was established using the waters of the Arende Merende river to ensure access to electricity for 74 families in the Magazen community. To achieve this, several community members worked without pay for more than two years. They constructed an 800-meter-long water line by laying down 192 pipes of 6" each (168 PVC SDR-26



SGP DOMINICAN REPUBLIC

and 20 iron) and 4 iron pipes of 8" in trenches. Electricity production is carried out by means of a 10 kW Pelton turbine and a 15 kW horizontal synchronous generator. The transmission of electricity is carried through a primary network with a total length of 1,600 m. For the transmission, two transformers were used – one of 15 kW and one of 25 kW. Each family receives an average power of about 150 W, which is sufficient to meet local energy needs. The power plant also provides enough electricity to run street lights for the entire community.

The micro hydro electric project relied on the direct involvement of the beneficiaries, who provided all unskilled labor and participated in all activities related to the construction of the system, with the support of the GEF SGP and the NGO Guakía Ambiente from the Dominican Republic. The project also included training on climate change, conservation of natural resources, management of micro-hydroelectric system, and basic electricity. As a result, the community members are

contributing to the achievement of SDG 13: Climate action. With improved technical and administrative capacities, they are managing their new, clean micro hydro electrical facility without external help and reducing their CO² emissions.

Additionally, to buffer the community against the effects of deforestation and to increase their opportunities to generate revenue, a 30-hectare area upstream of the micro hydro electrical plant was planted with 42,000 cocoa trees. This area belongs to 45 of the Magazen community members, but benefits the entire community by working as a carbon sink and sequestering an estimated 90 mega tonnes of CO² annually.

Since this first project, a second phase intervention was initiated in Magazen, with the aim of improving local productivity and protecting watersheds. Furthermore, other Haitian communities have requested support for new feasibility studies.

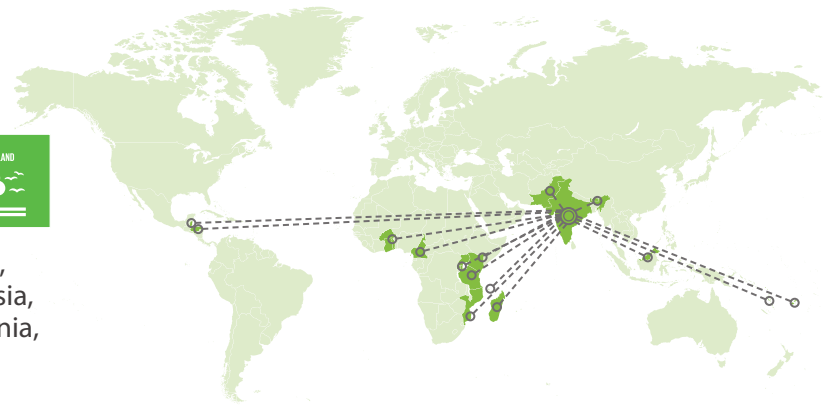


SGP DOMINICAN REPUBLIC

EMPOWERING WOMEN TO BECOME SOLAR ENGINEERS AND BRING LIGHT TO THE WORLD



COUNTRIES: Burkina Faso, Bhutan, Belize, Cameroon, Comoros, Fiji, Ghana, Honduras, India, Kenya, Malaysia, Madagascar, Mozambique, Pakistan, Rwanda, Tanzania, Togo, Uganda, and Vanuatu



CONTEXT

Communities in remote, rural areas traditionally lack access to conventional power sources. As these communities must rely on kerosene or firewood for basic energy needs, the pressure on the local environment has increased dramatically. This has had a negative impact on the global environment. It is estimated that one rural family in Africa typically burns 60 liters of kerosene a year, releasing one tonne of CO₂ in less than ten years.

Solar energy provides an alternative energy solution while simultaneously spurring progress in human development including poverty reduction, gender equality, education, and health. However, there is need to enhance the capacities of local communities to build, install, maintain, and repair solar technologies. Local women can play a significant role in addressing these issues.

THE EXCHANGE

Since 2008, the GEF Small Grants Programme has been working with Barefoot College to support “Women Solar Engineers” projects across Africa, Asia and Latin America and the Caribbean. In this collaborative effort, Barefoot College offers six-months of training to the women on their campus in Tilonia, India, while SGP provides technical and financial support to electrify their villages and maintain the equipment in the long run.



BAREFOOT COLLEGE

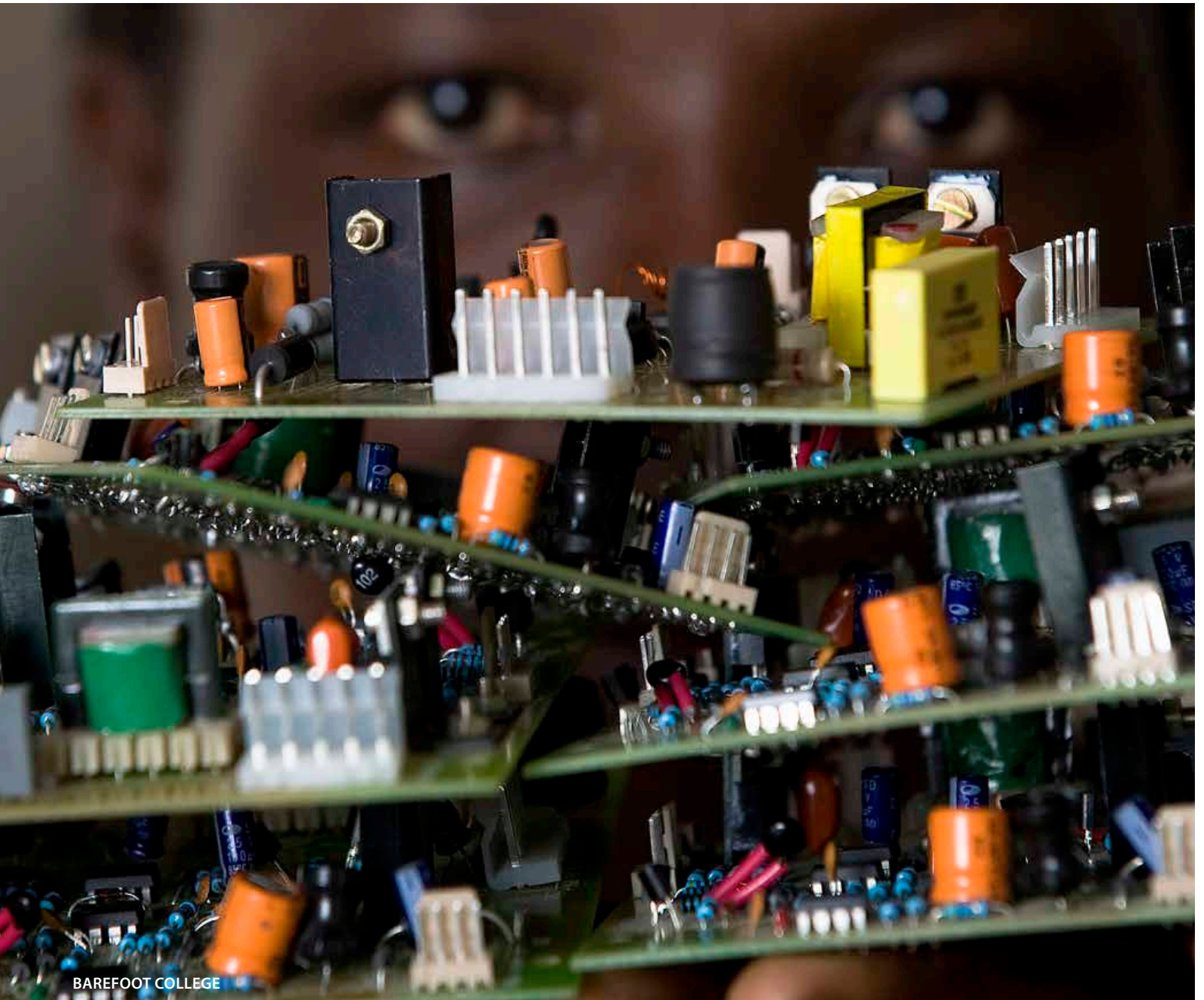
RESULTS AND LESSONS LEARNED

As a result, 71 women were empowered and achieved better social status by bringing renewable energy to more than 52 villages worldwide, benefitting more than 20,000 people. Similar initiatives have been replicated in neighboring villages and scaled-up by other national and donor programmes. The exchanges are transformational, not only in bringing about results on the ground, but also in creating long-lasting bonds and partnerships across communities and countries.

Through the South-South cooperation exchanges, the initiative advances gender equality, economically empowering women, and provides poor, off-the-grid

communities with clean, low-cost solar energy and electricity. Through this effort, the following results are achieved:

- reduced pollution, deforestation and CO₂ emissions
- empowerment of illiterate, rural women
- improved health due to the reduction of toxic fumes
- improved quality of life by freeing women's time to pursue education or income generating activities
- access to information and communication technologies with availability of electricity



BAREFOOT COLLEGE



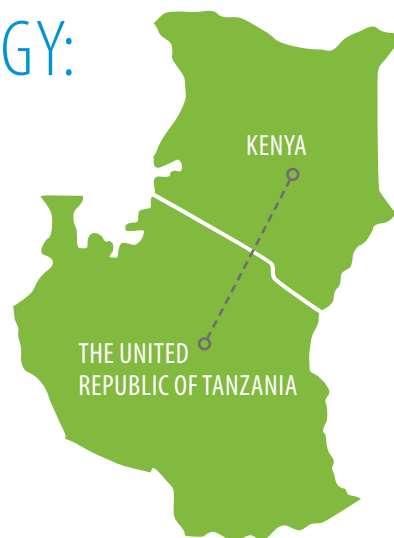
ENERGY EFFICIENT COOK STOVE TECHNOLOGY: THE UNITED REPUBLIC OF TANZANIA AND KENYA



COUNTRIES: The United Republic of Tanzania and Kenya

CONTEXT

The United Republic of Tanzania spans approximately 954,000 square kilometres in east Africa, and is home to 45 million people. The country has a rich biodiversity, with 55 per cent of the total land area covered by forests and 33 per cent of the country dedicated to protected forest areas and wildlife reserves. The agricultural sector supports 75 per cent of the population, and approximately 440,000 km² of land is under agricultural management. However, the majority of the population is of limited means, and 28 per cent of the population live below the poverty line. Most people live in rural areas, where their main source of subsistence is natural resources.



The United Republic of Tanzania has access to a range of renewable energy sources, including biomass, natural gas, hydro electrical, coal, geothermal, solar and wind, but access to electricity is limited, reaching about 36 per cent of the population.

Wood fuel accounts for up to 90 per cent of the total energy consumption. Most of the indigenous populations, including the Maasai, are excluded from access to modern energy services.

As a result of the lack of electrical connectivity, the Maasai women do their cooking indoors with open fires. Maasai homes are very poorly ventilated. Coupled with inefficient and highly polluting cook stoves, this produces unhealthy living conditions, subjecting both women and children to the effects of indoor pollution. In 2014, with support from the Small Grants Programme, the International Collaborative for Science, Education, and the Environment (ICSEE) created a project called "The Maasai Stoves Project." The project aims to improve Maasai indoor air quality by supporting the manufacturing of clean-burning and efficient stoves.

THE EXCHANGE

In July 2014, a group of Maasai women from Kenya went to the United Republic of Tanzania to visit their Maasai relatives in the district of Monduli, just across the United Republic of Tanzania-Kenya border. During their trip, the women observed the new cook stoves used by their relatives, which caused less pollution and were more energy efficient. Impressed with the new cook stove model, the Kenyan Maasai women approached ICSEE to see if the NGO could come to Kenya to help them adopt the improved model. With support from the SGP, ICSEE accepted and organized



PHILIP LANGE, MAASAI STOVES & SOLAR PROJECT

an exchange in June 2015. Seven Maasai women from the United Republic of Tanzania accompanied by three NGO facilitators went to southern Kenya to demonstrate how to install the cook stoves and train the Kenyan Maasai women to build and maintain the stoves.

RESULTS AND LESSONS LEARNED

This new stove design is improved with the installation of a chimney. This design drastically reduces household air pollution, and reduces the use of fuel wood by 60 per cent. With higher fuel and burning efficiency, each also reduces the amount of carbon emitted into the atmosphere by 3.6 metric tonnes per year. According to WHO, over 4 million people die prematurely each year from illness attributable to the inhalation of soot and particulate matter from pollution due to the open, indoor burning of solid fuels such as wood, coal, and peat. Exposure to indoor air pollution is known to double the risk of childhood pneumonia. By installing the new design, the Monduli community is contributing to SDG 3: Good Health and well-being, in addition to SDG 15: Life on land, by limiting their use of wood for fuel.

By requiring less fuel wood, installing the stoves also reduces the time spent collecting wood for fuel. The Maasai women experienced a 40 per cent reduction in the time they spent gathering wood for fuel, freeing up time to use on other activities.

Approximately 3,000 stoves have been built in the United Republic of Tanzania since the project began and now another 500 stoves have been built in Kenya. These stoves have contributed to the local economy and poverty reduction, by including many different crafts in the production and distribution of the stoves. Builders and metal workers construct the stoves, using metal and clay, and local merchants sell the stoves to potential clients. In the United Republic of Tanzania, women organized to ensure the sustainability of the cook stove technology, and in 2009 they formed a group called the Monduli Pastoralist Women's Organization. Two hundred and thirty women belong to this group, and they are all trained in installing and maintaining the cook stoves. They also share lessons and experiences in operating the stoves, and are involved in a variety of other income generating activities, including a grain storage bank and a cattle-fattening project. Fifteen women in this group make up a technical team which provides installation of cook stoves at a fee.

This organization model has been replicated in Kenya, where ten women were trained as a result of the exchange. Through a Training of Trainers initiative, the Kenyan Maasai women were trained in installing, operating, and maintaining the stoves. These women have organized themselves in a way similar to the Monduli Pastoralist Women's Organization and the work continues. The revenue generated by installing these cook stoves is reinvested in the local economy.



SGP TANZANIA

EXPERIENCE IN MANGROVE CONSERVATION AND RESILIENCE TO CLIMATE CHANGE: INDIA, INDONESIA, JAPAN, MALAYSIA, MYANMAR, NEPAL, THAILAND, AND THE PHILIPPINES



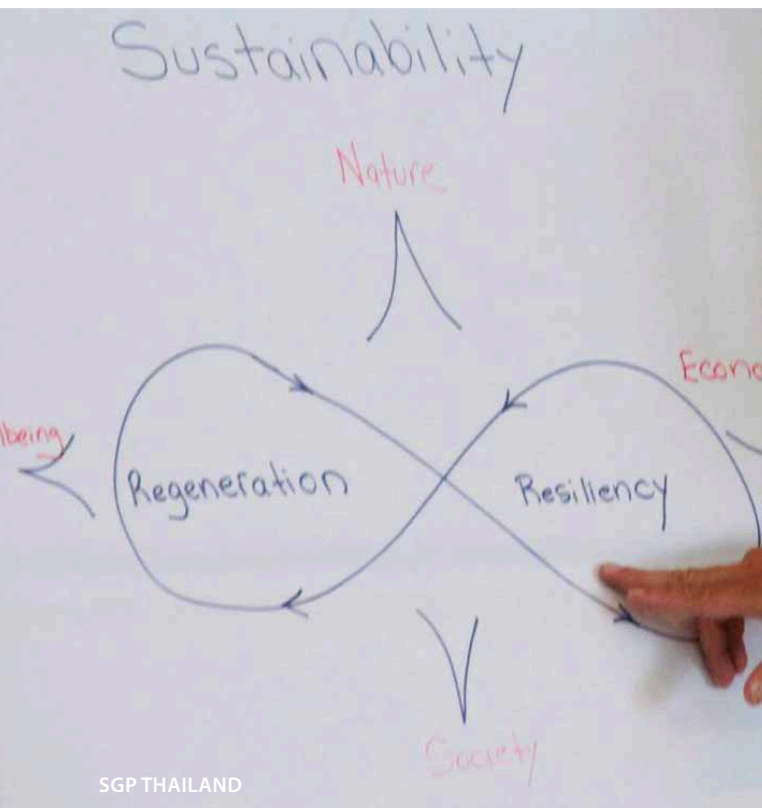
CONTEXT

In 1992, the people living in Baan Bang La village, Thailand saw that the mangrove forests they rely on for their livelihoods were under threat by investors who were interested in developing the land for economic interests. In response to this and as a means of protecting the mangroves, the community established the Community

Mangrove Forest Conservation of Baan Bang La. The community successfully opposed the attempt by investors and were able to establish their right as stewards of the mangrove, and protect against trespassing. Together they took on the responsibility of sustainably managing the mangroves as a model community forest.

In 2004, the community-managed mangrove forest worked as a natural sea wall and protected Baan Bang La and its inhabitants from the mega tsunami that devastated Thailand. Since then, the community has been active in promoting the protection and restoration of the mangrove forests of Thailand, using their own model community forest as an example of good practice. Women and youth have played a key role in driving this successful work through educational programmes, using storytelling to teach about forest conservation and coastal ecosystem services. In response to the expansion of urban middle-class housing developments on their publicly owned land, the community has worked to retain their land rights and secured a Memorandum of Understanding from the Provincial Vice Governor to establish a 192-hectare conservation area for a community managed mangrove.

As a result of the community's work in mangrove conservation, the Phuket Sea Otter – a local small-clawed sea otter – has returned to the area, after having been displaced by habitat destruction, fisheries, and tourism. The sea otter is a protected species in Thailand, and the



SGP THAILAND

local otters now function as mascots and are frequently used in promotional materials to encourage mangrove protection in other communities in the country.

The mangroves are now under community-based management, and strict laws and regulations are in place to safeguard the natural resources. Zoning laws are in place, distributing the area into three categories – strictly conservation zone; community utilities zone where the locals can harvest small, branchy wood for charcoal production, fishing activities, or small housing; and reforested zone. In each of these zones, the local community must meet certain requirements for management, such as if one tree is felled, five must be replanted. This ensures that the needs of both the community and the ecosystems are met, and contributes to the achievement of SDGs 11: Sustainable cities and communities and 12: Climate action. In 2017, the project was awarded the Equator Initiative Prize in recognition of the community's efforts to protect and conserve their priceless ecosystems.

THE EXCHANGE

In Baan Bang La, the local NGO Ao Phang-nga Coastal Fishing Community Food Security Project, together with the Japan Foundation, hosted an exchange under the “Hope and Dreams for Disaster and Environmental Education + Creativity – HANDs Project,” with support from GEF SGP. This biannual exchange programme aims to nurture a sense of community and coexistence among the peoples of Asia by supporting youth from India, Indonesia, Japan, Malaysia, Myanmar, Nepal, the Philippines, and Thailand to find creative solutions to social and environmental issues.

The main objective of the HANDs Project is to support and connect youths from Japan, Indonesia, the Philippines, Thailand, Myanmar, Cambodia, Malaysia, India and Nepal. It promotes the formation of a network among young leaders, as well as collaborative efforts among them in the field of intellectual exchange on disaster and environmental education issues, with an emphasis on artistic creativity. In 2016, the youths participated in research tours, lectures, and workshops for 20 days Indonesia, Philippines, Thailand,



SGP THAILAND

and Japan to learn about disaster and environmental education. This event was 100 per cent co-funded with generous contributions from the Japan Foundation and UNDP Thailand.

As part of the HANDs Project, the youths visited the GEF SGP project in Baan Bang La, to learn about the mangrove forest that saved the local community in 2004.

Fifty community members and local authorities' representatives, 40 HANDs fellows and their teams, and the Japan Foundation's coordinator and senior advisors, as well as advisors of HRH Princess Maha Chakri Sirindhorn's Special Task Force, came together to learn about the Bang La Community Mangrove Forest, and join in a community

dialogue on sustainable mangrove forest management and their experiences in resilience against the tsunami and other disasters, namely storm surge, sea rising, flash floods, and forest encroachment.

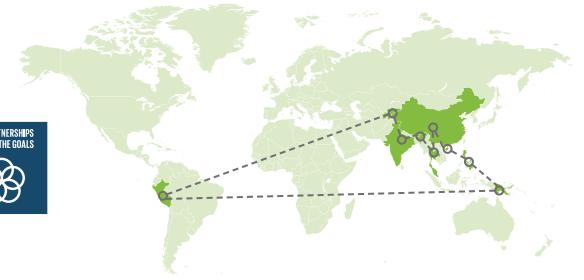
RESULTS AND LESSONS LEARNED

When the HANDs fellows return to their home country, they must create and execute action plans reflecting disaster risk reduction and prevention, based on what they learned during the trip and from GEF SGP's experience and knowledge. Seed funding will be provided to projects resulting from this exchange, under the condition of approval by the Japan Foundation Asia Center.



SGP THAILAND

STRENGTHENING THE INTERNATIONAL NETWORK OF MOUNTAIN INDIGENOUS PEOPLES



COUNTRIES: Bhutan, China, India, Kyrgyzstan, Papua New Guinea, Peru, the Philippines, Taiwan, Tajikistan, and Thailand

CONTEXT

The International Network of Mountain Indigenous Peoples (INMIP) was established and launched during the 14th Congress of International Society for Ethno-biology (ISE), held in Bhutan in June 2014. INMIP was formed to provide a global platform for capacity building of mountain indigenous peoples in establishing and implementing Biocultural Heritage Territories (BCHTs) and for sharing knowledge on climate change adaptation and the development of innovations that support resilience. Mountain systems are especially vulnerable to climate change, and many communities are already affected by irregular weather patterns. The network represents an important instrument for global South-South exchange, in support of the implementation of local, national and international biodiversity/climate change programmes and policies to strengthen sustainable management practices in mountain territories.

The INMIP network has ten participating countries: Bhutan, China, India, Kyrgyzstan, Papua New Guinea, Peru, the Philippines, Taiwan, Tajikistan, and Thailand. Members of the network include: Asociación Andes, Peru; Center for Chinese Agricultural Policy, and Farmers Seed Network, China; Fresh Produce Development Agency, and University of Goroka, Papua New Guinea; Mountain Societies Development Support Programme, Tajikistan; Non-Timber Forest Products Exchange Programme, Philippines; Pgakenyaw Association for Sustainable Development, Thailand; Public Foundation Bio-Muras, Kyrgyzstan; Research Center of Humanistic Innovation and Social Engagement, Taiwan; Potato Park, Peru; and the Kenya Forestry Research Institute.

Recognizing the long-term role of INMIP in capacity building and South-South exchange to secure biocultural territories of mountain indigenous peoples, GEF SGP has been one of its key partners since its establishment in 2014. The collaboration with INMIP on participatory and multi-sectoral development and the establishment of an indigenous mountain adaptation and global South-South exchange was supported with funds provided by the Global Support Initiative to Indigenous Peoples and Community-Conserved Territories and Areas (ICCAs), delivered through the GEF SGP.

Implemented in partnership with the International Institute for Environment and Development (IIED) and Asociación Andes, the GEF SGP project supported: (i) increased awareness and the development of INMIP; (ii) a practical set of tools and procedures to exchange South-South experiences between mountain indigenous peoples, focusing on the role of ICCAs in the protection of biological and cultural diversity; (iii) capacity building and networking of indigenous peoples and local communities (IPLCs) living in mountain environments, local CSOs, and other relevant stakeholders to implement community-based adaptation to climate change; and (iv) collaboration with government and relevant agencies for the exchange of positive experiences and knowledge of sustainable mountain development planning at the local and national level in support of the Convention on Biological Diversity (CBD) 2020 Aichi targets 11 (protected and conserved areas), 14 (ecosystem services), and 18 (traditional knowledge).



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THE EXCHANGE

For the exchange of knowledge at the global level, INMIP uses diverse horizontal learning methods including “walking workshops” and “biocultural festivals” – a participatory and transdisciplinary format that aims to generate cross-fertilization between knowledge holders and systems. The approach has been successfully applied in four international learning exchange events. GEF SGP has played a central role in the first international South-South exchange, held at the International Congress of Ethnobiology in Bhutan in 2014; the third exchange hosted at the Stone Village in Yunnan, China, in 2016; as well as during the fourth global exchange held at the Potato Park in Pisac, Peru, in April 2017.

For the third INMIP international exchange under the theme “Biocultural Adaptation in Mountain Communities” and held in China in May 2016, GEF SGP China was a key partner involved in mobilizing civil society partners from several GEF SGP-supported projects within Yunnan, as well as elsewhere within China. The learning exchange included: (i) a bilateral walking workshop and ‘biocultural heritage

landscape appraisal’ as the basis for establishing a Biocultural Heritage Territory like the Potato Park in the Stone Village; (ii) a workshop involving 18 communities from five countries, focusing on traditional water management systems, participatory plant breeding, out-migration and biocultural products and services; and (iii) a ‘policy dialogue’ with participants from the workshop on ‘Landscape Approaches for Community Sustainable Development in a Time of Climate Change’.

The fourth INMIP Horizontal Learning Exchange under the theme “Resilient Biocultural Landscapes” was held in Peru in April 2017 and brought together over 100 indigenous peoples (representing 39 mountain communities from 10 participating countries), who were joined by 26 representatives from the civil society, research and academia, government and donor organizations.

The learning and training took place as participants walked through the landscape, and visited five different Potato Park communities. The training sessions consisted of four separate modules outlined below.

In the first module, participants learned about community planning and the Potato Park governance systems, which are guided by *ayullu* – a concept in which community well-being depends on balance and reciprocity between the sacred, wild, and domesticated realms. Each country team shared their own interpretations of *ayullu*. In the *second module*, Potato Park technicians explained their research and data gathering methodology for the park, including through a session on livelihood creation and biocultural products such as herbal tea, and ‘potato shampoo’. At the end of each year, 10 per cent of the Potato Park collective trademark revenues are placed into a community benefit-sharing fund, acting as a safety net for individuals in need of support. *As part of the third module*, each country team presented “biocultural maps” based on their country context, explaining how these would be used to develop biocultural landscape products and services. Participants also learned about the Potato Park’s repatriation agreement with the International Potato Center, a global CGIAR center, which has returned 410 native varieties collected from the area. *In the final wrap-up*, participants discussed how to apply the results of the global South-South exchange in establishing their own biocultural landscapes, and ensuring indigenous peoples’ empowerment in their respective countries.



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RESULTS AND LESSONS LEARNED

As a result of the INMIP workshop in Peru, each of the indigenous mountain communities from the ten participating countries shared valuable experiences of their biocultural landscapes and practices. Based on the experience of the Potato Park and Asociación Andes, by the end of the workshop participants were able to identify core elements, tools and procedures for the establishment of a Biocultural Heritage Territory, as one expression of the category of ICCAs as recognized by the CBD at the international level, in their community and country contexts. Discussions were also held on the possibility of establishing a community monitoring and database system for the 2020 CBD Aichi Targets and 2030 Sustainable Development Goals.

The Potato Park learning exchange was preceded by a one-day multi-stakeholder dialogue on "Indigenous and modern knowledge systems: Challenges and opportunities for the well-being of mountain communities towards 2050."

During the event, the Vice-Minister for the Environment in Peru officially announced that the Potato Park would be the first area to be legally recognized under Peru's new law on "Agrobiodiversity Zones", representing an important precedent and considerable achievement in the recognition of biocultural heritage territories at the national level.

Building upon the earlier "Stone Village Declaration" that called in 2016 for preventing the rapid loss of traditional knowledge and recognized the important role of crop diversity in maximizing productivity in heterogeneous mountain environments, another outcome from the South-South learning exchange was the 'Potato Park Declaration.' The Declaration called for action amongst indigenous peoples and traditional farmers for the preservation of their BCHTs and traditional resource management systems, as well as for national governments to implement policies that support indigenous knowledge systems.

PREVENTING DESERTIFICATION BY USING RENEWABLE AND ENERGY EFFICIENT TECHNOLOGIES: CHILE, EL SALVADOR, HONDURAS AND URUGUAY



CONTEXT

The Small Grants Programme, operational in Chile for 18 years, has developed a set of climate change technologies in collaboration with local Chilean communities and grantees. These technologies include energy efficient stoves called “cocinas magica” or magic pots, solar ovens, solar dryers, rocket and mixed clay ovens, among many others. To go along with these, traditional recipes have been modified to work with these technologies with an emphasis on nutritional value, helping improve the health of communities.

In 2013, SGP Chile and El Salvador began working on a South-South cooperation project on energy efficient and renewable technologies to combat land degradation. Together, SGP Chile, Uruguay and El Salvador applied for funding from UNDP Chile in coordination with Canelo Corporation from Chile, to support South-South cooperation exchange.

THE EXCHANGE

In June and July 2015, the NGO El Canelo from Chile, together with professionals from the UNDP-EU programme to combat desertification, came to Uruguay to train three communities on the construction of key renewable technologies: energy efficient cook stoves called magic pots – a container that retains the heat of the pot so it continues to cook without being on the stove, thus saving fuel or firewood; solar ovens; and dryers. The training was supported by SGP GEF UNDP El Salvador and Uruguay.

To document and learn from the exchange, a Uruguayan NGO CEUTA, which also develops socially appropriate technologies, was invited to participate in the training workshops, together with the communities. CEUTA documented the activities via video and created manuals on each technology for further dissemination. A similar exchange between Chile and SGP El Salvador took place in October 2014, and benefitted four communities.

Another exchange was held in July 2014 in Chile, to learn how to combat desertification and about the important role that energy efficient, renewable and socially appropriate technologies play in reducing deforestation and



SGP EL SALVADOR



SGP URUGUAY - COMMUNITY MEMBERS BUILDING SOLAR OVENS AFTER THE EXCHANGE.

desertification. Two representatives participated in this exchange, supported by the Chilean Fund, Programme to Combat Desertification and Drought.

Later a third exchange was financed by the Chilean Fund, in partnership with UNDP Chile, the NGO El Canelo and ten communities of the municipality of San Luis La Herradura, in El Salvador.

RESULTS AND LESSONS LEARNED

As a result, 40 families from the rural community of Los Furtado in Uruguay learned how to create the four technologies, while 33 families from Uruguay's Migueles Community learned how to build energy efficient cook stoves and solar dryers. The solar dryers are used by a group of women to dry native aromatic and medicinal herbs, which they are marketing. Another exchange took place at an organization that works with pregnant teenagers and mothers in situations of high social vulnerability, in which 22 teenagers learned how to build the magic pots. Using this technology, families reduced the energy used for cooking by nearly 50 per cent. All of these technologies continue to be used by the three communities, and now a women's group is seeking to further replicate the experience with solar dryers. The magic pots technology is also being replicated with funding from the Ministry of Industry and Energy and the Ministry of Social Development; 100 young people have built these pots for 180 families.

Meanwhile, in El Salvador, 180 families from San Luis La Herradura, Suchitoto, Puerto El Triunfo and La Pirraya in El Salvador were trained in the construction and maintenance of these technologies, and how to use them for cooking. These simple, but effective cooking appliances are manufacturable at a very low cost, with locally available materials. Their introduction offers renewable energy to low income communities while reducing deforestation and pressure on the local ecosystems.

Following on these exchanges and in view of the long-standing cooperation between SGP El Salvador and SGP Honduras, SGP Honduras became interested in transferring the technologies to their own communities. To this end, SGP Honduras identified 31 women from the El Venado community, who received training from technicians from the NGO El Canelo, the Chilean Government and the National Coordinator from SGP El Salvador.

The impact of these new technologies on health, the environment, and income contributes to the achievement of the SDGs by saving on fuelwood consumption, reducing deforestation, preventing exposure to wood smoke, and reducing respiratory diseases in children and the elderly. This in addition to the time saved in gathering fuelwood and preparing food, which can be dedicated to other activities such as education, family time, and rest. Thanks to the project activities and the installation of the new oven technologies, the average savings in fuelwood for cooking rice, beans, and maize amounts to USD 33.35 per month for a family of four.

CONCLUSIONS AND LESSONS LEARNED

The active leadership of communities at the local level is a key aspect of achieving the Sustainable Development Goals, as highlighted in the 2030 Agenda for Sustainable Development. By generating highly impactful, sustainable, and environmentally friendly solutions to address the development challenge they face, local communities can accelerate the achievement of the SDGs in an equitable and participatory manner.

The Small Grants Programme has been working with local communities, CBOs, CSOs, and NGOs since its inception in 1992 and its grantees, facilitated by its global network, have been cooperating across borders for several years. In recognition of the unique perspective of local communities in tackling issues that are specific to their situation and using available capacities, SGP decided to make South-South cooperation a priority under the “**South-South Community Innovation Exchange Platform**,” a key initiative in its ongoing efforts. Through this new initiative, the programme makes a targeted effort to support South-South and triangular cooperation by facilitating peer-to-peer knowledge exchanges and technology transfer.

The ten case studies profiled in this publication serve as examples of how South-South and triangular cooperation can create synergies that go beyond the local communities in which they were created and leave lasting, global impacts for the benefit of people around the world. Some of the solutions shared in this publication have also been contributed to United Nations Development Programme’s SSMART for SDGs platform and are available to communities or governments looking for tried and tested solutions to sustainable development issues.

Based on SGP’s experience in South-South and triangular cooperation, the following conclusions can be drawn:

- Bringing communities and government officials together to discuss common challenges and to share solutions that have worked can lead to successful uptake and replication.
- By creating networks and establishing a community of practitioners to join in the exchanges, the impact of the exchange can be enhanced and sustained in the long-term.



IIED



BAREFOOT COLLEGE






- Successful exchanges rely on concrete action plans, strong leadership, and sustained financial and technical support to implement the solutions learned in the exchange.
- Peer to peer exchanges enable participants to learn a solution, while absorbing the lessons necessary to avoid the mistakes made by the first implementers of the solution.
- South-South cooperation exchanges are horizontal partnerships, which are based on trust, a mutual understanding of the challenges, a desire for mutual learning, and the incentive to apply what has been learned.
- South-South cooperation takes time. Long-term support is crucial to ensure successful technology transfer and replication of good practices.
- South-South cooperation is important for developing a community solution-based platform that enables replication and scaling up of good practices creating transformational change in the society and the economy.

SGP, as a global programme, is well-positioned to promote South-South Cooperation at the local level across countries, and to connect local action with national development plans by involving stakeholders at all levels. SGP's established networks can connect National Coordinators and grantees around the world, providing a framework of trust and mutual understanding conducive for effective exchanges.

SGP's investment in South-South and triangular cooperation is a demand-driven effort to encourage scaling up of good environmental practices and sustainable development solutions across borders and regions. As demonstrated by the successful exchanges featured in this publication, there is clear demand for the innovative and simple solutions developed by communities, which often are low cost, utilize local materials, and are easy to maintain. From the replication of sustainable seaweed and organic farming practices, to the adoption of solar technologies, the sharing of local solutions to common problems is increasingly lighting the way towards the achievement of the SDGs, to the benefit of planet Earth and its ecosystems as our common home.

ANNEX

INFORMATION ON SGP PROJECTS RELATED TO THE CASE STUDIES FEATURED BY THIS PUBLICATION

 COUNTRY	 GRANTEE	 SGP CONTRIBUTION	 CO-FINANCING	 DATES
BARBADOS	Organic Growers and Consumers Association (OGCA)	US\$45,785	US\$29,635	June 2014 – December 2017
BELIZE	Placencia Producers Cooperative Society Limited	US\$100,000	US\$212,729	September 2013 – July 2017
BENIN	Culture, Education et Recherche pour le Développement au Bénin (CERD-BENIN)	US\$30,000	US\$23,000	December 2013 – March 2016
CUBA	Comunidad El Capón	US\$44,751	US\$91,000	–
EL SALVADOR	Asociación de Desarrollo Comunal Caserío El Salamar ADESCOCASAL	US\$50,000	US\$117,000	April 2015 – December 2015
HAITI	Mouvman Peyizan Merann	US\$48,536	US\$170,000	October 2012 – June 2016
THE UNITED REPUBLIC OF TANZANIA	International Collaborative for Science, Education and Environment (ICSEE)	US\$27,756	US\$17,318	January 2014 – December 2015
THAILAND	Ao Phang-nga Coastal Fishing Community Food Security Project	US\$13,435	US\$29,591	December 2015 – May 2017
PERU	Asociación Andes (with support from IIED)	US\$150,000	US\$150,000	2017-2018





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