







CLIMATE SOLUTIONS FOR SUSTAINABLE DEVELOPMENT





INTRODUCTION

Climate change remains a defining challenge of our time, despite recent progress in the development of new low-carbon technologies and growing momentum for climate action. The concentration of greenhouse gases in the atmosphere continues to rise, increasing the impacts of climate change felt around the globe. The Global Risks Report by the World Economic Forum highlights that climate change, combined with biodiversity loss, is the primary driver of many of the top global risks to society, including water crises, involuntary mass migrations, natural disasters and extreme weather events. These problems are exacerbated by additional compounding factors relating to the COVID-19 pandemic, food security and conflicts, which undermine development efforts and impact most severely the poor and vulnerable, who rely on natural resources for their livelihoods.

To address these challenges to meet short-term needs and achieve long-term transitions, a radically different, holistic approach is needed, involving governments, private sector and civil society. Tailored community solutions are key and must be supported, namely ones that are grounded in local realities and based on an integrated approach including low-carbon transformation, conserving natural resources and achieving economic and development objectives. The Small Grants Programme (SGP), a corporate programme of the Global Environment Facility (GEF) and implemented by the United Nations Development Programme (UNDP) on behalf of the GEF Partnership, has been providing support for these crucial community initiatives for 30 years, and is currently active in 128 countries.

Climate change is not only an unprecedented challenge, but it also presents an unprecedented opportunity to unlock massive economic and social benefits through climate action that can help to achieve the Sustainable Development Goals (SDGs). Smart investments in sectors and targets identified under the Nationally Determined Contributions (NDCs) can stimulate near-term economic recovery, set economies on trajectories to lower emissions and improve climate resilience over the longer term.

Recent studies have found that bold climate action could trigger at least US\$26 trillion in economic benefits worldwide by 2030, create more than 65 million new jobs and avoid 700,000 premature deaths and generate other co-benefits. Early adaptation investments offer a 1:3 rate of return over the next decade, and sustainably managed forests could create \$230 billion in business opportunities and 16 million jobs worldwide by 2030.

SGP supports community and non-governmental organizations in providing access to clean energy, sustainable transport, improvements in energy efficiency, forest conservation and land-use practices. In its programming SGP is practising an integrated approach aiming to achieve these multiple benefits. In addition to reducing emission and achieving global environmental benefits, SGP climate-change interventions help develop capacity of local communities and improve their livelihoods, empowering them to become more resilient to severe climate events and variability.

SGP'S APPROACH

The UN system has a critical role to play in helping countries meet the goals of the Paris Agreement and achieve the SDGs. The Paris Agreement provides a framework for all countries to take action to tackle the climate crisis. The UN agencies support accelerating NDC implementation, developing more ambitious next-generation NDCs and mobilizing society to contribute to and call for climate action. In coordination with other agencies, UNDP is scaling up its support by leveraging the UN's largest climate portfolio while accessing and delivering multilateral, bilateral, vertical, and other funds in 136 countries. At the heart of the UNDP approach are integrated solutions that tackle energy, biodiversity and food security crises together.

As a signature programme under the UNDP Local Action Service Offer, and a trusted partner on the ground, SGP is uniquely positioned to contribute to these critical global efforts in galvanizing climate action, while setting up the infrastructure to transition to a zero-carbon economy, providing energy access, championing nature-based climate solutions and improving livelihoods for poor communities. Investing in local solutions and the mobilization of civil society are also key for raising the ambition of NDCs, galvanizing support and ensuring their

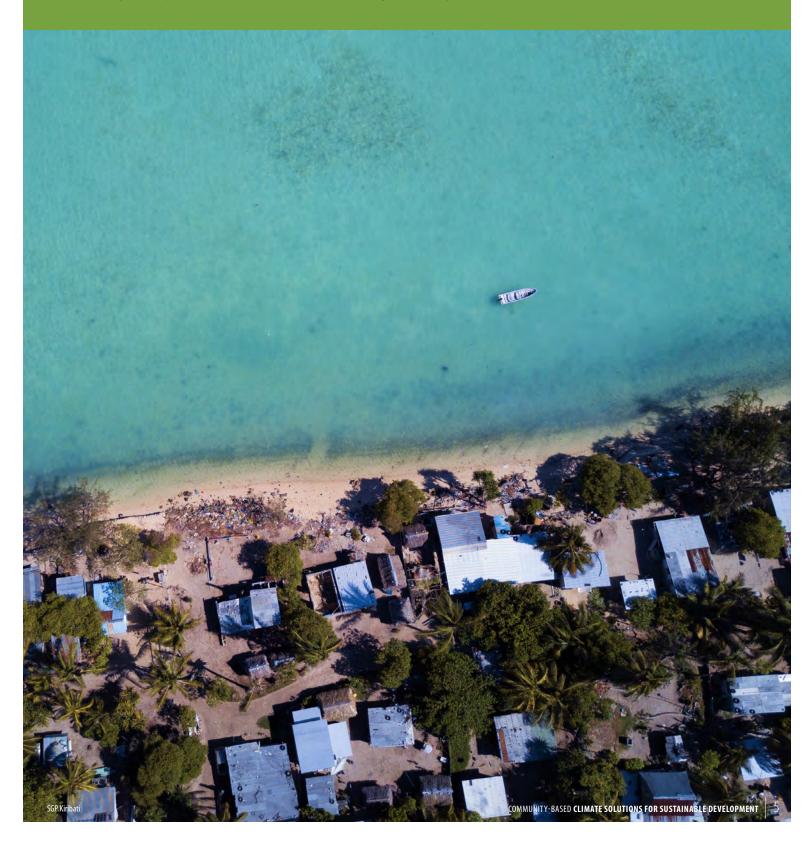
SGP Jamaica

implementation. SGP supports low-cost, bottom-up, and integrated energy solutions with high potential to reduce carbon emissions. These community-based solutions go beyond the energy sector and aim at increasing climate resilience, reducing poverty, enhancing gender equality and achieving the SDGs. Such solutions will continue to form a crucial part of decarbonization and transitioning to a zero-carbon economy, while laying the groundwork of new infrastructure at the community level, addressing energy service needs of rural, urban and remote communities and entrepreneurs. SGP also supports energy transition away from fossil fuels through demonstration of renewable and energy-efficient technologies, providing socio-economic benefits that improve livelihoods of vulnerable and poor communities. The climate crisis cannot be addressed in isolation from nature, biodiversity, water and agriculture and SGP is investing in community-driven nature-based solutions, increasing climate resilience, food security and adaptive capacity of the communities in addition to reducing emissions of greenhouse gases.

Working closely with the communities, SGP identifies and supports local innovations, which are then amplified with development partners including development banks, bilateral agencies, governments, the private sector, and other institutions. In many countries, SGP's interventions have achieved scale as well as political and economic impact, as they were widely replicated at the national level. The alignment with the NDCs has helped bring SGP interventions to scale and integrate them into national energy, climate, and other relevant policies. In many countries SGP supported national regional and local dialogues involving civil society organizations (CSOs), governments and the private sector, helping to initiate new partnerships and inform national policies. Larger national initiatives provide a platform for scaling up SGP work as well as co-financing and policy advocacy. In many countries, SGP is also developing strong partnerships with the private sector to co-finance and eventually commercialize successful interventions, shifting them from pilot innovations to the mainstream.

THE FOCUS OF CLIMATE CHANGE INITIATIVES UNDER SGP'S CURRENT PROGRAMMING INCLUDE:

- Supporting Implementation of Paris Agreement and the NDCs
- Generating co-benefits and contributing to the SDGs
- Investing in innovative local solutions
- Capacity development for climate action and mobilizing civil society



GLOBAL PORTFOLIO AT A GLANCE

Since its inception in 1992, the GEF Small Grants Programme (SGP) has supported more than 27,300 projects in 136 countries providing grants totalling \$752.9 million. In addition, \$919 million have been mobilized to co-finance these community-based SGP projects at the country level.



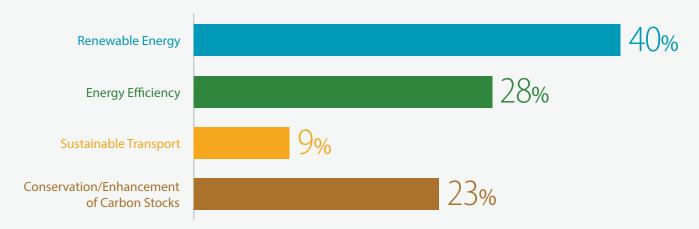
Of these projects, 5,490 supported community-based climate solutions, investing a total of \$162.6 million, leveraged by \$209 million of co-financing. The projects were implemented by civil society and community-based groups, including Indigenous Peoples, women, youth, and persons with disabilities.



CLIMATE CHANGE PORTFOLIO KEY RESULTS: 2021-2022

In fiscal year 2022 (1 July 2021 – 30 June 2022) 258 climate change projects were completed and 156 new projects were approved for grant funding, representing \$4.8 million under the climate change portfolio. A majority of projects in the portfolio focus on application of low-carbon technologies and forest conservation.

Distribution of projects 2021-2022





258

Total number of projects completed



39

Number of country programmes that addressed community-level barriers to deployment of low-greenhouse gas technologies



94

Number of typologies of community-oriented, locally adapted energy access solutions with successful demonstrations, scaling up and replication



83,786

Number of households supported with energy access co-benefits





SGP COMMUNITY-BASED CLIMATE SOLUTIONS

This publication provides an overview of initiatives under SGP's climate change portfolio which fall under the following thematic areas:

- Renewable energy access for improved livelihoods
- ② Forest conservation for carbon storage and livelihoods
- ③ Civil society mobilization in support of NDCs
- 4 Investing in youth empowerment
- **5** Mainstreaming resilience
- 6 Fostering innovation and knowledge exchange

Several project examples from around the globe are presented to showcase achievements and best practices in developing community-based, low-carbon, climate-resilient solutions. These examples demonstrate the importance of investing in vulnerable populations including Indigenous Peoples, youth, women, persons with disabilities affected by climate change. They highlight SGP's commitment to continue investing in and working with partners as a global catalyst to empower local communities using an inclusive and participatory approach that deliver tangible climate solutions, enhanced community ownership of projects, and formulate synergies with a range of stakeholders.

(1)

Renewable energy access for improved livelihoods

Energy access and transformation remain a key area for investment, as expanded access to electricity and clean cooking improves productivity, reduces poverty and improves health, with the largest benefits being felt by women and children. SGP projects follow an integrated approach that emphasizes community ownership, culturally and economically appropriate solutions, and strong linkages to productive activities. These strong connections to community priorities and livelihoods make renewable energy investments more sustainable and less risky. Women play a key role in energy transition, especially in interventions related to provision of cooking fuel and supply of electricity of family needs. Youth is also an important group playing an active role and benefitting from job and learning opportunities created by energy access.

In the Small Island Development States (SIDS) investment in small-scale, off-grid energy access solutions at the community level is often the most relevant and feasible way to increase resilience and adaptive capacity as well as to create economic opportunities. SGP works with the SIDS in the Asia and Pacific, Caribbean and Africa regions to help underserved populations develop practical and cost-effective solutions to access renewable sources of energy that enable productive activities.

In **Vanuatu**, SGP supported Tariwa Taro Association to implement the Vanuatu National Energy Road Map 2016-2030. The rural villages on the remote islands are faced with energy poverty and limited economic

opportunities. The project focused on households in remote rural communities on the outer islands of Vanuatu, where poor lighting limited women entrepreneurs' ability to produce handicrafts. The project reached rural villages that did not have electricity and improved their home lighting, with solar lighting systems in more than 10 villages covering 103 households, with 85 homes belonging to women handicraft makers and 18 homes with people with disabilities. Five local youth were part of the technician team in the installation and maintenance of the solar power system, under the supervision of solar engineer experts. All the homes on the island of Futuna now run on solar power. To replicate the project's impact, the civil-society grantee has been approached by the government to work on home lighting on three more islands in the province, with the government's budgetary support.

In **Cabo Verde**, with the support of SGP, Associação de Desenvolvimento Comunitário de Monte Trigo ensured access to sustainable energy to increase the income of local communities in Monte Trigo, Santo Antão Island. The project installed platforms to support solar panels and a 3m³ water tank for ice production. The grantee also obtained two ice-making machines with the capacity to produce 250 kg of ice per day, and a photovoltaic system with a capacity of 15 kilowatts peak to power the ice-production units. Between April and November of 2020, the ice factory produced 33,342 kg (average of 252 kg per day with 13 hours of daily operation) of ice for local fishermen. It generated approximately







Indigenous Peoples have been contributing to nature conservation in diverse and sustainable ways for centuries. However, their lands and livelihoods are particularly vulnerable to the impacts of climate change due to: the remoteness of their territories; exclusionary and discriminatory policies in many cases; and insufficient access to financial and technical resources to adequately develop adaptive capacities. SGP collaborates with Indigenous Peoples around the globe to establish renewable energy projects that help alleviate socio-economic stressors, strengthening community resilience and ensuring a future for their traditional ways of life.

\$3,600, which was more than 50% more than a similar period before project implementation. Twenty-three direct project beneficiaries, mainly women, also benefitted from a series of capacity building workshops on maintenance and operation of the ice units and of the photovoltaic system, as well as training on planning and starting a new business. The entire community of Monte Trigo, namely 57 families benefitted from this project.

In **Honduras**, SGP supported La Red de Desarrollo Sostenible- Honduras in the construction of a dam and a hydro-electric power station to improve the living conditions of families in the Indigenous Lenca group in two villages located in the municipality of San Francisco de Opalaca. Community consultations were carried out following the guidance on free prior and informed consent (FPIC) based on an inclusive approach with respect for cultural and religious beliefs such as La Compostura: the Lenca's belief in Mother Earth's ability to intervene. Reliable energy access was identified as the primary obstacle to addressing a multitude of social and economic challenges that threatened the community's livelihoods and protection of their natural resources. In response, a dam, a mini hydro-electric plant with a capacity of 60 kilowatts, and a distribution network were built that benefits 186 homes. two monasteries and two schools. Community members received training to become certified hydro-electric system operators while others gained skills to develop business plans and learned administrative processes that promote accountability. Women and youth also promoted project visibility through information and communication technologies and participated in educational campaigns that aligned spiritual connections with conservation

initiatives. Ten additional Lenca communities have since been organized to lead the development of similar projects in support of Indigenous autonomy in clean energy.

In **Belize**, the remote villages of Machakil Ha and Graham Creek in the Toledo district lie far from the national electricity grid, and costs of connecting to it are prohibitive. With SGP support, a solar-power technology hub called the Belize Power Connect Limited (BPCL) was formed by the CSO Plenty Belize and with the leadership and technical expertise of three Indigenous Mayan women. Prior to project implementation, these women travelled to India and received extensive training on solar technology at the Barefoot College. As a centralized hub and registered energy supplier, BPCL provides the Indigenous communities of Toledo with solar system parts, supplies, tools, training and technical expertise. As a result of the project, 55 homes now have solar lighting and phone charging systems. In addition, each village has one or two systems that can support a small shop with the ability to run a refrigerator or a freezer and a medium-size power system at each primary school. The villages also installed solar water pumps providing potable water and improving water access. Each village formed a power board to oversee operations and collect small monthly user fees to make the village solar system financially sustainable. Additionally, capacity building workshops were held for community women to learn from the three solar technicians and make them able to make the best use of their solar systems and sustain them into the future. In addition to providing energy access, the project actively supported women in non-traditional roles. As an empowered woman, each Barefoot Engineer is a powerful role model for the young Mayan women of Toledo and beyond.

Porest conservation for carbon storage and livelihoods

The importance of forests for the health of our planet and in addressing the interlinked crises of climate and biodiversity should not be overlooked. Healthy forests play a vital role helping to regulate global temperatures by absorbing and sequestering atmospheric carbon dioxide. If allowed to regenerate, forests could absorb up to 23 percent of global carbon emissions every year, thus making them a key nature-based solution towards achieving targets under the Paris Agreement. On the other hand, deforestation and unsustainable agriculture and land use are currently contributing up to 24 percent of global carbon dioxide emissions.

Conservation and enhancement of carbon stocks through sustainable forest management and land use is an important area for SGP, which allows communities to develop locally appropriate forest conservation approaches contributing to increased resilience and food security. SGP projects focus on restoration and preserving carbon storing ecosystems, while emphasizing food security, livelihoods and community ownership. Alongside other relevant stakeholders, Indigenous Peoples and forest-dependent communities are at the centre of many efforts to reduce emissions from forested lands, while supporting the participation and inclusion of multi-stakeholders across all levels to enhance national strategies in sustainable forestry governance. SGP works with rural communities to facilitate the development of improved agricultural

methods, streamlining access to market value-chains, and creation of viable economic alternatives such as non-timber-forest products.

In Nigeria, SGP supported the Centre for Human Settlements and Sustainable Developments (CHUSSDEV) to implement a project in the Oke Ogun area of Oyo state, aiming to address deforestation and improve livelihoods through enhanced methods of shea butter processing. Historically, this region was actively engaged in agroforestry at the peak of the shea butter industry in the early 1970s. However, the laborious nature of shea butter processing saw its gradual abandonment in favour an easier income source, namely charcoal production. The project introduced a processing method for shea that reduces discharge of toxic by-products into surface water by more than 35 percent. A total of 509 people (of whom 85 percent were women) were trained in the processing of high-grade shea butter extract, and four women's groups were organized into a cooperative to enhance business branding. More efficient marketing strategies of shea products resulted in improved income, aesthetics and less waste discharge into the environment. To prevent the shea butter waste from polluting the river, the residue was used to produce biomass briquettes by adding charcoal dust, offering a sustainable alternative for cooking stoves. The production of biomass briquettes from shea residue has significantly reduced pressures on the existing wood lots, that were





For centuries, Indigenous Peoples and local communities have played historical and cultural roles in the sustainable management of forests. The international initiative to reduce emissions from deforestation and forest degradation (REDD+) was developed to mitigate climate change through safeguarding the world's forests. Indigenous Peoples and forest communities – as custodians of large forest areas — are crucial stakeholders for the success of REDD+. The lands and livelihoods of Indigenous Peoples and forest-dependent communities have been particularly impacted by the effects of climate change, yet their voices have typically been absent from proposed resolutions. An estimated 800 million people globally rely on forest resources for their livelihoods; it is therefore imperative that these stakeholders be included in climate interventions that focus on forests. In 2014-2017, SGP implemented a pilot grassroots initiative called Community-Based REDD+ (CBR+) in Cambodia, the Democratic Republic of the Congo, Nigeria, Panama, Paraguay and Sri Lanka. Each of the six countries developed their own national strategy to ensure that they complement existing REDD+ readiness processes and approaches. Primary themes

of projects included agroforestry and other sustainable agricultural practices, development of economic alternatives to forest resources, community forest management planning and mapping, educational campaigns, forest crime prevention, and REDD+ monitoring. In total, 123 community projects were implemented through grants that supported over 40,000 forest community beneficiaries and nearly 120,000 hectares of combined forest areas allocated under community tenure, protected as preserves, reforested and rehabilitated.

Since the initiative's conclusion, each country has modified their national REDD+ strategies to be more inclusive and responsive to the needs and legal rights of vulnerable populations whose livelihoods depend on forests.

CBR+ provided unique lessons and insights by offering opportunities to incorporate and learn from the traditional knowledge and experience of Indigenous Peoples and local communities. The pilot programme offered an approach allowing community and government stakeholders to work together and align efforts on forest conservation across all levels.

previously cut down indiscriminately to make charcoal. In addition, 7,027 shea seedlings were distributed to local farmers, to encourage reforestation and improve the local ecosystem. CHUSSDEV also donated 100 bags of shea seeds as a start-up grant to finance the maintenance of the equipment and provide seed capital to farmers to enable them to access loans. In addition, briquette production centres were established in three communities and managed by women. The project also introduced biomass energy from briquettes to local Ibadan and Lagos markets. In all, 213 young women and men were trained on the production of biomass briquettes and 24 families purchased subsidized briquette stoves.

In **Colombia**, SGP supported Junta de Acción Comunal de la Vereda San Carlos del Corregimiento de Cuatro Esquinas, in the rural area of the municipality of Túquerres near the border with Ecuador, to implement a capacity building project aimed at avoiding deforestation, restoring forests and strengthening conservation of the forest reserves.

The project proposed to restore 2.5 hectares in a micro basin of one of San Carlos' forest reserves, by planting 15,000 seedlings of native species that support water retention. The organization established a forest nursery, in collaboration with the local community of farmers who also actively participated in nature conservation training events. The community's commitment and collaboration led to the expansion of the restored area to 5.5 hectares, a little more than twice the original goal. Furthermore, \$13,323 was raised through contributions from users of the aqueduct and the Indigenous Council of Túquerres to expand the aqueduct to provide 300 families with water supply. On a regional scale, the project demonstrated to public and private entities that participatory governance in reforestation and restoration processes to protect water can be highly successful. At the national level, the Ministry of the Environment has integrated the results achieved under the project and other SGP projects at the landscape level into the goals of the National Strategy for Restoration.

3

Civil society mobilization in support of NDCs

The Paris Agreement offers a collective framework for all countries to take action to tackle the climate crisis. Each country can invest in accordance with their national pledge, the NDCs. These define and advance sustainable development pathways and priorities of the country. UNDP supports the countries in enhancing their NDCs and turning commitments into concrete actions. SGP works to support this effort at the local level by aligning and informing NDCs with local priorities, thereby amplifying the impacts of local action and ensuring active participation of civil society. SGP interventions are contributing to NDC implementation by investing in scalable local solutions, fostering policy development and contributing to social mobilization.

In 2021, **Kyrgyzstan** submitted its NDC report with updated commitments to climate change mitigation. In order to mobilize civil society and make their voices heard throughout the development of the NDC report, the Aarhus Centre implemented a project that helped collect inputs from the civil society. More than 4,000 people, the majority of whom were women and youth, attended meetings and round table discussions on the NDCs and its specific sections across three provinces and the nation's capital. As a result, experts of the project collected more than 100 recommendations that were presented to the NDC Work Force under the Government of the Kyrgyz Republic.

Thirty-three civil society representatives received training on monitoring, reporting, and verifying climate change mitigation. This would allow civil society to continue participating in further dialogues with the government on matters relating to climate change mitigation and adaptation. In addition, a video was produced and made available to the public in Kyrgyz and Russian languages, as well as posters and flyers. As a result, the public increased their knowledge of the process of updating the NDCs, the goals and key provisions of the Paris Agreement, as well as the basic climate indicators of the country. The general public was made aware of the country's commitments, reflected in the updated NDCs that were submitted to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat, as well as about the actions that civil society could take to support the implementation of the NDCs.

In **Vietnam** SGP supported the Climate Change Working Group and the NGO Climate Change Group in organizing several forums for CSOs to participate in the development of the National Adaptation Plan in the Agricultural National Adaptation Plan on Climate Change (NAP-CC) with key government ministries namely the Ministry of Agriculture and Rural Development, Ministry of Natural Resources and Environment, and Ministry of Foreign Affairs, as well





as academic and research institutions, and representatives of the private sector, along with farmer representatives from 10 provinces including eight SGP grantees. A total of 375 delegates, among them 45 percent of women, participated in the forums. The purpose of the forums was to enhance the process of developing NAP by promoting civil society's role and participation in their development and implementation. The participants worked to integrate climate-smart agriculture solutions into the NAP-Ag,

and discussed the gaps and solutions with regards to strengthening cooperation between civil society and government agencies in implementing climate change response activities. CSOs also presented their successful best practices for climate change adaptation as well as lessons learned, and ensured that community voices were heard in NAP development.

4 Investing in youth empowerment

Young generations occupy a unique position in relation to the interlinked challenges of climate change, species extinction and pollution that humanity faces today. The most severe impacts of these crises will affect future generations, who will be forced to address the threats and make radical transformations possible. SGP recognizes that active engagement of youth is vital to address the climate crisis and recognizes young people as primary stakeholders, as well as future leaders and agents of change for sustainable development. Youth is one of SGP's priority target groups and approximately 40 percent of all supported projects have active youth participation. In addition to systematically working to support youth empowerment, the programme also amplifies the voices of youth on the global stage.

To be able to face these challenges and become innovators and positive agents of change, youth need the right tools and knowledge. To address the skills and capacity gaps identified by youth stakeholders, SGP has initiated a dedicated Innovation Programme on Youth and Climate Change to enable youth to qualify for green jobs, initiate

green enterprises, and lead climate actions locally and nationally. With targeted support, young people can acquire skills to restore natural resources and transition to low-carbon pathways. Through these experiences working with youth led-initiatives, it has become increasingly clear that this approach emphasizing skills development and green jobs is highly impactful.

In Armenia, a strategic project conducted by the grantee FERTI aimed to enhance the employment and entrepreneurship opportunities for students and young practitioners through the development of a fundamental learning platform on low-carbon technologies. Through the project, six Low Carbon Energy Education Centres were established in four regions, equipped with materials and devices for theoretical and practical knowledge. Trainers from a local technical college were selected and instructed to deliver career development and capacity building in the Centres. By applying the learning-by-doing principle, the project supported 13 community micro-projects proposed by the students on the use of low-carbon technology. This approach equipped them with the knowledge of





formulating project proposals, completing necessary calculations, as well as experience in holding meetings with private sector and beneficiary institutions, and participating in actual assembling of the systems. Each Centre provides training to 15-25 young practitioners per year and consultation to 150-200 students and unemployed youths on the use of renewable energy sources (RES) and energy-efficient technologies. As a result of the project, the specialization "Installation, Repair, and Maintenance of Renewable Energy Power Stations/Energy Sites" has been officially approved as a college-level qualification by the Ministry of Education, Science, Culture, and Sports of Armenia. Moreover, at the request of the Ministry, a textbook on RES use for colleges was developed and published by the project, which is now officially part of the curricula for relevant specializations.

In **Sierra Leone**, with support from SGP, Reptile and Amphibian Programme Sierra Leone completed a youth-driven project working on solar electricity in selected coastal communities in the Bonthe District.

There is a high number of youths in the coastal communities relying on fishing to make a living. In the past, they regularly paid those who have generators to charge their phones for communicating with their customers and transferring money, which led to a high costs and CO₂ emissions. On the other hand, the children in primary schools had limited access to sustainable energy for lighting at night to study. The project benefitted approximately 500 youths by constructing a youth community centre with solar equipment, which was then utilized as a solar charging station for the whole community, and by providing a primary school with equipment such as solar panels, batteries, cables, etc. In addition, three solar mobile-charging kiosks were installed in the communities, enabling the youths who are mainly engaged in fishing to charge their phones and connect with customers to sell their catch. Additionally, job opportunities were created for at least five disadvantaged youths in charge of the solar charging facilities.

5 Mainstreaming resilience

Over the past decade, strengthening resilience has emerged as an important means to prevent, mitigate and prepare for risks associated with a range of threats to development in the face of climate change. When risks accumulate, they can manifest and unleash crises with cascading impacts across sectors, causing loss of life and livelihoods. Resilience is a unifying approach that transcends the humanitarian, development, human rights, and peace and security divide and can guide the design of integrated and cost-effective approaches to lower risks and thereby prevent crisis. SGP works to mitigate these compounding risk factors by supporting investments in resilience-building to help curtail economic and human losses in the event of a crisis, thereby reducing human suffering and protecting development gains. Additionally, these investments can stimulate economic activity that has co-benefits across many of the SDGs.

Community-based adaptation provides tools to plan and strategically develop solutions to address future climate impacts. Local community partners of SGP represent those vulnerable populations who are the least equipped to cope with the impacts of climate change, yet are often the most severely affected. The objective of community-based adaptation is to build community resilience by reducing vulnerability and increasing the adaptive capacity of communities to manage the impacts of climate change. By enabling local communities to adapt to the impacts of climate change based on their specific environmental, social, and economic contexts, the Community-Based Adaptation Programme implemented by SGP has helped enhance climate resilience in 41 countries, including 37 Small Island Developing States. The projects and associated activities have supported more than 250,000 beneficiaries; 13,000 ha of land have been restored and are under improved management; and 35,583 people have an improved access to water and basic sanitation.

In **Botswana**, Botswana Climate Change Network (BCCN), showcased hydroponic technology as one of the climate-smart agriculture practices that can be adopted in the wake of increased temperatures and unpredictable weather patterns leading to low agricultural productivity and threatening food security. Hydroponics is a soilless technique for growing plants in a water-soluble mixture. Through this technique, vegetables can be grown in any condition, especially where conventional farming is not feasible. BCCN worked with the community of Gweta village and trained villagers and farmers from within and around the village on its operation and maintenance. The project was recognized by the government and the country experts as a successful initiative helping communities to adapt to the impacts of climate change and improve food security.

Disasters can wipe out the gains of economic development and have far-reaching impacts on human lives and ecosystem health. These catastrophic events are becoming more commonplace as the planet's global average temperature continues to escalate. Strategic planning and investing are vital for communities to face and overcome these threats. The SGP works with vulnerable countries to support local communities and governments to ensure that development programming reaches the furthest-behind first, and reduces risks and vulnerabilities by relying on human rights-based approach. SGP projects are also required to design and integrate resilience strategies to mitigate disaster risk that encompass plans for before, during and after crisis.

In **Dominica**, Abilities Unlimited Inc. empowered persons with disabilities with the aim to build resilience to the impacts of climate change. Abilities Unlimited, formerly known as Workshop for the Blind, is a craft workshop that gives people with disabilities the opportunity to develop skills and be gainfully employed, increasing their self-reliance and capabilities to attain a more productive life.



The building that houses the trainings was badly damaged during Hurricane Maria in September 2017, which led to a major disruption in operations. The deteriorated working environment of the workshop adversely affected the morale and productivity of the staff while also threatening their health and safety. The project assisted in reorganizing, cleaning and re-stocking the work area. New sewing materials were provided, which enabled the workshop

to produce a wider range of traditional products such as handicraft and local straw bags whilst working on new products. The salaries of the employees were raised due to the increased revenue from product sales. In addition, training sessions were conducted to educate the workers on customer service, sales, marketing, etc. It was also reported that staff and employees' morale and work ethic has improved thanks to the project implementation.



Fostering innovation and knowledge exchange

Every year, hundreds of SGP-supported community initiatives around the world are generating important lessons and potentially scalable innovations. Identifying and distilling these transformative local initiatives requires a dedicated effort and investment in knowledge exchange. SGP is consistently working to codify and share the knowledge in programme countries as well as within regions and globally. The need for support of those community innovations cannot be underestimated. The relative scarcity of cost-effective local solutions adapting new technologies for local needs is one of the main obstacles to decarbonization. By supporting these innovations, SGP is laying the groundwork for a low-carbon future at the community level.

One example of a SGP country programme actively and consistently investing in capacity building, knowledge and innovation is **Saint Lucia**. Through the partnerships with the national educational institutions, consistent investment in capacity building, national and regional knowledge exchanges through knowledge fairs and regional fora, SGP Saint Lucia has empowered the grass-roots organizations to innovate with regional and global potential for scaling up. Climate change has caused an increase in sargassum

seaweed, impacting island economies and quality of life in the Caribbean and other regions. SGP supported the Saint Lucia Fisher Folk Cooperative Society Ltd to manufacture bio-fertilizers from the seaweed according to an original methodology developed by a young local entrepreneur, who discovered the formula through backyard experimentation. Independent experts confirmed the effectiveness of the biofertilizer. This seed investment allowed the start of production, provided employment to 10 young, disadvantaged community members, and created the conditions for scaling up production and exports to other Caribbean countries. The young entrepreneur received international recognition and was able to share the experience in the region and beyond. In another example from Saint Lucia, SGP supported a local fisherman from the village of Laborie to develop a mobile solar-powered desalinization unit to convert sea water into drinking water. The Caribbean Public Health agency verified the efficiency of the desalination system and concluded that it will provide water security for the village. This experience was shared beyond the region with Nauru in the Pacific to address saltwater intrusion issues caused by climate change-induced sea-level rise.





One of the most effective instruments to facilitate knowledge exchange and technology transfer among countries and regions is South-South cooperation. SGP is consistently investing South-South exchanges. Between 2021-22, 43 SGP country programmes facilitated 96 South-South exchanges that supported transfer of knowledge on innovations between communities, CSOs and other partners across countries.

One example supporting grass-roots climate solutions is Climate Initiative in Francophone Africa, also known as Initiative Climat supported by SGP since 2016 and implemented by SGP Morocco, Burkina Faso and **Senegal**. Representatives from 26 countries with the support of the SGP work together to identify and replicate transferable community solutions that can contribute to the realization of respective Nationally Determined Contributions and improve livelihoods. The initiative works with a total of 258 projects, sharing experiences from training activities, good practices in the field, and disseminating information to the entire network. These community project leads are fostering knowledge sharing and replicating successful projects to other countries and regions throughout Africa. In one example, SGP Morocco supported Initiative Climat to innovate and propagate low-carbon solutions to address energy access issues impacting local communities. "Green charcoal" also referred

to as "organic coal" or "vegetal coal" can partly solve this problem. Made with plant waste or agricultural residues, it serves an alternative to charcoal, which requires large quantities of wood to produce. Multiple benefits of its use have been noted. Social benefits include a reduction in women's unpaid care work due to fuelwood collection and an increase in time available for other productive uses; health benefits include reduced exposure to pollution; economic benefits are that it is cheaper than charcoal; and environmental benefits come from the reduction in greenhouse gas emissions. In addition, its highly decentralized production provides income-generating activities for grassroots community organizations and young green entrepreneurs. To advance related technical knowledge and entrepreneurship, Initiative Climat's South-South exchange has facilitated the establishment of an African green charcoal cluster which has brought together experienced charcoal producers to provide tailored advice to community stakeholders to produce green charcoal. Two new technologies were also developed to produce green charcoal: a prototype of an improved furnace for ecological and secure carbonization of the raw material, and a prototype of a press for the compaction and production of green charcoal. A technical manual and an e-training module on green charcoal has also been developed, supporting 60 African producers to embark on the sustainable production of green charcoal.

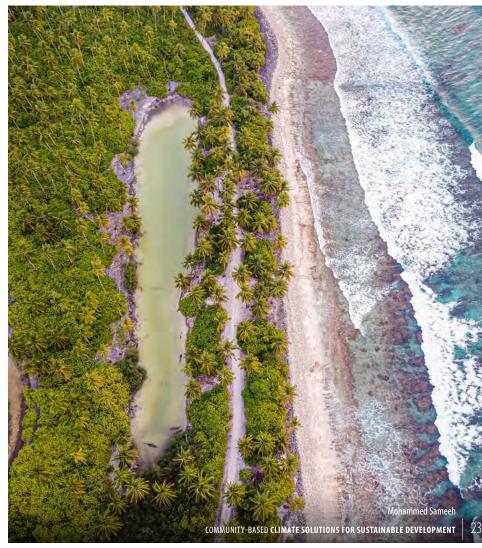




LOOKING FORWARD

SGP will continue its dedicated work on the ground to support low-carbon solutions at the community level while promoting green jobs and inclusive economic growth from the ground up. Systematic support, rooted in traditional knowledge and tailored to the community context will remain a priority. SGP will foster adoption of cutting-edge methodologies and technologies relevant to community needs, including energy access for health services, digital technologies and nature-based solutions.

To go further and reach the scale of collective action needed for transformative change, UNDP Local Action will build on SGP achievements and work to develop integrated programming at landscape, sub-national and national levels. Promising local climate solutions, identified and piloted by SGP, will be supported and scaled up with additional investment mobilized from the private sector and other partners. SGP's CSO-government-private sector dialogues will help to convene the stakeholders and support the implementation of UNFCCC Nationally Determined Contributions in alignment with UNDP's longer term programmatic approaches and initiatives such as the Climate Promise.





The Small Grants Programme (SGP) is a corporate programme of the Global Environment Facility (GEF) implemented by the United Nations Development Programme (UNDP). Established in 1992, SGP is currently active in 128 countries and 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 27,000 community-based projects on biodiversity conservation and sustainable use, climate change mitigation and adaptation, sustainable land management, conservation of international waters, and chemicals and waste management, while generating sustainable livelihoods.



The Global Environment Facility was established on the eve of the Rio Earth Summit to tackle our planets most pressing environmental problems. Since then, it has provided more than \$21.7 billion in grants and mobilized an additional \$119 billion in co-financing for more than 5,000 projects and programs. The GEF is the largest multilateral trust fund focused on enabling developing countries to invest in nature, and supports the implementation of major international environmental conventions including on biodiversity, climate change, chemicals, and desertification. It brings together 184 member governments in addition to civil society, international organizations, and private sector partners. Through its Small Grants Programme, the GEF has provided support to more than 27,000 civil society and community initiatives in 135 countries.



UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in 177 countries and territories, we offer global perspective and local insight to help empower lives and build resilient nations. www.undp.org

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