ANNUAL REPORT 2021

BASE

Photo: Peter Kapuscinski / World Bank

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INTRODUCTION

OUR MISSION AND VISION

Established in 2001, BASE is a Swiss not-for-profit foundation and a Specialised Partner of the United Nations Environment Programme.

Our mission is to develop innovative, actionable financial strategies and market-driven solutions to unlock investment in climate change solutions. Around the world, we work with all markets and segments, including those that are challenging and underserved.

Our vision is a world where markets are transformed and sustainable energy and climate change solutions are the norm, not the exception.

OUR APPROACH

We strongly believe that market solutions and business models that are supported by a solid and self-sustainable financial backdrop can play a crucial role in the necessary transition towards a low-carbon and climate-resilient future. Accordingly, BASE strives to design and implement innovative and disruptive business models and financing strategies that can mobilise climate finance and change the behaviour of key actors towards energy efficiency, renewable energy, e-mobility, adaptation, land use, climate finance and circular economy to help accelerate the deployment of climate solutions.

BASE combines its strong experience and expertise in sustainable technologies, market and policy, economics, finance and business development to deliver effective solutions that are self-sustaining, scalable and replicable. In addition, BASE has a proven capacity to implement solutions on the ground, enable market conditions, build market trust and confidence, and bring and engage key stakeholders (public and private) to work together to provide the necessary products or services required for the different solutions proposed.

BASE's experience and expertise includes the development of:

- economic and financial analyses that provide clarity on the potential economic, environmental and social benefits and risks of implementing the solutions,
- market studies to identify the opportunities and challenges, as well as the potential size that can be reached,
- processes and procedures to systematise the operationalisation of the proposed solutions,
- digitalisation tools that facilitate flow of information and build trust.
- capacity building of key stakeholders,
- communication and awareness raising strategies,
- standardised contractual arrengments that can be used between key stakeholders, and
- financial and risk mitigation mechanisms

This involves more than just making financing available. BASE uses an holistic approach to engage stakholders and drive investments in climate change solutions and focuses on strategies that overcome key market barriers.

VISIT BASE WEBSITE

THE PROBLEM

The need to reduce the financing gap to address climate change is only becoming more urgent every day.

The combination of historical factors driving global warming, resulting in extreme climate events putting entire populations at risk quicker than forecasted, is not showing sufficient signs of abating. According to the latest UNEP Emissions Gap Report, national climate pledges combined with other mitigation measures put our planet on track for a rise of global temperature of 2.7°C by the end of the century, well above the Paris Agreement objectives of 1.5°C. The COVID-19 pandemic led to a drop in global emissions by a small percentage, but they are expected to rise again, while the possibility of using recovery spendings to back climate action has largely been missed. The UN's Intergovernmental Panel on Climate Change (IPCC) states that an annual investment of at least USD 2.4 trillion until 2035 is needed in energy systems alone to shift development onto a low-carbon path. The report looks beyond technologies to estimate that global annual climate finance flows fall short by a factor of three to six times than the level needed by 2030 to limit warming to below 2°C.

Despite climate mitigation action and financial efforts, climate-vulnerable countries are already facing the brunt of climate change and climate induced hazards such as floods, droughts and cyclones. According to the World Meteorological Organisation (WMO), there have been more than 11,000 disasters caused by climate change claiming over two million lives and resulting in USD 3.6 trillion in losses for the past 50 years. According to UNEP's "Adaptation Gap Report 2020", developing countries already need USD 70 billion per year to cover adaptation costs, and will need around USD 140–300 billion by 2030. For this reason, the Paris Agreement aimed to balance climate finance between mitigation and adaptation with a 50-50 split. However, a sizable adaptation finance gap remains as only 25 per cent of climate finance was re-directed towards adaptation measures in 2021.

Climate disaster in Indonesia Photo: WMO Kompas/Hendra A Setyawan

Scaling up climate finance in mitigation and adaptation is a critical enabler if the world is to succeed in limiting and coping with global warming collectively. In addition to bridging the quantitative gap in climate finance, enhancing its quality through increased sustainability and accessibility of these funds is equally important. Low-emission and climate-resilient solutions to mitigate and adapt to climate change often require upfront investments that can be costlier than conventional solutions, thus not affordable to many.

HIGHLIGHTS OF 2021

In 2021, BASE celebrated its 20th anniversary of driving investment in sustainable energy. For the occasion, we interviewed our founding members and launched our "*Celebrating 20 years*" report that traces the projects, partnerships, publications, and events that have helped shape our journey and impact over the past two decades. **As a part of this milestone, BASE formally broadened its mandate from its initial focus in sustainable energy to include all climate change solutions.** This reflects the growing global need to increase investment and financing in solutions that contribute to climate change adaptation and

the rising importance of climate change mitigation in other sectors including land use, agriculture and the circular economy. Through this expansion, we strive to bring what we have learned about developing and implementing innovative business models and financing strategies for sustainable energy to address the breadth of challenges presented by climate change.

New business models are needed that put sustainability at the centre of business activities, and digitalisation can give a positive impetus to socio-economic, cultural and ecological changes, e.g. by providing transparency, integrating organisational procedures, reducing costs and mitigating risks, among others. BASE included the megatrend of digitalisation as a focus in its 2020-2025 strategy. Since then, BASE has worked to build its expertise in digitalisation by including data science and AI into its projects and initiatives. In 2021, BASE launched its first project that includes digitalisation as the core of the business model with the aim to contribute to sustainable agriculture.

The success of the Sustainable Development Goals (SDGs) strongly depends on youth engagement and the active involvement of today's innovators, eager to confront development challenges and weave a climate-safe future. As a part of its effort to listen to, nurture, and incorporate ideas from the next generation of advocates, BASE started collaborating with schools and universities in 2021. As a NGO Council member of EPFL Tech4Dev, BASE participated as a challenger-setter at the EPFL Tech4Impact Summer School to explore and develop innovative and sustainable tangible solutions with students to core societal challenges in the Global South: bringing renewable energy to refugee camps, improving circularity of solar energy technologies, and greening the agricultural chain to avoid deforestation.

BASE has extended some of its existing flagship projects to new countries and maintained some of its current work and network. However, BASE also ventured with its climate solutions into new and under-represented regions of the world, launching projects in Southern Africa, the Middle East and the Pacific.

THE MAP PROVIDES AN OVERVIEW OF THE COUNTRIES WHERE BASE AND ITS PARTNERS IMPLEMENTED THEIR PROJECTS IN 2021.

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OVERVIEW OF BASE'S PROJECTS

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ENERGY SAVINGS INSURANCE (ESI) EUROPE

Italy, one of the three countries where the ESI model was started in Europe

VISIT PROJECT PAGE

SETTING THE CONTEXT

Energy use constitutes a substantial proportion of production costs for many enterprises, particularly in energy-intensive sectors that rely on heating or cooling for their processes or the provision of their services, presenting a significant market opportunity for increasing end-use efficiency and improving the integration of renewables in the energy system. However, high upfront costs, uncertainty about perceived risk, lack of trust in new technologies, competing investment priorities, and limited financial resources and access to credit – especially in the case of small and medium-sized enterprises (SMEs) – continue to bear heavy on the minds of decision-makers in their considerations of embracing new energy-efficiency upgrades. Many of these challenges can be overcome, at least in significant part, with well-designed financing mechanisms.

Given this backdrop, BASE received funding from the European Commission's Horizon 2020 Programme for replicating the Energy Savings Insurance (ESI) model in Europe. This is a mechanism developed by BASE, and already operational in Latin America in partnership with the Inter-American Development Bank. The project aims to motivate SMEs in Italy, Portugal and Spain to invest in energy-efficient equipment using a comprehensive solution that includes mechanisms to reduce risk perception on the return of investment, facilitate financing, and position energy efficiency as an attractive investment opportunity.

The ESI Europe project is delivered through the engagement of key stakeholders for each ESI model element in the local market, which includes insurance companies, financial institutions, and a validation entity. Technology providers and associations of potential clients (e.g. hotel association of Portugal) are then engaged in adopting the ESI model in their transactions.

PERIOD

2018 - 2022

COUNTRIES

Italy, Portugal and Spain

PARTNERS

BCSD Portugal, EnergyLab and FIRE

FUNDER

European Commission

ROLE OF BASE

Programme coordinator

VISIT PROJECT PAGE →

BASE has created a commercial brand for the ESI Europe project, “GoSafe with ESI”, registered at the European Union Intellectual Property Office. A Management Information Systems (MIS) is also available to register, track the evaluation, monitor, and report energy-efficient project investments. The MIS is developed in blockchain, making it one of the first applications of distributed ledger technology for energy efficiency globally.

REVIEW OF 2021

The economic turmoil set off by the COVID-19 pandemic that carried over into 2021 continued challenging the ESI Europe consortium to mobilise investments through the GoSafe with ESI solution. Digital marketing campaigns, telemarketing campaigns and a series of webinars, online events and, where possible, in-person events were the means used to reach out to technology providers, final clients and financial institutions in the three countries. Furthermore, dissemination activities reaching out to a broader European (and worldwide) audience included the organisation of webinars, participation in conferences and the publication of articles. The project team launched the ESI Europe toolkit, a free compilation of all the material developed under the project for use by other organisations working on similar endeavours, along with a conclusion video reviewing ESI Europe’s collaborations, outreach, and impact in early 2022.

The ESI Europe consortium has created a pipeline of EUR 14.5 million of investments in energy efficiency projects in Italy, Portugal and Spain. About 2,000 individuals from Technology Providers, Financial Institutions and SMEs have participated in capacity building sessions for GoSafe with ESI. Dissemination activities reached about 1,000 individuals virtually and in-person throughout the duration of the project.

FUTURE OF THE PROJECT

The phase of the ESI Europe project under the funding from the European Commission’s Horizon 2020 Research and Innovation programme concluded in January 2022. The active promotion of GoSafe with ESI in Italy, Portugal and Spain is being phased down. The consortium partners in Italy (FIRE) and Spain (EnergyLab) will continue following up with the pipeline of projects, and BASE will continue to offer support.

The launch of the ESI Europe 2.0 project builds on the efforts and lessons learnt, and brings GoSafe with ESI to three new countries within Europe, namely Croatia, Greece and Slovakia.

Compared to the initially estimated impact of engaging nearly 1,600 stakeholders, the ESI Europe project exceeded the outreach to about 2,000 stakeholders from Technology Providers, Financial Institutions, and SMEs trained, with increased capacity in the innovative energy efficiency financing model of GoSafe with ESI. Beyond the three countries, the project team put ESI Europe on the radar of 1,000 individuals through the dissemination activities.

ESI was also implemented in Spain from 2018-2022

VISIT PROJECT PAGE

BASE

ENERGY SAVINGS INSURANCE (ESI) EUROPE 2.0

Bratislava, capital of Slovakia, where ESI 2.0 will be implemented

VISIT PROJECT PAGE →

SETTING THE CONTEXT

The ESI Europe 2.0 project has received funding from the European Union's Horizon 2020 Research and Innovation programme to now expand the ESI Europe project to Croatia, Greece and Slovakia with Društvo za oblikovanje održivog razvoja (DOOR), Centre for Renewable Energy Sources (CRES), and Slovak Innovation and Energy Agency (SIEA), respectively (together referred to as the project consortium). The project builds on ESI Europe and involves adapting ESI model tools to the three countries, which entails the identification and engagement of key actors in those markets, marketing and promotion of the GoSafe with ESI brand, improving the ESI Europe toolkit, and the creation of the ESI Europe Alliance.

The ESI Europe 2.0 project allows for the reduction of energy consumption while improving performance and increasing the environmental sustainability of business operations. By using the elements of the ESI model, businesses can have the certainty that their investments in new energy-efficient equipment results in savings, which are ensured and insured. By implementing the ESI Europe 2.0 project, we also aim to contribute to and synergise with the European Green Deal activities for a climate-neutral continent by 2050.

REVIEW OF 2021

The project kicked off in September 2021 with a virtual meeting of the project consortium and the project adviser from the European Commission. As the first task, each consortium partner started with developing a market assessment in their countries of Croatia, Greece and Slovakia. The market assessment consists of identifying the key market players and the prioritised sectors with the highest potential for energy efficiency measures and the estimation of a market size. The hotel and accommodation sector has been narrowed down as a priority in the three countries.

PERIOD

2021 - 2025

COUNTRIES

Greece, Slovakia and Croatia

PARTNERS

CRES, SIEA and DOOR

FUNDER

European Commission

ROLE OF BASE

Programme coordinator

VISIT PROJECT PAGE

In the industrial sector, in Greece and Croatia, the food processing industry holds the highest promise for change, and Croatia also selected the wood processing industry to implement the ESI model. In Slovakia, the automotive industry has been selected, given its size and importance in the country and therefore representing a good potential.

FUTURE OF THE PROJECT

In 2022, the ESI Europe 2.0 consortium will continue working on the implementation of GoSafe with ESI model in the three countries, with the engagement of key stakeholders, such as the validation entity, insurance companies and financial institutions.

The GoSafe with ESI standardised contract will be adapted to the local context, and an initial round of workshops will be held to present the GoSafe with ESI to technology providers.

The expected project impacts include the delivery of innovative financing schemes that are operational and already mobilising finance in energy-efficiency projects in three European countries. The project seeks to have mobilised between EUR 87.3-100 million investment in energy efficiency projects within six years of its start, generating corresponding primary energy savings of between 77.8-98 gigawatt hours per year after six years of project start.

Furthermore, it envisions supporting 723 individuals with capacity building and direct support services, and simultaneously promoting the replication of the model in five additional European countries within six years of the project's launch.

Zagreb, Croatia, one of the three target countries of ESI 2.0

VISIT PROJECT PAGE

BASE

GREEN FINANCING IN MONGOLIA

ESI model is expanding to Mongolia

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Micro, small and medium-sized enterprises (MSMEs) constitute 90 per cent of the businesses running in the country and the majority of them are using old inefficient appliances, resulting in important greenhouse gas emissions. The higher upfront cost for more modern and efficient equipment, lack of trust in these technologies, and the absence of locally available financing options elevate barriers that prevent Mongolian MSMEs from making such investments. Moreover, given its extreme weather conditions, the population massively relies on electricity for heating and this energy is thus heavily subsidised. In front of those challenges Mongolia seems particularly suited for sustainable energy projects, for which more opportunities can be created by enabling the right market conditions.

REVIEW OF 2021

In November 2021, XacBank contracted the consulting services of BASE in the framework of a one-year programme for the successful implementation of our flagship Energy Savings Insurance (ESI) model, previously tested and proven effective in catalysing the uptake of energy-efficient technologies in Latin America and Europe, in Mongolia.

The design and contextualisation of the ESI model to the Mongolian context is a private initiative led by XacBank and supported by the Green Climate Fund. XacBank is a Mongolian banking and financial services company founded in 2001 that belongs to the Tenger Financial Group, a financial services group headquartered in Ulaanbaatar. With Tenger Financial Group also being the owners of Tenger Insurance, one of Mongolia's leading insurance companies, their participation fosters immense confidence in the project among the local population and stakeholders and adds momentum to its deployment.

PERIOD

2021 - 2023

COUNTRIES

Mongolia

FUNDER

Xacbank, GFC

ROLE OF BASE

Consultant for the implementation of the ESI model in the country

VISIT PROJECT PAGE →

A promising aspect of launching the ESI model in Mongolia is that both XacBank and Tenger Insurance have been keenly involved in carrying out the model from the beginning of the project. Their enthusiastic participation is a critical endorsement that can be decisive in overcoming the challenges that the ESI model may encounter in its application in the country.

One of the most pressing challenges will undoubtedly be creating the surety insurance product in the Mongolian market, i.e. the type of insurance on which the ESI model is centred since no similar financial mechanism has been developed in the country yet. Nevertheless, this same challenge also underscores the potential to galvanise action on energy efficiency through a new but previously tested insurance-based model in Morocco.

The ESI model aims to increase investments in energy efficiency, facilitate the flow of financing for energy efficiency technology solutions and address the largely untapped market potential.

Ulaanbaatar, capital of Mongolia

The ESI model creates the conditions for them to upgrade specific old and inefficient technologies to new energy-efficient technologies.

The activities carried out in 2021 mainly covered introducing XacBank and Tenger Insurance to the standardised version of the ESI contract. For this purpose, it used the version of the standardised contract developed for the ESI Europe toolkit. The toolkit comprises a set of contract templates and other guidance designed to ease the implementation of the model in new countries.

The ESI contract offers a clear and transparent framework for negotiations between key actors (SMEs, technology providers, financial institutions and insurance companies) on how a project's energy savings are guaranteed.

Applying the toolkit to energy efficiency projects reduces the risks involved, distributes the remaining risk to appropriate actors, and fosters trust among technology users and providers.

FUTURE OF THE PROJECT

In the coming year, efforts will focus on the development of the remaining elements of the model, together with XacBank and Tenger Insurance. These elements are the surety insurance product that will act as energy savings insurance and the technical validation of the projects. Through the energy savings insurance, Tenger Insurance will safeguard SMEs against non-compliance by their suppliers on their contractual obligations regarding energy savings of the technologies they provide. The technical validation of the projects will involve engaging an independent entity as a technical expert to check the project's capacity to deliver the savings, theory attenuating the technical risk of energy efficiency project, and act as a neutral arbiter in cases where SMEs claim a failure to achieve assured energy savings by the technology provider.

The ESI model project is expected to mobilise about USD 50 million in investments in energy efficiency projects in Mongolia over the next five to seven years.

VISIT PROJECT PAGE →

BASE

GREEN CREDIT GUARANTEE FOR SMES IN PERU

Guarantees implemented in Lima, Peru

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Small and medium-sized enterprises (SMEs), in a general manner, face difficulties when accessing credit, and the conditions required by financial institutions inhibit their access to this service. This lack of accessibility to credit is an important factor for SMEs that prevents them from investing in climate change solutions that could increase productivity and reduce operating costs.

In Peru, 99.6 per cent of companies are SMEs. However, the financial sector in the country is mainly focused on corporate and consumer finance, resulting in SMEs being largely neglected due to the perception of risk and the insufficiency of business strategies by the banks. This situation is aggravated by the high concentration of the market in only 5 banks, which have 90 per cent of the market share, reducing the financing choices for SMEs significantly.

The Swiss Government, through the State Secretariat for Economic Affairs (SECO) has been supporting the Government of Peru in the development of initiatives and financial instruments that help SMEs to incorporate sustainable solutions and increase productivity. SECO has asked BASE to support the design of a financial instrument focused on SMEs and catalysing investments in sustainability and environmental solutions. In addition, it was requested that the instrument should have the capacity to transform the market and be scalable.

BASE did an analysis in 2018 that analysed the context, and concluded that a green credit guarantee could help in facilitating access to credit for SMEs, and could also drive them to invest in energy efficiency, renewable energy, recycling, emission reduction or other sustainable solutions by facilitating access to credit.

PERIOD

2021 - 2024

COUNTRIES

Peru

FUNDER

SECO

ROLE OF BASE

Technical advisor and implementation support

VISIT PROJECT PAGE

REVIEW OF 2021

In 2021, BASE was asked to support SECO in the implementation of the credit guarantee and has been supporting the negotiations between SECO and the managers of the Guarantee Fund. BASE has the task to advise and guide the establishment of the credit guarantee that was proposed in 2018. The Guarantee Fund has USD 5 million, and BASE has managed to get the fund manager to leverage those funds from SECO to provide guarantees of up to USD 35 million.

FUTURE OF THE PROJECT

In the following months BASE will be helping to close the agreements and negotiations between SECO and the fund manager in Peru, as well as to start defining the rules and eligibility criteria, the green taxonomy for the loans and the marketing strategy. The guarantee fund is expected to be operational in the second quarter of 2023.

The guarantee fund expects to mobilise USD 200 million over five years in aggregate investment, financing and guarantee funds that would support around 900 SME projects. This could potentially generate 100,000 tonnes of carbon emission reductions per year.

Cusco, Peru

VISIT PROJECT PAGE

BASE

REVOLVING LOAN FUND FOR EFFICIENCY IN COSTA RICA

San José, Costa Rica, where a revolving loan fund is being set up

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Even though energy efficiency presents enormous investment opportunities for businesses and works as a powerful and cost-effective tool to slash greenhouse gas emissions, development programmes aimed at expanding its uptake have struggled to catalyse the market. Indeed, the concept of energy efficiency can be challenging to sell as it requires providers of technologies like air conditioning or boilers to change the way they approach businesses — instead of merely selling the modern, efficient and cleaner equipment, they need to sell a promise of future energy savings. Moreover, these energy savings projections need to be large enough to counterbalance the perceived risk of investing in new technologies.

BASE is supporting the United Nations Environment Programme, the Central American Bank for Economic Integration (CABEI), and the Ministry of Environment and Energy (MINAE) of Costa Rica to design a revolving loan fund for developing a market for energy-efficient lighting, air conditioners and refrigerators in the country.

A main outcome of the project is to provide a Small-Scale Funding Assessment to test the viability of an alternative pathway to advance Costa Rica's market to energy-efficient and low-carbon technologies and processes in energy intensive industries within the public sector. Working towards the objectives, the project team is working on the architecture for a revolving fund for the greening of public procurement programmes, specially for the lighting and cooling sectors.

REVIEW OF 2021

In 2021, the project team conducted the feasibility analysis, which helped identify a number of laws regarding public acquisitions. In light of these findings, the public financing model has been narrowed to a service model, of all the options proposed in the previous report public financing that has narrowed the financing mechanisms options proposed in the previous report (Report 2, Financing Mechanisms Options for the Revolving Fund) to a service model. Other financing options evaluated include credit, leasing, bulk procurement and

PERIOD

2018 - 2022

COUNTRIES

Costa Rica

PARTNERS

UNEP

FUNDER

UNEP

ROLE OF BASE

Providing expertise in developing a financial strategy and a revolving fund.

VISIT PROJECT PAGE

Super ESCO. Although these are legally viable to be implemented, servitisation was the only option that potentially does not require undergoing the long and cumbersome process of raising public credit to offer energy-efficient technologies. To validate this assumption, the team prepared a formal letter to consult the Ministry of Treasury, which has been signed and submitted by the Ministry of Environment and Energy.

Due to the complexity of the public acquisitions law in Costa Rica and limited experiences of public institutions in financing energy efficiency projects, mainly because it requires small tickets of USD 50,000-350,000, the project team decided to structure the revolving fund to showcase a few identified pilot projects under the servitisation mechanism.

Currently, the team is designing the operational processes of the fund, and with the support of CABEI and MINAE is selecting the financial institution that will operate the funds.

FUTURE OF THE PROJECT

It is expected that by the end of 2022, at least two projects will be financed by the revolving fund. This will allow the team to document the experience and to present the results to the public sector. The documentation of the experience will present a clear path to finance energy efficiency projects for public buildings, unlocking a market worth approximately USD 294 million and reducing 323 Gigawatt hours of electricity per year.

San José, Costa Rica

VISIT PROJECT PAGE

COOLING AS A SERVICE INITIATIVE (CAAS)

Moving towards energy-efficient air conditioning systems

VISIT PROJECT PAGE

SETTING THE CONTEXT

In response to the global surge in refrigeration needs — driven by growing incomes around the world to purchase cooling technologies in the face of rising temperatures caused by climate change — BASE conceptualised and implemented the Cooling as a Service (CaaS) Initiative in 2019, with the financial support of the Clean Cooling Collaborative (formerly known as the Kigali Cooling Efficiency Program), to support markets with implementing clean and energy-efficient cooling solutions. As cooling becomes an integral part of our lives, from enhancing comfort and making indoor temperatures more livable to enhancing well-being by preserving food and medicines, it is increasingly important to expand access to eco-friendly and efficient cooling in developing countries.

The CaaS model, developed by BASE, allows customers to pay a fixed fee per unit of cooling service consumed, without the need to invest in or to bear any risk related to the performance of the equipment. Meanwhile, the technology provider implements, retains the ownership of the system, and remains responsible for all operating costs. This approach, known as servitisation (or servitization), is designed to overcome the key market barriers that hinder the adoption of modern and efficient solutions, such as the higher upfront cost of the equipment and uncertainties regarding an unfamiliar technology. Furthermore, by incentivising solution providers for long term thinking and modular designs, it is a key enabler of the circular economy.

REVIEW OF 2021

Today, BASE is aware of 18 companies implementing the CaaS model across regions and industries. These companies vary, from providing large systems for air conditioning and industrial applications (as used in large infrastructure projects) to decentralised off-grid cold rooms (5-100 metric tonnes) and smaller systems (150-1,000 litres fridges and freezers) used in agricultural and healthcare sectors.

The storage of medicine and vaccines under the servistisation model particularly gained momentum over the last year — a demand trend set into motion by the COVID-19 pandemic.

PERIOD

2018 - 2021

COUNTRIES

Argentina, Costa Rica, Grenada, India, Kenya, Nigeria and South Africa.

PARTNERS

Clean Cooling Collaborative

FUNDER

Clean Cooling Collaborative

ROLE OF BASE

Programme Coordinator

VISIT PROJECT PAGE →

A pilot project led by KoolBoks, one of companies from the CaaS Incubator Programme, is currently providing off-grid medical cooling systems powered by solar to healthcare facilities in Nigeria through servitisation.

In 2021, the model has also been applied in multiple projects in South Africa, especially in the food industry. For instance Energy Partners, member of the CaaS Alliance, deployed an all-new solar assisted two-stage ammonia refrigeration system to the biggest dairy factory in the country through the pay per use model.

The CaaS Initiative and the work of its members have benefited from high-quality dissemination activities, including being featured in an explanatory article from the World Economic Forum, a mini-documentary by BBC StoryWorks, and a video from Dr Oetker who implemented the model in one of its factory in Johannesburg. Koolboks, who benefited from the CaaS incubator, was also promoted through its case studies in an Efficiency for Access report "*Business Model Innovations Addressing Affordability: Case Studies.*"

Finally, CaaS has been very proud to have been granted the Solar Impulse foundation certification as one of the 1,000 climate solutions to support the accelerated path to Net-Zero. It was also the recipient of the Keeling Curve Prize for its significant potential to reduce greenhouse gas emissions or promote carbon uptake.

FUTURE OF THE PROJECT

Since 2019, the CaaS initiative has mobilised more than USD 42 million towards energy-efficient cooling through both small and large-scale projects. Despite the official closure of the CaaS project in 2021, as it expands to bigger ideas, the seeds sown by it are expected to further mobilise USD 10-30 million in the next five years.

So far, projects implemented by partners of the CaaS Alliance have saved a total of approximately 21,680 tonnes of carbon emission per year from energy efficiency improvements. Projects incorporating the as-a-service approach popularised by the initiative and by companies provided technical guidance under the CaaS incubator are projected to save beyond 5,850 tonnes of carbon emission per year from energy efficiency improvements put into place between 2019 and 2021.

To institutionalise the work completed by the CaaS Initiative, BASE together with the support of the Clean Cooling Collaborative, and in alignment with key partners from the CaaS Alliance (in alphabetical order: Aston Business School, ATMOsphere, Energy Partners Refrigeration, KAER, The Advanced Services Group and The University of Oxford) will launch the global Servitisation for Energy Transition (SET) Alliance in 2022. The aim of this alliance will be to continuously support the private sector to scale up the adoption of the CaaS model, apply servitisation to other sectors, and accelerate the path to a climate-resilient future.

Cooling as a Service project from Energy Partners Refrigeration in Queensburgh, South Africa

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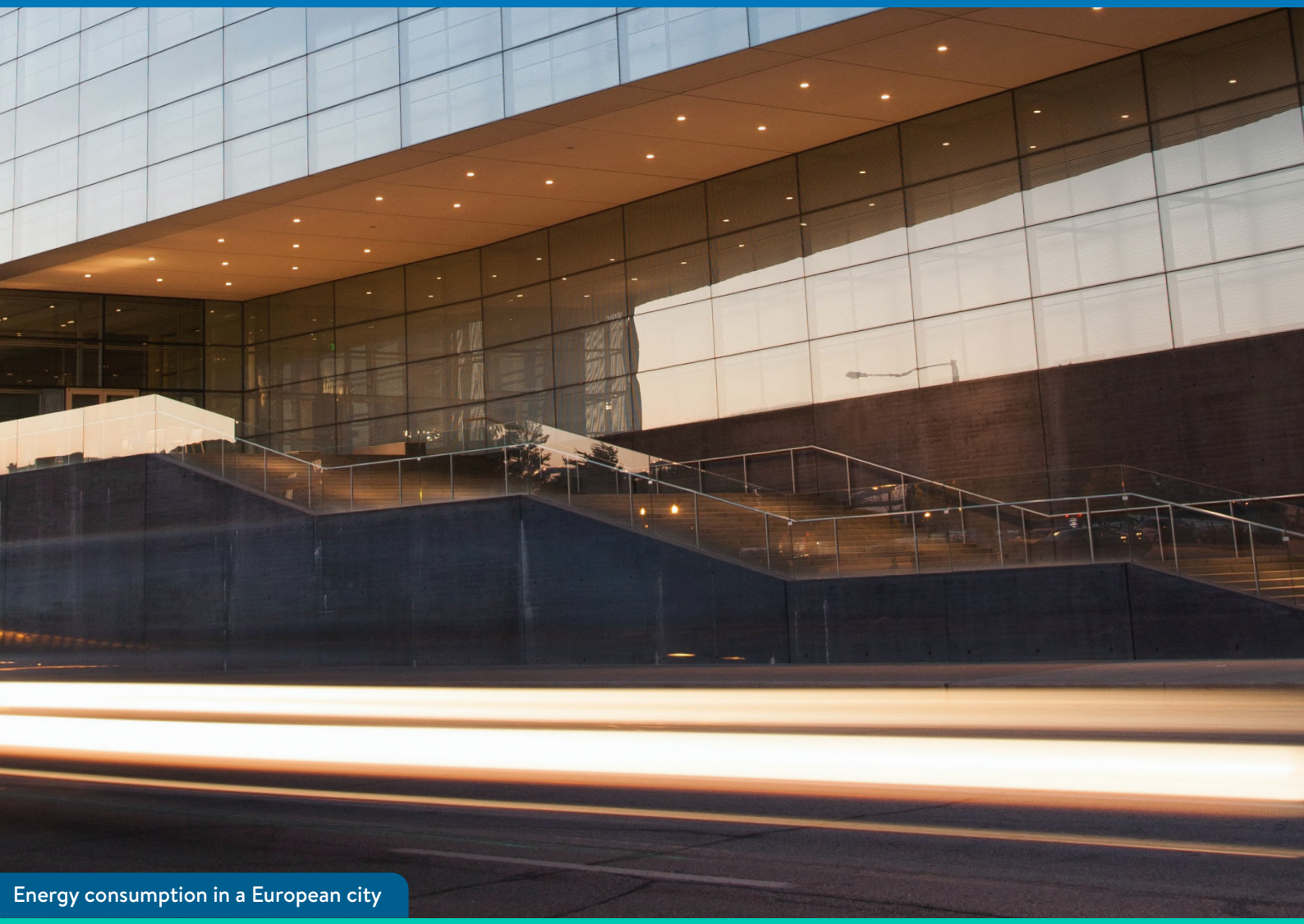
BASE

EFFICIENCY AS A SERVICE INITIATIVE (EAAS) IN EUROPE



Energy consumption in a European city

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SETTING THE CONTEXT

Small and medium-sized enterprises (SMEs) make up over 99 per cent of all enterprises in many European countries and represent a substantial market opportunity for energy efficiency improvements. However, this opportunity remains largely untapped of its full potential due to several barriers, including a lack of trust between the different actors; energy efficiency investments conflicting with other priorities for enterprises; a lack of stable and accessible financing instruments; and a lack of experience with financing energy efficiency.

The Efficiency as a Service model (EaaS) has a payment structure that allows customers (SME energy consumers) to access efficient technologies and solutions but only pay for the service or deliverable that they actually use (energy, cooling, heating, compressed air, lighting, etc). This model (also known as pay as you use or servitisation) is not new and is gaining popularity as they allow customers to access flexible products that match their fluctuating needs. Servitisation models involve innovative pricing schemes that go beyond mere renting or leasing of products by bundling services together with the product as a consumer-focussed, integrated solution. For certain assets, customers are increasingly attracted by the prospect of paying to use, rather than paying to own. This model is creating a transition from selling products to selling holistic services.

In 2021, the EaaS initiative entered its second year. Funded by the European Union's Horizon 2020 research and innovation programme, EaaS' project partners AGORIA, InnoEnergy and ANESE together with BASE aim to develop and deploy the servitisation model and a financial structure to accelerate the market adoption of energy-efficient solutions by SMEs in Belgium, the Netherlands and Spain respectively. EaaS builds on the learnings and tools developed by Cooling as a Service (CaaS), going beyond cooling to cover all clean and efficient solutions, and tailor the model to the European market. The model also aims at contributing to an accelerated post COVID-19 recovery and synergising with the European Green Deal activities for a climate neutral continent by 2050.

PERIOD

2020 - 2023

COUNTRIES

Belgium, the Netherlands and Spain

PARTNERS

AGORIA, ANESE, InnoEnergy SE

FUNDER

European Commission

ROLE OF BASE

Programme Coordinator

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REVIEW OF 2021

During the year 2021, the team produced a variety of tools with inputs from key stakeholders, which included a standardised servitisation contract in each target country, an economic and pricing modelling tool, a risk mitigation document, and an overview of the financing structures for the recapitalisation of technology providers. Additionally, the consortium launched the EaaS website in four languages (English, Dutch, French and Spanish), which includes explanatory videos, brochures, articles, and the EaaS-tools.

In May 2021, EaaS members participated in the Spring Servitisation Conference in Florence, where they presented the project to a community of highly experienced individuals and won the award for effective communication through its poster. Building on the interest raised, the team organised the first international EaaS virtual dialogue series in July 2021, welcoming more than 122 participants from across Europe.

Throughout 2021, the consortium drafted and implemented its capacity building strategy, leading to several webinars in each country. These interactive webinars focused on mainstreaming the model by sharing knowledge and experiences of existing as-a-service users, technology providers, and financiers with the community. As a part of these, the team also took part in The EU Energy Efficiency Financial Institutions Group (EEFIG) working groups.

FUTURE OF THE PROJECT

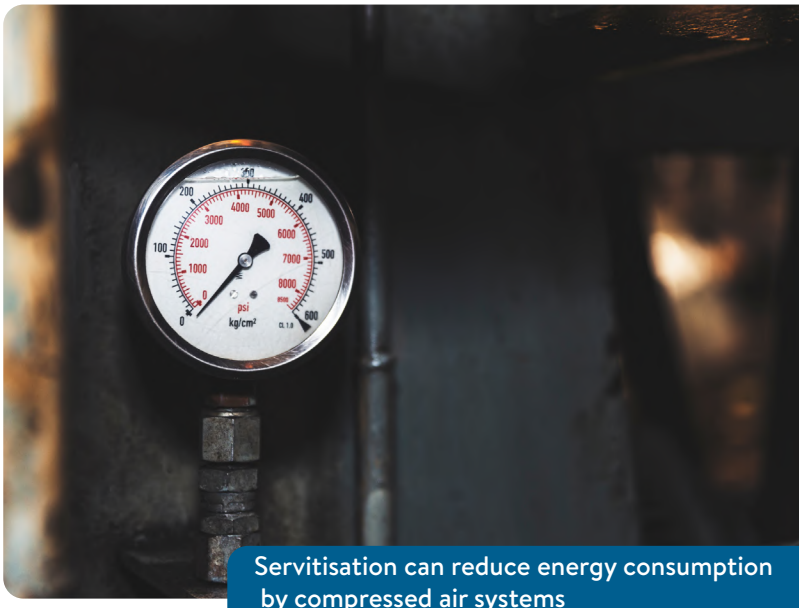
In 2022, the EaaS consortium will complete its capacity building activities (webinars, events, workshops and match-making events), through which it will further engage with service providers, enablers, financial institutions,(re)insurance companies, and end-users to spread awareness about the model, its potential, and how to implement it.

Furthermore, the team will continue the building of the pipeline of energy efficiency projects in each country, which will serve as demonstration projects to attract the interest of key stakeholders.

This agenda implies continuously engaging with key stakeholders and organising roundtables and match-making events between investors, technology providers and SMEs.

The team will also institutionalise the servitisation model by establishing agreements and work programmes with national centres that can expand and support local stakeholders in the long-term to raise awareness among technology providers, financial organisations, and clients on the benefits of servitisation contracts for energy efficiency. Within the latter, the BASE team will also liaise the EaaS programme to the global Servitisation for Energy Transition (SET) Alliance, planned to be launched at the Spring Servitisation Conference in Florence in May 2022. Last but not least, the consortium will build activities to make the model known beyond Belgium, the Netherlands and Spain.

The programme is expected to mobilise above EUR 40 million during the project period, reducing more than 14,000 tonnes of carbon emission emissions a year (representing approximately 27 gigawatt hours a year of primary energy saved), and accelerate the adoption of a Circular Economy.



Servitisation can reduce energy consumption by compressed air systems

VISIT PROJECT PAGE

BASE

CIRCULAR ECONOMY TAXONOMY IN COLOMBIA

Cartagena, on the Caribbean Sea, is a major port city of Colombia

SETTING THE CONTEXT

The shift to circular economy thinking as the guiding force for business development is imperative for reconciling economic growth with environmental sustainability. The financial sector can be an essential enabler to achieve a transition to a low-carbon or carbon neutral circular economy, but this requires identifying credible projects with economic, social and environmental impact of the circularity embedded in them. Increasing the levels of financing for such projects requires building a common and inclusive definition of what circular economy means and agreeing on qualifying factors that make an initiative circular. In addition to this, the circular economy taxonomy must also differentiate circular projects from other financing opportunities present in the market for meeting sustainable development and climate change objectives.

Taking into account Colombia's progress in developing a circular economy policy framework titled the National Strategy on Circular Economy, the Inter-American Development Bank (IDB) and its private arm, IDB Invest, recognised the fundamental role of development and commercial banks in accelerating the transition to a circular economy in the country. They contracted BASE to prepare a circular economy taxonomy and help with its application to potential investment projects of Bancóldex, Banco de Bogotá, and Bancolombia.

REVIEW OF 2021

During the last months of 2021, the BASE team developed a methodology to identify circular projects and assess their level of circularity in line with the Colombian National Strategy on Circular Economy and the country's National Determined Contributions (NDCs).

To achieve this, the BASE team consulted relevant organisations, such as Colombia Asobancaria, the United Nations Environment Programme Financial Initiative, and the Ellen MacArthur Foundation to name a few. The taxonomy was peer reviewed to ensure that it could be used more broadly across the Colombian banking sector and was

PERIOD

2021 - 2022

COUNTRIES

Colombia

PARTNERS

Bancoldex, Banco de Bogotá, Bancolombia

FUNDER

IDB Invest, vInter-American Development Bank

ROLE OF BASE

Project Coordinator

representative of the Latin America and Caribbean Circular Economy Coalition's interpretation of and vision for the circular economy transition.

FUTURE OF THE PROJECT

During 2022, BASE will continue providing technical assistance along with completing the development of the taxonomy. The project will focus on creating a methodology for defining performance indicators aligned with the proposed taxonomy and their respective measurement, reporting and verification mechanisms for validating the inclusion of projects in the circular economy portfolios of financial institutions, and measuring the impact of the projects financed in terms of their contribution to circularity.

In addition, work will be carried out with three financial institutions, Bancóldex, Bancolombia, and Banco de Bogotá, in the development of a pilot in order to implement and validate the work developed.

The existence of a clear definition of what is considered 'circular' and its wide adoption by the financial sector will help mobilise the capital needed to achieve the potential benefits of the circular economy in Colombia. Colombia's National Circular Economy Strategy estimates that the potential of the circular economy could reach USD 11.7 billion per year in material savings and new business opportunities, as well as the generation of linkages and the strengthening of value chains, as one of the factors generating productivity.

In addition, adoption of a circular economy definition taxonomy will support the financial sector, and in particular banks in many ways, as enumerated below:

- The positive impact on profitability along with the pressure to generate a shift towards a circular system comes with scalability, which translates into new placement opportunities for banks.
- The collaborative approach within a circular economy value chain has the potential to also help Banks achieve their climate commitments, notably those emissions under Scope 3 for institutions that are or will become members of the Net Zero Banking Alliance, and thus the Glasgow Finance Alliance for Net-Zero (GFANZ).
- In the case of debt financing, there is a significant negative relationship between the level of circularity and a company's default risk. The same effect is true for investment capital and risk-adjusted return, making investments in circular activities less risky.
- The circular economy can help banks meet regulators' expectations in relation to climate change and reduce transition risk and other risks associated with stranded assets.

The capital city of Colombia, Bogotá, is a pioneer of the circular economy in South America

BASE

YOUR VIRTUAL COLD CHAIN ASSISTANT (YOUR VCCA) IN INDIA

Agriculture is the primary source of livelihood in India

VISIT PROJECT PAGE →

SETTING THE CONTEXT

The roll-out of the Cooling as a Service initiative in developing countries brought to the surface the immense potential of the servitisation business model for building agricultural resilience, particularly in the postharvest value chain. Every year, farmers in India incur nearly USD 12,520 million in postharvest loss due to inadequate storage facilities and energy infrastructure. To make matters worse, information asymmetry and lack of quality consciousness, crucial for setting the price of crops, lower farmers' ability to monetise on their produce and earn proportionately to their original production.

REVIEW OF 2021

BASE and the Swiss Federal Laboratories for Materials Sciences and Technology (Empa) were awarded funding by the data.org, with support from the Mastercard Centre for Inclusive Growth and The Rockefeller Foundation to develop, implement, and disseminate the Your Virtual Cold Chain Assistant (Your VCCA) project – a two-part solution to reduce postharvest food loss, improve farmer livelihoods, and enhance food security. First, the Your VCCA includes a pay-per-use business model that makes cooling more affordable and accessible for smallholder farmers and petty traders. As a second layer, it equips them with pre- and postharvest intelligence through a data-science-based application called Coldtivate to secure the best possible price for their produce and escape the vicious cycle of poverty.

After winning the data.org Inclusive Growth for Recovery Challenge out of 1,260 other applicants, the Your VCCA was kickstarted in January 2021 to help people and communities thrive by harnessing the power of data science. The solution was piloted with three sustainable cooling providers in India, namely CoolCrop in Himachal Pradesh, Koel Fresh in Odisha, and Oorja Development Solutions Limited in Bihar. A baseline needs assessment survey was conducted in each of these locations to understand the selling patterns of farmers, map reasons for income volatility, and gauge the interest in availing cooling services. This information confirmed that in the

PERIOD

2021 - 2023

COUNTRIES

India

PARTNERS

Empa

FUNDER

data.org, Rockefeller Foundation and Mastercard Centre for Inclusive Growth

ROLE OF BASE

Project Coordinator

VISIT PROJECT PAGE →

absence of cold storage, most farmers distress sold their crops at below-market rates.

The surveys informed the process of defining the minimum viable product and key features of the Coldtivate app, the most crucial of which was predicting the extended shelf-life of the crops once they were stored in the cold rooms. Shelf-life calculations take into account factors like the type of commodity, the room temperature, humidity, and the initial quality of the produce. Digital food twins, an innovative physics-based model is being developed by Empa to simulate the ageing of stored crops in real-time. Once integrated into the app and connected with the sensors in the cold rooms, digital twins will allow farmers to monitor the number of days before the quality of their crop begins to deteriorate remotely.

Beyond the app, the team began developing an interactive multi-layered map to help local entrepreneurs find ideal locations for setting up cold rooms. Relevant open-source data on cropland mask, elevation, predicted electricity network lines, temperature, solar radiance, roads, availability of markets, households engaged in farming, distribution of farmer producers' organisations, and mobile band coverage has been collection for visualisation at a district level through this one-of-a-kind map.

The progress made in 2021 has laid a strong foundation for the project's future. These include baseline assessments of the beneficiaries' current situation to measure the impact of the project at a later stage, work with satellite data that was integrated into the multi-layered maps, development of image-based models to detect the quality of selected crops automatically, and conceptualisation first version of a tool to predict the market price of crops. In the lead up to the release of Coldtivate, Your VCCA is guiding local partners in conducting awareness-raising campaigns for more farmers to recognise the benefits of cooling and engage with the solution.

Smartphone ownership in rural India doubled between 2018 and 2021

VISIT PROJECT PAGE

FUTURE OF THE PROJECT

The coming year brings with it the launch of Coldtivate, which will help digitalise the check-in and check-out processes at cold rooms, shelf-life predictions, and daily market price forecasts for different commodities using machine learning and open-source data from markets across India. The mobile application will be released publicly, allowing the team to test it in the pilot villages and gather feedback from users. Furthermore, the team will develop a capacity-building toolkit to inform farmers of the benefits of cold storage, share general and commodity-specific standard operating procedures with cold room operators, and train the trainer on using the app. This material will be made available in creative formats, from comic books to animated videos, to make the solution more understandable and usable by beneficiaries with low literacy levels.

The solution's impact will be tracked and promoted to enable its scale-up to other regions and countries. The project will incorporate a clear gender strategy to ensure that the solution benefits the most vulnerable actors within the supply chain.

During the pilot phase of the project, between 200 and 500 smallholder farmers will gain access to cooling as well as to market intelligence and knowledge about best practices for postharvest crop management. This is expected to increase smallholders' income by at least 30 per cent by strengthening their bargaining power and decreasing food loss incurred by these communities by at least 20 per cent.

Women make up 75 percent of full-time farm workers in India

VISIT PROJECT PAGE

BASE

SCALING UP YOUR VIRTUAL COLD CHAIN ASSISTANT (YOUR VCCA) TO NIGERIA

Nigeria records nearly 40 percent postharvest losses annually

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Food insecurity also remains a pressing development challenge in Nigeria. With the agricultural sector forming the backbone of the Nigerian economy, the loss of nearly 40 per cent of the country's national food production annually has far-reaching implications for farmer livelihoods and feeding its growing population inclusively. In addition to being a humanitarian concern, food loss poses an environmental threat, contributing to resource wastage and nearly 5 per cent of Nigeria's yearly greenhouse gas emissions.

Following the successful kick-off of the Your Virtual Cold Chain Assistant (Your VCCA) in India, BASE and Empa were commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) to expand the project to Nigeria on the behalf of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

REVIEW OF 2021

BASE and Empa are replicating the Your VCCA solution in Nigeria with several local clean cooling providers starting with the local implementing partner ColdHubs. In October 2021, the project team visited Nigeria during a three-week trip to launch the project, meet local stakeholders. To grasp the ground realities that will shape the project's future, the team interacted with clean cooling technology providers and cold room operators, investors, government associations related to cold chain, nutrition, agriculture and digitalisation, academics, data science entities, farmers, and market traders.

The project team visited several sites where ColdHubs rooms are located, including the Mile 12 market in Lagos – one of the largest in the country – and other market-gate cold rooms in Owerri, Abuja and Jos. The detailed questions asked to the smallholder farmers and traders revealed the day-to-day challenges they encountered in terms of accessing storage facilities and coping with market uncertainty. With their needs in mind, the team spoke to room operators to gain an overarching view of the cold chain landscape, identifying ways that

PERIOD

2021 - 2023

COUNTRIES

Nigeria

PARTNERS

Empa

FUNDER

GIZ on behalf of BMZ, data.org

ROLE OF BASE

Project coordinator

VISIT PROJECT PAGE

Your VCCA can bridge the gap between those in need and those that can provide, all while making the services affordable and more energy efficient. Equipped with the first prototype of the mobile application, the team was able to share it with the cold room operators and receive feedback on the user interface. Overall, the operators agreed that the app was simple to use and would make inventory management a lot easier. The functionalities that were primarily tested pertained to the digitalisation of the cold room inventory: the mobile application enables seamless digitalised check-in, check-out, and tracking of the produce in the rooms, serving as an effective alternative to the hand-written register books in use today.

The project team proceeded to identify and visit other clean cooling providers in the Plateau state in Jos, one of the largest agricultural hubs in Nigeria. Nuanced differences exist in ways different cold chains operate, which is important to acknowledge when designing the software solution. All these considerations are being integrated into the design of the solution.

FUTURE OF THE PROJECT

The relevance of the project was affirmed by the local partners and cold storage users, who echoed that the solution would solve critical pain points prevalent in the Nigerian fresh food supply chain. In 2022, the team will commence survey and data collection to empirically ascertain the need for cooling in Nigeria, compare the differences in food and monetary loss encountered by users and non-users, and check the potential uptake and willingness to pay by users. Furthermore, these findings will help identify and set up the pilot sites for rolling out the Coldivate app and conducting capacity building workshops.

Your VCCA hopes to become a tool that can be leveraged by local entrepreneurs tackling cold chain challenges to standardise operational methodologies. In the coming year, the team will bolster this process by setting up an incubator to support up to five additional companies with incorporating the solution in their cold storage offerings.

Vegetables to be sold at the market stored in a ColdHub cold room, Nigeria

VISIT PROJECT PAGE →

BASE

ECOFRIDGES INITIATIVE IN WEST AFRICA

Climate-friendly cooling in Africa

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Countries in the Economic Community of West African States (ECOWAS) are experiencing significant economic and population growth, which is driving ever-greater demand for refrigerators and air conditioners in the residential sector. Cooling products are essential for the health, well-being and competitiveness of these economies, but they pose critical challenges in terms of energy consumption and impacts on the environment. Outdated products consume two to three times the amount of energy as efficient options available today, and they often contain refrigerant gases that are harmful to the planet. A lack of information on product performance, inadequate policies, unavailability of higher-efficiency products in the market or higher purchase prices, and a difficult access to financing, often prohibit adoption of energy-efficient and climate-friendly models.

BASE worked alongside the United Nations Environment Programme's United for Efficiency (U4E) initiative and partnered with the governments of Ghana (Energy Commission, Environmental Protection Agency) and Senegal (AEME, DEEC) to accelerate the switch to energy-efficient and climate-friendly refrigeration and air conditioning solutions in the region. After an extensive market assessment, the key findings were used to inform the design of two financial mechanisms: Green On-wage financing (GO) in Ghana, and On-bill financing in Senegal.

Growing heat stress in Africa led to higher cooling needs

PERIOD

2018 - 2021

COUNTRIES

Ghana and Senegal

PARTNERS

UNEP, U4E, AEME, DEEC, and the Ghana Energy Commission

FUNDER

Clean Cooling Collaborative and UNEP

ROLE OF BASE

Leading development of financial mechanisms

VISIT PROJECT PAGE

REVIEW OF 2021

In 2021, the operationalisation phase was completed. For the first time, five star cooling appliances were brought into the market in Ghana. Both mechanisms were turned into financing programmes with selected partner banks (CalBank, Ecobank, La Banque Agricole, Letshego Ghana), technology providers, and SENELEC, the power utility in Senegal. By December 2021, the ECOFRIDGES GO online shop was accessible to end-beneficiaries generating cash and credit sales to a subset of partners' salaried employees in Ghana, resulting in:

- 1,337 new certified energy-efficient and climate-friendly domestic refrigerators and room air conditioners sold
- GHS 4.1 million (USD 520,000) of finance mobilised
- 12,183 megawatt hour of total energy savings / residential electricity demand reduced (equipment lifetime)
- 10,166 tonnes of total carbon emission reductions by the end of the equipment's lifetime.

FUTURE OF THE PROJECT

Moving forward, now that the technical assistance of BASE ended, the governments of Ghana and Senegal aim to coordinate, sustain and scale up the respective programmes by increasing the supply of higher-efficiency cooling appliances throughout the respective programmes, boosting the demand with targeted marketing and promotion efforts, as well as rolling out proper collection and disposal of used appliances in order to maximise the environmental impacts of the schemes in the markets. In particular, resolving the initial commercial, regulatory, and technical issues between the government of Senegal and the partners will be key to generate the first sales and unlock the full potential of the on-bill financing programme in Senegal.

Used cooling appliances from Europe often get discarded in Africa

VISIT PROJECT PAGE

BASE

R-COOL WITH GREEN ON-WAGE FINANCING IN RWANDA

Low-income housing in Kigali, Rwanda

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Similarly to countries in the ECOWAS region, Rwanda and other members of the East African Community (EAC) are facing important economic and demographic growth, sustaining an exponential demand for cooling solutions and the need to update old appliances for more energy-efficient ones. Despite the economic benefits of adopting modern and efficient cooling systems in the residential sector, these investments are not happening at the expected scale.

BASE joined forces again with United Nations Environment Programme's United for Efficiency (U4E) initiative and partnering with the Government of Rwanda, Rwanda Environment Management Authority (REMA), and East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE) to conduct the "Rwanda Cooling Finance Initiative" (R-COOL FI) technical assistance project, prepared as part of the second phase of the Rwanda Cooling initiative (R-COOL).

REVIEW OF 2021

R-COOL FI aimed to enable the conditions required to mobilise investments in new energy-efficient and climate-friendly cooling technologies in the residential sector, and motivate households to replace and upgrade their inefficient systems. This was achieved through the development and operationalisation of a market-based on-wage financing mechanism — the R-COOL GO programme, including complementary components, notably bulk rebates to support a set of financial incentives and the proper disposal of end-of-life appliances, green credit facilities to ease repayments for end-users, product testing, monitoring, reporting and verification, policy considerations, and awareness campaigns.

The technical assistance was launched in early 2019 and completed in 2021 when REMA, serving as the leading executive entity, started piloting the programme with participating vendors, and partner banks such as Bank of Kigali and GT Bank.

PERIOD

2018 - 2021

COUNTRIES

Rwanda

PARTNERS

UNEP (U4E), REMA

FUNDER

Clean Cooling Collaborative, UNEP

ROLE OF BASE

Leading development of the financial mechanism

VISIT PROJECT PAGE

Through R-COOL GO, higher-efficiency models were brought into the market for the first time and salaried customers were expected to acquire eligible equipment on special credit conditions and pay for it over time through deductions on their salaries with partner banks in 2022 onwards. In addition to overcoming key barriers, including the burden of upfront investment and the need for collaterals for end-beneficiaries, reducing the need for stringent credit assessment and collaterals, the programme was expected to incentivise households to return end-of-life cooling equipment and acquire certified higher-efficiency cooling appliances in exchange through a dedicated take-back scheme in partnership with Enviroserve, a local e-waste management operator.

FUTURE OF THE PROJECT

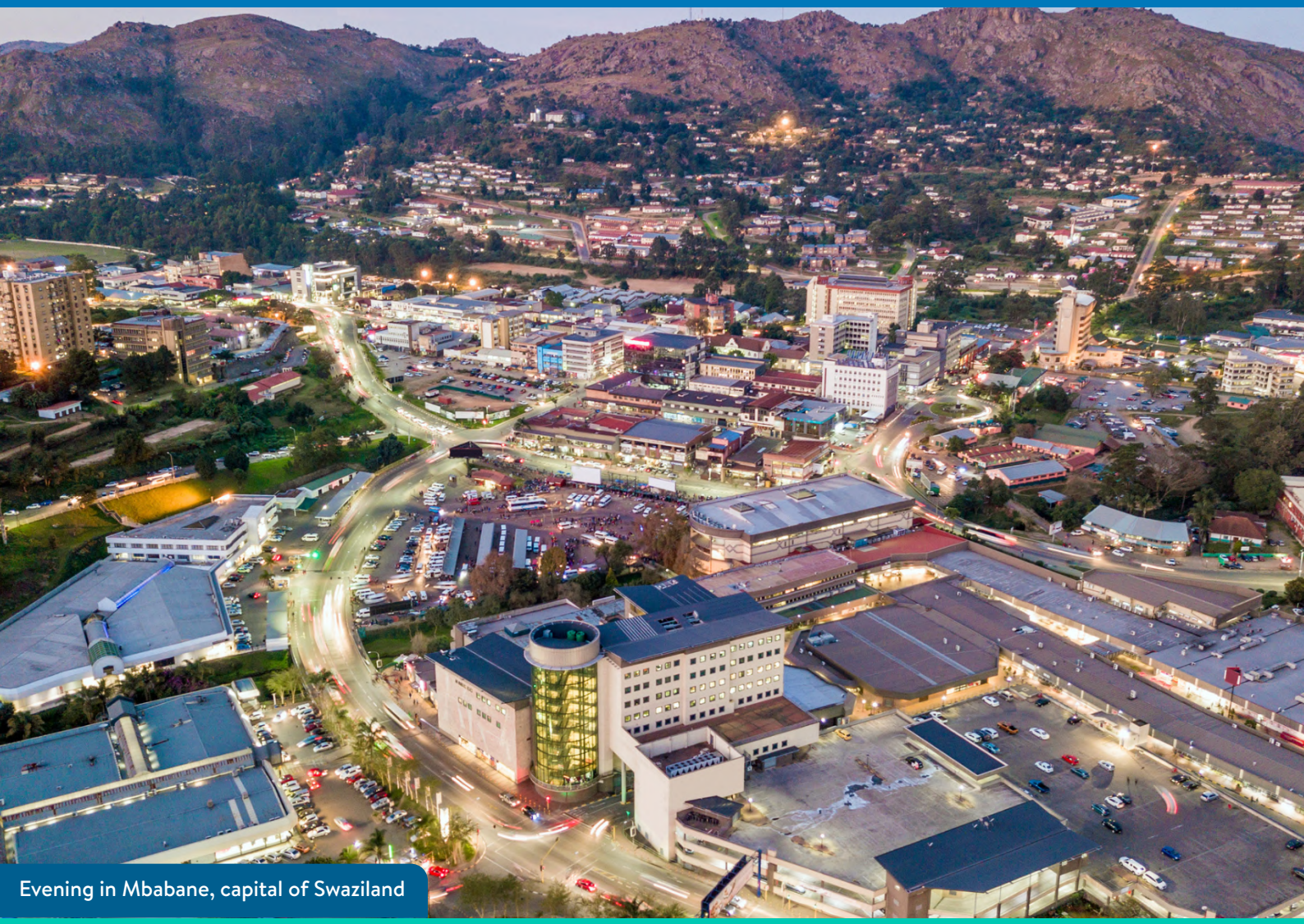
Moving forward, now that the technical assistance of BASE ended, the government of Rwanda aims to coordinate, sustain and scale up the programme by increasing the supply of higher-efficiency cooling appliances throughout the programme and boosting the demand with targeted marketing and promotion efforts in order to maximise the reach and depth of the scheme in the market. In particular, once reaching cruise speed, R-COOL GO aims to unlock USD 4 million in potential financing to support the purchase of over 12,000 energy-efficient and climate-friendly cooling products to replace used but operational equipment in the residential sector in Rwanda in the years to come.

Modern skyline of Kigali, Rwanda

VISIT PROJECT PAGE

BASE

NATIONAL FRAMEWORKS FOR ENERGY-EFFICIENT APPLIANCES AND EQUIPMENT IN SOUTHERN AFRICA



Evening in Mbabane, capital of Swaziland

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Access to electricity is a critical element of countries' economic development in the Southern African region, with low access to grid electricity. With financial constraints, high dependency on electricity imports, and with subsidised electricity tariffs, the need for higher efficiency equipment, including refrigerators and distribution transformers (DTs), is crucial as a means to reduce electricity losses and pressure on the grid of these economies in terms of capacity addition and electricity generation and lessen the burden on the governments' budgets hampering the countries' electrification potential. Projected energy savings for Malawi, Namibia, Zambia and Zimbabwe, when moving from the current state of technologies to MEPS, could generate significant energy savings by 2030 with a full market transformation for both refrigerators and DTs.

REVIEW OF 2021

BASE in partnership with Southern African Development Community (SADC) Centre for Renewable Energy and Energy Efficiency (SACREEE) and the International Copper Association (ICA) started providing technical services in early 2021 for the implementation of GCF Readiness projects with Climate Technology Centre and Network (CTCN) through United Nations Environment Programme (UNEP) on national frameworks for leapfrogging to energy-efficient appliances and equipment in Malawi, Namibia, Zambia, and Zimbabwe through regulatory and financing mechanisms. The objectives of the technical assistance projects are to improve the country programming process regarding refrigerators and distribution transformers and strengthen climate finance strategies and pipeline. The activities are being coordinated with similar GCF Readiness projects in four additional Southern African countries (Botswana, Eswatini, Lesotho, and Tanzania) and also regional harmonisation efforts, which are being coordinated by UNEP's United for Efficiency (U4E) initiative.

The projects which aim to put in place mandatory Minimum Energy Performance Standards (MEPS) and a labelling scheme, creating an enabling policy and regulatory environment for refrigerators and

PERIOD

2018 - 2022

COUNTRIES

Malawi, Namibia, Zambia, Zimbabwe

PARTNERS

SACREEE and ICA

FUNDER

GCF with CTCN through UNEP

ROLE OF BASE

Coordination of projects and leading the development of financing mechanism and business model recommendations

VISIT PROJECT PAGE →

distribution transformers in Southern Africa, including key components such as market assessments, national policy roadmaps and enabling environments for the implementation of standards and labels, was a great opportunity for BASE to capitalise on its expertise and experience to inform the development of appropriate on-bill and on-wage financing mechanisms and ESCO energy performance contract business models and bulk procurement with total cost of ownership approaches in collaboration with national stakeholders through Policy Working Groups and trainings. By the end 2021, BASE supported the delivery of market assessments, reports on financing mechanism and business model concept recommendations, and detailed implementation plans for accelerated deployment of energy efficient refrigerators and distribution transformers in the respective countries. In addition, BASE conducted training workshops on the recommendations and secured endorsement of most suitable mechanisms and business models from the respective Policy Working Groups.

FUTURE OF THE PROJECT

In 2022, the technical assistance projects aim to conduct additional targeted policy training workshops and deliver the national policy roadmaps to be adopted by the respective governments. Beyond the technical assistance, BASE endeavours to support the adoption of MEPS and support client countries to turn the recommended financing mechanism and business model concepts into actual programmes with potential international donors. In fact, this might help client countries transform their markets to energy-efficient refrigerators and distribution transformers and ultimately reduce the strain on the electricity grid, and increase disposable income for householders and potentially reduce greenhouse gas emissions.

Power grids in Southern Africa

VISIT PROJECT PAGE

BASE

INTEGRATION OF RENEWABLE ENERGY BUILDINGS IN INDIA

Vibrant Bangalore, the fifth most populous urban agglomeration in India

VISIT PROJECT PAGE →

SETTING THE CONTEXT

As cities currently pump out 70 per cent of greenhouse gas emissions globally, buildings alone account for 40 per cent of them, and Indian cities are responsible for 40 per cent of the national energy use while it is estimated that approximately 75 per cent of the building stock that India will see in the year 2047 is yet to be built, the need for a greener architecture is urgent. There is thus currently a clearly identified window of opportunity to reduce the building sector's energy consumption through means of mainstreaming highly energy-efficient new constructions and the use of renewable energy in those.

BASE and partners from the International Institute for Energy Conservation (IIEC) are working together to design, demonstrate and monitor innovative, building-integrated renewable energy technologies suitable and affordable for local conditions, and applicable to buildings in India. The project has selected two technologies to implement, which are biomethanation (biogas) and rooftop solar photovoltaics. The Indo-Swiss Building Energy Efficiency Project (BEEP) has shown that 30-45 per cent of energy savings are possible by adopting various energy efficiency measures in buildings.

REVIEW OF 2021

In 2021 the team held various interviews with key stakeholders in India with the objective to identify typical barriers and experiences implementing renewable energy in residential and commercial buildings. As a result, the team proposed an Opex Model or servitization model and a leasing model as business options for scaling up investments with the support of a credit guarantee, mainstreaming renewable energies in the banking sector and to create a platform for a secondary market as financing strategies.

To consult and receive stakeholders' inputs about the business models and financial mechanisms proposed by the team, an on-site consultation was scheduled to have bilateral meetings as well as a round table consultation workshop. The event had a total of 24 participating organisations ranging from technology providers,

PERIOD

2019 - 2021

COUNTRIES

India

PARTNERS

IIEC

FUNDER

SDC and IIEC

ROLE OF BASE

Providing support in technologies, business models and financing strategies

VISIT PROJECT PAGE

financial institutions, technical support agencies, including academia, and the government represented by the Ministry of New and Renewable Energy (MNRE). The participants resolved a questionnaire which indicated the acceptance of the Opex model as a business model and the credit guarantee as the main financial strategy supported by mainstreaming renewable energies in the banking sector and creating a secondary market for them, the last two fully backed by the financial sector participants.

FUTURE OF THE PROJECT

During 2022, the team will report the business models and financing mechanisms to the key stakeholders and will expect to receive a letter of endorsement by the organisations which will indicate the next steps in the technical assistance.

The programme is expected to demonstrate in two pilot buildings the integration of renewable energy technologies, engage technology providers and financing institutions in a business model, and provide financial mechanisms. BASE is also helping formulate guidelines and procedures to facilitate the implementation of the proposed models and financing structures, and drive discussion on building regulation.

Solar panels in a modern metropolis

VISIT PROJECT PAGE

BASE

REMITRESILIENCE IN THE PACIFIC

Using solar power in the Pacific Islands

VISIT PROJECT PAGE →

SETTING THE CONTEXT

The Pacific is one of the world's most vulnerable regions to the impacts of climate change, already experiencing extreme climate induced disasters such as droughts and tropical cyclones which severely hinder development. Frequent natural hazards in these small island states result in damages worth millions of dollars. Much of the physical damage and associated social and economic devastation can be avoided by investing in sustainable and resilient infrastructure. There is an urgent and pressing need for locally appropriate, self-sustaining and accessible financing options for climate resilience. While remittances are an important source of income for people in the Pacific Islands, the potential for remittances to enhance climate resilience has not yet been realised in the region.

REVIEW OF 2021

In 2021, BASE in partnership with Oxfam in the Pacific has been awarded a feasibility study grant through Convergence's Indo-Pacific Design Funding Window, funded by the Australian Government. The feasibility study aims to determine the viability of implementing a finance vehicle that enables remittance senders living in Australia and New Zealand to contribute towards strengthening climate resilient infrastructure for their families and communities in Pacific Island Countries.

This project has given BASE the opportunity to work again on remittance-based business models after implementing similar projects in Haiti, Bolivia and Central Asia. For the past 10 years BASE has analysed or developed business models that enabled migrants to channel part of their remittances towards energy access. With the RemitResilience project, the idea is to bring our knowledge and learning from our previous project and promote resilience and adaptation in the Pacific with our new partners. During 2021 BASE and Oxfam in the Pacific carried out the feasibility assessment which included secondary desk research, and community and multi-stakeholder consultations. These consultations aimed to identify the areas of infrastructural improvements that could mitigate the impact of climate-related

PERIOD

2021 - 2022

COUNTRIES

Fiji, Tonga and Vanuatu

PARTNERS

Oxfam in the Pacific

FUNDER

Convergence Blended Finance Inc.

ROLE OF BASE

Project Coordinator

VISIT PROJECT PAGE →

disasters on the populations of small island states and fathom the level of interest among migrant workers to participate in the finance vehicle.

The community consultations combined both quantitative and qualitative data from remittance receivers in the Pacific and remittance senders in Australia and New Zealand. The objective of the consultations was to understand the decision-making dynamics between remittance receivers and senders, community perceptions of climate resilience, current barriers to investing in sustainable and resilient housing products and gathering feedback on the draft financial structure to better align it with the local populations' needs. The RemitResilience team held 13 focus group discussions in the Pacific, 25 one-on-one interviews in Australia and New Zealand with diaspora, migrants and seasonal workers and gathered almost 200 surveys in both, sending and receiving countries.

The community consultations included an important gender aspect as in many Pacific Island Countries underlying inequalities mean that women are often more vulnerable to the consequences of climate change. The project team gathered gender disaggregated data and ensured an equal gender representation, which helped give due weightage to the voices, perspectives, and concerns of men and women alike. Additionally, incorporating a gender lens in the project was vital for understanding the different realities and aspirations of men and women in the Pacific. The multi-stakeholder consultations included delving into detailed discussions with key actors for gauging the potential to implement a self-sustaining remittance-based finance vehicle in the near future. The objective was that the consultations would support the design of the specifics of the finance vehicle, to ensure it is feasible and suitable in the cultural and market context of the Pacific and to define and engage the right partners for the programme. The project team held interviews with more than 40 key stakeholders for the project, including remittance service providers, providers of climate resilient technologies, financial institutions, governmental bodies, international organisations, civil society organisations and gender focused organisations.

The project has faced many challenges, including the COVID-19 health and economic crisis and natural hazards (particularly tropical cyclones). Through all these challenges that the Pacific faced over the last year, remittances played an indispensable role by supporting the relief and recovery. This reassures the need to create a mechanism that enables migrants' remittances to not only be part of the recovery effort, but also support disaster risk reduction measures.

FUTURE OF THE PROJECT

With the results from the feasibility assessment, BASE will design a finance vehicle that enables Pacific islanders to receive climate resilient infrastructure solutions as part of their remittances. Due to the success of the feasibility study and the enthusiasm of communities and key stakeholders alike, BASE aims to launch the implementation (Phase II) of the project mid-2022.

Part of the rural community consultation group in Molituva Village, Fiji

VISIT PROJECT PAGE

BASE

GREEN FINANCING FOR SMES GUATEMALA

Antigua Guatemala, Guatemala, where green financing is implemented

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Banks play a key role in financing climate change and sustainability solutions in the markets in which they operate. Small and medium-sized enterprises (SMEs), in particular, need support to access finance to enable them to incorporate these technologies that can have a positive impact on their productivity and cost reduction, in addition to the large environmental impact they have given that most companies are SMEs. Although SMEs in Guatemala account for an estimated 99 per cent of the country's economic activity, these companies often face difficulties in accessing finance. According to the SME Finance Forum, SMEs and microenterprises in Guatemala face a financing gap of USD 14 billion, with women-owned businesses and businesses in small towns and rural areas particularly affected.

REVIEW OF 2021

BASE has provided consultancy support to Banco Industrial in developing its offering of green financial products and services for the SME sector in Guatemala. It has also supported the institution in strengthening its Sustainability Policy and improving its Social and Environmental Risk Management System.

The support from BASE included objectives such as the establishment of a Sustainability Policy that supports a framework for strategic alignment with international best practices in sustainable finance; creating a social and environmental risk management system up to date with international best practices; designing and establishing a process for the identification and selection of investments, as well as the use of financing resources for projects that qualify as green; identifying and segmenting the credit demand of the SME market in Guatemala; reviewing, adjusting and designing financial products applicable to the SME market, including the approach to sustainability financing; designing a simplified SME credit analysis to be approved by Banco Industrial; and finally, building the capacity of senior and middle management on sustainable finance, financial products and processes necessary for SME portfolio growth and green credit in this market segment.

PERIOD

2020-2021

COUNTRIES

Guatemala

FUNDER

IDB-Invest and Banco Industrial

ROLE OF BASE

Leading the consultancy support.

VISIT PROJECT PAGE →

BASE

GREEN NEIGHBOURHOODS APPROACH IN LEBANON

Area of Beirut, Lebanon

VISIT PROJECT PAGE →

SETTING THE CONTEXT

Lebanon is a country with densely populated cities, and many neighbourhoods have buildings and public spaces that are not prepared to adapt to the changing climate and for the transition to a low-carbon economy. This is especially the case for low- and mid-income neighbourhoods as their infrastructure and services are inadequate and overburdened, exacerbating pollution, economic and social tensions.

REVIEW OF 2021

BASE worked on a proposal to the Green Climate Fund (GFC) that aimed to put in place financial support and implement a Programme that supports neighbourhoods in Lebanon to transform into green neighbourhoods. The GCF funding proposal is being developed under the leadership of the United Nations Environment Programme (UNEP), in collaboration with BASE, the Lebanese Centre for Energy Conservation (LCEC), and technically supported by the Polytechnic University of Milan.

The programme aimed to include a strategy to engage the private sector, municipalities and households. Furthermore, it aims to engage with and work in close collaboration with the local utility to align current initiatives, efforts and regulation (e.g. Electricite du Liban net metering policy).

The general objective of this initiative was to design a programme to support high-densely populated (lower-middle income) Lebanese neighbourhoods to become more resilient to negative impacts caused by climate effects. In this way, they can be enabled, as community centres, to reduce greenhouse gas emissions, drive climate action, partake in sustainable development, and generate the conditions to improve the well-being of their population. The project supported the economy to build back greener and better after the COVID-19 health and economic crisis. The funding proposal aims to build a programme that provides mitigation and adaptation measures that

PERIOD

2019 - 2021

COUNTRIES

Lebanon

PARTNERS

UNEP, Lebanese Centre for Energy Conservation, Politecnico di Milano

FUNDER

UNEP

ROLE OF BASE

Leading the writing of the GCF proposal and the market assessment

VISIT PROJECT PAGE

can be replicated and scaled up to different densely populated cities in Lebanon.

BASE undertook a feasibility assessment that aims to define the interventions to help Lebanon's neighbourhoods, determine the characteristics of the beneficiaries, estimate the potential size of the market that could be reached, the baseline and the target measures, including the number of beneficiaries and carbon emission reduction potential. Through this assessment, the partners will also answer the key questions previously raised by the NDA.

Area of Beirut, Lebanon

Some of the neighbourhood interventions to be evaluated included:

- Building envelope, e.g. green roofs, passive design strategies.
- Energy generation and renewables, e.g. solar water heaters, low Global Warming Potential (GWP) heat pumps.
- Resources efficiency, e.g. low GWP cooling, water efficiency.
- Public areas, e.g. solar photovoltaic, waste management, green areas.
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- Public areas, e.g. solar photovoltaic, waste management, green areas.

FUTURE OF THE PROJECT

Lebanon endured multiple crises during the time of the proposal (2019 - 2021), including an economic and financial crisis, followed by COVID-19, the explosion at the Port of Beirut in 2020 and, lastly, an electricity crisis. In fact, Lebanon's GDP plummeted from about USD 55 billion in 2018 to USD 21.8 billion in 2021. Due to these external and unforeseen circumstances, the project was cancelled.

VISIT PROJECT PAGE

BASE

SOLAR FOR HEALTH IN SOUTHERN AFRICA

A public health facility in Southern Africa

VISIT PROJECT PAGE →

SETTING THE CONTEXT

The overburdened national grids across Sub-Saharan Africa (SSA) continue to lag in keeping pace with the demand, forcing power companies to impose blackouts regularly. Nearly 25 per cent of health facilities across the region are devoid of electricity, while an additional 28 per cent lack reliable access to power needed for operating medical and diagnostic devices, preserving essential medicines, preventing diseases, and combating pandemics. To cope with the outages and minimise risks to patients, many facilities are compelled to rely upon backup fossil-fuel generators that contribute to greenhouse gas emissions. At the same time, the region is gifted with a vast —and still untapped—renewable energy potential to serve as a cost-effective, reliable, and rapidly deployable source of electricity to strengthen the quality and resilience of health care.

BASE is partnering with SACREEE to support the United Nations Development Programme (UNDP) with the development of a Green Climate Fund (GCF) Funding Proposal to scale up the Solar for Health (S4H) programme that aims to equip over 3,000 rural and urban public health centres across Liberia, Malawi, Namibia, Zambia, and Zimbabwe with renewable energy services and adaptation measures. The regional programme acts as a cross-cutting intervention that seeks to ensure adequate operations and maintenance of energy systems, address affordability constraints, and mobilise private sector investment without requiring full upfront payment for the energy systems by the public health facilities.

Given that Africa already suffers a high burden of climate-sensitive diseases, the programme integrates information systems that forecast future outbreaks and create a context for taking early actions to protect public health. The project can improve healthcare access for almost 33 million people through these measures, where 50 per cent of the direct beneficiaries are women, reduces more than 1 million tonnes of carbon emission equivalent, and prioritises a balanced approach between adaptation and mitigation. To holistically address the climate change problem the health sector of countries in SSA is facing, UNDP is partnering with the World Health Organization (WHO) and Sustainable Energy for All (SEforALL).

PERIOD

2021 - 2023

COUNTRIES

Liberia, Malawi, Namibia, Zambia, and Zimbabwe

PARTNERS

SACREEE

FUNDER

UNDP

ROLE OF BASE

Project coordinator

VISIT PROJECT PAGE

BASE is leading the development of the full Funding Proposal as well as the financing components, while SACREEE is responsible for conducting the feasibility study and market assessments and the provision of local intelligence and network.

BASE is leading the development of the full Funding Proposal as well as the financing components, while SACREEE is responsible for conducting the feasibility study and market assessments and the provision of local intelligence and network.

REVIEW OF 2021

In 2021, BASE and SACREE started to develop the financing proposal, which includes the feasibility study and market assessment, the economic and financial analysis and started to define the financial strategy. The development of the material has been done in constant consultation and collaboration with local and international key stakeholders. The feasibility study and market assessment enables the design of a suitable Programme – a programme that can engage the public and private sector, financial institutions, technology solution providers and contractors and that can comply with and strengthen national policies and regulations. The proposed programme is meant to overcome barriers, seize opportunities, create economies of scale, fill financial gaps and link with existing initiatives, stakeholders and efforts related to the objectives of this programme.

Installation of photovoltaic panels Photo: Ashden / Ashden

The programme includes among others the following strategic elements, which may serve as entry points for future collaborations during the implantation phase of the programme:

- De-risking: The programme includes financial (and non-financial) risk mitigation mechanisms that enable the participation of the private sector (including financial institutions, renewable energy providers, developers, etc.).
- Technical assistance: The programme includes activities to build the capacity of stakeholders in renewable energy business models for the off-grid electrification of healthcare facilities at national and healthcare facility level
- Digitalisation for health decision making: A central element of the programme is the piloting of health surveillance and information systems for climate sensitive diseases. These systems enable climate informed advisory to patients.
- Regional knowledge platforms: The Programme includes the establishment of knowledge platforms to facilitate the dialogue with public authorities in the targeted countries, ensure replication and scaling of best practices and to support governments to overcome common challenges of the five target countries.

The project is an exciting opportunity for BASE to participate in the design of an innovative programme related to climate change mitigation and adaptation, related to health facilities and focused on key countries in Southern Africa. It is also a great occasion to collaborate with organisations such as UNDP, WHO and SEforALL. In addition, the programme has the potential to advance the energy-as-a-service model in Africa and has great potential for impact and visibility. In addition, the project further builds BASE expertise in the development of GCF Funding Proposals.

VISIT PROJECT PAGE →

BASE

CIRCULAR ECONOMY AT THE NEIGHBOURHOOD LEVEL: DEVELOPMENT OF A DISCUSSION PAPER

Community gardens are key components of circular neighbourhoods

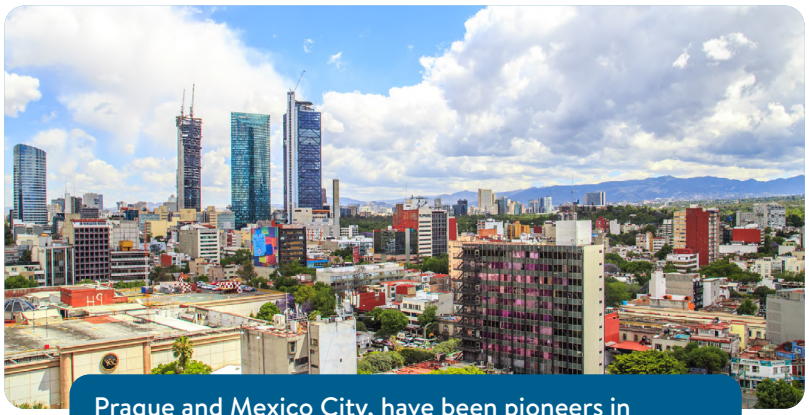
READ THE PAPER →

SETTING THE CONTEXT

Our current economy is undergirded by the take-make-dispose principle, using the Earth's resources faster than they can be replenished. Moving towards a circular economy facilitates a more conscious use of our finite resources by limiting waste and pollution generation, keeping resources in use in the economic system throughout the resources' value chain, and by regenerating natural systems. By bringing together benefits for businesses, people, and the environment, circularity has garnered traction as a potent means to address the climate solution, among other planetary boundaries. As centres of economic activity, cities have the unique potential to serve as focal points of innovations on circularity and efficient resource use.

REVIEW OF 2021

As a spinoff of our as-a-Service projects (both CaaS and EaaS, which recognise the crucial role that servistisation plays for building a circular economy), we decided to deep-dive and explore how this business model could promote the transition towards a circular economy at the city level. For this, in 2021, we partnered with the United Nations Environment Programme (UNEP), Arup, C40 Cities, Ellen MacArthur Foundation, Mass Design Group, Mexico City, and



Prague and Mexico City, have been pioneers in incorporating circularity at the neighbourhood level

PERIOD

2021

COUNTRIES

Global

PARTNERS

UNEP, Arup, C40 Cities, Ellen MacArthur Foundation, Mass Design Group, Mexico City, and the Prague Institute of Planning and Development

ROLE OF BASE

Collaborator, Co-author

READ THE PAPER →

the Prague Institute of Planning and Development to develop a discussion paper entitled *Creating Circular Neighbourhoods,* with an online launch at the Innovate-4Cities conference on 14 October 2021. The paper sought to explore whether and how communities and neighbourhoods could be a starting point for introducing circularity in a city. The discussion paper maps manageable actions within three sectoral systems: construction, servitisation, and neighbourhood food systems, which are easily adaptable to other contexts.

The paper is available on several relevant websites, including UNEP, UNEP Neighbourhoods Initiative, and the Latin America and the Caribbean Coalition on Circular Economy. The paper was also presented on 20 October as part of a webinar presentation for the UN System Staff College (UNSSC) course on the circular economy, attended by non-profit leaders, UN officials, private sector partners, and government staff. This webinar was part of the UNSSC's 3rd edition of the circular economy online course. The paper was included in the mandatory readings for the course, for which there were 460 participants, 300 of whom participated in the webinar

FUTURE OF THE PROJECT

Given the interest the paper raised in the issue of servitisation at the neighbourhood level, we will seek to continue our collaboration with UNEP in 2022 with the objective of engaging a city to test the effectiveness of servitisation in the circular transition, support cities in identifying gaps where servitisation can be leveraged to increase circularity, and advance the adoption of servitisation as a pathway to circularity.

According to the Ellen MacArthur Foundation, 45 per cent of the emissions reduction needed to limit the increase in temperature by 1.5°C by 2050 needs to come from switching our current linear system towards a circular one. Neighbourhoods are the building blocks of cities, and they provide an agile environment to gradually address the critical challenge of the dependence on existing linear networks and inspire action to reimagine, redesign, and rebuild the cities where we live. Thus, there lies an enormous potential to scale up the adoption of the servitisation model once we learn how and develop the ideal conditions to promote it in a given city.

Plants growing in a community garden

READ THE PAPER →

PARTNERSHIPS

VISIT BASE WEBSITE →

BASE'S PARTNERS ARE THE DRIVING FORCE BEHIND OUR WORK. TOGETHER WE DELIVER EFFECTIVE SOLUTIONS TO EACH PROJECT AND ADDRESS THE COMPLEX CHALLENGES OF CLIMATE CHANGE AND SUSTAINABLE ENERGY.

TESTIMONIALS

CONVERGENCE BLENDED FINANCE

"As the world faces a severe climate crisis, we need to accelerate solutions that will equip countries most exposed to its shocks with the right tools and infrastructure. We supported BASE's remittance-based financing vehicle because it aims to do just that – advancing climate action and sustainable infrastructure development in the Pacific Islands."

– Joan Larrea, CEO

BASE's team during their 2021 retreat, Switzerland.

UN CLIMATE TECHNOLOGY CENTRE AND NETWORK (CTCN)

"BASE is a reliable partner in the implementation of the project on developing a national framework for leapfrogging to Energy Efficient Appliances and Equipments (Refrigerators and Distribution Transformers) through regulatory and financing mechanisms in Malawi, Namibia, Zambia, and Zimbabwe. The project is under the GCF's Readiness and Preparatory Support programme and involves multiple national stakeholders. Colleagues from BASE are well equipped to drive the implementation in an inclusive and engaging manner."

– Rajiv Garg, Regional Manager Africa

DATA.ORG

"We continue to be impressed by data.org Challenge awardee BASE, and their innovative application of data science with Your Virtual Cold Chain Assistant. The project's continued success with follow-on funding and expansion to Nigeria is a testament to the power of data driven insights for social impact."

– Danil Mikhailov, Executive Director, data.org

OUTLOOK OF 2022

VISIT BASE WEBSITE →

IN 2022, BASE WILL CONTINUE TO LOOK FOR OPPORTUNITIES TO DEVELOP NEW CLIMATE FINANCE INNOVATIONS AND TO ROLL OUT ITS FLAGSHIP INITIATIVES IN NEW MARKETS WHERE THEY HAVE THE POTENTIAL TO HAVE A POSITIVE IMPACT.

The following list provides an overview of the projects currently being planned or pursued by BASE:

- In 2022 BASE is launching the Servitisation for Energy Transition (SET) Alliance, building on existing servitisation initiatives and portfolios. The Alliance is expected to gather top stakeholders with the shared vision of scaling up and accelerating the energy transition
- After Latin America, Asia and Europe, the ESI model will be expanded to its first country on the African continent. BASE is partnering with Société d'Ingénierie Énergétique (SIE), Morocco's Super ESCO, to expand the benefits of its BASE's flagship ESI model to the Moroccan market with funding support from the Climate Emergency Collaboration Group (CECG).
- In 2022, BASE will be actively contributing to the transition of the financing sector towards Net-Zero. BASE has been awarded a project by the IDB-Invest to provide technical assistance to a bank in Ecuador to design their targets and strategy for their Net-Zero commitments. Furthermore, BASE will also work alongside UNEP-FI on building the capacity of PRB (Principle of Responsible Banking) signatory banks in Latin America, Africa and Asia on climate target setting.
- BASE is increasing its expertise in the development of credit guarantees. In 2022 and 2023 BASE will support SDC in the implementation of a green credit guarantee in Peru. This project is expected to help generate new areas of opportunity and projects for BASE.
- Due to the success of the RemitResilience feasibility study and the enthusiasm of communities and key stakeholders alike, BASE aims to seek funding to launch the RemitResilience implementation (Phase II) by the end of 2022.
- In its efforts to work with all markets including the most vulnerable and underserved, BASE has started to explore opportunities to enable resilient and clean energy access in displacement settings through the implementation of self-sustaining finance mechanisms.

Indian field worker with a smartphone

VISIT BASE WEBSITE →

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THANK YOU!

BASE

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