

FINLAND-IFC BLENDED FINANCE FOR CLIMATE PROGRAM

End of Investment Period Highlights
(2017-2023)

Ulkoministeriö
Utrikesministeriet



Ministry for Foreign
Affairs of Finland



IFC

**International
Finance Corporation**
WORLD BANK GROUP

Creating Markets, Creating Opportunities

About IFC

IFC — a member of the World Bank Group — is the largest global development institution focused on the private sector in emerging markets. We work in more than 100 countries, using our capital, expertise, and influence to create markets and opportunities in developing countries. In fiscal year 2023, IFC committed a record \$43.7 billion to private companies and financial institutions in developing countries, leveraging the power of the private sector to end extreme poverty and boost shared prosperity as economies grapple with the impacts of global compounding crises. For more information, visit www.ifc.org.

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Summary

- ▼ The world has changed dramatically since the launch of the Government of Finland and IFC blended finance partnership in 2017.
-

Unprecedented economic factors, including COVID-19 pandemic, sovereign debt issues with elevated inflation and rising interest rates, and Russia's invasion of Ukraine, have disproportionately affected the private sector in developing countries. These external forces have further threatened the ability to invest in climate impactful projects.

Since the signing of the Paris Agreement in 2015, carbon emissions have continued to rise steadily. To keep within the 1.5-degree limit, the UNFCCC's Global Stocktake reported that emissions need to be reduced by at least 43% by 2020 compared to 2019 levels. This requires a complete rewiring of the global economy. Accelerating climate change is compounded by other global challenges, including Russia's invasion of Ukraine, and other conflicts driving increased fragility and food insecurity in many countries.

Despite the urgent need for action, climate investments are falling short. A report by the International Energy Agency (IEA) and IFC highlights that clean energy investments alone must more than triple from USD 770 billion in 2022 to USD 2.2-2.8 trillion per year by the early 2030s to help emerging markets achieve their energy and climate goals. Approximately 60% of this investment needs to come from the private sector. IFC plays a key role in facilitating private capital mobilization to support the World Bank Group's vision to create a world free of poverty on a livable planet.

To ignite the private sector in emerging markets and developing economies, approaches like blended finance that can combine development partner funds with IFC's own-account resources to catalyze private sector capital into high impact projects, continue to show their ability to meet the moment.

The Blended Finance for Climate Program

(BFCP), a €114 million partnership between the government of Finland and IFC, was established in 2017 to catalyze innovative investments and unlock private financing into climate-smart projects in developing countries. Finland was the first European country to enter a blended finance partnership with IFC. By the end of the investment period (December 2023), the Finland-IFC Program has supported projects around the world focused on sustainability and supporting the green transition.

Finland's support has helped IFC push boundaries and move into new frontiers in the climate space. This includes areas like circularity, where innovative private companies are leveraging the agility, networks, and resources of the private sector to find solutions to growing problems like ocean plastics in South and Southeast Asia (Circulate Capital). In Vietnam, with BFCP support, a toxic landfill on the precipice of a potentially calamitous environmental situation for the local population was halted by the introduction of an innovative waste disposal and waste-to-energy approach has turned waste into opportunity (Bac Ninh WTE). In Nepal, IFC's work continues to harness the incredible power and opportunity of hydropower, with increased energy generation expected to reach millions of Nepalese and reduce dependence on power imports (UT-1). In addition, tested programs like Scaling Solar are also creating impact for local populations and supporting the green transition in Africa (Scaling Solar Senegal).

Blended finance has enabled IFC to deepen its support in fragile and conflict-affected countries, mitigating risks inherent in these markets. Through the BFCP, IFC has been able to support projects in hard-to-reach places like the Democratic Republic of Congo and the West Bank, where conflict has driven increased fragility and economic instability, and where climate change

continues unchecked. Successful, impactful climate projects in challenging settings – ones that literally keep the lights on and keep businesses and schools going – show that climate projects are both viable and necessary (Massader School Rooftop and Nuru).

In partnership with Finland, IFC's investments provide financial support not available in these markets, helping high impact and first-of-their kind projects on the cusp of commercial sustainability proceed. Most of these projects would not have moved forward without concessional funding from Finland – it was the strategic and judicious use of blended finance that supported a viable financing structure that could bring in private capital to projects that foster economic growth and climate resilience.

KEY FEATURES



Size of the fund: €114 million



Duration: 25 years, including a 6-year active investment period (October 2017-December 2023)



Priority sectors: Renewable energy; energy efficiency in buildings; agriculture, forestry and land-use; water, wastewater, and sanitation; meteorology; food security; sustainable forestry



Geographies: Global, targeting the funds to projects in least developed countries, other low-income countries, and lower middle-income countries and territories



Instruments: Equity, senior debt, mezzanine debt, and guarantees

Expected impact overview – aggregate¹

LEVERAGE

The leverage ratio is one way to express the crowd-in effect of blended finance as a relative ratio. Across all blended finance programs, IFC has achieved a leverage ratio (\$ of donor funds to \$ of commercial funding from the Sponsor, IFC and other 3rd parties) of 1:7x from 2010 to 2023.

For the BFCP, **leverage is 1:13x**, which means that every **\$1 of Finland's funding** has crowded in over **\$13 of IFC and 3rd party funds**. When

the Upper-Trishuli 1 project is removed from this equation, the **leverage is 1:10x**. Leverage ratio also broadly reflects the risk level of key sectors and markets where the concessional funds are deployed. For instance, local currency solutions have been utilized to mitigate risks in IFC investments primarily in lower-income countries where local financial markets are relatively less developed with less liquidity, which explains the lower capacity in attracting commercial capital in comparison.

GREENHOUSE GAS EMISSION ABATEMENT

As a climate program, greenhouse gas (GHG) abatement remains a core impact of the BFCP. As of June 30, 2023, **BFCP total expected GHG abatement is 8,857,421 tCO₂e per year**.²

The number alone can be a crude indicator but taken at a broader level signifies support for energy transition through the creation of new clean energy markets that abate harmful GHGs.

¹ Actual project-level results are reported in future implementation updates as they are being recorded in IFC's results tracking systems.
² Note the majority of total expected GHG abatement is attributed to SEACEF II (pg. 23). Over the course of the Fund's life, it aims to invest in projects which potentially could achieve an accumulated target reduction of 7 million tons of avoided GHGs, of which a portion (3.7%) can be attributed to the BFCP contribution.

BFCP-supported Projects

BUILDING CLIMATE RESILIENCE FOR A LIVABLE PLANET



Finland's impactful blended finance partnership with IFC has catalyzed 16 investments³ in emerging markets and developing economies around the world. To augment blended finance investments, IFC also provides upstream support, advisory services, and technical support to create markets that will sustain these projects. Projects show promise of replication, paving the way for decarbonization and improved livelihoods.

³ Note GAIA Wind project in Africa was cancelled.



NEPAL

HYDROPOWER IN NEPAL (Upper-Trishuli 1)

2020

Total project cost:

US\$650 million

Finland-IFC BFCP contribution:

US\$13.1 million equity investment

▼ **With over 6,000 rivers and streams, Nepal has enormous hydropower potential.** The Upper-Trishuli 1 (UT-1) project supports the development of a greenfield 216 megawatt run-of-the-river hydropower project north of Kathmandu. The project will be a standard-setting example for further Nepalese and other similar hydropower project and will generate electricity sufficient to supply millions of Nepalese people. This increased inflow of resources to the country stimulates inclusive growth and development, in addition to increasing competitiveness in downstream industries. Large-scale hydropower projects such as UT-1 require stamina, patience, and persistence on the part of all stakeholders, as the timeframe can be long. Once completed, the company will sell power generated by UT-1 to Nepal's national public utility company, benefiting Nepalese with cleaner, more reliable electricity for decades to come.



WEST BANK

SOLAR POWER ON SCHOOL ROOFTOPS (Massader Solar) 2020

Total project cost:

US\$32 million

Finland-IFC BFCP contribution:

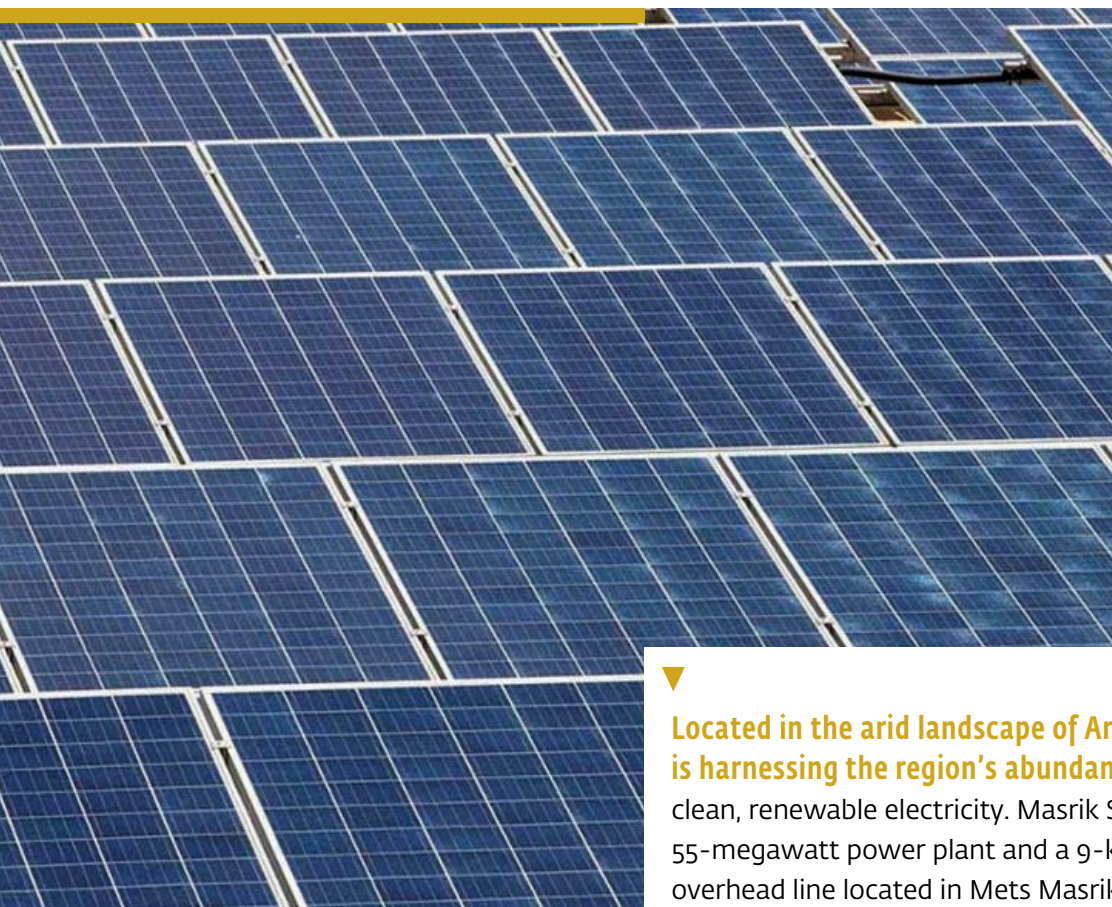
US\$3.2 million senior loan



IFC's first power sector investment in the West Bank, Massader Solar, is outfitting up to 500 schools across the West Bank with solar arrays.

The solar rooftop photovoltaic (PV) project, spearheaded by local power company Massader and financed in part by IFC, will be capable of generating 25 megawatts of electricity. The BFCP supports the affordability of solar by maintaining the project tariff at a sustainable level, supporting increased competitiveness, and helping demonstrate the viability of rooftop solar projects in the West Bank. The increased cleaner energy supply is expected to result in a reduction of an estimated 30,000 tons of CO₂ emissions annually. Local schools will benefit from free and clean electricity, and the benefits extend beyond the students: the PV rooftop panels installed are producing energy more than the schools' needs and is supplied to the West Bank distribution grid.

IFC's Massader project was selected as a winner of a 2021 **UN Global Climate Action Award**. This prestigious award recognizes the world's most innovative, scalable, and replicable examples of action to tackle climate change. With generous support from the government of Finland, the Massader project was selected as a winner under the "Financing for Climate-Friendly Investment" category.



ARMENIA

ARMENIA'S FIRST SOLAR PV PLANT (Masrik Solar) 2020

Total project cost:

US\$50 million

Finland-IFC BFCP contribution:

US\$8.9 million senior loan



Located in the arid landscape of Armenia, Masrik Solar is harnessing the region's abundant sunlight to generate clean, renewable electricity. Masrik Solar includes a 55-megawatt power plant and a 9-kilometer transmission overhead line located in Mets Masrik municipality, Gegharkunik Province, a rural community located by Lake Sevan. It is Armenia's first large utility-scale and competitively tendered solar independent power producer and represents a significant milestone in Armenia's efforts to expand renewable energy capacity and reduce dependence on fossil fuels. The Masrik plant has a capacity of up to 200 megawatts, making it a major contributor to Armenia's energy grid. It is designed to generate clean electricity equivalent to meet the needs of tens of thousands of households.



SENEGAL

SCALING SOLAR IN SENEGAL (Kael and Kahone) 2019

Total project cost:

Kahone Solaire €26.1 million

Kael Solaire €21.6 million

Finland-IFC BFCP contribution:

€3.5 million senior loan (Kahone)

€2.9 million senior loan (Kael)



Although the proportion of Senegalese people with access to electricity has increased sharply over the past 30 years, nearly a quarter of the population still lacks access. Senegal's power sector has been historically reliant on costly fuel imports, with most of its energy mix being oil-based. Located in Western Senegal, the Kael and Kahone solar plants were the first financed and tendered under the World Bank Group's Scaling Solar program in Senegal. The projects will enable over half a million people in Senegal to get access to clean and affordable power. Blended finance helped lower the project tariffs (3.98- and 3.80-euro cents per kilowatt hour, respectively) resulting in one of the lowest prices for electricity in Sub-Saharan Africa. Notably, the projects will help avoid 89,000 tons of CO₂ emissions per year.



DEMOCRATIC REPUBLIC OF CONGO

ADDING SOLAR TO THE DRC'S ENERGY MIX (CNC GREENSHARE) 2021

Total project cost:

US\$6 million

Finland-IFC BFCP contribution:

US\$0.9 million risk capital



The Democratic Republic of Congo (DRC), a low-income IDA and fragility- and conflict-affected (FCS) country, is one of the poorest countries in the world and faces large gaps in basic infrastructure. The largest country in Sub-Saharan Africa, the DRC has many natural resources including minerals, biodiversity, and the world's second largest rainforest. The country also faces immense development challenges, with a long history of conflict, political upheaval, and instability, and an ongoing humanitarian crisis. Despite the need for investments in power generation, and the good solar resources in the DRC, no private sector utility-scale Independent Power Producer (IPP) has been constructed. IFC's CNC Greenshare project is supporting diversification of the DRC's energy mix, with an innovative, clean energy investment in the development of the first 100MW solar power production plant. The DRC's energy mix has been historically dominated by hydropower. The project aims to increase the reliability of electricity supply to industrial customers (mines) and will add a total of 100MW of power generation capacity to the electricity grid of the DRC, which represents an increase of 7 percent over the current installed capacity. BFCP funds are being used for the project development phase. Once complete, it will be among the largest solar PV projects in the DRC, contributing to indirect employment and GHG abatement, by helping to limit the reliance on diesel fuel in the mining industry.



SOUTH AND SOUTHEAST ASIA

ADDRESSING OCEAN PLASTICS (CIRCULATE CAPITAL OCEAN FUND) 2022

Total project cost:
US\$53 million

Finland-IFC BFCP contribution:
US\$5 million equity investment



South and Southeast Asia have emerged as hot spots for ocean plastic pollution, driven in part by rapid urbanization. New investments in recycling, waste management, and innovations in alternate materials and advanced recycling technologies are urgently needed.

Private capital is needed to support the small and medium-sized enterprises delivering these important and innovative climate solutions. Circulate Capital is one of the largest impact investing firms dedicated to fighting plastic pollution and advancing the circular economy in South and Southeast Asia. The firm's \$112 million Circulate Capital Ocean Fund has a two-pronged strategy: (i) growth capital in waste management and recycling companies and (ii) earlier stage companies looking at targeted innovation in the plastics space. IFC and Finland's co-investment enables the fund to pursue investments in waste management and circular solutions that combat plastic waste in South and Southeast Asia. These kinds of blended finance co-investments are vital for IFC to participate in more experimental and innovative areas, such as private companies operating in the circularity space.



VIETNAM

WASTE-TO-ENERGY IN VIETNAM (Bac Ninh WTE) 2021

Total project cost:
US\$76.7 million

Finland-IFC BFCP contribution:
US\$15 million senior loan



With about 1.4 million people and 16 industrial parks, Bac Ninh Province in Vietnam generates over 1,000 tons of municipal solid waste every day. Only 50 percent of it is treated, mostly through inefficient incinerators without energy recovery or robust emission control. Nationwide, the amount of solid waste was about 36 million tons in 2019, and this is expected to double by 2030, with more than 60 percent of the waste not being treated or disposed of efficiently. Against this backdrop, a new waste-to-energy (WTE) plant will introduce an environmentally sound waste treatment and disposal solution, helping avoid serious health and environmental issues related to soil and groundwater contamination. Supporting Vietnam's efforts to reach net-zero carbon emissions by 2050, IFC is providing a \$30 million financing package to fund the construction of the WTE plant in Bac Ninh. The aim is to increase the province's waste treatment capacity and reduce its environmental footprint while protecting residents from health risks associated with untreated waste. The WTE plant is one of the first of its kind in a nascent sector. The Finland-IFC financing will allow construction and operation of waste treatment facilities to develop a modern, replicable WTE plant that will incinerate 500 tons of municipal and industrial solid waste every day, significantly boosting the province's current waste treatment capacity.



WEST AND CENTRAL AFRICA

CLIMATE-FOCUSED DEBT FUND (Afrigreen Debt Impact Fund) 2022

Target fund size:

€100 million

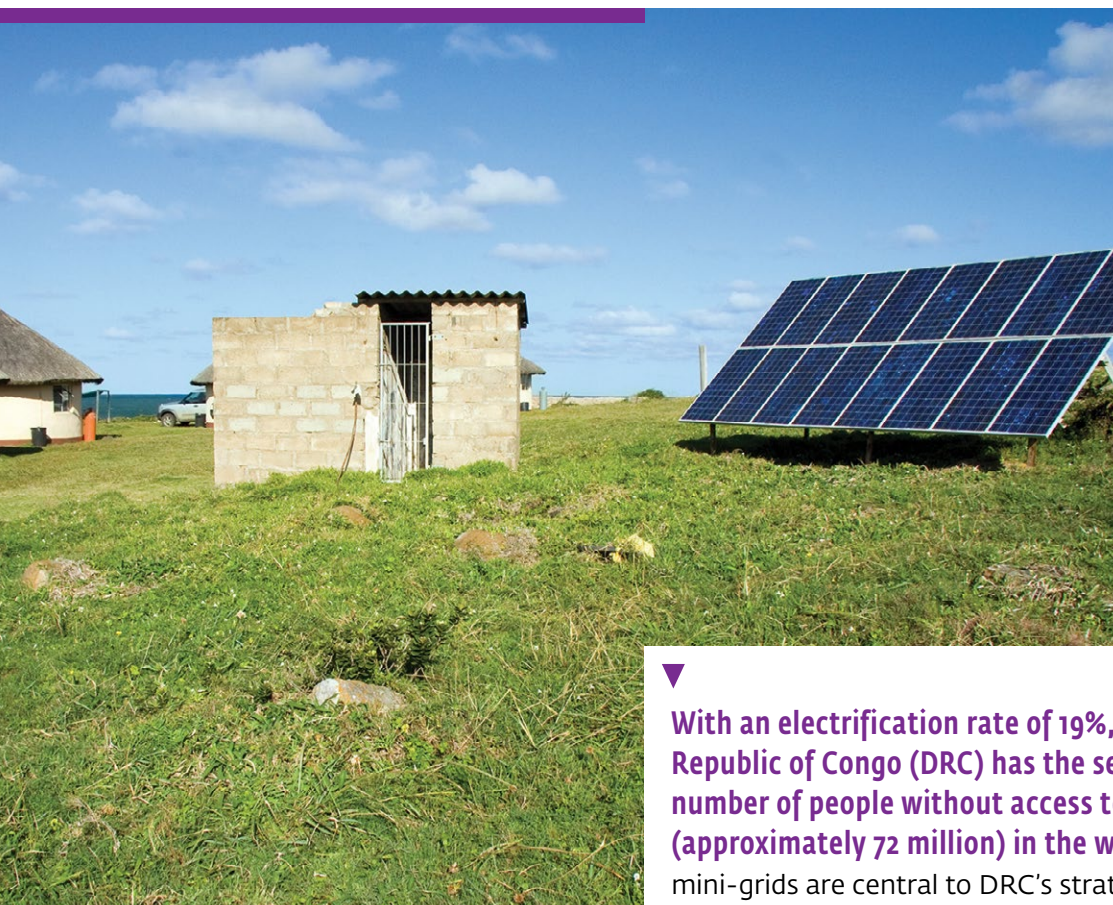
Finland-IFC BFCP contribution:

€10 million equity investment



Climate-focused debt funds can help mitigate climate risks by financing green projects and businesses that enhance climate resilience and promote sustainable development.

Afrigreen Debt Impact Fund is an infrastructure senior debt fund offering financing solutions to implement small to medium on-and off-grid solar power plants, mostly to commercial and industrial consumers, in West and Central Africa. Afrigreen will have a target cap size of EUR100 million with a hard cap at EUR125 million, and a maturity of ten years. Finland's blended finance co-investment with IFC helps the fund reach its target size. In this transaction, local currency through the IDA Private Sector Window (PSW) is expected to enable Afrigreen to provide local currency denominated long-term debt financing at viable terms in Nigeria and Ghana. Innovative financial structuring such as combining both Finland concessional resources with PSW local currency helps optimize risk-return profiles, align financial incentives for all stakeholders, and ultimately helps mobilize private capital for climate investments.



DEMOCRATIC REPUBLIC OF CONGO

SOLAR MINI-GRIDS (Nuru DRC) 2023

Total project cost:

US\$60 million

Finland-IFC BFCP contribution:

US\$5 million equity investment



With an electrification rate of 19%, the Democratic Republic of Congo (DRC) has the second-highest number of people without access to electricity globally (approximately 72 million) in the world. Private sector-led

mini-grids are central to DRC's strategy to accelerate access to electricity to meet its access target of 30 percent by 2024. Congo Energy Solutions Limited (Nuru) is leading a project to develop, build and operate three solar hybrid mini-grid projects in the DRC. Each mini-grid will combine solar photovoltaic panels, battery energy storage systems, and diesel generators to provide up to 15MW of generation capacity in Bunia (8MW), Goma (5MW) and Kindu (2MW), the capital cities of Ituri, North Kivu and Maniema provinces, respectively. Nuru's mini-grids will operate independently and will not rely on electric power supply from the main electricity grid. The Nuru DRC project is expected to provide more affordable and reliable electricity to 28,000 households and businesses that currently have expensive, unreliable, unsustainable, or non-existent access to electricity.



Although Nepal's macroeconomic outlook is stable, the country faces structural challenges. The country's economy suffers from productivity shortfalls driven by infrastructure gaps, challenging geographic conditions, and an underdeveloped manufacturing sector which hinders the development of an export sector. Hydropower is a major source of potential growth for Nepal, as evidenced by projects like UT-1. Prospects for harnessing this potential improved in 2022, when India permitted import of hydropower energy from Nepal. IFC is investing in a hydropower developer and two of its operational projects of a portfolio of small hydropower projects that will contribute towards the Government of Nepal's longer-term aim of generating all of its electricity from renewable sources, particularly hydropower and solar photovoltaics (PV).

NEPAL

SUPPORTING HYDROPOWER IN NEPAL (Project under development) 2023

Total project cost:
US\$167 million

Finland-IFC BFCP contribution:
**US\$10.5 million quasi equity
investment in Nepalese
currency equivalent**



SUB-SAHARAN AFRICA

MODULAR SOLAR PV AND BATTERY STORAGE (AFRICA RELEASE) 2023

Total project cost:
US\$200 million

Finland-IFC BFCP contribution:
US\$15 million subordinated loan

▼ **Investing in fragile and conflict-affected settings (FCS) is a top priority across the World Bank Group.** To boost clean electricity generation and support sustainable development in Africa, IFC is supporting the deployment of innovative, pre-assembled modular solar PV power containers and battery storage solutions for Release Utilities Africa Holding B.V. This innovative business model targets public utilities in FCS countries in Sub-Saharan Africa, with an initial rollout planned for West and Central Africa. Africa Release intends to replicate this rapid deployment model to address shortfalls in local grid power supplies throughout the region. The project will increase power supply in Sub-Saharan African countries, most immediately Cameroon and Chad, at competitive tariffs.



INDIA

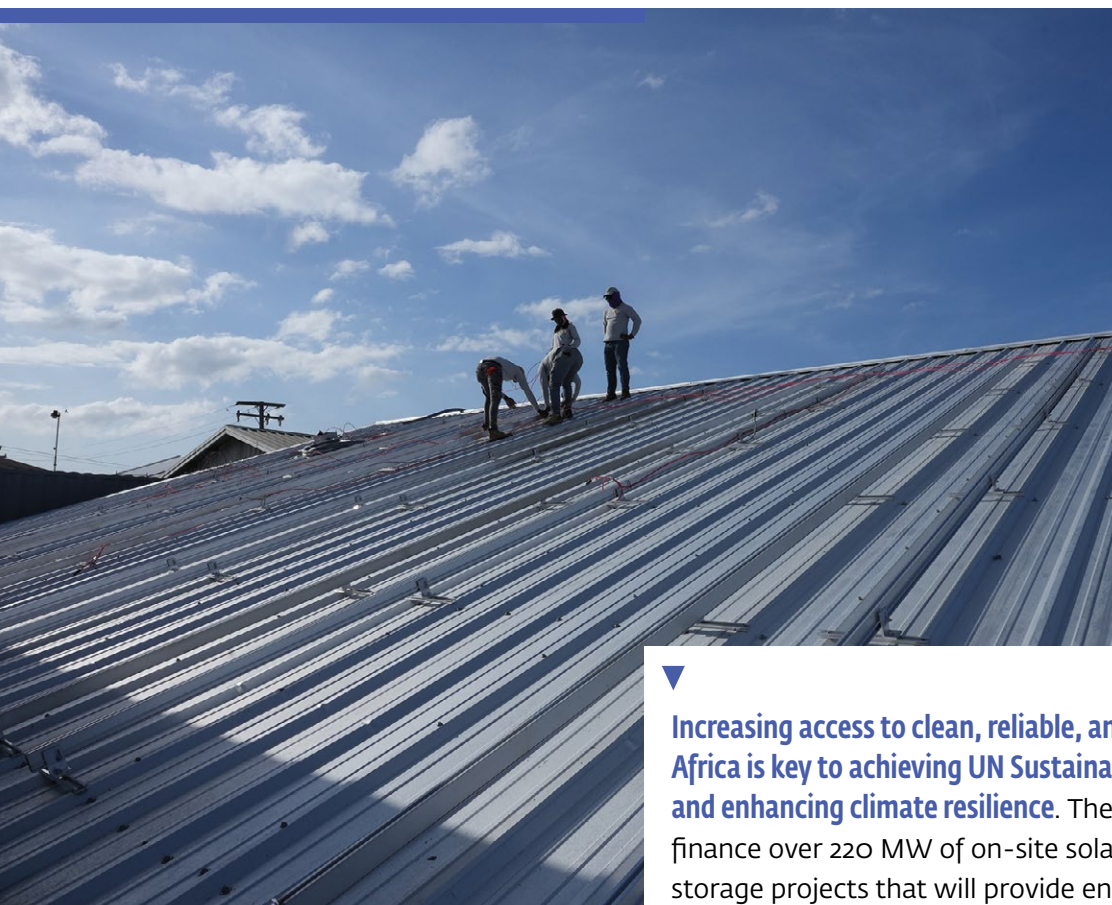
Boosting Access to Clean and Reliable Energy in India (Fourth Partner Energy) 2023

Total project cost:
US\$343 million

Finland-IFC BFCP contribution:
US\$11 million senior loan



Solar distributed generation (DG) is a growing, disruptive green sector in the Indian economy. The investment supports efforts to reduce the GHG footprint of the energy sector, which remains dominated by thermal generation, and contribute to meeting the country's renewable energy targets. The Fourth Partner Energy project is also expected to help meet India's energy demand by providing renewable energy to commercial and industrial (C&I) customers at more competitive tariffs. Beyond the project, the investment is expected to increase competitiveness by supporting a leading renewable energy player in demonstrating the viability of renewable distributed generation to the C&I segment.



PAN-AFRICA GREEN SOLAR BOND TO SUPPORT ENERGY ACCESS (SIMA Fund) 2023

Total project cost:

US\$150 million

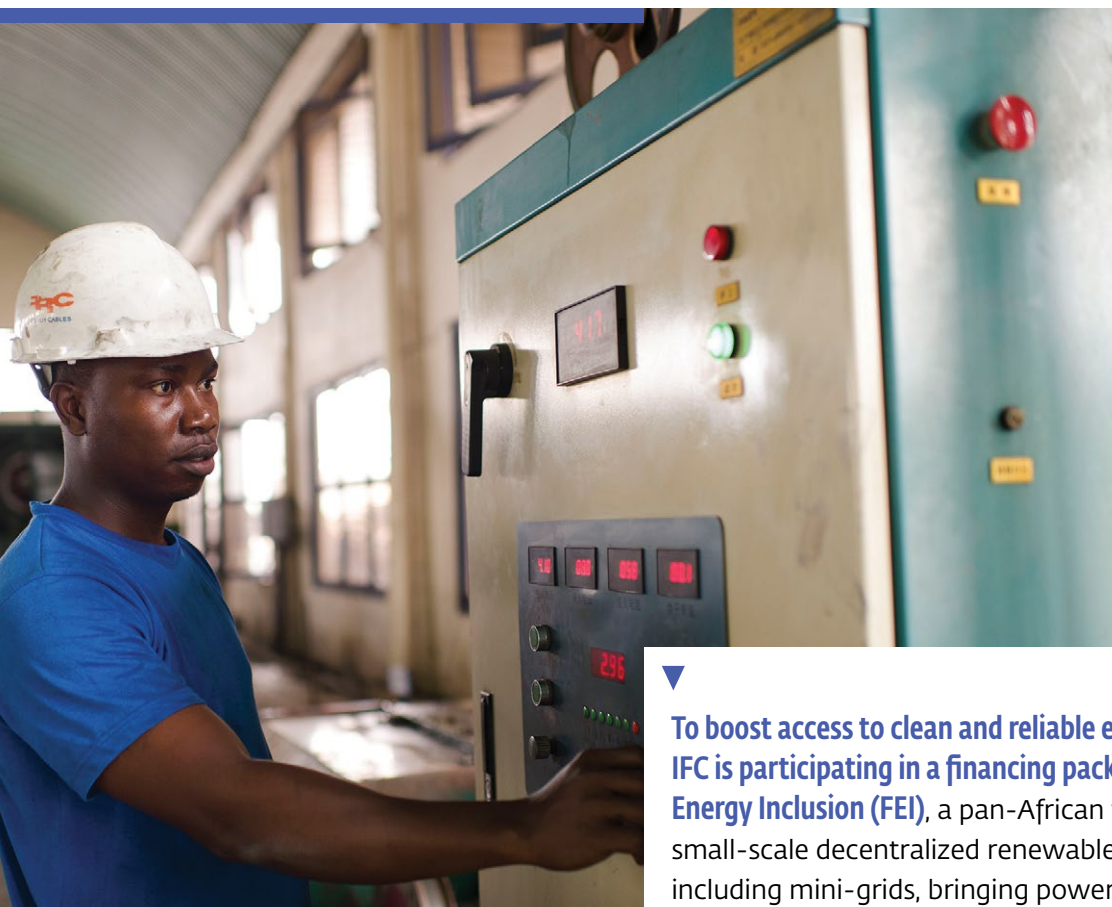
Finland-IFC BFCP contribution:

US\$11 million subordinated loan



Increasing access to clean, reliable, and affordable energy in Africa is key to achieving UN Sustainable Development Goals and enhancing climate resilience. The SIMA bond aims to

finance over 220 MW of on-site solar energy and energy storage projects that will provide energy savings, enhance value chains, and reduce fossil fuel consumption and carbon emissions by an estimated 4 million tons over the life of the assets. IFC, in partnership with Social Investment Managers and Advisors LLC (SIMA) and other financiers have reached the first close of a \$150 million solar green bond, which will finance productive-use solar projects throughout Africa. The bond will finance one of the largest impact-driven funds exclusively focused on furthering the rooftop solar sector in Africa, with an emphasis on small and medium-sized enterprises, which are harder to reach. It will offer short-term corporate financing and project financing of up to 10 years to support the growth of small and medium-size local developers for individual projects less than 5 megawatts (MW), focusing on manufacturing, services, education, healthcare, and agri-processing.



To boost access to clean and reliable energy across Africa, IFC is participating in a financing package for the Facility for Energy Inclusion (FEI), a pan-African fund that supports small-scale decentralized renewable energy projects, including mini-grids, bringing power to Africa's commercial and industrial sector and supporting economic activity. IFC's financing will help fund the addition of about 115 MW of generation capacity in about 15 African countries, including the Democratic Republic of the Congo, Ghana, and Kenya. FEI provides debt financing for small-scale renewable energy generation and storage projects to power commercial and industrial companies, as well as telecom infrastructure and mini-grids.

PAN-AFRICA

Bringing power to Africa's commercial and industrial sector (FEI Energy Access Fund) 2023

Total fund size:
US\$365 million

Finland-IFC BFCP contribution:
US\$10 million senior concessional loan



SOUTHEAST ASIA (focus on Vietnam, Indonesia, Philippines)

SCALING RENEWABLES: (Southeast Asia Clean Energy Fund II) 2023

Target fund size:
US\$135 million

Finland-IFC BFCP contribution:
US\$5 million equity investment



Catalyzed by the BFCP, IFC invested \$15 million in the Southeast Asia Clean Energy Fund II (SEACEF II), an investment platform that will provide equity for early-stage and growth-stage investments in energy projects in Southeast Asia. Finland-IFC Blended Finance enabled this unique investment into a fund with early-stage investment ability and clean-energy expertise applied through dedicated on-the-ground teams in Southeast Asia. Over the course of the Fund's life, it aims to invest in projects which potentially could achieve an accumulated target reduction of 7 million tons of avoided greenhouse gas emissions across the US\$135 million target fund size, of which a portion (~3.7%) can be attributed to the Finland-IFC Blended Finance contribution.

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