

A photograph of two hands cupped together, holding a small amount of dark soil and a green fern frond. The hands are positioned in the center of the frame, with the fingers pointing outwards. The background is a blurred natural setting with green foliage and brown leaves. A semi-transparent dark grey rectangle is overlaid on the image, containing the text.

UK PACT

Financing green

Pathways for mobilising green finance

*Examples from UK Partnering for Accelerated
Climate Transitions (UK PACT)*

November 2021

Financing green:

Pathways for mobilising green finance

While progress to-date has been strong, the decarbonisation of our economies requires significant levels of investment in resilient low carbon land use, infrastructure, and services. The UK Green Finance Strategy sets out how effective mobilisation of finance depends on supportive enabling environments with robust, long-term policy frameworks.

Green finance refers to 'any structured financial activity – a product or service – created to ensure a better environmental outcome'. Green finance products include 'loans, debt mechanisms and investments that encourage the development of green projects or minimise the impact on the climate of more regular projects' (World Economic Forum, 2020).

For green finance to operate successfully, two interlinked processes need to be considered:

Greening finance, or support in the greening of the financial system. Including collaboration amongst financial regulators, policymakers and financial institutions, awareness-raising and streamlining compliance with and disclosure of information on progress towards green goals.

Financing green, or the mobilisation of public and private finance for clean and resilient growth. Including the introduction of i) innovative financial mechanisms to fund green projects, such as Public-Private Partnerships ii) financial instruments (concessional and commercial loans, equity investments, green bonds), and iii) the use of risk-mitigating tools (i.e., guarantees for credit enhancement). The 'financing green' space can support several different green investments, including nature-based solutions built into traditional grey infrastructure projects or ecosystems restoration for sustainable agriculture.

Greening finance is oriented towards enabling conditions, creating solid green finance regulatory and public policy national frameworks, which facilitate the incorporation of climate-related factors in financial decision-making. **Financing green, in turn, provides the capacity and tools to mobilise funding**

effectively towards green investment opportunities. This brief focuses on the financing green component of green finance and UK PACT's work in this area.

As per recent figures, up to USD\$ 3.8 trillion of investment is needed each year to achieve 1.5°C. However, only USD\$ 632 billion were mobilised in 2019 (CPI, 2020).

In this challenging scenario, UK Partnership for Accelerated Climate Transitions (UK PACT) is building strong partnerships with Colombia, Mexico, and South Africa to deliver technical support to overcome market barriers, build capacity for funding mobilisation, and support innovation and transfer of best practice around finance mobilisation.

The hurdles are twofold. On the one hand, there is a lack of resources and skills to prepare a pipeline of projects sufficiently developed to unlock investment opportunities in local areas. As a result, investment-ready project proposals are also in short supply.

On the other hand, the pandemic recovery has brought new barriers, both operational (new logistic and health security requirements) and new strained liquidity conditions (ease to convert assets and securities into cash for project funding) in some key sectors, such as public finance, non-banking financial institutions and real sectors.

This reduced liquidity is partly due to caution exercised in the face of uncertainty and decreasing returns in equity and loan portfolios for financial institutions other than commercial banks and investments funds (FSB, 2021).

In this challenging context, subnational entities, private and public financial intermediaries, and private sector companies build their strategies and responses to the dual financial implications of climate change and COVID-19. In addition, they are exploring ways and accelerating solutions **to enable liquidity to drive forward greener and more sustainable portfolios.**

Finance mobilisation for green investments requires complementary processes such as identification of project pipelines, preparation of these, financing matchmaking and effective mobilisation through agreements (Letters of Intent, Memorandum of Understanding and other binding documents) in order to **effectively bridge the gap between potential investors and relevant opportunities,** meeting priorities driven by local communities and decision-makers.

UK PACT supports several initiatives offering clear, practical examples of moving forward and securing continuous access to green finance. Based on learning from UK PACT, a few critical elements for success stand out.

Fostering effective public-private co-financing mechanisms:

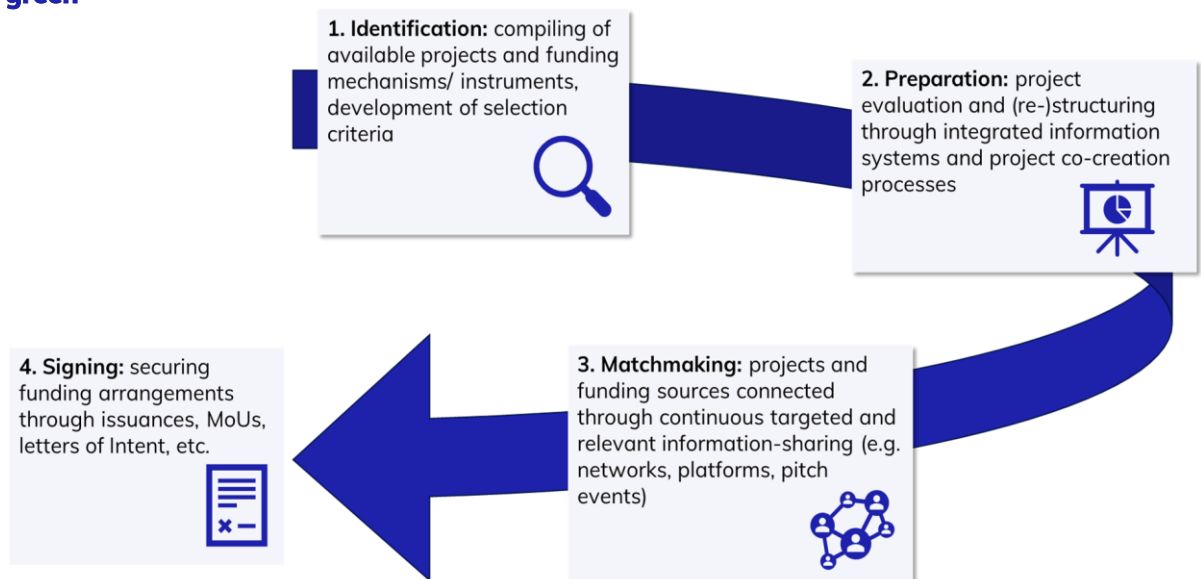
- Identify the right combinations of financing instruments, such as a mix of complementary credit lines and loans, debt securitisation, bond issuances and others.

- Connect the financing sources and instruments to the best possible green investments (projects) via schemes for promotion and funding (dedicated funds, matchmaking platforms)
- Gather the right combination of public and private sources – Development finance institutions, commercial banks, impact funds, and grant funding to secure investment readiness

Delivering project preparation mechanisms and improved continuous support:

- build mechanisms with the intention to bridge available public and additional private funding such as platforms and networks for knowledge and business sharing.
- select high-quality green projects based on attractive business models and potential for replicability and scalability provide dedicated bespoke support to the project owners and developers.

Diagram 1. Areas of support that can benefit from technical assistance to enable financing green



Fostering effective public-private co-financing partnerships (Colombia and Mexico)

Like in any other process of providing funds or investing, access to green financing should rely on proven project financing approaches. The key difference with traditional investments is that many green investments require additional financial support to mitigate risks, which private actors alone do not yet have the full ability to monetise. Public finance plays a critical role in creating local external benefits (social, environmental, governance). It could also absorb some of the early-stage risks, but it is insufficient still and lacks the required pre-investment or preparation level of input.

Similarly, many green technologies and infrastructure projects require subsidy support, concessions or soft loans as instruments to be implemented and complemented under public-private partnerships (PPPs). Green projects, especially green technology projects, must develop an equitable risk allocation framework that can provide a strong argument for different stakeholders to support these investments through diversified and subsidised financing.

Since UK PACT's first delivery phase in 2019-2020, some of our projects have successfully identified and supported the early stages of effective agreements for co-financing schemes between public and private funding sources.

One project from the Mexico-UK PACT portfolio, **"Green Finance for the development of Smart Cities in Mexico Phase II" (implemented by IDOM Consulting)**, is acting as an accelerator for green private and public investments. Under this initiative, IDOM delivers support to coordinate collaboration between public and private organisations to build a trusted ecosystem. The strengthened ecosystem will then accelerate the mobilisation of green private and public capital to recover and develop cities in Mexico. After a first phase supporting four cities, this initiative has expanded to seven cities in 2021-22: Villahermosa, Chihuahua, Hermosillo,

Ixtapaluca, Mérida, Naucalpan and Zapopan.

Working hand-in-hand with municipalities and commercial and development banks, IDOM delivers capacity-building activities that focus on identifying, evaluating, and preparing investment projects with innovative business models – essentially acting as a project preparation facility. Projects are selected following a set of criteria covering strategic and technical eligibility, Environmental, Social and Governance (ESG) impact, Sustainable Development Goals contribution and other funding-specific requirements. The focus areas for investment projects are renewable energies and energy efficiency, sustainable mobility, waste management and recovery, and water management.

A further package of demand-led technical assistance is delivered to shortlisted projects. The support provided specifically addresses mutually identified gaps and technical information needed. These sessions complement additional technical studies (e.g. conceptual or basic engineering, compliance and impact assessment, and/or economic/financial evaluation).

Before and during this phase, the project identifies synergies and alliances with funding sources, reaches out to local and national-level investors, and builds the necessary network for financial matchmaking activities (i.e. through roadshows and pitching workshops). **Therefore, the combined activities lay the groundwork for public-private co-financing from a very early stage of the process.**

From activities to date, the following key mechanisms to enable financing green have been identified:

- **Concessions to private companies:** Using public contributions, such as terrains, existing facilities or others, to incentivise and enable private participation.
- **Green (or sustainable) bonds:** ideally using one bond issuance process to raise the capital for a portfolio of integrated green projects. Bigger, more capable municipalities are better positioned to issue bonds since they are not subject to indebtedness ceilings.

- **Institutional investments:** leveraging funds from pension funds and insurance companies via joint investment programmes that can also crowd in private investors, such as urban infrastructure developers
- **Innovative revenue models:** enabling a paradigm shift for public services (e.g. waste and water management) from low-income and unattractive to more dynamic and revenue-based. For example, i) Complementary services and benefits from public-private sources, such as a supply of treated municipal water to Industrial parks; ii) co-financing active mobility assets such as bikes through large companies or iii) Product as a service (PaaS), more commonly used as EaaS (Energy as a system) schemes, where the customer (households or municipalities) can enjoy the benefits of a product by paying a fee, without purchasing it outright or directly managing its use (avoiding direct electricity payments, expensive upgrades for electrical equipment or software, or device management).

These co-financing schemes require broader parallel efforts from both public and private funding sources to succeed. Amongst them are:

For public sources: improving creditworthiness of cities to enable private financing by creating capacity for accounting transparency, as well as better debt and assets.

For private sources: institutional investors need a better understanding of risk and opportunities. This can be covered through capacity-building for best practices in climate transition risks and opportunities. It would also be beneficial to improve and expand the access to securitisation or asset-based securities such as mortgages.

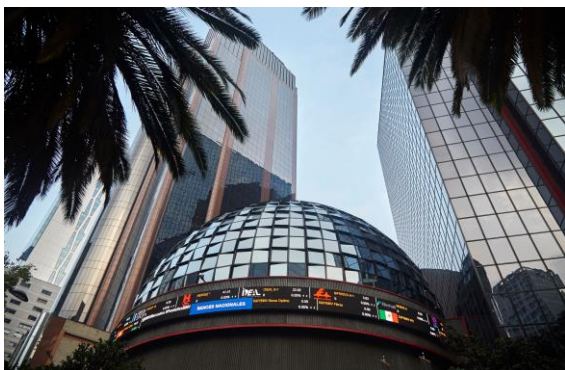
Box 1. Developing an organic-waste-to-energy management system in Naucalpan, Mexico, into a bankable project

During the first phase of Mexico-UK PACT, IDOM supported a project trying to find financing for a mechanical-biological treatment plant to manage solid waste sustainably using a circular economy approach. The proposed plant would enable waste valuation, electricity generation, lowering the municipal cost for the final waste disposal, and carbon emissions reductions.

The envisioned plant has the capacity to treat 1,300t of waste per day generating up to 6 MW. Over a year this tallies up to 58,000 tCO₂ emissions and 109,500t of waste avoided with 16 GWh of clean energy generated.

This initiative was put forward by the Municipal Government of Naucalpan of Juarez. Throughout the project, IDOM worked closely with them to prepare pre-feasibility studies (to the cost of two per cent of total capital investment) to find suitable financing mechanisms.

As a result of the support provided and networks leveraged, in 2019 MXN 1,274.5m of financing was secured via a public-private partnership. Thirty per cent of the funds were publicly sourced from BANOBRAS and 70 per cent from private equity. The annual income is projected at MXN 330.3m (~USD 16.1M) coming from tariffs for waste treated, electricity sold, and valuable waste sold. In the second phase of UK PACT, IDOM have expanded their support to reach more subnational entities and projects.



A different project in Mexico provides another relevant example of green investment instruments and project identification for States and Municipalities. This is the **"Establishing the Mexican Climate Finance Hub as the pre-eminent resource for green finance"** project implemented by **MÉXICO₂ Mexican Carbon Platform**.

One part of the project specifically focuses on triggering sub-national access to green finance instruments. Firstly, the project is delivering a first-of-its-kind mapping exercise of available financial instruments and mechanisms to be matched with projects identified at the state- and municipal levels. This exercise includes a peer review with investment banking offices of *HSBC*, *Sabadell* and *Ainda*, focusing on the potential for replicability nationwide. Secondly, it promotes those instruments under an existing platform for promoting green investment, namely the Green Infra MX event, the second edition held in June 2021.

Amongst the main instruments assessed and under consideration are debt, equity, hybrids, green/sustainable loans, and fiscal mechanisms (water funds, green taxes, market-based instruments etc.). Two have been of particular interest. Both are alternative financing mechanisms for states and municipalities, such as bonds labelled as green and sustainable, and environmental taxes (based on the existing Federal law from 2014 on carbon taxes, as well as additional State taxes on greenhouse gas emissions and polluting activities).

Furthermore, the project identified specific investors willing to invest in infrastructure projects with longer repayment terms, who are thus able to absorb higher risks. These

investors can, in turn, invest in specific trust securities linked to assets for further acquisition such as Development Capital Certificates (CKD) and Investment Project Certificates (CERPI) or private equity funds.

A third approach can be found in the Colombia-UK PACT portfolio through the project **Greening the Colombian financial system: implementing local green definitions to enable long-term investment into priority sectors (implemented by the Climate Bonds Initiative in partnership with Metrix Finanzas)**.

In its second phase, this project supports the Colombian financial system to adopt the definitions from the national taxonomy. The taxonomy was in the process of being finalised and consulted in 2021. The project provides its support through the national supervisory committee and delivers in-depth recommendations to key financial market players.

This work on the taxonomy underpins the support to the Ministry of Economy and Finance **for the design and structuring of a dedicated fund to co-finance strategic green projects aligned with the national taxonomy**

The sources of funding will include proceeds from carbon taxes and pesticides taxes and funds from the national budget, regional entities funding, and international blended finance funding. These funds will finance selected projects through a combination of available instruments: loans and concessional loans, donations, guarantees, and technical assistance.

An important additional source is the private sector that contributed through a specific window for private impact funding, using debt and equity at market conditions. The blended nature of the fund allows for the possibility of enhancing its capacity with donations/grants for technical assistance to build specific capacities.

Project preparation and effective guidance (Colombia, Mexico, and South Africa)

"To enable financing green, there needs to be an entity who can link all the different actors and funding sources together to allow a project to advance through its many stages."

- Ryan Roberts, ICLEI Africa

The last section shows that any successful co-financing scheme must also address connecting public and private funding sources with viable, high-quality projects. One such way is through the design, delivery, and continuous roll-out of project preparation facilities. These facilities can take the form of an integrated selection, structuring and funding mechanism that ensures relevant viable projects are funded by dedicated funds (e.g. energy, water, waste management, sustainable mobility and others).

One project in the South Africa-UK PACT portfolio is providing this type of support. **ICLEI Africa** implements the project '**Alternative Finance for Municipal Embedded Generation (AFMEG) in South Africa.**'

This project aims to address the resources and capacity gap of intermediary cities applying to the project preparation facility EGIP (Embedded Generation Investment Programme). The EGIP is a credit support mechanism for private enterprises and/or sub-sovereign entities (such as political, administrative, or public-sector entities) to access Power Purchase Agreements for renewable energy projects in South Africa.

The project supports the development of pre-feasibility studies and financial models to help access investments by the EGIP for municipal embedded power generation. Several municipalities have submitted requests to the Development Bank of Southern Africa (DBSA) to access the EGIP, which also has a component providing credit support to special

purpose vehicles established and owned by Local Community Trusts and/or Small, Medium and Micro-Enterprises. However, several municipalities require financial and technical support for pre-feasibility studies, without which the DBSA is not mandated to support this early stage of project development.

To date, the project has successfully established a collaborative relationship with the DBSA and prioritised support activities for four municipalities. ICLEI (and consortium members) has developed a pre-feasibility study for each municipality, which will be complemented by a financial impact report. These reports will be generated by a tool estimating the financial feasibility for embedded generation projects. The tool will be freely accessible to all cities looking to develop these initiatives.

Similarly, the **Global Green Growth Institute (GGGI)** leads the project **Scaling-up rural electrification via capacity building to public and private actors in Colombia**, also focusing on energy. The project provides an integrated approach to project preparation and support for access to finance. Through this initiative GGGI delivers capacity building to the Ministry of Energy (MME) and its dedicated *Institute for Planning and Promotion of Energy Solutions (IPSE)*.

Using this dual approach, GGGI and IPSE have successfully structured and launched a support mechanism for sustainable rural electrification projects to prepare high-quality funding applications and thus access finance via two main windows:

- i) Royalties from a fossil fuel exploitation levy (i.e. the SGR system) and dedicated public funds from existing support mechanisms for renewable energy (*Fondo de Energías No Convencionales y Gestión Eficiente de la Energía*) and off-grid electrification (*Fondo de Apoyo Financiero para la Energización de las Zonas no Interconectadas*).
- ii) A dedicated platform to support the preparation, access, and operation of private-led rural electrification projects in specific communities through

locally-anchored businesses (telecommunication towers and facilities, agribusinesses, and commercial suppliers).

Currently, four private-led investment projects with a high scalability potential across non-interconnected areas have been selected. The project selection process involved a call for proposals, leveraging networks from the GGGI, IPSE and MME, and the main renewable energy and energy efficiency country associations (SER-COLOMBIA, FUNCENER and CCEE). Similar to the IDOM project from Mexico-UK PACT, these private-led investments are further supported through additional technical studies (e.g. front-end engineering and design studies, compliance and impact assessments, and economic/financial evaluations).

In addition to tackling the complexities inherent to remote territories and vulnerable communities in Colombia, the project has also established a platform for representatives from subnational entities to come together and discuss rural electrification needs, barriers and opportunities. The Subnational Rural

Electrification Working Group also acts as an enabler for the continuous roll-out of the project preparation windows mentioned above. This platform collects key information from different participants and compiles it into reports, presenting pertinent concerns to IPSE to identify market failures and barriers and developing and validating corrective actions.

The established working group prioritises engagement with entities in Most Affected Areas of the (armed) Conflict (*Zonas más Afectadas por el Conflicto, ZOMAC*) and the recent Programs of Rural Development with Territorial Approach (*Programas de Desarrollo con Enfoque Territorial, PDET*). These are key entities for establishing entry points to rural development at regional and local levels, under the 2016 peace agreement with the Revolutionary Armed Forces Colombia – People's Army (FARC).

Box 2. Deploying distributed photovoltaic systems across 30,000 Bavaria stores in rural Colombia

In 2021, GGGI, IPSE and MEE launched a call for private sector-led rural electrification projects. As a result, four initiatives were selected to receive technical assistance.

One of the selected projects seeks to install distributed photovoltaic systems on the rooftops of rural stores carrying Bavaria's products (Bavaria is a Colombian brewery). The developer, Colibrí Energy, will work with Bavaria to install and operate the system, selling electricity to the store owners via bilateral power purchase agreements.

This initiative will provide an additional installed capacity of 300MWp of renewable energy to local grids, equivalent to 39,600 tonnes of carbon dioxide equivalent avoided per year. The installation of this system will also provide 1,000 new jobs in post-conflict territories. Finally, the local and clean production of electricity will also result in a 41 per cent reduction of storeowners' electricity bills.

The project will support drafting power purchase agreements between the Colibrí-Bavaria partnership and Bavaria stores. Additionally, the project will help identify relevant insurance packages for the units' construction, operation, and maintenance. It will also provide access to carbon accreditation and international renewable energy certification. As a result, this project shows strong replication potential for future interventions in this space.

Key recommendations

Based on the different cases presented in this brief, a few common approaches stand out as best practice to expedite access to finance for green projects. These different configurations of public-private partnerships are especially relevant for green technologies and local-level infrastructure.

1. Identify and validate (e.g. through piloting) revenue models to make projects more attractive to public and private investors. This can include public-purchase agreements for low-cost solar energy distribution, payments-as-a-service for collecting green fees for mobility and treated water purchase/supply for local industrial facilities.

2. Provide a consistent supporting membrane for projects and project owners/partners/developers through at least three complementary ways:

i) bespoke project structuring support (engineering, impact, finance) ii) networks and platforms for continuous knowledge-

sharing, especially in terms of barriers for access and identification of relevant instruments and monitoring, as well as iii) continuous financial matchmaking with investors (events, roadshows, pitching meetings and workshops).

3. Identify, assess, and agree on relevant combinations of the best possible financial instruments as early as possible. Financial instruments include loans for short-term debt (up to 36 months), bonds for larger projects in municipalities with higher indebtedness capacity, equity or mezzanine investments, and/or refinancing mechanisms for listed projects in the stock exchange. Guarantee schemes are also important for de-risking private investments.

References

The UK Department for Business, Energy and Industrial Strategy (BEIS) (2019) UK Green Finance Strategy: Transforming Finance for a Greener Future

Climate Policy Initiative (2020) Updated view on the Global Landscape of Climate Finance 2019. <https://www.climatepolicyinitiative.org/wp-content/uploads/2020/12/Updated-View-on-the-2019-Global-Landscape-of-Climate-Finance-1.pdf>

Financial Stability Board (FSB) (2021) Lessons Learnt from the COVID-19 Pandemic from a Financial Stability Perspective: Interim report. <https://www.fsb.org/wp-content/uploads/P130721.pdf>

World Economic Forum (WEF) (2020), What is green finance and why is it important?, <https://www.weforum.org/agenda/2020/11/what-is-green-finance/>

Acknowledgements

This brief is part of a series developed by Palladium International, which manages the UK PACT Country Programmes component on behalf of the UK Government. This brief was authored by Santiago Espinal, who is a Country Facilitator at Palladium.

We would like to thank Roberto Spacey Martín [Associate, Palladium] for his support in the research underpinning this brief; Jim McNicholas [Team Leader, Palladium] and Alexandra Pinzon [Impact Manager], for their editorial review, and our Implementing Partners for their contributions: Ferruccio Santetti (GGGI), Ryan Roberts (ICLEI Africa), Mariana Silva and Filiberto Baeza (IDOM), Eduardo Piquero (MÉXICO₂), Carolina Barreto (CBI) and Yolanda Fadul (METRIX Finanzas).

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