

# Place-based Transition Funds:

A PLAYBOOK FOR SYSTEMIC  
PORTFOLIO CONSTRUCTION



## About the Carbon Residency

The Carbon Residency is a collective of subject matter experts in finance, climate, systemic impact, sustainability, and social justice, formed by the Peace Department, a non-profit committed to peace through sustainable development. The first Carbon Residency was hosted at Foundation House in September 2023, and convened by the Peace Department and the Open Earth Foundation.

The purpose of this collective is a shared commitment to rapidly decarbonizing the planet through the implementation of low carbon technologies with social equity and community uplift at its core. The outcome of the first Carbon Residency identified a need for a holistic framework in decarbonization finance and portfolio construction.

Between November 2023 and April 2024, members of the Carbon Residency developed the research, review and creation of the Playbook presented in this document. This work was facilitated thanks to a grant from the Peace Department.

## Acknowledgements

The content of this Playbook builds on the foundation of knowledge and the continuing dialogue that we hold with our colleagues and peers in the systems change and sustainability space. In particular, in this work we have built upon an understanding that we have collectively accepted with members of the Systemic Climate Action Collaborative: that lasting systems change seems to require place-based transformation portfolios of complementary and reinforcing activities. This Playbook zooms in on capital formation for place-based transformation, which is a necessary step in any portfolio-based approach, such as the one defined for urban transformation by the Circular City Coalition. We also recognize in this work that this is one of several enabling conditions required for success. We hope this Playbook serves as a practical method to advance our collective efforts in systems change.

Members of the Systemic Climate Action Collaborative include: Bankers Without Boundaries, B-Team, CJ-JT, Climate-KIC, Club of Rome, Community Arts Network, Dark Matter Labs, Democratic Society, IIED, Metabolic, Open Earth Foundation, Pyxera Global, Reos Partners, SystemIQ, The Solutions Union and Vinnova.

Organizations and experts that have provided inputs to this playbook include: Chad Frischmann (GSA), Peter Boyd (Yale University), Eva Lalakova (Metabolic), Ivan Thung (Metabolic), and Chris Monaghan (Metabolic).

## Document Authors

Howard, Racheal (Project Lead)  
Moroney, Matthew (Metabolic)  
Von Ritter, Yihana (Align Impact)  
Wainstein, Martin (Open Earth Foundation)

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Sternlicht, James

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Sternlicht, Mimi  
Zimmerman, Richard

## With special thanks to

Alvarez de Jesus, Natalia (The Peace Department)  
Bezer, Liliana (Metabolic)  
Ilieva, Maria (Metabolic)

## Reviewers

McCue, Andrew (Metabolic)  
Scala, Mike (The Peace Department)

## Advisors

Carrero-Martinez, Franklin (National Academy of Sciences)  
Engel, Jayne (Dark Matter Labs)  
Gladek, Eva (Metabolic)  
Kalia, Raj (Dark Matter Capital Systems)

## First Publication and License

This document was published in April 2024 as a first version with an open Request For Comment. Provide comments to [info@peacedepartment.global](mailto:info@peacedepartment.global). This playbook should not be used as-is for the creation of financial vehicles and instruments; these require significant technical and legal expertise that this document is not intended to provide. This document and its content are published under a Creative Commons Attribution 4.0 International License.

This Playbook is the first version, accompanied by a technical appendix. It is intended to serve as an evolving resource to be validated with a pilot and informed by the learned experiences of communities, businesses, agencies, and individuals.



# Index

|  |           |
|--|-----------|
| <b>EXECUTIVE SUMMARY</b>   | <b>4</b>  |
| <b>01. INTRODUCTION TO PLACE-BASED PORTFOLIO CONSTRUCTION FOR CARBON EMISSION REDUCTIONS</b> | <b>6</b>  |
| The Case for Place-Based Transition Funds  | 9         |
| <b>02. REVIEW OF EXISTING DECARBONIZATION FRAMEWORKS AND FINANCE MODELS</b>                  | <b>10</b> |
| Sourcing, Evaluating, and Scoring  | 11        |
| Comparative Analysis of Decarbonization Frameworks   | 12        |
| Blended Finance: Using Loan Guarantees to Attract Market-rate                                | 17        |
| Summary of General Findings  | 18        |
| <b>03. PLAYBOOK COMPONENTS: SCORECARDS AND INTEGRATED FRAMEWORKS</b>                         | <b>20</b> |
| Geographic Scorecard   | 21        |
| Portfolio Design   | 24        |
| Project Scorecard  | 26        |
| Steward Ownership Model  | 29        |
| <b>04. PLACE-BASED CLIMATE TRANSITION FUNDS</b>  | <b>30</b> |
| Stage 1: Geographic Selection  | 32        |
| Stage 2: Portfolio Design  | 33        |
| Stage 3: Project Sourcing and Evaluation   | 34        |
| Stage 4: Capital Deployment and Scaling  | 35        |
| Stage 5: Implementation and Replication  | 36        |
| Considerations for Playbook Implementation   | 38        |
| <b>05. CONCLUSIONS</b>   | <b>42</b> |
| Further Playbook Opportunities   | 43        |
| Proposed Next Steps  | 44        |
| <b>REFERENCES</b>  | <b>45</b> |



# Executive Summary

The climate goals set by the 2015 Paris Agreement require an unparalleled pace of emissions reductions. This scale of transition requires a scalable, yet standardized method to accelerate economic transitions one place at a time. Investors are looking to join the climate transition, but seek market rate returns. Projects essential for climate mitigation and resilience are limited by funding and adequate technical assistance. Low-carbon infrastructure and innovative ventures offer promising solutions for systemic transition, but the risks they carry are a barrier for the investment required to bring projects to bankability while new markets are hard to catalyze, even with the proper incentives. There is a critical need for innovative financial mechanisms and high-quality project development to vitalize these new opportunities.

While it has been readily acknowledged that new approaches are needed to finance this transition, there are no formalized guidelines or clear process for designing, financing, and implementing a coordinated effort for policymakers and investors seeking to activate capital for climate action at a geography-wide scale. Local governments are key actors to implement climate transition plans for their jurisdictions, but often lack the budget and financial capacity to fund them. Traditional finance often optimizes for single proven assets, such as solar, rather than multiple assets that align with community needs.

To address the disconnect between local communities and finance for climate transitions, the Peace Department's Carbon Residency program advances an approach based on a "Place-based Transition Funds" which can use this playbook for constructing their systemic portfolio. The steps in this playbook represent a replicable method for financing the transition of distinct places, like cities, regions and island economies.

It was designed by integrating climate frameworks that align Paris Agreement goals with local contexts, and uses systems thinking to pinpoint and prioritize enabling conditions for investable projects and interventions. Figure 1 below further illustrates the Playbook stages and its internal steps. Key highlights and unique components presented in this work include:

## **1. Geographic Selection Scorecard:**

Presenting key criteria and rubrics to identify and compare the current state of governance, economy, potential for uplift, and nature for a particular subnational geography.

## **2. An Integrated Framework for Portfolio Design:**

A blueprint to transform subnational climate action plans into actionable, structured portfolios framed by material flows and systems change.

## **3. Project Screening and Scorecard:**

A scorecard to evaluate potential portfolio projects on the basis of the project's viability, the benefits it has on its environment, its potentially deleterious impact on its environment, its financial wellness and considerations for its socio-cultural environment.

## **4. Loan Guarantees to De-Risk Investments:**

A method of portfolio construction using Loan Guarantee Funds (LGFs) to build flexible capital stacks, bridge investment gaps, and attract diverse investor classes.

## **5. Community Empowerment Through Steward-Ownership:**

A blueprint for replicability and continuity with steward-ownership models, where local nonprofits can own a portion of the underlying portfolio assets, to balance profit motives and empower communities after an initial external capital influx.

This Playbook introduces this method as a tool for fund originators, investors, mayors and governors, and community leaders to formulate unified, attractive, and impactful place-based transition portfolios. It also serves as a resource for philanthropic program officers, fund managers, and family offices engaged in climate finance, by providing opportunities for creating bankable decarbonization projects that deliver profit, environmental, and social benefits. This process strategically guides the flow of investments by designing resilient and effective investment portfolios that align with local climate initiatives, policy goals and community needs.

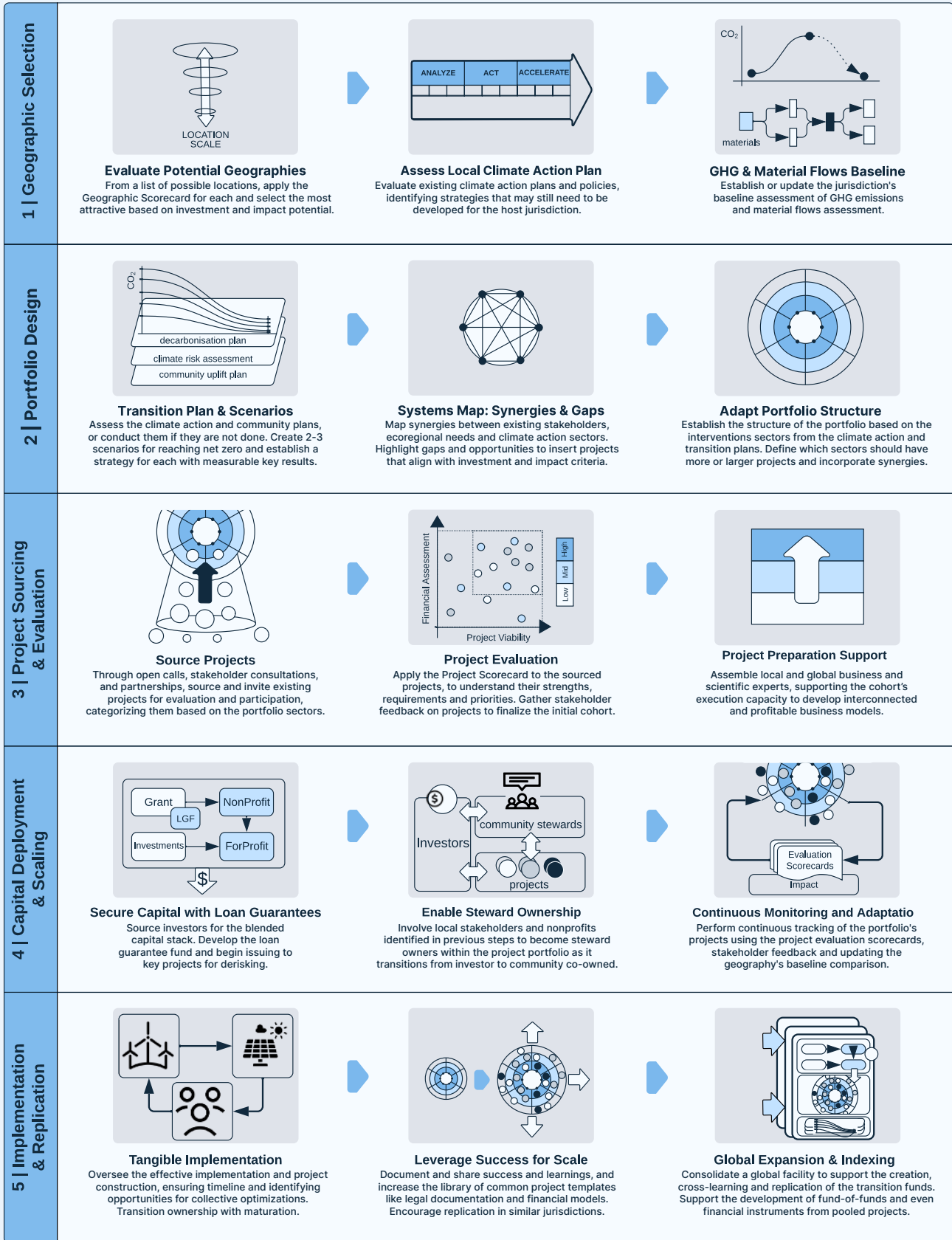


Fig. 1

*Playbook for Place-based Transition Funds. Visual summary of the five stages and substeps of the Playbook. While presented in sequential manner, several processes may occur in parallel and can extend through multiple stages, such as involving steward owners and sourcing projects.*



A background image of a construction site at dusk or dawn. The sky is a deep blue. In the foreground, there are several tall cranes with long horizontal jibs. Scaffolding is visible around a building under construction. The overall scene is industrial and active.

**01**

# Introduction to Place-Based Portfolio Construction for Climate Transitions



The existing financial system still lacks the required mechanisms to fund the complex transition of cities and communities in the face of climate change. High-return expectations lead investors to overlook small-scale, innovative climate projects. Obstacles like technological and regulatory uncertainties, lengthy approval processes, and a lack of attractive financial options for climate projects compound the problem.

Although philanthropic and public funds could mitigate these gaps through credit enhancement, such mechanisms are vastly underused. Current policies, including fossil fuel subsidies and tax structures, further tilt the market against decarbonization efforts, with little hope for the swift regulatory changes required to address these challenges within the necessary timeframe.

Through research and practical experience, we have identified several challenges in climate finance that pose real and perceived risks to effective investment in decarbonization efforts. Our findings suggest that the majority of global decarbonization efforts are concentrated into specific, familiar sectors that are heavily marketed and may be perceived as low-risk investments, such as software, solar panels, and electric cars, excluding more transformative projects.

This discrepancy alludes to a gap in climate finance: the issue is not merely a shortage of capital but a lack of investable projects that can simultaneously achieve financial returns and impactful climate action.

While the availability of viable projects is a predominant hindrance to low-carbon transitions, a number of factors contribute to the bottleneck. Transformational climate actions are often concentrated into politically progressive jurisdictions and affluent communities in both the global north and the global south.

Low-income and disadvantaged communities preclude participation due to prohibitive costs or poor credit. Small island developing states (SIDS) are most negatively impacted and less resilient to climate change, but many are paradoxically reliant on fossil fuels for independently run enterprises in transport, agriculture, and tourism (IMF). Rural and disaggregated projects that are interconnected to larger infrastructure projects, such as behind-the-meter energy generation and load flexibility like smart appliances and thermostats, can be hard to finance.

Information asymmetry and the nascency of unproven markets are additional burdens for investment. Overall, projects with quantifiable impacts struggle to get access to credit or deliver market-rate returns, especially in periods of high interest rates and record-setting public equities markets.

Universalizing low-carbon transitions need to be mainstreamed into unaddressed markets that are deemed too risky, costly, or difficult to abate without adequate support. Individual businesses and consumer choices are disempowered, but in aggregate, the economics can scale and projects may be derisked, such as mini grids and virtual power plants.

There is a pathway to commercial viability and financial engineering through loan guarantees, offering investors' protection against downside effects as the technologies and business models demonstrate their capabilities over time.

The table below encapsulates the categorized risks and impediments hindering investment in crucial climate initiatives at the local scale, reflecting the need for strategic, systemic solutions in climate finance.



**Table 1** Real and perceived risks identified as barriers for climate transition finance.

| Real and perceived risks                      | Impediment   | Risk category |  |  |
|---|--|---------------|--|--|
| Unstable politics                             | Prevents investment  |               |  |  |
| Limited subnational government budget         | Reduces amount of blended capital  |               |  |  |
| Unstable macroeconomics                       | Cost of capital risks  |               |  |  |
| Land leases and benefit sharing agreements    | Stalled projects and potential legal problems                                  |               |  |  |
| Delays rolling out climate incentive policies | Increases project risk and weighted average cost of capital                    |               |  |  |
| Need for new infrastructure development       | Large capital expenditures   |               |  |  |
| Investor Transaction Costs                    | Investors tend to favor mature markets with low fees                           |               |  |  |
| Information Asymmetry                         | Investment thresholds between investors, entrepreneurs, and project developers |               |  |  |
| Trust and Willingness Between Stakeholders    | Limits coordination and cooperation  |               |  |  |
| Labor Capacity                                | Lack of qualified labor force  |               |  |  |
| Foreign vs Resident Executive Team            | Execution risk (legal signatories, etc)  |               |  |  |
| Untested and Unproven Early-stage Ventures    | Lack of investor interest  |               |  |  |



Political



Financial



Social



## THE CASE FOR PLACE-BASED TRANSITION FUNDS

By combining strategic geographic selection, policy alignment, robust project evaluation, and catalytic capital structures, this Playbook illustrates how to generate investment portfolios optimized for specific local environments which maximally target climate transition opportunities while providing enduring value to the local community.

The benefit of place-based investment portfolios is that it meets a much needed demand to fund often neglected areas that are essential to support or network broader decarbonization pathways. Countries play a key role for large infrastructure projects, but they are often an impractical scale for managing such projects at the local level. Cities are better situated to implement low-carbon transitions, demonstrated by the quantity of funding programs and climate implementation plans concentrated around municipal climate solutions.

Cities face inherent challenges, however, because they are open systems composed of complex infrastructure networks that have many materials and capital flowing through them. Moreover, cities face a centralization problem, where resources can be wholly concentrated toward specific interests or demographics while others are underserved. Cities can also apply a “one size fits all” approach to a location that has many facets and diverse needs. Upgrades or maintenance on smaller, poorer funded elements of the system, such as enabling infrastructure, means that small neglects can turn into enormous problems for the entire system. Cities also tend to grow, where population growth can outpace the rate of municipal improvements, putting significant pressure on public sector infrastructure.

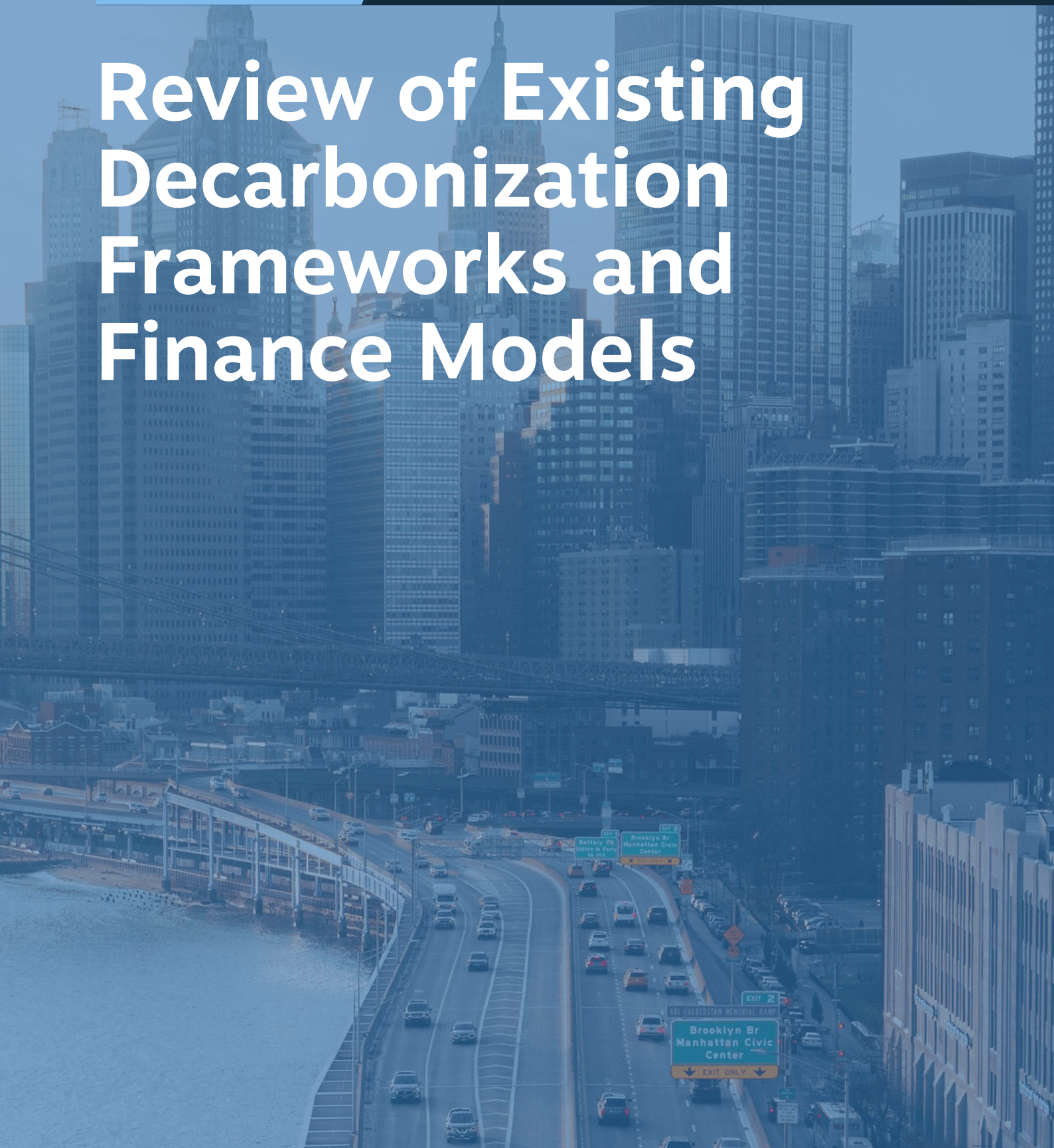
Finally, utility-scale energy, construction, and real-estate development are politically coveted and can prop up moral hazards or anti-competitive bids, which can be hard to counter when power is centralized.

Place-based frameworks can help spread economic costs, distribute political accountability, and create networks of symbiotic stakeholders. Energy, housing, and food security can be strengthened through place-based efforts by supporting enabling conditions that decentralize energetic loads such as mini-grid systems and empower food resilience with locally owned regenerative farming. Local bodies are closer to the specific climate-related challenges and opportunities within their territories, making them more agile actors in implementation of climate action. However, they often face financial constraints, lacking the necessary support and resources to fully implement their climate action and social improvement plans.

By synchronizing investment with governance of subnational entities, capital allocators rely on local insights to support projects that offer tangible benefits, ensuring progress toward both local and global climate targets. This method emphasizes integrating private capital, both philanthropic and market-rate, into the fabric of local climate action initiatives for the creation of a collaborative financial ecosystem to meet the nuanced demands of regions and municipalities.

# 02

## Review of Existing Decarbonization Frameworks and Finance Models





## SOURCING, EVALUATING, AND SCORING

Climate action frameworks, including decarbonization frameworks, are specific strategies from jurisdictional, institutional, and individual actors committed to take meaningful action toward their climate goals.

The primary objective of this work was to generate insights that would transform unbankable projects to viable works with realizable systemic transition actions aligned with the **Carbon Residency's goals: systemic decarbonization, financial innovation, climate justice, and measurable community uplift.**

To achieve these goals, we identified transferable strengths, methodologies, and lessons learned from market failures to develop an integrated Playbook, encompassing stakeholder engagement strategies, pilot testing plans, and a roadmap for scalable replication.

We analyzed over 30 city and nationwide decarbonization action plans, sectoral decarbonization frameworks, and geopolitical, humanitarian, and economic frameworks to assess impacts, failures, and policies. Interviews were conducted and programs evaluated for systemic sustainability, circularity, and innovative early-stage impact ventures to model and capture learnings (see Technical Appendix for scores and methodologies).

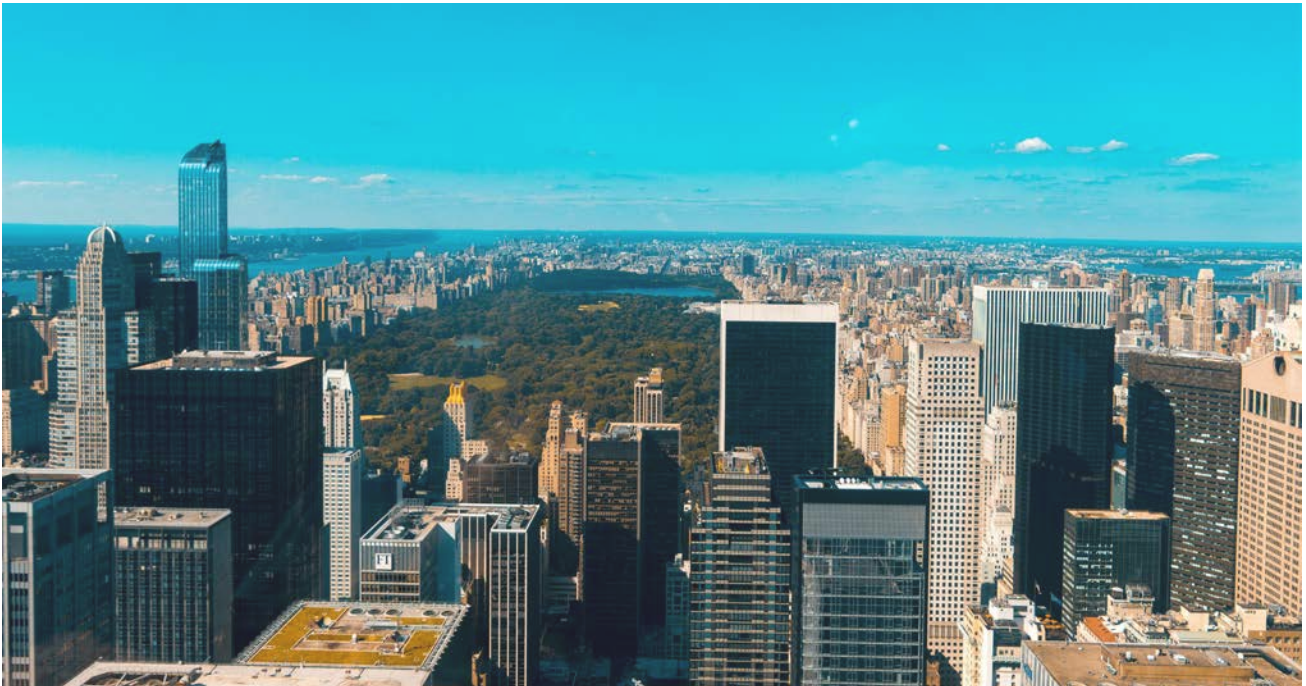
We consider decarbonization frameworks as any information structure, such as strategies, roadmaps,

classifications and processes, designed to help achieve the emission goals of the Paris Agreement. We took the following steps for sourcing, evaluating, and scoring identified frameworks:

- 1. Sourcing:** We explored decarbonization frameworks by researching the spectrum of global strategies. We conducted literature reviews and interviewed subject matter experts and practitioners in the field. From this, we created a review that evaluated established and innovative approaches.
- 2. Classification:** Next, we organized the collected frameworks by decarbonization sector or theme. This helped sort them into clear groups for easier analysis, based on their focus areas, audience, geography, and principles.
- 3. Deep Review:** We closely examined each framework through its documentation and by talking with creators and users. This mix of theoretical and practical insights gave us an enhanced lens of how each framework functions.
- 4. Evaluation and Scoring:** Finally, we evaluated and scored each framework against an Evaluation Rubric reflecting the Carbon Residency's goals. The scoring, presented in comparative tables, helped identify the frameworks best suited to guide our integrated decarbonization approach.







## COMPARATIVE ANALYSIS OF DECARBONIZATION FRAMEWORKS

Socio-economic and community uplift were important elements for our selection process, therefore considerations went beyond some decarbonization frameworks. These frameworks were scored based on their completeness, relevance, and the degree to which they encompassed the essential pillars of project viability, environmental impact, finance, and socio-cultural factors (Table 2) with evaluation scores following a rubric from 1

to 3 (see Technical Appendix). All frameworks met some of the criteria for our selection process.

The frameworks with highest scores and greatest alignment with all of the project’s goals were City Journey with The Global Covenant of Mayors for Climate & Energy (GCoM), Green Climate Cities ICLEI, and Global Solutions Alliance (GSA).



Figure 2 **Climate Action & Decarbonization Frameworks reviewed.** Depiction of some of the 30+ frameworks that were reviewed for the development of this framework, categorized by type of program.

**Table 2** *Review of existing climate action frameworks, a description of their program, and our evaluation of their relevance. Detailed scores and methodologies are found in the Technical Appendix.*

| Framework  | Description  | Evaluation   |
|--|--|--|
| <b>Decarbonization Roadmaps for a climate action journey of a geography, such as a city or nation.</b> |  |  |
| <b>C40 Climate Framework</b>   | The Cities Action Plan (CAP) Framework is a guide for cities to develop and implement climate action plans aligned with the goals of the Paris Agreement.  | Offers resources for inventorying emissions, setting targets, planning actions, and monitoring progress, but needs other action plans to be complete.  |
| <b>CityCatalyst Digital Roadmap</b>  | OpenEarth's CityCatalyst presents a digital and data interoperability framework for subnational governments to connect data throughout the climate action roadmap (GHG inventory, to action plans, portfolio, finance, and implementation stages). | Relevant component to ensure data efficiency for scaling and automating project prioritization by sector and impact monitoring. Requires further standards for integrations and more finance overlap.                                      |
| <b>City Journey (GCoM)</b>   | The Global Covenant of Mayors for Climate & Energy (GCoM) is the largest global alliance for city climate leadership, built upon the commitment of over 11,500 cities and local governments.   | Focused on local capacities with good assessment methodologies, strong data management and reporting. Global reporting standards set a good basis for comparative actions for different geographies.                                       |
| <b>GreenClimateCities (GCC) ICLEI</b>  | The Green Climate Cities is a program led by ICLEI delivering a process for cities to move toward climate neutrality, tested by cities engaged in the Urban-LEDS project.  | Provides a process-oriented methodology with a multi-jurisdictional design that enables local and regional governments to develop solutions integrated for entire urban systems.   |
| <b>ClimateView's Transition Elements</b>   | Framework and platform to evaluate city projects for decarbonization based on sector-specific breakdowns.  | Methodologies integrate from physics, behavioral psychology and economic science. "Imperfect" and "good enough" data are incorporated to broaden scope. Good for city-level decarbonization but requires integration with financial tools. |
| <b>Exponential Roadmap</b>   | The Exponential Roadmap Initiative is a partner of the UN Climate Change High-Level Champion's Race to Zero and is a founding partner of the 1.5°C Supply Chain Leaders and the SME Climate Hub.   | This framework is focused on professional services providers to assess customers and align businesses. Its sector analysis has updated models for Nature-based Solutions and Food Consumption.   |
| <b>LEED for Cities</b>   | The most widely used green building rating system which has a program that measures, scores, and certifies sustainability in urban development and infrastructure projects.  | Leed v5 is an updated model which addresses equity, health, ecosystems and resilience. Its sectoral scope is mostly focused on buildings and energy.   |
| <b>Project Drawdown</b>  | The Drawdown Roadmap was developed by scientists, policymakers, and corporate executives.  | It is a 5 part plan for existing climate change solutions across sectors, time, and geography with co-benefits. Needs new updates.   |

|   |  |   |
|---|--|---|
| <b>USGBC and RMI</b>                              | The U.S. Green Building Council and Rocky Mountain Institute conducted a sectoral analysis on the U.S. building construction sector.   | Outlines key actions to accelerate the decarbonization build sector addressing embodied carbon emissions for a full life cycle. Useful for identifying the hot spots that will most benefit from active reductions.   |
| <b>Circular Economy and Materials</b>             |  |   |
| <b>Circular City Actions (Ganbatte)</b>           | Circular City Actions is developed by Circle Economy, ICLEI, and Metabolic, in partnership with the Ellen MacArthur Foundation. It is based on the 9R Framework.   | The program initiated a repository of case studies on the circular economy in cities focused on direct circular handling of material and energy flows: closing loops, extending product lifecycles and increasing usage intensity.  |
| <b>Circular Buildings Coalition</b>               | The Circular Buildings Coalition is an Innovation Challenge for circularity in the built environment supported by the Laudes Foundation and chartered by Metabolic, WGBC, Circular Economy Building Council, World Business Council, EMF, Circular Org.                    | Projects are chosen on the basis of public value, transition alignment, feasibility, org-solution fit, uniqueness and impact, employing Building Passports, an inter-communicable database for all building products. Success is expected to come from a funnel effect - where a small amount of money is given with successive larger disbursements, done in phases. |
| <b>Circular City Coalition</b>                    | Action framework for private sector to co-invest with cities, in partnership with the local community, to achieve decarbonisation, material circularity and social uplift. CCC is a consortium led by three governing partners: Pyxera Global, Metabolic, and Climate-KIC. | Aligned with CTFs by bringing the local government, corporate investors, community leaders and philanthropy to work together on systemic transitions. While it mentions the creation of portfolios, it doesn't have a clear methodology or play yet.  |
| <b>EIB Circular City Center (C3)</b>              | C3 is a resource center within the EIB to aid the circular transition.   | They provide resources, advisory, and aid toward finding funding for circular projects.   |
| <b>Project and Solution Evaluation Frameworks</b> |  |   |
| <b>CRANE Tool and Prime Coalition</b>             | Prime Coalition (Prime) is a tool to establish industry standard terminology. CRANE is an open source tool to assess the emissions reductions for early-stage investors, incubators, accelerators, government agencies, and large corporations.                            | Strong in future impact assessment with a primary focus on emissions reductions.  |
| <b>EU Taxonomy for Sustainable Activities</b>     | Developed by the EU Commission.  | The taxonomy is a common classification system for sustainable investment for avoidance of doubt in defining terms.   |
| <b>Global Solutions Alliance (GSA)</b>            | GSA is an open-source non-profit data repository.  | GSA is a forked version of Drawdown and Crane and presents strong systemic tools designed to dynamically adopt new open-sourced solutions. Analytic projections include interaction effects to avoid double counting.   |



|  |   |  |
|--|---|--|
| <b>SDG Impact Assessment Tool (UNDP)</b>                 | The SDG Acceleration Toolkit is a compendium of tools for analyzing system interconnections and enhancing “policy coherence”. Its Climate Action Impact Tool is an online application for development practitioners and the private sector. | It is comprehensive and adaptable and focuses on identifying risks and building resilience, but may require simplification for practical use.  |
| <b>Systemic and Socio-economic Impact frameworks</b>     |   |  |
| <b>Converge Network Toolkit</b>                          | The Toolkit is a companion to the book Impact Networks by David Erlichman.  | A guideline coupled with Hats Protocol, a decentralized network to support organizations, communities, and collectives delegate roles and organize around systemic thinking principles.  |
| <b>Donella Meadows IISSD</b>                             | DM Indicators Information Systems For Sustainable Development is formulated on past work from Balaton Group, UNCSD, Natural Human and Social Capital from the World Bank.   | DM uses a compilation of indicators from the UN Statistical Division, the OECD, the European Environment Agency, Eurostat, and The Project on Indicators of the Scientific Committee on Problems of the Environment to identify leverage points and interventions for systemic change. |
| <b>The Millennium Challenge Corporation</b>              | MCC is an independent U.S. Government agency that provides sizable time-limited grants to promote economic growth, reducing poverty, and strengthening institutions.  | MCC’s process uses indicators that are developed by independent third parties, are policy-linked, and have a clear theoretical or empirical link to economic growth and poverty reduction.   |
| <b>New Project and Ventures Approaches</b>               |   |  |
| <b>Climate KIC Open Innovation Calls</b>                 | Climate KIC is an accelerator, incubator, provides seed funding, and assistance to start-ups and SMEs and is supported by the European Institute of Innovation and Technology.  | They identify, source and track projects and support innovation by effectively leveraging grants. They build initiatives such as Climathon and Climate Launchpad.  |
| <b>Fresh Ventures Studios</b>                            | Fresh is a start-up studio, talent and venture builder initially co-founded by Metabolic to transform the food system.  | Addresses market challenges and empowering “stewarded-owned ventures” to achieve product to market fit, systems change, and follow-on funding. Fresh has tried to create a blueprint for its frameworks and started Rootical in Uganda this year but is not replicable at present.     |
| <b>Systemic Venture Framework</b>                        | The Metabolic Ventures Arm created a systemic venture framework to design, support, assess, and improve ventures that create transformative impact by design.   | A contextual specific design tool using “lagging indicators” to quantitatively measure impact for systemic approaches for early-stage ventures and projects.   |
| <b>Financial Alignment Programs with Paris Agreement</b> |   |  |
| <b>EIB Paris Alignment Framework</b>                     | The European Investment Bank is a framework specifically designed to align with the goals of the Paris Agreement.   | Establishes a low carbon framework to align financing activities and establish criteria for EIB funding eligibility. Useful for financial structuring.   |

|  |  |   |
|--|--|---|
| <b>EU Action Plan for Sustainable Growth</b>     | Developed by the EU Commission's Joint Research Center to facilitate the financing of sustainable economic growth.   | It is strong in financial aspects but less adaptable to local community-focused projects.   |
| <b>Green Climate Fund</b>                        | The GCF Investment Framework helps create alignment with co-investors, the private sector, other climate funds and development banks.  | Aids in financial structuring for climate related projects and works with accredited entities for GCF-funded projects.  |
| <b>IFC Policy on Sustainability</b>              | The International Finance Corporation from the World Bank Group's Environmental Health and Safety Guidelines are technical guidelines coupled with their sustainability policies to assess risks of projects.        | Provides a comprehensive performance standards assessment for environmental and social risks, with generalizable guidelines. Recent updates provide quantitative instruction.                   |
| <b>OECD Framework To Decarbonize The Economy</b> | The Office for Economic Cooperation and Development established a framework to align with the goals of the Paris Agreement.  | OECD identifies the gap between existing frameworks and shortfalls of existing emissions targets with specific considerations for broad economic and social issues.                             |
| <b>TAP ICLEI</b>                                 | Transformative Actions Program (TAP) is a 10 year global initiative embedded within the scope of the Local Government Climate Roadmap and in support of the Compact of Mayors and the Compact of States and Regions. | TAP catalyzes additional capital flows for low-carbon and climate-resilient urban development infrastructure concepts into mature and bankable projects ready for financing and implementation. |



## BLENDED FINANCE: USING LOAN GUARANTEES TO ATTRACT MARKET-RATE CAPITAL STACKS

Loan Guarantee Funds (LGFs) are a critical tool to scaling climate finance, especially for projects that are difficult to finance due to geographic considerations, management perceptions, testing new technology, and innovative governance structures. Loan Guarantees are a type of credit enhancement that allows an entity to obtain financing at better terms while minimizing risks for investors. By reducing the risk, cost of capital is reduced, increasing the chance of more successful transition projects. Credit guarantee facilities with standardized contracts have the potential to mobilize 6-25 times more financing than loans (CPI, 2023).

We compare three public and three private LGFs, highlighting relative tactics to de-risk investments and attract capital (Table 3). We examine the public sector via African Development Bank's efforts to mitigate investment risks in sustainable projects in Africa, the European Investment Fund's SME support in Europe, and USAID, showcasing how LGFs can stimulate green innovation in varied geographies with different risk profiles and political perceptions. We also consider the private sector through Guarantco, MCE Social Capital, and Shared Interest in applying LGFs for private capital in blended finance structures to meet evolving missions and emerging markets. A more detailed overview of each fund can be found in the Technical Appendix.

**Table 3** *Loan Guarantee Facility Comparative Table. The table includes three public and three private structures with maximum loan coverage, maximum tenor length, leverage ratio, and guarantee fee, where available. All entities provide technical assistance. The table highlights which entities provide loans and guarantees as opposed to just guarantees.*

| Name                                      | Type    | Types of Guarantees   | Guarantee Terms  | Loan Provisions | Technical Assistance |
|---|---------|---|--|-----------------|----------------------|
| <b>Public Loan Guarantee Facilities</b>   |         |   |  |                 |                      |
| <b>African Development Bank</b>           | Public  | Currency Guarantee, Partial Credit Guarantee, Partial Risk Guarantee  | <ul style="list-style-type: none"> <li>• Loan Guarantee: 75%</li> <li>• Maturity: up to 25 years</li> <li>• Guarantee Fee: 0.8%</li> <li>• Upfront Costs: 0.25%-1%</li> </ul>            | Yes             | Yes                  |
| <b>European Investment Fund</b>           | Public  | Counter-Guarantees, First-Loss Guarantee, Loan Portfolio Guarantee, Partial Credit Guarantee  | <ul style="list-style-type: none"> <li>• Loan Guarantee: &lt;80%</li> <li>• Guarantee Fee: 0.75%-1.2%</li> <li>• Max Guarantee: €7.5M</li> </ul>   | Yes             | Yes                  |
| <b>USAID Development Credit Authority</b> | Public  | Bond Guarantee, Loan Portfolio Guarantee, Partial Credit Guarantee, Portable Guarantee  | <ul style="list-style-type: none"> <li>• Loan Guarantee: 50%-75%</li> <li>• Maturity: 2-20 years</li> <li>• Leverage Ratio: 1 to 30</li> </ul>   | Yes             | Yes                  |
| <b>Private Loan Guarantee Facilities</b>  |         |   |  |                 |                      |
| <b>GuarantCo</b>                          | Private | Currency Guarantee, First-Loss Guarantee, Joint Guarantee, Liquidity Extensions Guarantee, Partial Credit Guarantee, Partial Risk Guarantee | <ul style="list-style-type: none"> <li>• Loan Guarantee: &lt;100%</li> <li>• Maturity: &lt;20 years</li> <li>• Max Guarantee: \$5M to \$50M</li> <li>• Leverage Ratio: 1 to 3</li> </ul> | No              | Yes                  |
| <b>MCE Social Capital</b>                 | Private | Credit Guarantee  | <ul style="list-style-type: none"> <li>• Loan Guarantee: 100%</li> <li>• Maturity: 10 months to 5 years</li> </ul>   | Yes             | Yes                  |
| <b>Shared Interest</b>                    | Private | Partial Credit Guarantee  | <ul style="list-style-type: none"> <li>• Loan Guarantee: &lt;75%</li> <li>• Leverage Ratio: 1:3</li> <li>• Funds Called to Guarantees Issued: 7.8%</li> </ul>                            | No              | Yes                  |



## SUMMARY OF GENERAL FINDINGS

Our reviews of decarbonization frameworks illustrate challenges and insights of existing methodologies, when applying them to a specific, based-placed implementation (Technical Appendix). These underscore the complexities of the field and guide considerations to shape a Place-based Transition Fund: embracing early and consistent, policy alignment, sector-specific insights, and integrating understanding of geographical and market dynamics. Key gaps in existing frameworks include community social and economic empowerment strategies and metrics, system mapping for understanding synergies across projects, and tactics to address market failures.

### GEOGRAPHIC CHALLENGES

- **Early-Stage Funding in a Local Context:** Risk assessment for early-stage funding often lacks nuanced understanding of a local environment, political willingness, and the true obstacles that result in a failure to launch. Developing community relationships can help to contextualize local needs while building implementation support. Relationships expand solutions that can only be revealed through the context of community trust.
- **Geography Scale Selection:** Selecting an appropriate geographical scale for applying a Place-based Transition Fund is key, as it expands or constrains resources, timescales, governmental support, and the capacity for measurable community uplift that endures beyond the intervention. While local climate policy are important, equally as important is the relationship between government, local residents, and surrounding political jurisdictions. Ensuring a standardized approach does not alienate or neglect any part of a community is critical.
- **Candidate Reach for Project Pipeline:** The challenge of finding investable project pipeline goes beyond simply reaching candidates for funding. It is a broader issue of enabling talent to progress in challenging environments, where actors are often pioneers, and supporting their successful execution. Information exchange and avoidance of error replication is often hard due to a lack of supporting communication networks between small scale project developers and entrepreneurs. Information sharing is the first step to enabling support and course correction.

- **Place-based Strategies and Policy Cohesion:** The viability of decarbonization strategies are deeply rooted in the socio-political and economic fabric of each geography. This insight guides us to not just map scenarios but to weave our strategies into the local policy tapestry, ensuring alignment that supports existing, and underfunded climate commitments.
- **Market Failures:** Market failures can be amended, not simply by policy fixes or traditional economic corrections, but through innovative solutions. We aim to establish mechanisms that can predict, internalize, and turn externalities into opportunities for innovation and growth.

### PROJECT PORTFOLIO EVALUATION

- **Anticipating Technological and Systemic Uncertainty:** When reviewing decarbonization projects, there are recognized difficulties in planning around the regional accessibility of emerging technologies and how they operate in the local context. More critically, we must anticipate the systemic repercussions—both known and unknown—that these projects and technologies have on our overall strategy.
- **Context-Specific Models:** The challenge is tailoring portfolios to the intricacies of regional data landscapes, usability needs, and the distinctive transition needs of sectors and geographies. This insight leads the Playbook to be sensitive to these sector needs and be contextually intelligent.
- **High Level Thinking vs Real World Implementation:** Many frameworks address theoretical or “perfect world” scenarios, rather than addressing real obstacles that are often far more entrenched, hard to define, and result from perception or relational dynamics. Cognitive biases, attributional errors, and misaligned incentives are often ignored and go unaddressed, stymying actions and creating implementation gaps.
- **Sector-Specific Challenges and Opportunities:** Implementing infrastructure at varying scales is complex due to differing phase-outs for aging infrastructure, unaligned expiration dates, and financing timelines on networked infrastructure, centralized planning that overlooks community needs, and soft corruption and anti-competitive bids from major contractors.

- **Strategic Alignment with Climate Goals:** The construction of investment portfolios must be strategically aligned with science-based targets and international climate agreements. This ensures that investments are directed towards projects that contribute meaningfully to global climate objectives.
- **Transparency and Due Diligence:** Developing transparent criteria for asset selection and balancing within portfolios, alongside open due diligence protocols, enhances the credibility and attractiveness of investment opportunities. This fosters a more inclusive and trustworthy climate finance market.
- **Diversified Portfolios:** Incorporating a mix of different projects with varying risk profiles is not simply an exercise in diversification, but provides enabling conditions for a variety of infrastructure sizes and project types.

## VALUE OF LOAN GUARANTEE FUNDS

- **Risk Mitigation and Investment Attraction:** LGFs reduce investment risks, thereby enhancing the appeal of projects, especially in regions burdened by high borrowing costs and significant debt. They serve as a critical tool for scaling climate finance, particularly for innovative and impactful projects.
- **Contract Standardization and Mobilization:** The development of standardized contracts and criteria for LGFs can significantly mobilize financing, broadening the investor base by reducing perceived risks.
- **Public and Private Sector Roles:** LGFs de-risk investments and attract capital across diverse geographical and political landscapes. This dual-sector approach underscores the versatility and necessity of LGFs in stimulating green innovation and supporting small and medium enterprises.

## IDENTIFIED RISKS

- **Execution Risk:** In the context of Place-based Transition Funds, execution risk embodies the challenges associated with project delivery, from inception through to operational stages. This includes potential delays due to regulatory hurdles, logistical constraints, or unforeseen environmental impacts that could derail project timelines or inflate costs.
- **Market risk:** Given the evolving nature of green technologies and sustainable practices, market risk is a significant concern. Fluctuations in technology costs, shifts in consumer demand, or changes in subsidy regimes can impact the financial viability of projects within the portfolio.
- **Financial Risk:** Financial risk refers to the uncertainties funding and liquidity surrounding funding availability, interest rate fluctuations, and the overall cost of capital. These factors can significantly affect the ability to finance projects at competitive rates, impacting the overall investment appeal.
- **Regulatory Risk:** The dynamic regulatory landscape poses a risk to the implementation of climate transition projects. Changes in environmental policies, zoning laws, or carbon pricing mechanisms can introduce compliance challenges or necessitate project redesigns.

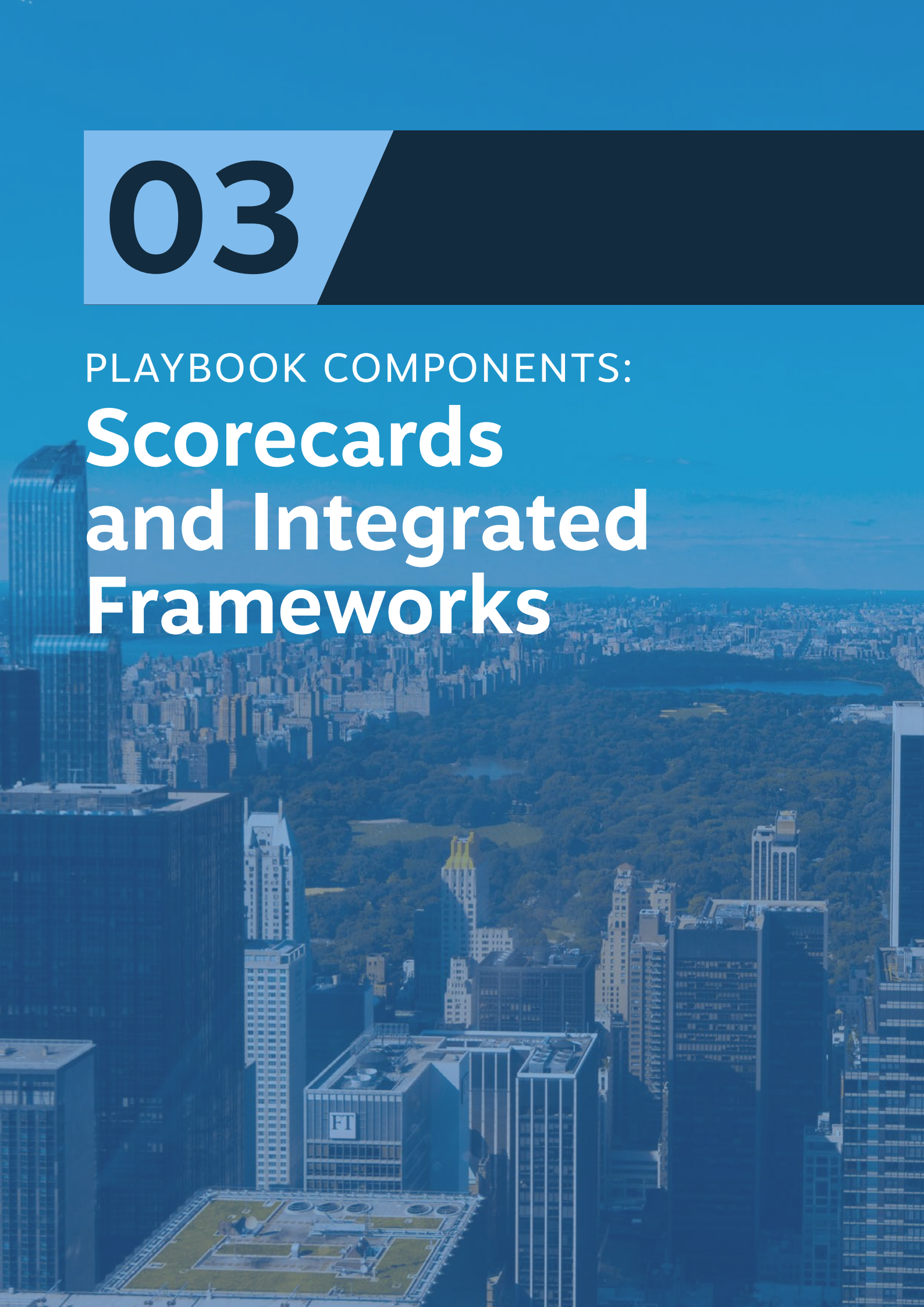
## POLICY AND MARKET ENGAGEMENT

- **Policy Reforms to Incentivize Investments:** Assessing the viability of policy reforms that incentivize investments into LGFs is essential for catalyzing a shift in capital flow towards sustainable development projects. Engaging with policymakers to identify conducive regulatory environments can amplify the impact and size of the climate finance market.
- **Stakeholder Collaboration for Market Alignment:** Undertaking collaborative research and engaging with market stakeholders are pivotal in aligning LGFs with desired market conditions. Circulating draft term sheets and due diligence criteria for feedback ensures that LGFs remain adaptable to emerging technologies, market trends, and profitability preferences.

# 03

PLAYBOOK COMPONENTS:

# Scorecards and Integrated Frameworks





This section details the design and consolidation of integrated frameworks, incorporating the highest scored aspects from the review of decarbonization frameworks. These three components are practical and strategic tools for implementing Place-based Transition Funds:

- **Geographic Scorecard:** Prioritizing geographic regions and jurisdictional scales
- **Portfolio Design:** Translating climate and community uplift strategies into portfolio construction
- **Project Scorecard:** Evaluating projects to align with portfolio structure

## GEOGRAPHIC SCORECARD

Creating Place-based Transition Fund portfolios begins with selecting the right location, a process streamlined using a Geographic Scorecard (Table 4). Geographical selection should be informed by the stability of its economy, its regulatory policies, the enforcement for a rules based governing system, local need and willingness, and the product to market fit (i.e. relevance of intervention within a specific geography). Geographical selection should encapsulate multifunctionalities, which includes land use, impacts on the environment, and opportunities to synergize with natural capital. Geographic analyses can be categorized into different scales, each with strategic significance for intervention within the Place-based Transition Fund:

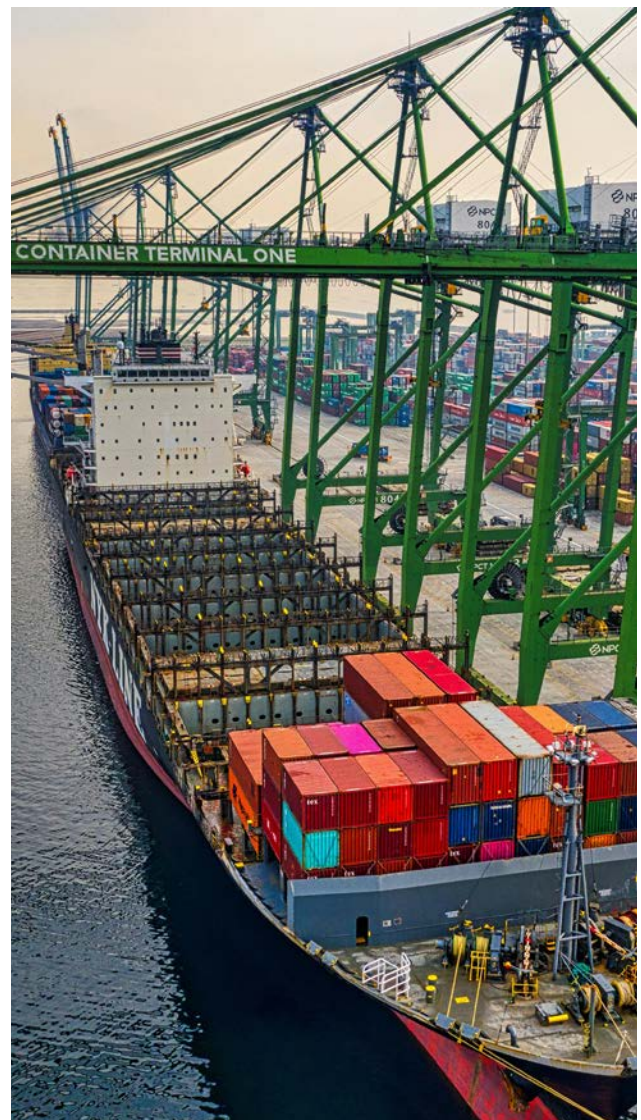
- **National Government (Political):** Establishes the broader policy and funding framework facilitating local initiatives across diverse bioregions.
- **Bioregion (Nature):** Represents extensive environmental patterns with shared characteristics like carbon sequestration, sustainable resource extraction, and biodiversity.
- **Regional Government (Political):** Acts as a key intermediary, localizing national policies to specific contexts.
- **Ecoregions (Nature):** Smaller than bioregions, they are essential for local ecological management and conservation strategies, influencing urban planning and natural resource opportunities.
- **City Governments (Political):** Directly implement climate projects and manage stakeholder engagement.
- **Local Community (Social):** The foundation of our interventions, reflecting the lived experiences and needs of the populace, and fostering equitable practices.

Early selection in a project's life cycle sets the stage for governmental policy adherence and civic rights, influenced by factors like governmental

influence, economic policies, and political stability. Community dynamics, including workforce demographics and inter-community relations, offer insights into potential for change or areas of resistance. Indicators like educational attainment and economic conditions can predict political stability and economic vitality. Effective governance, community support, and proactive engagement emerge as crucial elements for project success.

Leveraging data from international entities and experiences, we've developed a set of metrics for the Geographic Scorecard. This tool aids in efficiently evaluating and scoring potential areas, encompassing aspects from governance to environmental conservation.

The Scorecard's detailed approach ensures a nuanced assessment, optimizing the selection for impactful and sustainable climate interventions. See Appendix A1 for scorecard metrics and rubric for Geographical scorecard.



**Table 4** *Geographic Scorecard to select for effective deployment of Place-based Transition Funds. This scorecard integrates various factors, such as political boundaries, natural systems, and social dynamics, employing a multi-scale analysis to harmonize global objectives with local realities.*

| Evaluation Topic  | Evaluation Description  |
|---|---|
| <b>Governance</b><br>Several indicators are predictive of government effectiveness and within national and subnational boundaries.  |   |
| <b>Political Stability</b>  | Measures the perceptions of the likelihood of political instability, and politically motivated violence, including terrorism.   |
| <b>Rule of Law</b>  | Estimates the functioning and independence of the judiciary, including the police, the protection of property rights, the quality of contract enforcement, as well as the likelihood of crime and violence.     |
| <b>Government Effectiveness</b>   | Assesses the quality of policy formulation and implementation, the credibility of the government's commitment to its stated policies, the government's independence from political pressures, and its services. |
| <b>Regulatory Quality</b>   | Evaluates the ability of the government to formulate and implement policies and regulations that permit and promote private sector development.   |
| <b>Anti-corruption</b>  | Captures perceptions to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as state capture by powerful private interests.                           |
| <b>Information Flows</b>  | Assess how governments can restrict or facilitate information flows within or across borders and government's impact on transparency between institutions, media, and individuals.                              |
| <b>Economic</b><br>Key measures for investors involve monitoring key economic indicators and understanding actions in communities that are proxies for government trust, effectiveness and willingness. |   |
| <b>Fiscal Policy</b>  | This indicator measures the government's commitment to prudent fiscal management and private sector growth.   |
| <b>Inflation Rate</b>   | The rate of inflation is a key indicator of currency stability.   |
| <b>Foreign Exchange Risk</b>  | An indicator of trade flow and dynamics.  |
| <b>Investment Grade Ratings</b>   | An indicator of the likelihood of repayment in accordance with the terms of the issuance.   |
| <b>Access to Credit</b>   | This indicator measures the level of financial inclusion in a country.  |

|  |   |
|--|---|
| <b>Informal Economies</b>  | A measure of informal economies and can be used as a proxy for trust in government.   |
| <b>Electricity Consumption</b>   | Indicator of economic activity, formal and informal, and government effectiveness.  |
| <b>Financial Inclusion</b>   | A measure of economic inclusion and equality.   |
| <b>Labor Force Strength</b>  | A measure for estimating economic strength compared to the black market and is also a proxy for trust in government.  |
| <b>Unemployment Rate</b>   | A lagging indicator for an economy's health.  |
| <b>Population Growth</b>   | An indicator of potential economic growth or burden, depending on the size of the economy.  |
| <b>Social Uplift</b><br>Systemic transformations involve improving the quality of life of people within communities. Identifying where uplift is most needed is essential.                   |   |
| <b>Immunization Rates</b>  | This indicator measures a government's commitment to providing essential public health services and reducing child mortality.   |
| <b>Education Expenditures</b>  | This indicator is used to gauge the extent to which governments are currently making investments in the education of their citizens.  |
| <b>Child Health</b>  | An indicator that measures child health by combining metrics for child mortality, access to clean water, and access to clean sanitation.  |
| <b>Girls' Primary Education Completion Rate</b>  | An indicator for equality, freedom, female safety, and increasingly, an overall indicator of safety in a community.   |
| <b>Access to Land</b>  | Measuring to what extent governments are investing in secure land tenure and property rights reflects equity, particularly amongst the poor, social mobility and the strength of the social safety net. |
| <b>Nature</b><br>The value of healthy ecosystems, cultural heritage, and the stewardship of these natural and intangible assets lies in the protection of forests, rivers, oceans and soils. |   |
| <b>Natural Resource Protection</b>   | An assessment of a government's commitment to preserving biodiversity and natural habitats, responsibly managing ecosystems and fisheries, and engaging in sustainable agriculture.                     |
| <b>Key Biodiversity Areas</b>  | This indicator considers critical biodiversity hotspots.  |
| <b>Cultural Heritage</b>   | This indicator captures the intangible cultural heritage in areas recognized for their natural and cultural significance.   |



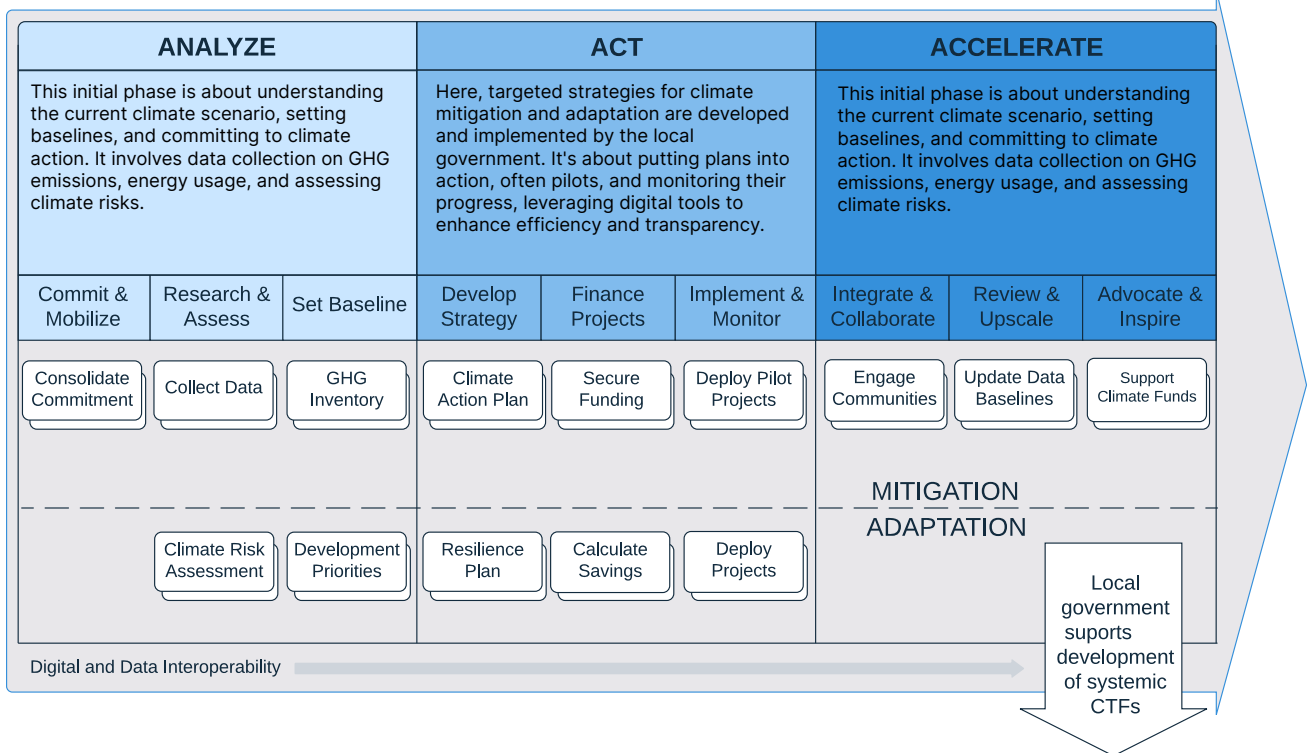
# PORTFOLIO DESIGN

This section discusses designing a portfolio that integrates into a selected geographies’ existing or emerging climate action strategies (Figure 3).

The first step is to understand the existing climate action landscape within the chosen geography. If there’s an existing climate action strategy, it’s important to document its components such as mitigation and adaptation strategies, policy commitments, and data management. This includes noting which parts have been completed, the last update date, and the data sources used. This diagnosis helps determine if any further strategies need to be developed or updated, and tailor the portfolio to enhance these existing plans. Conversely, if a climate action plan is absent, a roadmap is developed to align and accelerate the jurisdiction’s climate goals.

The integrated framework roadmap adopts a three-phase approach to portfolio design: Analyze, Act, and Accelerate. It draws on ICLEI’s GreenClimateCities framework and incorporates modular components that a jurisdiction can take in their climate action roadmap for both mitigation and adaptation (e.g. GHG inventories, Climate Change Risk Assessments, Decarbonisation Plans). These modules can be adjusted to the specific geographies, but the template can be used as a diagnostic of how far has the selected geography progressed in the climate action roadmap.

## Modular Climate Acton Roadmap for Subnational Jurisdictions



**Figure 3** *Modular Climate Action Roadmap for Subnational Jurisdictions.* The diagram shows how an integrated framework uses ICLEI’s GreenClimateCities stages, to assess a particular jurisdiction’s climate action progress, and provides key action modules that if not completed can be undertaken. The development of a Place-based Transition Fund aligned with the jurisdiction would likely occur mostly in the Act and Accelerate stages.

From the climate action roadmap, three critical elements for portfolio construction are distilled: the Decarbonization Plan, a Climate Change Risk Assessments (CCRAs), and Community Uplift Plan (Figure 4). The selected geography may not have all these plans or may incorporate aspects of them under a different name or strategy. The plans suggested here should be seen as guiding elements that are ideally covered in a regional plan and analysis, rather than serve as prescriptive requirements. These elements provide a clear direction for intervention sectors, forming the backbone of our portfolio structure.

### 1 Decarbonization Plans

Identify emission reduction interventions across key sectors, using methodologies like the ‘Global Protocol for Community-Scale Greenhouse Gas Inventory’ (GPC), laying the foundation for selecting portfolio projects that align with sector priorities (Stationary Energy, Transport, Waste, Industrial Products and Product Use, and Agriculture, Forestry and Land Use (AFOLU) — which can be extended into a broader nature and biodiversity management context.

### 2 Climate Change Risk Assessments

Analyze the geography, its assets, infrastructure, and the different future climate scenarios, evaluating exposure to key risks, such as draughts, fires, heat waves, and flooding. This creates a clear understanding of areas requiring intervention within the city or region that can be developed within a Place-based Transition Fund.

### 3 Community Uplift Plan

Is designed to address socio-economic challenges in underserved communities through targeted interventions and projects. The main components of the plan typically include: Needs Assessment and Community Engagement, Economic Development and Empowerment, Equity and Social Inclusion, Education and Youth Engagement, Health and Wellbeing, Housing and Infrastructure, and Partnerships and Collaborative Governance. The key success factor is the active engagement of the community in the planning and decision-making process, ensuring that the initiatives reflect their needs and aspirations.

Our portfolio structure is segmented into categories reflecting insights gathered from the local version of these strategic plans such as “Decarbonization Sectors (e.g. from GPC or IPCC), Nature-based Projects, Adaptation and Resilience, and Social Uplift (Figure 4). The intervention sectors may have different levels of priorities and number or size of projects that should fall under them to achieve the set goals. This should also be determined from the integrated climate action plans. These insights can be used to determine how much of the portfolio should be allocated to project finance, Small and Medium Enterprises (SME), and venture investments (although ideally the majority of investments are projects). Potential synergies across sectors and projects that could address several interventions are identified by forming a Systems Map. When these aspects of the portfolio structure are defined, the next crucial step involves aligning the portfolio sectors with the project scorecards.

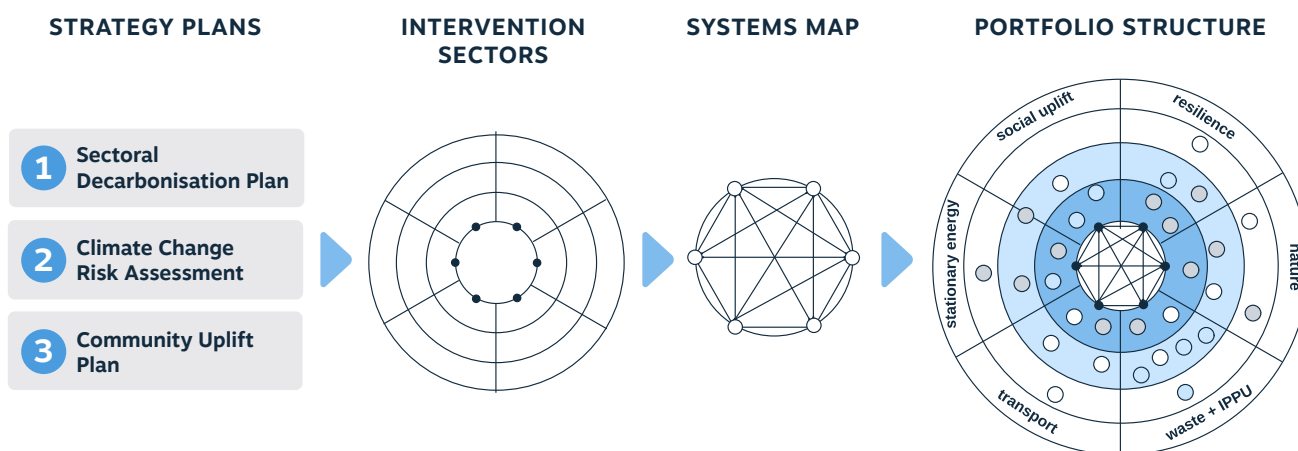


Figure 4 **Portfolio Construction Process.** Translation of localized strategic climate and community plans into portfolio intervention sectors (i.e. project categorization) and synergy across them into the portfolio design.

## PROJECT SCORECARD

The Project Scorecard presented in this section evaluates and prioritizes projects and ventures for the decarbonisation portfolio structure (Table 5). It is crafted to enhance the predictive accuracy of project success and fortify the selection process against biases. As our understanding of the decarbonization landscape evolves and as new information emerges, the scorecard will continue to adapt as well. An effective scorecard requires the identification of specific inputs to evaluate the potential impact, viability, and the alignment of projects to the overarching decarbonization goals:

- **Non-Negotiable Criteria:** Projects must adhere to fundamental standards such as anti-corruption and anti-exploitation measures, risk mitigation, community benefit, and tangible reductions in GHGs.
- **Scalability and Replicability Factors:** A project should be designed with ease of adaptation to other geographic and cultural landscapes.
- **Local and Cultural Considerations:** Projects should integrate local and cultural factors, including regulations, local traditions, community engagement, historical context, social dynamics, and aspirational goals.
- **Economic Impact Assessment:** Measured through metrics that reflect job creation and local economic stimulation through spending patterns on essentials and non-essentials and home ownership rates.

**Table 5** *The Project Scorecard Evaluation Criteria takes into consideration a project’s viability, the impact it makes on the environment, negatively and positively, its financial wellness and its socio-cultural considerations. See Technical Appendix for scoring and methodologies.*

| Topic   | Description   |
|---|---|
| <b>PROJECT VIABILITY EVALUATES THE CAPACITY AND LONG TERM VIABILITY OF THE PROJECT.</b> |   |
| <b>Business Model</b>   | Viability of the business model   |
| <b>Project Maturity</b>   | Maturity framework assesses and stage of project maturity                           |
| <b>Scaling</b>  | Potential for project to scale  |
| <b>Checks and Balances</b>  | Logical risk mitigation checks and balance plan                                     |
| <b>Labor Capacity</b>   | Labor capacity planning based on the needs of the project                           |
| <b>Longevity and Autonomy</b>   | Plan for the project funding servicing and maintenance                              |
| <b>Implementation</b>   | Feasibility and ease of project implementation                                      |
| <b>Technical Feasibility</b>  | Existence of an inventory of available technical tools including observational data |
| <b>Project Timeline</b>   | Feasibility and realistic projection of project timeline                            |
| <b>Milestones and KPIs</b>  | Realistic milestones and defined KPIs in place                                      |
| <b>Team</b>   | Credibility of team and execution capacity evaluated                                |
| <b>Permits and Certifications</b>   | An inventory of projected permits and certifications with associated costs          |
| <b>Land Tenure</b>  | Planning and certifications for land tenure and associated costs and timelines      |
| <b>Project Interactions</b>   | Identified projects and companies in the same area assessed for collaboration       |
| <b>Project Infrastructure and Equipment</b>   | A measure of economic inclusion and equality  |



| PROJECT'S ENVIRONMENTAL IMPACTS           |  |
|---|--|
| Waste Management and Circularity          | Waste management plan in place that aligns with circular economy frameworks  |
| Waste Management and Pollution            | Pollution waste plan for air, marine and riparian zone, and lands it occupies and abuts in alignment with EU Taxonomy  |
| Material Flows                            | A material flows analysis for their system   |
| Circularity                               | Project evaluates opportunities of circular economy solutions  |
| Upstream and Downstream Impacts           | Upstream and downstream events and impacts are assessed  |
| Low Carbon Transport                      | Low carbon transport systems (such as low carbon rail systems, public transport, bicycles, etc) in its business plan when available  |
| Climate                                   |  |
| Climate Risk                              | How vulnerable the project is to climate risks (e.g. floods, fires, hurricanes)  |
| Climate Adaptability                      | How resilient and well equipped the project is to adapt to climate changes   |
| Energy                                    |  |
| Energy Generation                         | Projects emit no more than 250 gCO <sub>2</sub> per kilowatt-hour (or equivalent) on average over the economic life of the investment  |
| Renewable Electricity Generation          | Power-system flexibility that supports variable renewable energy and storage   |
| High Energy Co-generation                 | Small individual gas boilers and micro-gas combined heat and power for buildings defined as A-rated in the European Union or commensurate  |
| Energy Recovery from Waste                | Energy recovery from waste compatible with the objectives of the EU Circular Economy Action Plan   |
| Electric Heating and Cooling Technologies | Any boiler operating on natural gas meets the harmonized efficiency reference value for dedicated heat production  |
| Gas Fired Trigeneration                   | Permissible if the project results in emissions in the production of electricity of no more than 250g CO <sub>2</sub> per kilowatt-hour (or equivalent).   |
| Enabling Energy Infrastructure            | Electricity networks, which includes all electricity transmission and distribution infrastructure, with the exception of the direct connection of generating capacity must have an emission standard above 250g CO <sub>2</sub> /kWh |
| Transport                                 |  |
| Passenger Vehicles                        | Emissions thresholds for light commercial vehicles and heavy duty vehicles for direct CO <sub>2</sub> emissions per kilometer  |
| Zero Direct Emissions Transport           | If Project is in transport, Infrastructure for zero direct emissions transport exists (e.g. electric charging points, hydrogen fuelling stations, electric highways)   |
| Rail Infrastructure                       | Assets related to rail infrastructure upgrades or replacement meet the EIB Paris Alignment Framework Standards   |
| Other Public transport infrastructure     | Assets related to public infrastructure (Metro, Bus Rapid Transport, Light Rail Transport, etc.) meet the EIB Paris Alignment Framework Standards  |
| Inland Waterways                          | Assets related to inland waterways upgrades or replacement meet the EIB Paris Alignment Framework Standards  |
| Port Infrastructure                       | Assets related to port infrastructure upgrades or replacement meet the EIB Paris Alignment Framework Standards   |
| Roads, Bridges, Tunnels                   | Assets related to roads, bridges, or tunnel infrastructure upgrades or replacement meet the EIB Paris Alignment Framework Standards  |

| <b>GHG Emissions</b>                      |  |
|---|--|
| <b>GHG Reduction Potential</b>            | Potential decarbonization outcomes from an integrated framework developed during evaluation of City Journey (GCom), Green Cities (ICLEI), Global Solutions Alliance, and EIB Paris Alignment Framework |
| <b>Ecosystem Services and Co-benefits</b> | Nature-based solutions (NBS) with ecosystem services and co-benefits are defined by the updated framework from Exponential Roadmap   |
| <b>Timeline for Impact Realization</b>    | Assessment of realistic impact realization and duration of project   |
| <b>Financial Assessment</b>               |  |
| <b>Balance Sheet</b>                      | Balance sheet meets financial and environmental disclosure requirements with integrated reporting  |
| <b>Grant and Loan Eligibility</b>         | The project is evaluated for significant grant and loan eligibility with special considerations for geographic eligibility   |
| <b>Tax Rewards</b>                        | The project is eligible for significant tax policy benefits  |
| <b>Financing and Cost of Capital</b>      | Varied financing sources and cost of capital are considered and de-risked  |
| <b>Preliminary Development Costs</b>      | Pre-development costs estimated with sensitivity analysis that captures scope, estimated costs and timeline, and other project feasibility variables   |
| <b>Fossil Fuel Subsidies</b>              | Project has an explicit plan to remove or replace fossil fuels subsidies from its business plan and life cycle of the product  |
| <b>Policy Mix</b>                         | Projects align with the policy mix, including regulations and markets  |
| <b>SOCIO-CULTURAL ASSESSMENT</b>          |  |
| <b>Financial Enhancement</b>              | Project impacts positively on jobs and the community   |
| <b>Community Uplift</b>                   | Measurable uplift defined by the local community   |
| <b>Community Willingness</b>              | A general willingness from the community, buy-in from community leaders, and community engagement  |
| <b>Cultural Alignment</b>                 | The commitment to support local traditions, customs, and values is part of the project plan  |
| <b>Displacement</b>                       | Impact on displacement and gentrification  |
| <b>Just Employment</b>                    | Possibilities for equal opportunity, upward mobility, and learning opportunities   |
| <b>Human Health</b>                       | Project protects physical and psychological human health   |

## STEWARD OWNERSHIP MODEL

To complement the overall playbook process, we present a replicable steward-ownership structure for deployment in each selected geography, so that projects may successfully operate autonomously with longevity. This combines non-profit management with for-profit investable subsidiaries. The proposed steward-ownership structure addresses conventional ownership pitfalls through a series of governing principles.

- **Profits Serving Purpose:** Allows profits to be reinvested into the community and further the decarbonization mission.
- **Self-Governance:** Keeps long-term control within the hands of on-the-ground partners, preventing absentee decision-making and ensuring meritocratic governance.
- **Limits to Growth:** Establishes capped return thresholds and links dividends to impact targets, promoting sustainability and equity.
- **Skin in the Game:** Incentivizes involvement and innovation through a reward system linked to the project's purpose and impact.
- **Collective Focus:** Emphasizes community uplift and socio-economic justice and fair profit models.

Steward Ownership models attract external capital while capturing and building wealth and agency within the community. The initial capital attracted could be slowly purchased and be transferred into the non-

profit with local management. This enables return on investment and liquidity for external investors.

Over time, the non-profit accumulates equity ownership stakes in the Place-based Transition Fund. These assets over time allow financing of additional rounds of Place-based Transition Funds, creating continuity and expanding local economic agency and growth. The Steward Ownership structure helps other areas deploy Place-based Transition Funds by enabling knowledge transfer and potentially providing passive investment in other geographies.

### Case Study on Steward Ownership: Carl Zeiss AG

*Carl Zeiss AG, founded in 1846, is a global technology leader, manufacturing high-quality optical systems, medical devices, and metrology equipment. It is structured in a steward-ownership model, overseen by the Carl Zeiss Foundation, allowing Zeiss to significantly invest in research and development. The steward-ownership model, with its foundation ownership, allows a corporate governance structure that prevents the company from being sold or taken over, safeguarding its long-term mission and values (Impact Terms, 2024).*





04

# Place-based Climate Transition Funds



## PLAYBOOK STAGES OVERVIEW

The Playbook occurs in distinct stages, designed to build upon the other for a cohesive approach to portfolio construction (Figure 1). It is provided as a guide to assist stakeholders—including government officials, community leaders, and climate fund managers—in designing and implementing effective, bankable climate projects (Figure 5). While presented in stepwise format, actions occur in parallel. The five stages are suggested for the development and replication of the Place-based Transition Funds.



### STAGE 1: Geographic Selection



### STAGE 2: Portfolio Design



### STAGE 3: Project Sourcing and Evaluation



### STAGE 4: Capital Deployment and Scaling



### STAGE 5: Implementation and Replication





## STAGE 1:

# Geographic Selection

### EVALUATE POTENTIAL GEOGRAPHIES

- **Identify Potential Locations:** Develop a list of potential locations or begin with a predefined location from a stakeholder (e.g. a potential guarantor, fund manager, or city official).
- **Apply the Geographic Scorecard:** Evaluate each location with the Geographic Scorecard.
- **Stakeholder Consultation:** Engage with local stakeholders including government entities, community groups, and environmental organizations to ensure alignment and support.
- **Selection of Target Geography:** Based on scorecard and stakeholder input, select geography with highest potential for impactful investment and alignment to strategic decarbonization goals.

### ASSESS LOCAL CLIMATE ACTION PLANS AND POLICIES

- **Climate Diagnostic Policy Review:** Review climate policies, regulations, and incentives in selected geography to identify opportunities for interventions.
- **Stakeholder Engagement:** Engage with policymakers, industry leaders, and climate experts to assess updates to climate action plans, data readiness, policies, and commitments.
- **Prioritization of Intervention Areas & Missing Strategies:** Prioritize and conduct the missing strategic components. Identify areas for climate impact and investment returns that align with local policy goals.

### BASELINE ASSESSMENTS FOR GHG AND MATERIAL FLOWS

- **Conduct GHG Inventory:** Perform a comprehensive greenhouse gas inventory to establish emissions baseline for the selected geography.
- **Material Flow Analysis:** Analyze the flow of materials within the geography to identify key areas for intervention, improvement, and interconnections.
- **Stakeholder Collaboration for Data Validation:** Work with local environmental agencies and community organizations to validate findings and undergo data readiness work.
- **Identification of Key Intervention Sectors:** Based on the GHG and material flow analyses, identify sectors that offer the highest potential in emissions reduction, profitability, and social development.





## STAGE 2:

# Portfolio Design

## TRANSITION PLANS AND SCENARIOS

- **Compile Updated Climate Plans:** Gather existing and updated decarbonization plans, climate change risk assessment, identified key sectors for intervention, and community uplift strategy.
- **Scenario Development:** Create multiple scenarios for achieving these goals, incorporating different mixes of projects and technologies and identify sectors for intervention.
- **Stakeholder Feedback on Plans and Scenarios:** Review plans and scenarios with a range of stakeholders for feedback, ensuring the final strategy is supported by local communities and policymakers.

## SYSTEMS MAP TO IDENTIFY SYNERGIES & GAPS

- **Systems Map:** Create a systems dynamics map of existing stakeholders, ecoregional needs, and gaps.
- **Identify Project Slots:** Use a systems map to identify the projects and ventures needed to enact the plans and scenarios, ensuring alignment with investment criteria and policy conditions.
- **Stakeholder Engagement for Map Validation:** Engage with local stakeholders to validate the systems map and ensure it accurately reflects local systems and needs.

## PORTFOLIO STRUCTURE & DESIGN ADAPTATION

- **Portfolio Structure:** Use the climate action plans, intervention sectors, and systems map to define the portfolio project categories, priorities, and requirements. Determine the appropriate weighting of sectors by impact need, project size, and type of investment for each segment of the portfolio.
- **Project Identification:** Identify existing projects and anticipate those that may need to be originated. Projects may include projects and companies looking for capital and proposed infrastructure.
- **Portfolio Assembly:** Assess the portfolio by sector to identify which projects collectively achieve the decarbonization scenario, balancing short-term wins to subsidize long-term risks.





## STAGE 3:

# Project Sourcing & Evaluation

## SOURCE PROJECTS

- **Open Calls and Partnerships:** Launch open calls, establish partnerships, and create bounties for projects identified in the Portfolio, including infrastructure projects and companies with impactful business models from local organizations.
- **Apply Frameworks for Project Evaluation:** Use frameworks such as Green Climate Cities and Global Solutions Alliance to conduct an initial screening of projects.
- **Stakeholder Consultation for Project Selection:** Consult with local stakeholders to ensure proposed projects are aligned with community needs and priorities.

## COMPREHENSIVE PROJECT EVALUATION

- **Apply the Project Scorecard:** Use the Project Scorecard to conduct a comprehensive evaluation of each project, assessing its potential for impact, viability, and alignment with portfolio design.
- **Stakeholder Feedback:** Gather feedback from a broad range of stakeholders on project selections to ensure community support and alignment with local goals.
- **Finalization of Project Cohort:** Select a cohort of projects for preparation and eventual inclusion in the portfolio based on scorecard outcomes and stakeholder feedback.

## PROJECT PREPARATION SUPPORT

- **Expert Collaboration:** For newly emerging projects and companies, collaborate with business and scientific experts to refine project plans, ensuring they are technically sound and financially viable.
- **Community Engagement:** Involve local communities in project planning to ensure projects meet local needs and build community support for long-term management and ownership.
- **Technical and Financial Assistance:** Where needed, provide projects with technical, business, and financial planning support to enhance their viability and impact.
- **Finalization of Business Models:** Finalize business models for new projects, ensuring they are interconnected and support the overall portfolio strategy.
- **Circular Economy Interconnections:** Enhance portfolio interconnections by applying circular principles, fostering innovation, and sustainability through closed-loop and collaborative value chains.





## STAGE 4:

# Capital Deployment & Scaling

### SECURE CAPITAL WITH LOAN GUARANTEES

- **Identify Potential Capital Sources:** Explore a variety of capital sources, including private investors, public funds, and philanthropic organizations.
- **Develop Loan Guarantees:** Create or secure loan guarantee facilities to reduce the risk profile of selected projects.
- **Offer Loan Guarantees to Projects:** Draw in market-rate debt, equity, and additional grants by extending projects in the portfolio by securing loan guarantees as the first form of capital.

### ENABLE STEWARD OWNERSHIP

- **Assess Viability of Steward Ownership.** From discussions with local stakeholders, assess existing non-profits to identify willingness and interest in the steward ownership model.
- **Non-profit ownership stakes.** Design share classes for decision-making rights and financial rights, structuring separate community ownership from for-profit subsidiaries using external capital.
- **Varied Capital Deployment.** Secure a variety of sources of capital at the portfolio and project level to offer a variety options based on investor preferences of risk and return.
- **Transition of Management.** Enable non-profit to deploy additional project portfolios, transferring decision-making into a structure that is easy to operate and prioritizes community uplift.

### CONTINUOUS MONITORING AND ADAPTATION

- **Establish Monitoring Frameworks:** Develop frameworks for ongoing evaluation of project impact, financial performance, and alignment with decarbonization goals.
- **Adaptation Mechanisms:** Implement mechanisms for adapting projects and strategies based on monitoring outcomes, ensuring the portfolio remains effective and aligned with goals.
- **Engagement for Continuous Improvement:** Engage with stakeholders regularly to gather feedback and insights, using this information to refine and improve the portfolio over time.





## STAGE 5:

# Implementation & Replication

## TANGIBLE IMPLEMENTATION

- **Project Construction and Implementation:** Oversee the implementation of projects within the portfolio, ensuring they are completed on time and within budget.
- **Investor Exit and Ownership Transition:** Plan for the gradual exit of some investors over time while transitioning of steward ownership, ensuring long-term continuity, economic agency, and community uplift.

## LEVERAGE SUCCESSES FOR SCALE

- **Document and Share Successes:** Document the financial and impact performance of projects, sharing this information widely to demonstrate the viability and benefits of the approach.
- **Open Source Legal and Financial Models:** Make legal documentation and financial models available openly, enabling replication and adaptation of successful projects in new geographies.
- **Replication Workshops and Support:** Offer workshops and support services to help other regions adapt and implement the model, spreading the impact of successful decarbonization efforts.

## GLOBAL EXPANSION AND INDEXING

- **Global Finance and Project Facility:** Development of a global facility that supports the creation, cross-learning and replication of systemic place-based climate funds across multiple geographies.
- **Financial Scale and Instruments:** Support the development of fund-of-funds structure to provide funding across the place-based climate funds and design financial instruments from indexing pooled projects (e.g. exchange-traded funds) that can further increase project capital.

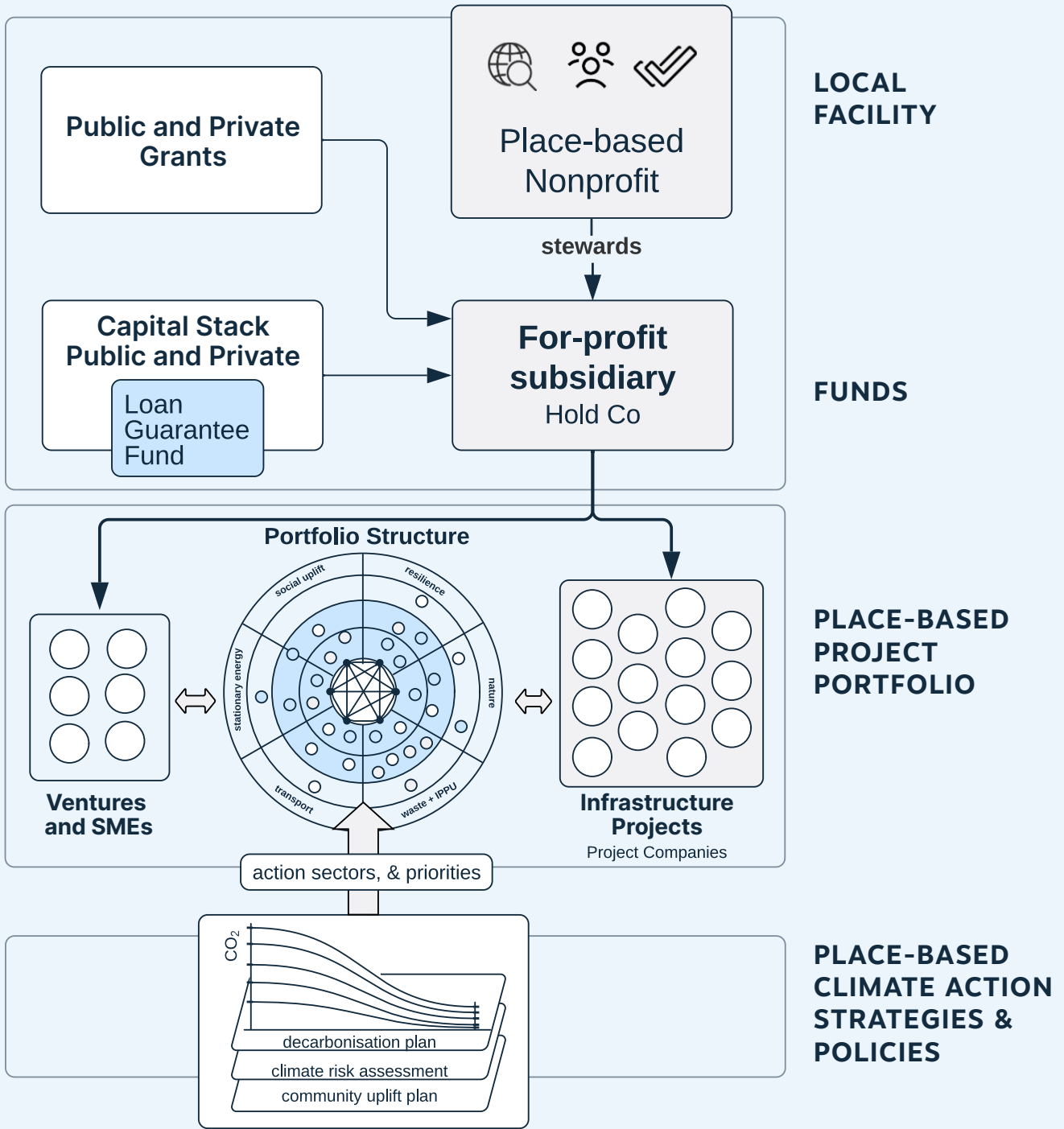


Fig. 5

**Place-based Transition Funds.** Illustration of the resulting elements from implementing the Playbook. While each Place-based Transition Fund instance may have a different variation of how the elements are combined, the result involves a combination of localized climate action strategies, a robust portfolio of projects, and catalytic capital involving both loan guarantees, grants and traditional investment capital.

## CONSIDERATIONS FOR PLAYBOOK IMPLEMENTATION

When implementing the Place Based Transition Fund Playbook, several considerations should be taken into account. While presented in a stepwise manner, the Playbook has key processes that may cross several stages, working in parallel to other actions, while others require recurring processes and iterations, described below.

### PARALLEL AND RECURRING PLAYBOOK PROCESSES



#### Steward ownership stakeholders

Identification of key local partners and trusted nonprofits can begin as early as Stage 1, even though implementation of steward ownership structure may not occur until Stage 3.



#### Project identification

While a formal call for projects does not occur until Stage 3, identifying eligible projects and experienced local project entrepreneurs may begin as early as Stage 1.



#### Climate Action and Community Strategies

These are essential to ensure the portfolio of projects align with the visions and plans of the host jurisdictions and communities. However, along with the GHG and material flow assessments, it is possible these may be outdated or not developed at all. While these are performed, ideally with the host jurisdictions, other processes like stakeholder consultations, systems map and fundraising activities can occur in parallel.



#### Repayments and ownership transitions

These occur as a continuous process between Stages 4 and 5. Additionally, the portfolio constantly adapts based on continuous feedback and performance.

### GEOGRAPHY SELECTION CONSIDERATIONS



#### Pre-defined geographies

While we present the first stage from the perspective of a fund manager or investor that is agnostic to the geography, it is very possible they have a pre-selected geography.

As such, the scorecards are still relevant to apply. We suggest doing the scorecard evaluation for at least two other geographies to have as a benchmark, even though the result may not alter the selection decision.



#### Geographic scales led by jurisdiction

While we presented multiple scales to be evaluated for intervention (i.e. national, regional, community, nature), if the implementer requires specific guidance, we recommend implementing a phased approach starting with the local city government. Focusing on this jurisdictional scale before expanding to bioregional and regional scales is strategic for several reasons. Firstly, cities are hubs of dense population, economic activity, and governance, providing easy opportunities for impactful climate action and engagement with a broad range of stakeholders. Furthermore, city governments have a direct influence on the enabling conditions for private investments through their commitment and policy. This initial focus allows for the development of targeted and scalable portfolio projects that can demonstrate quick wins with momentum. **Proposed three-phased approach** could be broken down into:

- **City Commitment and Planning:** This phase involves detailed analysis and planning within city governments, integrating local community insights and ecoregional assessments. This is crucial for ensuring that projects are grounded in local realities while also considering broader ecological impacts.
- **Portfolio Construction for the City Scale:** Collaborating with key social and economic stakeholders at this stage helps in curating a diverse portfolio of projects. This approach ensures that initiatives are not only environmentally sound but also socially equitable and economically viable.
- **Bioregional Plan and Portfolio Construction:** Expanding the focus to encompass a wider geography allows for the inclusion of projects that address rural and natural ecosystems, enhancing the overall sustainability of the region.



#### Sectoral decarbonization strategies

When adapting the decarbonization and climate action plan to define the portfolio structure and source projects, each sector to decarbonize has its specific opportunities and considerations (see Technical Appendix).



## ESTABLISHING THE LOAN GUARANTEE FUNDS

We have presented several considerations and best practices for the creation of LGF (See Technical Appendix).



### Purpose and Structure Alignment

By clearly defining the fund's objectives—whether it's to test a new market, lower the cost of capital, or enable liquidity for investors—the terms of the guarantee (such as coverage level and trigger conditions) can be tailored to meet these goals.



### Risk Management

Focusing on credit risk while cautiously approaching political and currency risks is advisable due to their operational and technical complexities. Employing currency hedges, although often cost-prohibitive, should be considered where scale and risk profile justify their use.



### Utilization of Existing Facilities

For rapid deployment and leveraging of institutional knowledge, embedding a new place-based loan guarantee fund within an existing facility that has a track record of employing guarantees is recommended.



### Intermediary Selection

Partnering with local commercial banks or microfinance institutions as intermediaries can significantly enhance the fund's impact through knowledge of local markets, established borrower relationships, and the ability to monitor and support projects closely.



### Guarantee Type and Coverage

Adopting partial credit guarantees or first loss guarantees of 25-75% prevents a reduced incentive for risk management from the project creator.



### Technical Assistance

From project preparation to development support, strengthens the borrowers' ability to repay and the financial intermediaries' lending capacity, particularly in new or emerging sectors, as well as building local capacity.



### Complimentary Financing

A loan guarantee for a project does not guarantee any money directly to the capital stack, so consider aligning a separate debt facility that aligns with the terms of the loan guarantee to draw in necessary capital for financing the project.



### Circular Economy Business Models

Sourced projects not only can deliver impacts on their sector and goals, but they can consider the local material flow to further improve their environmental and resilience impact for the region, while providing significant co-benefits for the community. The Technical Appendix presents key considerations and best practices to increase in the circularity of the business models of sourced projects.



### Steward Ownership Structure and Transition Model

Step 4 in the Playbook introduces the concept of involving community and nonprofit leaders in the ownership of key sections of the portfolio. Steward-ownership Ventures is a new concept that relies on principles that empower meritocracy, where successors are selected based on talent and ability and ownership is a responsibility, not a financial investment. Part of incorporating these structures involves educating and motivating investors to support this new social investment practice.

## CONSIDERATIONS FOR LOAN GUARANTEE FACILITY CONSTRUCTION

Based on our survey of the public and private loan guarantees, we are providing a list of key terms to be considered when constructing and fundraising a facility that aligns with the geographic scorecard.

**Table 6** *A Summary of Key Terms of a Loan Guarantee Fund. These terms need to be discussed and formalized before raising capital in constructing a loan guarantee fund that aligns with Carbon Residency's goal.*

| Terms                           | Best practice   | Rationale  |
|---------------------------------|---|--|
| <b>Facility Purpose</b>         | Clearly define the purpose of guarantee to design it accordingly.   | The guarantors' goals have a strong influence on the guarantee terms. Different terms may change based on whether the fund is trying to support new business models, enter new markets, lower the cost of capital, or enabling investor liquidity. (e.g., coverage level, triggers) (GIIN, 2017).  |
| <b>Risk Type</b>                | Credit risk only.   | Political risk and currency risk are more operationally and technically complex (Systemiq, 2023).  |
| <b>Facility Manager</b>         | Existing facility.  | To optimize quick implementation and leverage institutional knowledge, embed within an existing organization that has already employed guarantees (Systemiq, 2023).  |
| <b>Intermediary Counterpart</b> | Local commercial banks and microfinance institutions.   | Local knowledge and presence enable better monitoring, understanding of market dynamics, and capacity building. They also tend to have established relationships with the borrowers, as well as political support from previous efforts.   |
| <b>Type of Guarantor</b>        | For projects under \$10M, philanthropy (foundations, high net worth individuals, and trust) can be fastest for most impact. For projects over \$10M, Development Finance Institutions, Multilateral Organizations, and National governments become the most attractive. | <ul style="list-style-type: none"> <li>HNWI, foundations, and government/ governmental agencies can accept higher risk if the mission and impact are in alignment with their missions.</li> <li>DFIs have strong expertise in structuring complex deals and financial capital, but often incur higher administrative burden.</li> <li>Multilateral organizations have Global reach, significant resources, Can attract international investments.</li> </ul> |
| <b>Type of Guarantee</b>        | Partial credit guarantee (PCG) or first loss guarantee. Ideally, adopt a pre-existing legal framework within an existing facility manager.  | <ul style="list-style-type: none"> <li>Partial credit guarantees can be applied to loans or other debt instruments issued by Private and public sector projects (limited recourse financings, Public-private partnerships, Corporates, (Sub)sovereign entities).</li> <li>Adopting a pre-existing legal framework helps streamlining the costs of developing the legal infrastructure.</li> </ul>  |
| <b>Use of Proceeds</b>          | Define sectors for which guarantee can be applied to maximize impact. Start narrow, then expand.  | <ul style="list-style-type: none"> <li>A narrow focus permits capacity and expertise building.</li> <li>Broader focus needs more capabilities and risk management, but permits flexibility with regards to investor and project needs (Systemiq, 2023).</li> </ul>   |

| Terms                                | Best practice  | Rationale   |
|--------------------------------------|--|---|
| <b>Guarantee Coverage</b>            | 25% to 75%   | <ul style="list-style-type: none"> <li>Depending on the purpose of guarantee, default rate, country risk, counterparty credit risk, etc.</li> <li>Refrain from full coverage as that introduces moral hazard. (Systemiq, 2023).</li> </ul>  |
| <b>Funded vs. Unfunded Guarantee</b> | Funded, as likely would be securing private guarantors.  | <ul style="list-style-type: none"> <li>Unfunded facilities use credit rating and potential issuance backed by national accounts, Involves political participation, can encounters challenges in deal approval and claim payment within multilateral setups.</li> <li>Funded facility with loss provisions reserved on its balance sheet provides independent and flexible governance and is less proficient in leveraging public capital (Systemiq, 2023).</li> </ul> |
| <b>Downside Protection</b>           | Maintain a Loan Loss Reserve that is drawn down if a call on guarantors would otherwise exceed 20% of their guarantee in any given year. | <ul style="list-style-type: none"> <li>Safeguarding against unexpected defaults, economic downturns.</li> <li>Ensures Smooth continuity of operations in case of default, In-time fulfillment of obligations.</li> <li>Demonstrates prudent risk management (Faster Capital, 2023).</li> </ul>  |
| <b>Fee Structure</b>                 | 0.8%   | <ul style="list-style-type: none"> <li>Provides risk-adjusted return.</li> <li>Minimizes moral hazard.</li> <li>Prevents the subsidization of investor risks with the use of public capital (Systemiq, 2023).</li> </ul>  |
| <b>Currency</b>                      | Local, as projects will all likely be domestic and are not designed to reach into international markets.                                 | <ul style="list-style-type: none"> <li>Local currency guarantees are most appropriate for Borrowers receiving revenues in local currency, mobilizing local investors.</li> <li>Benefits include Facilitating the creation of local capital markets, Preventing a further increase in international debt burdens on EMDEs.</li> </ul>  |
| <b>Technical Assistance</b>          | Pair guarantee with technical assistance, including project preparation and development.   | <ul style="list-style-type: none"> <li>Strengthens the borrower's ability to repay</li> <li>Supports the financial intermediaries' lending capacity in a new sector (USAID, n.d.).</li> </ul>   |



An aerial photograph of a scenic coastal area. A paved road curves along the left side of a dense green forest. To the right of the forest is a calm, blue lake or fjord. The shoreline is rocky and uneven. Several vehicles, including cars and a bus, are visible on the road. The overall scene is peaceful and natural.

**05**

# Conclusions



We present the concept of Place-based Transition Funds, which possess portfolios with sets of projects and ventures, designed to fit within the climate action and transition plans of each locality. They are constructed with evidence-based approaches and policy analysis, presented in structured ways to attract capital with a variety of entry points based on risk and return preferences.

Place-based Transition Funds help fill the climate capital gap due to their characteristics combining localized strategies, portfolios, and catalytic capital by:

- **Embracing Place-Based Strategies:** Place-based strategies acknowledge that every community has its own set of challenges and opportunities. This approach enables communities, local government, policy makers, and investors to adapt existing decarbonization frameworks to the specific needs and characteristics of each region, leveraging cultural, historical, and socio-economic insights as a key element of due diligence and risk reduction.
- **Aligning Capital with Subnational Government Plans:** Local and regional governments decarbonization plans often stall due to a lack of resources. The Playbook bridges this gap by channeling private capital in well-intentioned plans into actionable, funded projects. It's about taking the blueprint provided by local governments and giving it the financial foundation it needs to flourish, thereby accelerating collective climate goals with the de-risking nature that comes from investing in policy alignment.
- **Prioritizing Community Uplift and Economic Empowerment:** The Playbook creates opportunities for local employment, enhances public health, and ensures that the climate transition contributes to a more equitable society. This holistic approach underscores the intrinsic link between environmental sustainability and social prosperity.
- **Attracting Consistent Capital Stacks:** By designing portfolios, profitability and impact can be tailored to a variety of different investors and capital providers. Some funds may only want to invest in market-rate project debt; others may want to invest only in ventures. Philanthropies and governments may want to get involved by providing grants and guarantees. All of these facilitate enabling conditions by attracting finance for a consistent capital stack for sets of projects operating together in a reinforcing system.

## RESEARCH OPPORTUNITIES

To maximize impact and drive forward this idea in practice, we recommend the following improvements for each Playbook component.

### Geographic Scorecard

- **Climate Vulnerability Index:** Integrate a climate vulnerability index into the geographic scorecard to prioritize investments in regions most susceptible to climate change impacts. This approach ensures that funds are directed where they can have the most significant environmental and social impact.
- **Diversification Potential:** Evaluate regions based on their potential for economic diversification through green investments. Focus on areas where transition funds can catalyze growth in green industries, promoting long-term economic resilience.
- **Policy Alignment Analysis:** Conduct a comprehensive analysis of local and national policies to identify synergies and barriers to implementing climate transition projects. Engage in policy advocacy to address identified barriers, facilitating smoother project implementation.

### Project Scorecard

- **Enhance Dynamic Evaluation:** Incorporate real-time data into the project scorecard to ensure dynamic evaluation of projects. Utilize AI and machine learning tools to continuously update project scores based on the latest sustainability metrics and climate science research.
- **Stakeholder Engagement:** Develop a participatory process for scorecard criteria selection, involving local communities, subject matter experts, and investors. This will ensure the scorecard reflects a broad range of perspectives and priorities, enhancing its relevance and acceptance.
- **Impact Verification:** Integrate third-party verification of project impacts, employing blockchain for transparency where possible. This will add credibility to the projects, attracting more investors by providing clear, verifiable impact data.

### Implementation Framework

- **Community-Centric Approaches:** Prioritize community engagement and co-creation in the implementation process. Establish local advisory boards to guide project development, ensuring alignment with community needs and values.
- **Assess Natural Capital for Existing Projects:** Ensure nature is protected in existing projects to ensure decarbonization projects do not subtract from the environment where it exists.

- **Modular Implementation Plans:** Develop modular, adaptable implementation plans that are decentralized and can be customized to local conditions. This flexibility allows for greater agility and resilience, as well as rapid adjustment and scaling of successful models across different geographies.
- **Integrate Top-Down and Bottom-up Solutions:** Diversify and distribute power structures (such as community-focused projects and steward-owned companies) to shift out of intransigent hierarchies, perverse incentives, and monopolies, enabling greater power sharing and consideration for underserved communities.
- **Technology and Innovation Labs:** Establish regional innovation labs to pilot new technologies and business models within the portfolio. These labs can serve as incubators for scalable, replicable solutions that can be integrated into broader investment strategies.

## Finance

- **Blended Finance Structures:** Leverage blended finance structures to de-risk investments, combining guarantees, philanthropic funds, public finance, and private capital. This approach can unlock significant capital by mitigating investor risks and enhancing project attractiveness.
- **Climate Funds:** Encourage the issuance of green bonds and the creation of climate funds focused on specific sectors or regions. These financial instruments can provide a steady flow of capital to vetted, impactful projects.
- **Innovative Financial Instruments:** Explore the development of new financial instruments, such as sustainability-linked bonds and climate impact credits. These tools can incentivize and reward genuine impact, attracting a broader investor base.
- **Power Purchasing Agreements:** Support portfolio projects in securing power purchase agreements (PPAs) and long term contracts for energy and other services to facilitate investment.
- **Artificial Intelligence Integrations:** Large Language Models integration with human oversight can be employed to refine strategy selection, create consistent feedback for investors, and assist document generation for investors, entrepreneurs, and project developers.

## PROPOSED NEXT STEPS

To operationalize these recommendations we propose to implement the Playbook in a pilot geography, building investment coalitions to demonstrate the Playbook's investment and impact viability. We recommend others also test the Playbook themselves and share the results to improve it for application across other geographies.

- **Stakeholder Workshops:** Organize a series of workshops with investors, scientists, policymakers, and community leaders to refine and validate the proposed recommendations.
- **Pilot Projects:** Identify opportunities for pilot projects to test and refine the implementation of the recommended strategies in a controlled, measurable way.
- **Scorecard Enhancements:** Generate and compile emerging quantitative data that goes beyond traditional sectoral or jurisdictional reach, such as an index that tracks aging infrastructure and maps them to neighboring jurisdictions.
- **Learning Networks:** Aggregate and integrate case studies to exchange methodology progress for project developers, investors, and entrepreneurs to facilitate early learning, course correction, and avoid errors encountered elsewhere.
- **Investment Evaluation Framework:** Develop a comprehensive due diligence checklist to guide investment committee decision-making and to evaluate actual returns and impact against the projected returns and impact, allowing for continuous learning and adaptation.



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