



# Assessing the Quality of Adaptation Finance

A Decision-Support Tool for Public Finance Providers

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CLIMATE  
POLICY  
INITIATIVE

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## ABOUT CPI

Climate Policy Initiative (CPI) is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to support governments, businesses, and financial institutions in driving economic growth while addressing climate change. CPI has offices in Austria, Brazil, India, Indonesia, South Africa, the United Kingdom, and the United States.



# INTRODUCTION

**Public finance providers<sup>i</sup> increasingly must allocate scarce resources strategically** to ensure deployed capital maximizes adaptation and development outcomes. This paper offers guidance to achieve this.

**High-quality public adaptation finance is finance that deploys scarce public capital efficiently to deliver resilience at the project, market, or system level. It does so by using public resources to help resilience-building solutions move toward commercial viability where possible, while sustaining societally necessary activities where markets are unlikely to provide sufficient finance.** This understanding forms the organizing lens of the decision-support tool presented in this paper and integrates key dimensions of effective adaptation, including country ownership, transparency, local leadership, and the best available science. Quality can be understood in various ways. This paper provides one framework, which can be adapted to the priorities and context of different public finance providers. It is a starting point for structured assessment rather than a prescriptive scoring system.

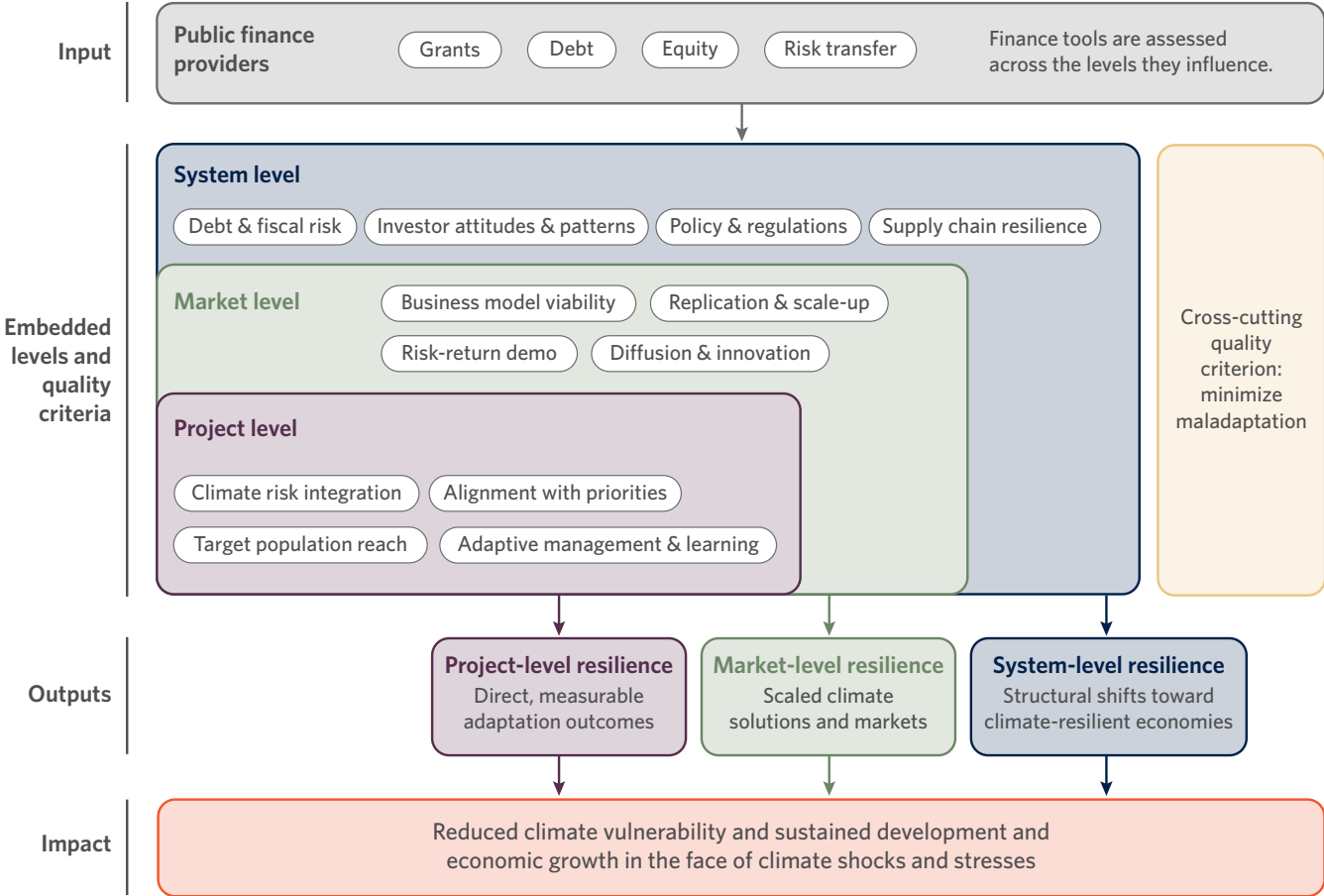
**The tool advanced in this paper supports practitioner assessment of the impacts of an intervention at the project, market, and system level. It considers four approaches most commonly used by public finance providers: grants, debt, equity, and risk transfer tools (e.g., guarantees and insurance).** The tool aims to prompt nuanced discussion of adaptation finance quality; identify the types of data necessary to adequately assess and track quality; and ultimately help public finance providers allocate scarce resources in ways that achieve effective adaptation outcomes and shift market behavior. Figure 1 summarizes the structure of the decision-support tool, including the criteria used at each level.

**All adaptation finance should contribute to stronger resilience to climate shocks and stresses, even though finance does not determine those outcomes on its own.** Adaptation outcomes are often inseparable from development outcomes and serve the same fundamental goals—reduced poverty, sustainable growth, and access to clean water, food, and energy—with the added imperative of protecting and advancing those gains in the face of climate impacts. The achievement of these outcomes depends on the actions financed and the broader systems in which they are implemented, including policy frameworks, institutional capacity, monitoring and learning systems, equity considerations, and data. Within this broader understanding of quality, the way finance is structured and delivered is one important lens for assessing whether public finance is targeted toward creating the greatest adaptation impact. This lens helps to distinguish where markets can be responsibly mobilized from where public support is needed to reach disenfranchised populations in markets least capable of generating returns and providing public services.

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<sup>i</sup> Public finance providers include donor governments, vertical climate and environment funds, development finance institutions (DFIs), and multilateral development banks (MDBs), including units focused on the private sector such as IFC and IDB Invest.

Figure 1. Three-Level Lens for Assessing Quality of Adaptation & Resilience Finance



This is the third report in a four-part series on the quality of climate finance. It builds on [Understanding the Quality of Climate Finance](#) (June 2025) and [Tracking the Quality of Climate Finance: From Theory to Practice](#) (November 2025), which together established a high-level framework and indicators for tracking quality across climate finance broadly. This paper takes the next step: specifying and operationalizing that framework for adaptation finance for use by public finance providers.

# DECISION-SUPPORT TOOL OVERVIEW

## HOW TO USE THIS TOOL

This paper is intended for practitioners within donor governments, vertical climate and environment funds, multilateral development banks (MDBs), and development finance institutions (DFIs) who design, appraise, and manage adaptation projects. Some elements may apply to private financiers, but the primary lens is the design decisions available to public actors. The tool is designed to be used to assess projects in two contexts:

- **For new projects at the design stage:** Work through the criteria at the level(s) relevant to the intervention and aim to structure design choices that are as consistent as possible with the "transformative" descriptors. Not every criterion will be relevant to every instrument or investment. Use the tool selectively based on what is applicable.
- **For existing projects under review:** Use the tool to assess where there may be gaps or deficiencies relative to high-quality practice and to identify what changes could materially improve quality.

## THREE LEVELS OF ANALYSIS

This tool proposes criteria to assess the impact of adaptation finance across three levels of analysis: project, market, and system, building on previous CPI reports.<sup>1</sup>

Level	Purpose of adaptation finance	What the quality criteria assess
<b>Project</b>	<ul style="list-style-type: none"> <li>▪ Building climate resilience through direct, measurable outputs and outcomes.</li> <li>▪ These are often tied to a specific location or community.</li> </ul>	Whether the financed intervention delivers genuine adaptation outcomes, reaches the right beneficiaries, and builds lasting capacity.
<b>Market</b>	<ul style="list-style-type: none"> <li>▪ Stimulating and incentivizing demand and supply for adaptation solutions.</li> <li>▪ Changes at this level are relevant beyond direct project beneficiaries and represent indirect ripple effects that are harder to attribute to a single project.</li> </ul>	Whether the financed intervention shifts the incentive landscape for a broad range of actors, demonstrates new risk-return profiles, and catalyzes replication or scale-up by others.
<b>System</b>	<ul style="list-style-type: none"> <li>▪ Inducing structural shifts toward low-emission, climate-resilient, and equitable economies.</li> <li>▪ System-level change is unlikely to be addressed by any single actor and should be understood as a collective and aggregate outcome.</li> </ul>	Whether finance contributes to changes in guiding paradigms and values, behaviors and attitudes, policies and regulations, and institutional arrangements, such that these are consistent with climate-resilient growth.

There's a degree of fungibility across the three levels. The levels can be applied together or independently to a single intervention. A development finance institution, for example, might use project-level criteria to assess the design quality of a specific loan, market-level criteria to assess whether the loan program is contributing to market development, and system-level criteria to assess the intervention's positioning within a broader adaptation finance portfolio, as well as structural changes in the broader investment environment.

## FINANCE TOOLS ASSESSED




At the project and market levels<sup>ii</sup>, criteria are assessed across four categories of finance tools commonly used by public finance providers:

<b>Grants</b>	Non-repayable public finance, including technical assistance and direct project grants.
<b>Debt</b>	Concessional public loans, blended debt vehicles, and project finance debt instruments, including those used by DFIs to finance infrastructure, water, or other sectoral investments with a resilience dimension.
<b>Equity</b>	Catalytic or concessional equity investments in companies, funds, or special purpose vehicles, typically deployed as a minority stake either directly or through fund managers. The criteria cover both approaches and are calibrated to equity that accepts disproportionate risk or below-market returns to demonstrate commercial viability, unlock co-investment, and reduce reliance on concessional capital over time.
<b>Risk transfer tools</b>	Guarantees, parametric insurance, sovereign risk pools, credit enhancement tools, and other instruments that transfer or share climate-related financial risk.

The quality criteria are calibrated for and vary by instrument purpose at the project and market levels. For instruments designed to crowd in commercial capital, such as debt, equity, and guarantees, the goal is to support commercial viability and incentives where possible. For instruments designed to provide services that markets will not deliver at sufficient scale or on terms accessible to consumers, such as certain grants and subsidized insurance, the goal is to sustain critical adaptation and resilience activities efficiently and equitably, with a clear rationale for ongoing public support.

## STAGES OF QUALITY AND HOW TO READ THE TABLES

This tool takes a qualitative approach and does not yield comparative benchmarking. Each criterion is assessed using a three-stage framework that describes where an intervention currently sits and points toward where it could go. The stages are not a scoring system or a pass/fail threshold. They are a diagnostic: a way to identify strengths, surface gaps, and support better decision-making over time. The transformative stage is intended to indicate a direction of travel for what genuinely high-quality practice looks like for each criterion. The stages are:

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**Transformative:** The intervention reflects what genuinely high-quality practice looks like for this criterion. This stage describes the north star: ambitious, evidence-based, and designed to deliver durable adaptation outcomes. Reaching transformative practice on every criterion simultaneously is an impractical expectation. Where an intervention achieves it, that is worth recognizing. Where it does not, the transformative descriptors identify what stronger practice would involve and why it matters.
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**Progressing:** The intervention is making meaningful progress on this criterion. Core elements are in place, but there are gaps that limit quality or depth. This is a common and constructive stage: it shows that a provider is engaging with the criterion and signals where additional effort, resources, or institutional change could move practice forward.
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**Initial:** The intervention does not yet engage with this criterion in a meaningful way. It is a starting point: a signal that this dimension of quality has not yet been addressed and that there is a clear opportunity to do so in future design cycles or project reviews.

<sup>ii</sup> At the system level, criteria are assessed across all instruments collectively rather than calibrated to individual finance tools, because the questions at this level concern aggregate global patterns that cannot be meaningfully assessed by looking at any single instrument in isolation.

**The tool does not specify weighting or ranking among criteria.** Users should judge which criteria are most applicable to their context, mandate, and instrument type. Not all criteria will apply to every intervention; the goal is not to meet every criterion at the transformative stage, but rather to understand where an intervention currently sits, why that matters, and what a stronger approach would look like. In practice, interventions may also fall between stages, reflecting partial progress on a criterion rather than fitting neatly into one level.

## CAVEATS AND LIMITATIONS

- **Finance quality alone does not guarantee effective adaptation outcomes.** Even well-designed interventions, scoring highly against all criteria in this tool, could fail to deliver results if implementation capacity is weak, if the policy and regulatory environment is not conducive to the intended change, or if enabling conditions such as functioning procurement systems, reliable data infrastructure, or adequate monitoring and evaluation capacity are absent. Corruption, governance, institutional failures, and political economy constraints can prevent even well-structured finance from reaching intended beneficiaries. This tool focuses on what public finance providers can influence through their own decisions; it does not capture the full range of factors that determine whether adaptation interventions succeed on the ground. Users should apply the criteria with that limitation in mind and complement this assessment with a realistic appraisal of the implementation context, the capacity of local partners, and the degree to which enabling conditions support or constrain effectiveness.
- **Data and capacity gaps in lower-income and climate-vulnerable contexts may limit what is possible at the transformative stage and should be interpreted as a signal for foundational support.** In many places where adaptation finance is most urgently needed, the systems required to meet transformative-stage criteria may not yet be established. For example, some countries or geographies may lack systematic observations, downscaled climate projections, or institutional mechanisms for adaptive management. These gaps can hinder providers in conducting robust, forward-looking climate risk assessments or implementing more advanced approaches. They should not be treated as shortcomings of individual interventions or as a basis for shifting finance toward better-resourced contexts. Instead, an initial or progressing assessment on relevant criteria should help identify where complementary investment in data systems, technical infrastructure, institutional capacity, or enabling conditions is needed. The tool should not inadvertently reward providers for working only in contexts where the foundations for high-quality adaptation practice already exist.
- **Some transformative-stage descriptors reflect practices that go beyond what individual providers can achieve through internal decisions alone or may require more data than is currently collected or processed by most public finance providers.** Meeting criteria at this stage may depend on advances in market norms, disclosure standards, or data infrastructure that are still developing. Where that is the case, the transformative descriptor is best read as a signal of where the field as a whole needs to move, not a measure of individual provider performance against current market conditions. Relatedly, interventions may be undermined by structural features that sit outside the control of the provider designing or implementing them: disbursement delays, tied aid conditions that constrain procurement or partner selection, accreditation burdens that limit the participation of

local institutions, or concessionality deficits that reflect decisions made higher in the institutional hierarchy. An initial or progressing rating that reflects these constraints should be appropriately distinguished.

- **This is not an exhaustive approach.** This decision-support tool is intended as an entry point that public adaptation finance providers can adjust and refine based on their priorities and contexts. It provides a foundational understanding of the quality of adaptation finance and does not present a complete approach to assessment. Recent international discussions on the quality of global climate finance have touched on issues of concessionality, instrument use, and ease of access;<sup>2</sup> the recently adopted Belem Adaptation Indicators<sup>3</sup> focus on quantity of adaptation finance. As the international discourse progresses and as experience refines the collective understanding of adaptation effectiveness and finance quality, this tool may need to evolve.

# ASSESSING THE QUALITY OF ADAPTATION FINANCE

## SNAPSHOT OF CRITERIA

There are five criteria per level. Rationale for criteria selection is presented at the beginning of each level, calibrated to the elements most relevant to the level of analysis. Each level ends with a real-world analysis, diving deeper into the data for a specific criterion at that level, or applying the criteria to a case study in practice. Note that not all criteria may apply to an intervention, and that users should assess which criteria are most applicable for their intended intervention objective. Minimization of maladaptation is a criterion applicable to all three levels. The IPCC AR6 WGII report characterizes maladaptation as harmful impacts to humans, ecosystem services, equity outcomes, transformational potential, and greenhouse gas emission reduction.<sup>4</sup> These maladaptation dimensions have differentiated relevance at the project, market, and system levels.

PROJECT	MARKET	SYSTEM
Climate Risk Identification and Integration ↗	Business Model Viability and Mainstreaming Pathway ↗	Debt Sustainability & Fiscal Risk ↗
Alignment with National/ Subnational Adaptation and Sustainable Development Priorities ↗	Replication & Scale Up ↗	Shift in Investor Attitudes and Investment Patterns Toward Physical Climate Risk Integration and Adaptation Investment ↗
Target Population Access & Reach ↗	Adaptation Solution Diffusion & Innovation ↗	Policy and Regulatory Enabling Environment for Adaptation Finance ↗
Adaptive Management and Learning Design ↗	Demonstration Effect on Risk Return Profile ↗	Supply Chain and Indirect Beneficiary Climate Resilience ↗
Minimization of Maladaptation ↗	Minimization of Maladaptation ↗	Minimization of Maladaptation ↗

## PROJECT LEVEL

### CRITERIA SELECTION RATIONALE




The five project-level criteria reflect the design dimensions that affect whether adaptation finance delivers durable resilience outcomes:

1. **Climate Risk Identification and Integration** draws on reflections from the IPCC and OECD on the established role of systematic climate risk<sup>5</sup> screening as a prerequisite for adaptation-relevant investment.<sup>6</sup>
2. **Alignment with National and Subnational Adaptation and Sustainable Development Priorities** reflects the Locally Led Adaptation principles<sup>7</sup> and UNFCCC guidance<sup>8</sup> on National Adaptation Plans (NAPs), which establish the importance of country ownership and coherence with sustainable development objectives.
3. **Target Population Access and Reach** responds to consistent evidence, from the OECD<sup>9</sup> and CPI's Global Landscape of Climate Finance,<sup>10</sup> that the populations most exposed to climate risk are often underserved by adaptation finance and often lack access to adaptation support.
4. **Adaptive Management and Learning Design** reflects the inherent uncertainty of climate risk and diversity of adaptation contexts, and the practice of formal review and course-correction mechanisms already existing across major adaptation funds, including the GCF.<sup>11</sup>
5. **Minimization of Maladaptation** addresses the documented risk, by the IPCC<sup>12</sup> and academia,<sup>13</sup> that poorly designed interventions increase long-term vulnerability, entrench inequality, or foreclose more appropriate adaptation pathways, particularly where finance bypasses meaningful engagement with affected communities.

## PROJECT LEVEL

**Criterion 1: Climate Risk Identification and Integration**




Does the intervention demonstrate a credible, evidence-based, and forward-looking assessment of the climate risks it is designed to address, and/or are risks, including acute shocks and chronic stresses, meaningfully integrated into project design in a way that builds long-term resilience?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Transformative</b>	A rigorous, site- or sector-specific climate risk and vulnerability assessment underpins the intervention. Risk findings are demonstrably reflected in instrument/intervention design (e.g., conditionalities, eligible use of proceeds, target population criteria) and no-regret adaptation options are assessed and prioritized.	A rigorous site- or sector-specific physical risk assessment underpins the investment. Climate hazards (e.g., flood inundation, heat stress, storm surge) are reflected in technical design standards, asset specifications, operations and maintenance requirements. Forward-looking projections are used to stress-test asset viability over the investment lifecycle.	Rigorous, portfolio-level climate risk screening is embedded in investment policy. Investee selection criteria require evidence of acting on physical risk exposure assessment. Portfolio monitoring includes climate risk metrics (e.g., physical risk scores, geographic exposure by hazard type). Forward-looking scenarios are considered in investment due diligence.	Coverage triggers or parametric indices are based on rigorous, credible, site-specific hazard data, including forward-looking climate projections in addition to historical loss data. Basis risk between trigger and actual loss is assessed and minimized through community validation. Risk modeling is made accessible to policymakers and those who are insured.
 <b>Progressing</b>	A documented climate risk assessment exists, referencing credible data sources. Some design elements (e.g., eligible activities, target geographies) reflect risk findings, but the link between risk evidence and instrument/intervention structure is partial or implicit.	A general site- or sector-specific climate risk assessment is referenced in project documents, but the link to specific design choices (e.g., asset specifications, design standards) is not fully documented. Some climate resilience requirements are included but not systematically applied.	Investment policy includes high-level climate risk language, but physical risk screening of individual companies is inconsistent or not systematically documented. Climate risk metrics are referenced but not embedded in portfolio monitoring frameworks.	Coverage triggers reference climate data but rely primarily on historical averages rather than forward-looking projections. Basis risk is acknowledged but not fully assessed. Limited community input on trigger design.
 <b>Initial</b>	Climate risks are not mentioned or are mentioned generically (e.g., "flooding" or "drought") without reference to specific hazard data, exposure assessments, or vulnerability analysis. No evidence that risk assessment shaped instrument/intervention design parameters.	No climate risk or physical resilience assessment is conducted. Infrastructure design uses historical standards without considering projected changes in hazard frequency or intensity. Climate resilience is treated as a co-benefit rather than a design requirement.	No evidence of physical climate risk screening in investment selection or portfolio monitoring. Climate risk is absent from investment thesis and due diligence processes.	Coverage triggers are based solely on historical loss data with no consideration of forward-looking climate projections. No assessment of basis risk. No mechanism to update triggers as climate conditions change.

## PROJECT LEVEL

**Criterion 2: Alignment with National/Subnational Adaptation and Sustainable Development Priorities**


Does the intervention align with and strengthen, rather than substitute for or undermine, nationally and locally determined adaptation priorities and plans, with meaningful participation by the institutions and communities expected to implement or experience the intervention? How well does the intervention support sustainable development objectives?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Transformative</b>	Intervention demonstrably embedded in national or subnational adaptation planning processes. Country government and relevant local institutions played a substantive design role, including influence over priorities and delivery arrangements. Priorities, indicators, and targets reflect national/local plans alongside funder requirements. Instrument/intervention strengthens domestic planning and delivery capacity rather than substituting for it, and facilitates specific linkages to sustainable and economic development priorities.	Investment has documented link to NAPs, nationally determined contributions (NDCs), or subnational development plans, with explicit alignment at the asset and/or sector level. Design process involved national and subnational authorities. Investment contributes to national adaptation capacity beyond the individual asset (e.g., through standards development, sector master plans, or institutional capacity building).	Investment thesis aligned with NAPs, NDCs, or subnational development plans. Portfolio construction documented with reference to nationally identified adaptation needs.	Developed in consultation with government and reflects national disaster risk management and adaptation frameworks. Coverage explicitly designed to complement public investment in risk reduction. Linked to national early warning systems or climate information services.
 <b>Progressing</b>	Documented alignment with national plans but the relationship is nominal (cited in project documents but not reflected in activity design or resource allocation). Country government is aware, but not a co-designer. Intervention nominally references SDG alignment at goal level rather than indicator level.	References national sector plans but alignment with specific national adaptation priorities is surface-level. Government involved in approvals. Limited contribution to national standards or institutional capacity.	References national development priorities in investment thesis but without documented alignment approach.	Approved by government but not designed with reference to existing NAP or risk reduction frameworks. Limited alignment with existing national early warning or climate information systems.
 <b>Initial</b>	No reference to NAPs, NDCs, or equivalent subnational plans. No reference to or integration of sustainable development objectives or locally identified priorities. Intervention designed primarily around donor/investor priorities or fund mandates with limited country ownership.	Designed without reference to national adaptation or sectoral (e.g., infrastructure) plans. No engagement with national or subnational authorities in design. Project framed solely around funder priorities rather than alignment to national development objectives.	Operates without reference to national or subnational adaptation priorities. No engagement with local fund managers, or alignment with nationally identified investment needs.	Designed without reference to national disaster risk or adaptation frameworks. No government consultation. Coverage decisions driven entirely by insurer risk appetite.

## PROJECT LEVEL



**Criterion 3: Target Population Access and Reach**

Is the intervention designed to reach the populations most exposed and/or vulnerable to the climate risks it addresses, and is there evidence that targeting, accessibility, and scale relative to public finance deployed were considered in project design, including attention to barriers that prevent groups from accessing adaptation support?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <p><b>Transformative</b></p>	<p>Credible analysis of target populations and/or local actors with direct/indirect distinction, disaggregated by vulnerability category. Cost-per-user benchmarked against comparable instruments. Scale-up pathway documented. Barriers to accessing funds (e.g., eligibility criteria, application complexity, co-financing requirements) are explicitly identified and addressed in program design and calibrated to the capacity of intended beneficiaries.</p>	<p>Borrower reach into climate-exposed or financially underserved segments is documented with disaggregated data (including breakdown by vulnerability category, sector, or geography) traceable through the on-lending chain. Asset (e.g., infrastructure asset) benefits (number of people with improved flood protection, water access, etc.) quantified with a credible methodology. Financial terms designed to extend access to underserved borrowers, including appropriate ticket sizes, flexible collateral requirements, or longer tenors. Where on-lending is involved, the access barriers faced by local intermediaries and end borrowers are assessed and mitigated.</p>	<p>Portfolio developed with consideration of climate adaptation impact per dollar deployed. Investees selected based on scale of climate risk reduction for end users, with preference for business models that actively reduce access barriers to adaptation goods and services (e.g., affordable pricing, rural distribution, last-mile delivery). Adaptation impact metrics tracked at the portfolio level alongside financial performance, including metrics for the accessibility of adaptation solutions for low-income or climate-exposed populations. Where both catalytic and commercial tranches are included, additionality of the catalytic portion is documented: companies or geographies financed with concessional equity are demonstrably those that commercial equity would not have reached at equivalent terms.</p>	<p>Coverage designed around actuarially assessed risk of target population. Enrollment barriers actively identified and mitigated, including documentation costs, minimum contract sizes, premium affordability, geographic access, and claims processing complexity. Evidence that pricing and subsidy design enable access for low-income or high-risk beneficiaries, with tiered pricing or community pooling mechanisms where needed. Population covered by climate risk documented and tracked by vulnerability category. Direct access mechanisms assessed and used where feasible (e.g., index-linked products accessible without intermediaries, mobile-enabled enrollment).</p>

## PROJECT LEVEL




## Criterion 3: Target Population Access and Reach (cont.)

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Progressing</b>	<p>Target population estimates exist, though methodology is limited (e.g., population of target geography rather than direct beneficiaries). Some targeting rationale is documented, by vulnerability category. Some consideration of access barriers, but not systematically addressed in program design; eligibility criteria and administrative requirements not reviewed for their potential to exclude climate-vulnerable groups.</p>	<p>End-user reach estimated for the on-lending portfolio with plausible methodology. Some sub-borrower diversification evident, but data is not consistently disaggregated by climate vulnerability or sector.</p>	<p>Investment thesis references beneficiary impact but metrics are output-based (e.g., jobs created) rather than outcome-based (e.g., climate risk reduction for end users). Some consideration of adaptation reach in company selection.</p>	<p>Coverage estimates exist. Some actuarial or targeting analysis is conducted, but adverse selection risks not fully addressed in design and structure. Some acknowledgment of enrollment or affordability barriers, but no assessment of how design could be adjusted to improve access for climate-exposed populations.</p>
 <b>Initial</b>	<p>No documented analysis of expected partner reach or cost per user. Targeting appears arbitrary or driven by implementation convenience. No consideration of whether program design, eligibility criteria, and administrative requirements may systematically exclude marginalized groups or local organizations from accessing support.</p>	<p>No analysis of expected end-user reach through the on-lending chain. Portfolio concentration in large, well-connected borrowers. Infrastructure reach to climate-exposed communities is not assessed.</p>	<p>No consideration of portfolio companies' downstream beneficiaries or customer base in investment selection. No adaptation impact metrics at portfolio level.</p>	<p>No estimate of insured population or analysis of who bears residual climate risk after coverage. No consideration of access barriers for vulnerable populations.</p>

## PROJECT LEVEL

## Criterion 4: Adaptive Management and Learning Design



Does the intervention include mechanisms to learn, course-correct, and incorporate new climate risk information or implementation evidence over its lifetime?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Transformative</b>	<p>Formal adaptive management framework embedded in design with documented decision triggers for redesign (e.g., if climate hazard data changes materially, if uptake falls below threshold, or evidence of maladaptation surfaces). Monitoring and evaluation (M&amp;E) includes outcome and learning indicators. Evidence from comparable interventions demonstrates that the implementing institution has previously acted on review findings to modify programming. Mechanisms for flexible financing (e.g., changes in disbursement schedule, conditionalities) exist and are applied where necessary.</p>	<p>Formal review protocols tied to updated climate projections are included, with documented triggers for reassessment of design standards and financial obligations (e.g., catastrophe clauses), or operational parameters (e.g., flood protection levels, drainage capacity). Asset management framework includes climate scenario updates. M&amp;E includes asset performance against projected climate stressors, and responses to any maladaptation risks surfaced.</p>	<p>Formal processes for updating investment strategy based on portfolio-level climate risk and maladaptation assessments are included. Investment thesis is reviewed against updated climate scenarios on a documented and appropriate schedule.</p>	<p>Formal mechanisms to update parametric triggers based on new climate data or new information on maladaptation risks are included. Coverage terms include periodic review against updated hazard projections. Evidence that past approaches have been modified in response to observed basis risk or changing climate conditions.</p>
 <b>Progressing</b>	<p>Scheduled review points exist. M&amp;E includes some outcome indicators. A formal process for incorporating lessons in implementing institutions exists, but there is limited evidence it shapes redesign in practice. Financing flexibility is on an ad hoc basis.</p>	<p>Some review points are built into project lifecycle but not formally linked to updated climate projections. Some flexibility to adjust design or financing parameters, but governance process for doing so is informal.</p>	<p>Investment strategy reviewed on an ad hoc basis but not explicitly linked to climate risk data updates. Some adjustments to portfolio based on climate events.</p>	<p>Some review mechanisms exist for assessing performance but not explicitly linked to climate data updates. Limited track record of modification in response to climate evidence.</p>
 <b>Initial</b>	<p>Static design with no formal review points. M&amp;E is compliance-oriented (reporting inputs and outputs). No mechanism to incorporate updated climate projections or implementation lessons. No measures exist to facilitate flexible financing terms.</p>	<p>Design uses fixed technical standards and no provision for review against updated climate scenarios. M&amp;E focuses on construction milestones rather than performance against shocks and stresses.</p>	<p>No formal review mechanism for investment strategy. Portfolio is managed reactively rather than through forward-looking climate risk assessment updates.</p>	<p>Design is fixed at outset with no mechanism to update triggers, pricing, or coverage terms based on new climate evidence. No track record of design evolution.</p>

## PROJECT LEVEL


**Criterion 5: Minimization of Maladaptation**

Does the intervention actively avoid outcomes that could increase long-term climate vulnerability, entrench existing inequalities particularly for women, youth, people with disabilities, displaced people, Indigenous Peoples, and marginalized ethnic groups, displace more appropriate adaptation responses, or lock in climate-vulnerable trajectories? Are interventions designed with appropriate engagement, and where relevant, leadership, of end-users/beneficiaries?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <p><b>Transformative</b></p>	<p>Maladaptation screening is embedded in activity criteria. Disaggregated population targets by gender, age, and at least one additional vulnerability dimension. Equity and inclusion considerations are embedded in activity eligibility, decision-making processes (e.g., free, prior, and informed consent), and M&amp;E framework with reporting requirements. Formal mechanisms for local institutions (community organizations, local civil society) to influence allocation decisions are documented and operational.</p>	<p>Maladaptation screening is embedded in project appraisal and asset/ infrastructure design (e.g., climate scenario viability over the asset's lifetime; assessment of lock-in risk, disadvantaging marginalized populations). Equity and inclusion requirements are explicitly considered and integrated. Financial terms are structured to extend reach (e.g., smaller ticket sizes, flexible collateral). Local communities or subnational governments have a documented approach to influencing key project design decisions (e.g., siting, technical standards, partner selection, revenue sharing).</p>	<p>Maladaptation screening is embedded in investment and portfolio strategy. Equity and inclusion metrics are integrated, where appropriate. Evidence of intentional capital allocation toward enterprises serving or led by underrepresented groups. Explicit assessment of whether investee business models could create maladaptive outcomes (e.g., displacing vulnerable users, locking in climate-exposed processes).</p>	<p>Maladaptation screening is embedded in design and deployment. Approach is explicitly designed to reach vulnerable and low-income populations. Enrollment, claims, and payout processes are tested for accessibility barriers (e.g., collateral requirements, geographic access, language). Coverage of target marginalized populations is tracked and reported. Coverage terms include risk-reduction conditions for renewal. Mechanisms are structured to allocate risk appropriately, avoiding moral hazard while incentivizing genuine adaptation outcomes. Basis risk impact on vulnerable populations is assessed and disclosed.</p>
 <p><b>Progressing</b></p>	<p>Some maladaptation screening for harm avoidance but not systematically embedded in design criteria. Equity and inclusion goals are stated; some targeting of marginalized groups but not systematically embedded (e.g., present in objectives but not in conditionalities or M&amp;E). Some consultation with local stakeholders during design.</p>	<p>Some consideration of maladaptation risk during project screening (e.g., climate scenario viability of financed assets or infrastructure, impact on marginalized populations), but assessment is not updated over the project lifecycle. Some equity and inclusion requirements exist as sub-borrower eligibility criteria but are not monitored at disbursement. Consultation with affected communities is documented, but local institutions have limited influence over key design decisions (e.g., siting, technical standards, partner selection).</p>	<p>Maladaptation risk is partially considered in due diligence. At least one explicit equity and inclusion criterion in investment screening (e.g., gender lens investing policy). Some consideration of whether investee operations may create negative externalities for vulnerable communities, but assessment is not systematic.</p>	<p>Maladaptation risk is partially assessed in design. Some equity and inclusion provisions exist (e.g., subsidized premium tiers, reduced guarantee fees), but coverage of marginalized groups is not tracked. Some assessment of whether coverage terms could create perverse incentives (e.g., insuring assets without risk reduction requirements) but not systematically embedded in design. Basis risk and distributional impact on vulnerable populations are partially assessed.</p>

## PROJECT LEVEL

## Criterion 5: Minimization of Maladaptation (cont.)

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Initial</b>	<p>No maladaptation screening. Grant population targeting shows no consideration of who may be harmed, displaced, or excluded by financed activities. No disaggregated targeting by gender, age, or vulnerability dimension. No mechanisms for community input into activity design or resource allocation.</p>	<p>No assessment of maladaptation risk in project finance debt screening. No equity and inclusion lens in investment or sub-borrower eligibility criteria. No consideration of whether financed infrastructure or assets may increase vulnerability of communities not directly served (e.g., upstream/downstream communities, labor populations). Decisions made exclusively at the DFI or lender level with no local input.</p>	<p>No equity and inclusion lens in investment screening or portfolio construction. No assessment of whether investee business models or operations may displace, harm, or exclude vulnerable populations. Maladaptation risk is not considered in investment thesis or due diligence.</p>	<p>Design shows no differentiation for access barriers faced by marginalized groups (e.g., premium affordability, guarantee fees, collateral requirements, tenor, enrollment). No assessment of whether losses are compensated without reducing underlying vulnerability (i.e., moral hazard). No consideration of whether coverage terms may incentivize maladaptive behavior.</p>

## CRITERION DEEP DIVE: ALIGNMENT WITH NATIONAL/SUBNATIONAL ADAPTATION AND SUSTAINABLE DEVELOPMENT PRIORITIES

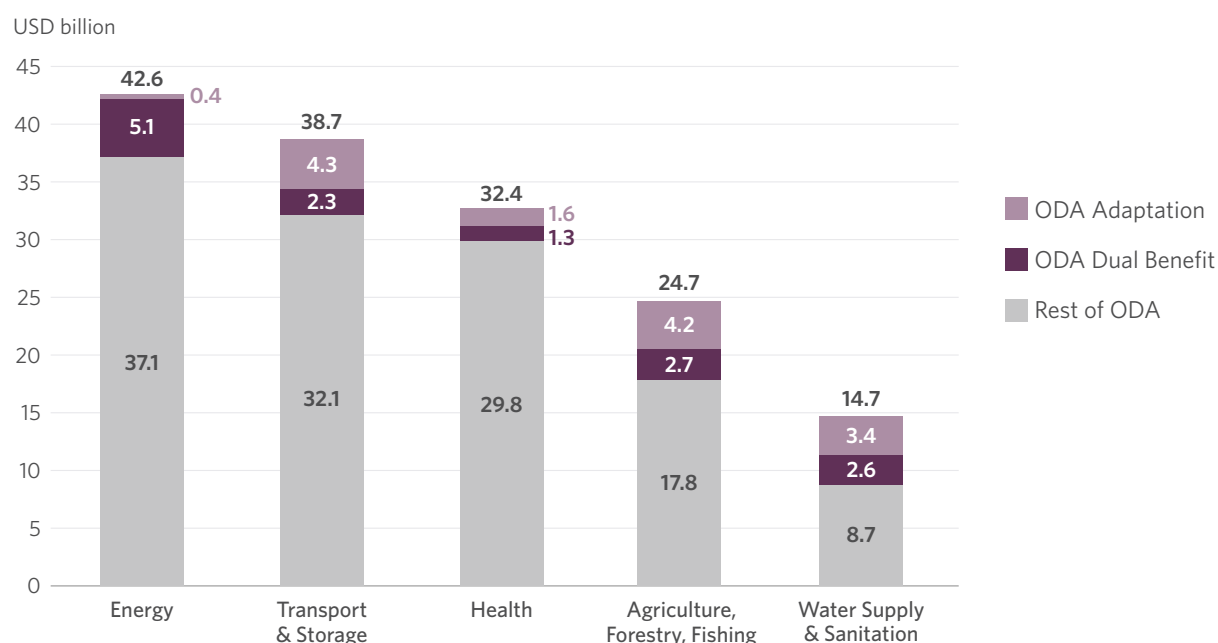
### ASSESSING ADAPTATION INTEGRATION WITHIN PRIORITY DEVELOPMENT SECTORS

Sectors most frequently identified as adaptation priorities in countries' NAPs attract significant shares of official development assistance (ODA). Adaptation finance faces both a quantity deficit and a quality deficit, and these are not mutually exclusive concerns. This analysis focuses on one dimension of the quality question: whether ODA flowing to priority sectors is being intentionally designed and delivered with climate risk and resilience objectives in mind. Figure 2 provides a high-level indication of the extent to which adaptation considerations are being integrated into major sectoral ODA flows.

The analysis combines two publicly available datasets. The [NAP Global Network Trends](#)<sup>14</sup> database is used to identify sectors most consistently prioritized in submitted NAPs, providing a proxy for where countries themselves perceive the greatest adaptation needs. These sectors are then compared against [TOSSD ODA disbursement data](#),<sup>15</sup> which categorizes finance according to climate tags, including adaptation-only and dual adaptation-mitigation benefits. The analysis covers annual average ODA flows from 2022-24 to EMDEs excluding those in Europe. For each sector, adaptation-only and dual-benefit finance are calculated as shares of total sectoral ODA.

Alignment of ODA with priority sectors, as per submitted NAPs, is an imperfect proxy for adaptation quality. Climate tags reflect provider reporting decisions rather than independent assessments of project design. Some tagged activities may only weakly integrate climate risk, while some untagged activities may contribute to resilience outcomes. Tagging alone does not confirm that climate risk shaped investment design, budget allocation, or implementation choices; assessing that requires project-level review against criteria such as those in this tool. The analysis should therefore be interpreted as a directional indicator of whether providers are systematically naming adaptation as an objective within priority sectors rather than as confirmation that integration is occurring in practice.

Figure 2.



**The results show substantial variation across sectors and suggest that adaptation integration remains uneven across major areas of development finance.** The water supply and sanitation sector shows the strongest alignment with adaptation objectives, with 41% of ODA carrying either an adaptation-only or dual-benefit tag. This aligns with the sector's direct exposure to climate-related water stress and longstanding integration of resilience considerations into water management investments.

Agriculture, forestry, and fishing also show relatively high levels of climate tagging, with 28% of flows classified as adaptation-related. Given the sector's centrality to food security and climate vulnerability, this suggests a more established practice of integrating adaptation considerations into sectoral programming.

By contrast, adaptation integration appears substantially weaker in several other sectors that are both highly climate-exposed and frequently identified in NAPs as national priorities. Energy receives the largest absolute volume of ODA in the dataset (USD 42.6 billion annually on average), yet only 13% of these flows carry an adaptation or dual-benefit tag. Similarly, health shows a combined climate-tagged share of only 9%, despite climate risks related to heat stress, vector-borne disease expansion, and disruption of health systems from extreme weather events. Transport and storage performs somewhat better at 17%, but still reflects relatively limited adaptation integration given the long asset lifetimes and physical vulnerability of transport infrastructure.

These findings do not necessarily imply that individual projects in these sectors fail to account for climate risk. However, the aggregate pattern raises a broader concern that adaptation integration is not yet being systematically mainstreamed across major development portfolios, particularly in infrastructure and social sectors where climate vulnerability is increasingly consequential. The relatively low climate-tagged shares in energy and health are especially notable because both sectors appear frequently in countries' stated adaptation priorities, suggesting a potential disconnect between national adaptation planning and broader sectoral financing patterns.

These findings connect most directly to **Criterion 2: Alignment with National/Subnational Adaptation and Sustainable Development Priorities**. The Transformative stage descriptor for this criterion reflects that investments demonstrably align with and strengthen nationally and locally determined adaptation priorities. Where sectors prioritized in countries' own NAPs continue to receive predominantly non-climate-tagged ODA, aggregate financing patterns are, at best, at the Initial stage of that criterion, treating adaptation as a secondary designation.

The findings are also relevant to **Criterion 1: Climate Risk Identification and Integration**: the Transformative descriptor for that criterion notes that climate hazards and vulnerabilities should be systematically reflected in investment design, which presupposes consistent identification of climate risks as a starting point. The low climate-tagged shares in high-exposure sectors such as energy and health suggest this starting point is not yet standard practice across sectoral portfolios.

**For public finance providers, these findings have direct implications for practice.** Providers should examine whether their highest-volume sectoral investments, particularly in energy, health, and transport, are being deliberately designed to address climate risk, or whether adaptation is being treated as an incidental, surface-level co-benefit in traditional ODA. Where the latter is the case, this is an initial-stage finding against Criterion 1 and Criterion 2 in this tool, and a signal that climate risk screening, forward-looking hazard assessment, and explicit alignment with countries' own NAP priorities should be built into project design as standard requirements. Consistent climate tagging is a necessary but insufficient first step. The more important question is whether the tagged finance reflects genuine integration of climate risk and adaptation into investment design, budget allocation, and implementation.

## MARKET LEVEL

### CRITERIA SELECTION RATIONALE




The five market-level criteria reflect the core mechanisms through which public finance influences market behavior for adaptation:

1. **Business Model Viability** draws on the growing literature, including from the MDB Joint Reports<sup>16</sup> and Convergence,<sup>17</sup> on blended finance and market development, which emphasizes the distinction between interventions designed to crowd in commercial capital and those designed to sustain public goods, where the importance of financial sustainability is a quality dimension in both cases.
2. **Replication and Scale-Up** reflects the evidence<sup>18</sup> that publicly financed interventions in nascent markets generate the documented proof-of-concept that enables other actors to replicate at lower cost and risk.<sup>19</sup>
3. **Adaptation Solution Diffusion & Innovation** focuses on the role of public finance in supporting the transfer of well-understood adaptation solutions into new markets and geographies and in developing pre-commercial solutions<sup>20</sup>; importantly, innovation is not an objective in and of itself, but rather, public finance should help stimulate advances in adaptation solutions where current approaches in the market fall short.
4. **Demonstration Effect on Risk-Return Profile** reflects the central role of evidence generation and dissemination in unlocking private adaptation finance, as documented in multiple analyses of private sector barriers to adaptation investment.<sup>21</sup>
5. **Minimization of Maladaptation** addresses the risk that market-level interventions inadvertently subsidize, legitimize, or scale climate-vulnerable business models or financial structures, reinforce inequitable access to adaptation solutions, or crowd out more appropriate long-term adaptation approaches; at the market level, this criterion is concerned less with individual project outcomes than with whether the signals, incentives, and norms that market development activities generate are consistent with durable and equitable adaptation outcomes.<sup>22</sup>

## MARKET LEVEL




## Criterion 1: Business Model Viability and Mainstreaming Pathway

Can this model survive, scale, or be replicated either without continued concessional support, or with strong justification for ongoing public support? Does the intervention contribute to developing a pipeline of bankable adaptation projects?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Transformative</b>	<p>The intervention is explicitly designed to create a viable pathway for adaptation activities to continue, scale, or be replicated beyond concessional support. Grant activities are used strategically for market development, including building demonstrated demand, delivery capacity, institutional capability, and a pipeline of bankable adaptation projects that commercial financiers, domestic budget actors, or other international actors can serve. Financed activities are embedded in relevant national, subnational, sectoral, or institutional adaptation plans.</p>	<p>Credible adaptation taxonomy is used. Clear borrower exit pathway with tracked milestones. Evidence of commercial banks entering lending in the sector/geography catalyzed by the vehicle's demonstration. Concessional terms step down over time.</p>	<p>Credible adaptation taxonomy is used. Portfolio companies have a good balance of commercial co-investors at market terms. Evidence of replication of business models by commercial actors in sector.</p>	<p>Commercially replicable, with a clear articulation of adaptation relevance. Where feasible, public subsidy is designed as time-limited market development mechanism. Where long-term public subsidy is necessary, ongoing public revenue stream is identified.</p>
 <b>Progressing</b>	<p>The intervention shows a plausible but incomplete pathway for adaptation activities to continue, scale, or be replicated beyond the grant period. Activities build some institutional capacity, delivery systems, user demand, or project pipelines, and are somewhat aligned with national, subnational, sectoral, or institutional adaptation priorities.</p>	<p>Documented adaptation relevance, though not through a formal taxonomy. Some borrowers demonstrate improved creditworthiness. Partial evidence of sector interest from commercial lenders. Mainstreaming documented anecdotally.</p>	<p>Documented adaptation relevance, though not through a formal taxonomy. Several portfolio companies have attracted commercial co-investment. The sector shows signs of increased private interest. Replication by commercial actors is beginning.</p>	<p>Demonstrates improved financial performance, with premium levels, claims ratios, or subsidy requirements trending toward sustainability in at least some market segments, even if full commercial sustainability is not the intended endpoint. Adaptation relevance is implied, but not documented. Public subsidy component is justified relative to adaptation market failure addressed. Some evidence of private sector interest in replication or scale.</p>
 <b>Initial</b>	<p>The intervention has limited evidence of continuation, scale, or replication beyond the grant period. Activities are largely project-bound, with limited evidence of durable demand, institutional uptake, or bankable project pipeline development.</p>	<p>No clear link made to adaptation relevance. Debt structure assumes continued concessional refinancing indefinitely. No evidence borrowers are moving toward commercial creditworthiness.</p>	<p>No clear link made to adaptation relevance. Portfolio companies have no credible path to profitability or to attracting commercial follow-on investment.</p>	<p>No evidence that premium levels or loss ratios are trending toward sustained public revenue stream, in cases where the objective is sustaining public services, or approaching commercial viability, where intended. No clear link made to climate risk and adaptation.</p>

**MARKET LEVEL****Criterion 2: Replication & Scale-up**



Has the intervention been replicated or scaled by other public or private actors and is there credible evidence that the intervention's design, evidence, or learning contributed to that replication?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Transformative</b>	Documented replication by multiple actors. Replication explicitly credits or demonstrably draws from the intervention's design, evidence, or advocacy. Knowledge products are publicly accessible, and evidence of their use in replication is documented.	Lending model or financial structure demonstrably replicated by commercial banks or domestic development finance institutions for adaptation-relevant activities in the same or adjacent sectors/ geographies. Replication draws on documentation of the original vehicle's design, terms, adaptation rationale and performance. Evidence that the vehicle's demonstration has unlocked a pipeline of similar transactions at lower concessional cost.	Investment approach and structure replicated by multiple actors. Evidence of replication draws on published performance data, design documentation, and how adaptation relevance was identified and assessed from the original vehicle. Follow-on commercial vehicles operating in the same sector or geography at reduced concessional terms.	Insurance or guarantee product replicated or scaled by private insurers or guarantors either without ongoing public subsidy or with strong justification for ongoing subsidy. Adaptation relevance is clearly documented. Regulatory or legal frameworks established to enable broader replication.
 <b>Progressing</b>	Some evidence of replication by similar public actors (other DFIs, bilateral donors) in the same or different geographies. Limited evidence of private sector adoption. Knowledge products exist, but dissemination was limited. Attribution of replication to this specific intervention is plausible but not demonstrated.	Some evidence of commercial bank interest in replicating the lending model for adaptation-relevant activities but replication not yet documented. Knowledge products produced are referenced by other actors but direct attribution is unclear.	Some evidence of commercial interest in the approach or sector following the vehicle's demonstration. Replication is nascent and attribution is plausible but not documented. Limited documentation exists on the adaptation thesis, eligible activities, or approach to identifying climate-resilience value.	Some evidence of interest in replicating but replication not yet documented. Adaptation relevance is implied, but not documented. Design documentation has been shared with other market participants.
 <b>Initial</b>	No evidence of replication or scale-up by others. Intervention operates as a standalone with no successors or imitators. No knowledge products or dissemination strategy produced.	No evidence of replication of the lending model or financial structure. No knowledge products are produced that could enable replication in, or applicability to, climate-vulnerable sectors or geographies.	No evidence of commercial interest in replicating the investment approach. Operates without producing knowledge products accessible to other market actors, including documentation of its adaptation thesis or criteria for identifying climate-resilience relevance.	No evidence of private sector interest in replication. No actuarial or design documentation shared with market participants. No clear link to physical climate risk or adaptation.

## MARKET LEVEL

### Criterion 3: Adaptation Solution Diffusion & Innovation

Is the intervention supporting the transfer of proven solutions to new and appropriate markets and geographies, and, where necessary, supporting new or underutilized technologies, methodologies, or financial structures that are not yet commercially standard?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Transformative</b>	<p>Financing explicitly targets pre- or early-commercial adaptation technologies, products, or services with documented learning objectives. Grant activities target foundational adaptation market development activities (e.g., climate information services, open-access hazard mapping, adaptation taxonomy development, early warning systems, or novel financial structures such as adaptation-linked conditionalities, resilience performance bonds) that facilitate greater engagement in the market by a wider range of stakeholders.</p>	<p>Lending explicitly targets pre- or early-commercial adaptation technologies (e.g., water-efficient irrigation, coastal protection, heat-resilient construction) with documented learning objectives. Evidence of cost reduction or performance improvement in financed technologies. Innovation extends to novel debt structures designed to address adaptation finance barriers (e.g., grace periods aligned to seasonal vulnerability cycles, climate-contingent repayment terms). Includes transfer of proven adaptation solutions to new markets or geographies.</p>	<p>Deliberate allocation to pre-commercial adaptation solution providers with clear theory of change for technology/ approach maturation or replication of proven solutions in underserved markets. Evidence of patents, publications, or licensing agreements indicating frontier activity. Portfolio includes companies providing adaptation goods and services (climate risk data, early warning, heat-resilient materials, drought-tolerant seeds).</p>	<p>Guarantee structure explicitly designed to bring new market participants into adaptation-relevant sectors or geographies — e.g., enabling local insurers or domestic lenders to offer products they could not otherwise underwrite. Insurance structure replicates proven parametric or frontier approaches into new markets, with trigger design based on forward-looking climate data. Structure, methodology, and pricing documented publicly to allow for replication.</p>
 <b>Progressing</b>	<p>Financing supports a mix of early-commercial and more established adaptation technologies, products, services, methodologies, or financial structures, with some rationale for their relevance to adaptation market development, including the transfer of proven adaptation solutions to new geographies, sectors, or customer segments. Grant or technical assistance activities may support enabling activities, such as data, standards, capacity building, or stakeholder coordination, but these are not clearly linked to broader market diffusion.</p>	<p>Some lending to early-stage adaptation technologies. Some documented rationale for contributing to lowering conventional technology cost curves in underserved markets. Some transfer of proven adaptation solutions but not systematically targeted.</p>	<p>Some portfolio companies investing in adaptation R&amp;D at or above sector norms. Some transfer of solutions to new markets but without systematic documentation of learning objectives. Transfer is primarily to commercially attractive market segments rather than demonstrably underserved geographies or populations where commercial equity would not otherwise operate.</p>	<p>Guarantee transaction catalyzes entry of at least one new actor into an adaptation-relevant market segment. Insurance approach incorporates forward-looking climate data or pilots parametric mechanisms in a sector or geography where index-based products are not yet standard. Innovative elements documented but not yet shared in a form accessible to the broader market.</p>

## MARKET LEVEL



## Criterion 3: Adaptation Solution Diffusion &amp; Innovation (cont.)

Stage	Grants	Debt	Equity	Risk Transfer Tools
<p style="text-align: center;">○</p> <p style="text-align: center;"><b>Initial</b></p>	<p>Financing primarily supports conventional technologies, products, services, methodologies, or financial structures that are already commercially standard, with limited or no rationale for why concessional terms are needed to enable adaptation innovation, diffusion, or market development. The intervention does not materially support pre- or early-commercial adaptation solutions, foundational market-building activities, or the transfer of proven adaptation solutions to underserved markets, geographies, sectors, or customer segments.</p>	<p>Lending to conventional products, technologies, or services with no documented consideration of climate resilience innovation or transfer of proven adaptation solutions. Standard technology used without assessment of whether more appropriate climate-resilient alternatives exist.</p>	<p>No deliberate allocation to adaptation solution providers or innovative approaches. Portfolio selection does not consider whether investees are advancing adaptation solutions or making proven approaches available in underserved markets.</p>	<p>Guarantee and insurance approaches do not consider whether the structure could expand market participation or support adaptation-relevant product innovation. No evidence of market development intent beyond the immediate transaction.</p>

## MARKET LEVEL


## Criterion 4: Demonstration Effect on Risk-Return Profile

Does this intervention show the market that the risks and returns are better, clearer, or more manageable than previously believed in the sector or geography?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <p><b>Transformative</b></p>	<p>Rigorous economic evaluation published and actively disseminated to domestic policymakers, DFI community, and commercial actors. Explicitly includes evidence on adaptation outcome effectiveness (e.g., avoided losses per dollar deployed, vulnerability reduction indicators, development level data) alongside economic returns, to inform both financial and adaptation quality assessments by other actors. Cost per user and economic rate of return data contribute to evidence base for public investment decisions.</p>	<p>Full financial performance data (IRR, loss rates, currency performance) are made available covering a sufficient time period and granularity for comparable analysis. Findings are actively shared with the commercial investor community.</p>	<p>Aggregated fund or portfolio performance data, including net/gross return indicators and valuation methodology where commercially feasible, is shared with investors and/or credible market-learning platforms in a form that enables comparison across sectors or geographies. Public dissemination includes non-confidential risk-return lessons and, where relevant, climate resilience performance outcomes. Evidence shows that the track record or disclosed learning has informed follow-on investment, replication, or investor underwriting in the sector.</p>	<p>Credible, market-facing evidence on risk pricing, performance, and behavior change generated. For insurance, this includes aggregated actuarial, exposure, claims, loss, premium, or payout data that supports improved pricing or replication. For guarantees, this includes data on utilization, defaults, recoveries, claims paid, realized losses, mobilization and changes in lender pricing, tenor, collateral, or borrower segments. Findings are actively shared with relevant market actors.</p>
 <p><b>Progressing</b></p>	<p>Economic evaluation published at program close. Some documentation of adaptation-specific outcomes (e.g., avoided losses, development trajectory, recovery time), alongside financial returns, but not systematically reported. Some dissemination to peer implementers but limited reach to commercial actors.</p>	<p>Aggregated financial performance data published. Some engagement with commercial investors on findings, but IRR data is lagged or incomplete.</p>	<p>Performance data is shared with investors and may include some aggregated return indicators, valuation information, or risk-return lessons, but reporting is not sufficiently granular or consistent to support broader market benchmarking. Some non-confidential findings are communicated through investor updates, impact reports, case studies, or sector networks. Climate resilience performance outcomes may be partially documented, but they are not systematically linked to financial performance.</p>	<p>Some evidence on risk pricing, performance, or market behavior produced, but data is partial, aggregated, or inconsistently shared. Insurance reporting may include loss, premium, claims, payout, or exposure data; guarantee reporting may include utilization, defaults, recoveries, claims paid, realized losses, mobilization, or lender risk-sharing. Some findings are shared with market actors on an ad hoc basis.</p>

## MARKET LEVEL


## Criterion 4: Demonstration Effect on Risk-Return Profile (cont.)

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Initial</b>	<p>No documentation of economic evaluation, cost-effectiveness, or value-for-money. Findings not published or shared beyond the implementing institution.</p>	<p>Financial performance data not published. No IRR or loss rate data accessible to market.</p>	<p>Performance data is not disclosed beyond required investor reporting, and there is little or no public or market-facing evidence on risk-return performance. Reporting, if any, focuses on selected outputs, impact narratives, or individual investments rather than aggregate financial performance, valuation approach, or risk-return lessons. There is no clear evidence that performance data or learning contributes to broader investor understanding of adaptation-related risks and returns.</p>	<p>No meaningful market-facing evidence on risk pricing, performance, or behavior change generated. Relevant data is not disclosed beyond internal or required reporting. There is little or no evidence that the structure informs underwriting, improves pricing, changes lender or insurer behavior, supports replication, or contributes to continued lending or coverage beyond the intervention.</p>

## MARKET LEVEL



### Criterion 5: Minimization of Maladaptation

Does the market-level intervention avoid contributing to systemic maladaptation, such as subsidizing or legitimizing climate-vulnerable business models at scale, reinforcing inequitable access to adaptation solutions, crowding out more appropriate long-term adaptation approaches or demonstrating additionality of public finance to the market? Does it ensure that market development efforts do not lock in technologies, financial structures, or behaviors that increase aggregate climate exposure?

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <p><b>Transformative</b></p>	<p>Grant programming explicitly screens for maladaptive market interventions (e.g., subsidizing supply chains or business models that increase climate exposure at scale). Evidence that financed market development activities promote adaptation approaches consistent with long-term climate trajectories. Grants support equitable market development (e.g., building capacity of local providers, supporting community-based adaptation enterprises, or developing inclusive delivery channels), so that market development does not disproportionately benefit well-connected actors. Knowledge products and market standards generated include explicit treatment of maladaptation risks and publicly distribute learning.</p>	<p>Explicit assessment of whether the sectors, asset classes, or business models being financed at market scale are consistent with long-term climate adaptation pathways (e.g., climate scenario stress-testing, portfolio concentration). Evidence that the financial structure does not crowd out more appropriate adaptation solutions or lock in climate-vulnerable infrastructure at scale. Equity and inclusion criteria embedded in market-level portfolio design, ensuring that market development benefits reach underserved borrowers and communities rather than only creditworthy large borrowers. Evidence that transactions promote replicable models accessible to smaller or locally-managed institutions.</p>	<p>Portfolio-level maladaptation screening applied: investment thesis explicitly excludes business models that would lock in climate-vulnerable outcomes at market scale. Evidence that equity investments support companies whose market development activities do not exacerbate inequality or climate exposure for communities they do not directly serve. Portfolio construction considers whether companies' growth trajectories are consistent with long-term climate adaptation pathways. Evidence that returns and investment approaches being demonstrated to the market are replicable by actors serving underserved geographies or populations, not only high-income market segments.</p>	<p>Market development efforts explicitly screen for maladaptation risk (e.g., not insuring concentrations of assets in areas approaching adaptation limits, or not incentivizing maladaptive behavior at scale). Evidence that design and market development activities incorporate equity and inclusion, and do not exclusively benefit premium-paying commercial clients; pricing and coverage terms are assessed for distributional impacts. Subsidy design actively considers whether market structures created will serve underserved populations over time.</p>

## MARKET LEVEL

## Criterion 5: Minimization of Maladaptation (cont.)

Stage	Grants	Debt	Equity	Risk Transfer Tools
 <b>Progressing</b>	<p>Some consideration of maladaptation risks in grant programming at the market level but not systematically embedded in design eligibility or knowledge dissemination strategy. Market development activities have some focus on inclusive delivery, but equity outcomes are not tracked at the market level. Knowledge products generated do not address maladaptation risks.</p>	<p>Some consideration of whether financed sectors or asset classes face long-term climate viability risks, or lock in climate-vulnerable infrastructure, but assessment is not embedded in portfolio eligibility or updated as climate projections change. Some evidence that lending assesses multiple adaptation solutions. Some evidence that the lending reaches a mix of borrower types, but distribution of market development benefits across borrower size, geography, or vulnerability level is not tracked. Demonstration transactions have limited documentation of whether the models being promoted are accessible to smaller or underserved market actors.</p>	<p>Some consideration of maladaptation risk in portfolio construction but not as a binding investment criterion. Some evidence of attention to equity in portfolio design (e.g., at least one underserved market segment explicitly targeted) but market-level distributional impact not systematically tracked. Portfolio companies' downstream adaptation impacts on communities are acknowledged but not monitored for potential negative externalities at market scale.</p>	<p>Some consideration of systemic maladaptation risk in design (e.g., geographic concentration limits) but assessment is not updated with evolving climate projections. Some attention to distributional impact (e.g., affordability provisions considered) but equity and inclusion outcomes at the market level are not tracked.</p>
 <b>Initial</b>	<p>No assessment of whether grant-funded market development activities support adaptation approaches consistent with long-term climate trajectories. No consideration of whether market-level interventions may reinforce inequitable access to adaptation solutions. Knowledge products generated do not address maladaptation risks or distributional impacts of promoted market models.</p>	<p>No assessment of whether financed sectors, asset classes, or business models being promoted at scale are consistent with long-term climate adaptation pathways. No consideration of whether market development lending may crowd out more appropriate adaptation solutions or lock in climate-vulnerable infrastructure. No tracking of whether market development benefits reach underserved borrowers or communities beyond large, creditworthy actors.</p>	<p>No screening for whether equity investments support companies whose market development activities could create maladaptive outcomes at scale. No equity and inclusion lens in portfolio construction at the market level. Portfolio performance data disseminated to other market actors without consideration of whether the models demonstrated are accessible to actors serving underserved geographies or populations.</p>	<p>No assessment of whether the approach being scaled could incentivize maladaptive behavior at the market level (e.g., encouraging continued static investment in climate-exposed assets). No consideration of distributional impacts of the design being demonstrated to the market. No assessment of whether market development activities could entrench access barriers for vulnerable populations.</p>

## ILLUSTRATIVE APPLICATION OF CRITERIA AT THE PROJECT & MARKET LEVEL

### CATALYST CLIMATE RESILIENCE FUND CASE STUDY

#### Overview

This case study applies the adaptation finance quality criteria to the Catalyst Climate Resilience Fund (CCRF), a blended equity vehicle managed by Catalyst Impact Partners (BFA Global) that makes pre-seed investments in African climate adaptation startups.<sup>23</sup> The case study aims to show how the criteria work in practice, how evidence maps to stage assessments, and how a single fund can be assessed at both project and market levels simultaneously. Only the equity column of the criteria tables applies; grant, debt, and risk transfer columns are not relevant to CCRF. Stage assessments draw on publicly available<sup>24</sup> information only. The fund team would be better positioned to assess several criteria in full based on internal documentation.

#### Fund Snapshot

<b>Manager</b>	Catalyst Impact Partners (part of BFA Global)
<b>Geography</b>	Pan-Africa; 26 ventures across 9 markets as of 2025
<b>Investment Stages</b>	Pre-seed (USD 200K via Simple Agreement for Future Equity (SAFE) <sup>iii</sup> ); Seed follow-on (USD 500K); Series A follow-on (USD 1.4M)
<b>Target Fund Size</b>	USD 40 million; first close approximately USD 8.5M (August 2023)
<b>Target Net IRR</b>	20-22%
<b>Fund Structure</b>	Waterfall structure: First-loss philanthropic tranche (DFIs, donors); subordinated to impact and commercial tranches
<b>Thesis Verticals</b>	Fintech for Resilience; Climate-Smart Livelihoods; Climate-Smart Essential Services
<b>2025 Impact Reporting</b>	26 ventures; 560,000+ individuals reached; 28,000 tonnes CO <sub>2</sub> mitigated; 1,000+ green jobs

*Note on levels:* CCRF operates at both project and market levels simultaneously. As a fund structure, it is a market-level instrument designed to prove an asset class and catalyze commercial co-investment. As an equity vehicle making individual startup investments, each portfolio company is also a project-level deployment. The project-level criteria apply to the fund's investment policy as a proxy for how well individual investments are designed; the market-level criteria apply to the fund structure itself. A DFI or bilateral donor assessing CCRF should use both lenses.

<sup>iii</sup> A SAFE (Simple Agreement for Future Equity) is a provision of capital in exchange for the right to receive equity in a future priced round, with the investor's ownership percentage calculated based on the company's valuation including the SAFE investment itself where the dilution is transparent and predictable for both the founder and investor at the time of signing.

## Quality Assessment

Level	Criterion	Provisional Stage	Evidence and Key Gaps
Project	P1: Climate Risk Identification and Integration	Progressing	Adaptation thesis organizes the entire portfolio, but physical risk screening of individual investees is not documented in publicly available materials.
Project	P2: Alignment with National/ Subnational Adaptation and Sustainable Development Priorities	Initial to Progressing	Local co-founder requirement (>80%) and multi-country presence show country-level rootedness; explicit NAP/NDC alignment is not documented.
Project	P3: Target Population Access & Reach	Progressing to Transformative	560,000+ individuals reached across 9 markets in 2025; >40% women founders. Gap: impact metrics are output-based rather than outcome-based (e.g., vulnerability reduction), which remains a field-wide challenge and is not fund-specific.
Project	P4: Adaptive Management and Learning Design	Progressing	Staged investment model (pre-seed to seed to Series A) is an adaptive capital allocation mechanism; formal climate scenario updating of investment thesis not documented, but may be too early-stage for inclusion.
Market	M1: Business Model Viability and Mainstreaming Pathway	Progressing	20-22% target IRR is commercially credible; blended structure is explicitly designed as a time-limited mechanism. No exits yet; commercial validation is pending.
Market	M2: Replication & Scale-up	N/A	CCRF is itself the demonstration vehicle; replication by other fund managers is not yet documented. Stated intent to replicate in Latin America and Asia is a positive signal. Relatively simple fund structure allows for greater replication potential.
Market	M3: Adaptation Solution Diffusion & Innovation	Progressing to Transformative	Entire mandate targets pre-commercial adaptation solutions. Portfolio spans climate risk data, insurance, agtech, and waste-to-value.
Market	M4: Demonstration Effect on Risk Return Profile	N/A	Too early-stage for potential financial performance disclosure.
Project & Market	P5/M5: Minimization of Maladaptation	Progressing	Impact outcomes are publicly reported (jobs, beneficiaries, etc.). The >40% women founder target and >80% local co-founder requirement reflect equity and inclusion commitments at the portfolio level. Formal portfolio-level maladaptation screen not documented.

### Observations for Public Finance Providers:

- Lifecycle matters when applying quality criteria:* Many of the gaps identified here, particularly on financial performance disclosure, documented replication, and formal systematic processes, are appropriate for a fund at first close with a portfolio that has not yet exited. The criteria do not penalize lifecycle-appropriate gaps, but they do help providers identify what commitments and conditions should be established at the time of concessional capital deployment, rather than after the fact. A DFI or bilateral donor considering investing in a fund like CCRF should take into account the maturity of the fund and the realistic capabilities to report on certain criteria.

- *Concessional capital deployed now can generate the evidence base commercial investors need to enter this space:* A 20-22% net IRR in a climate adaptation equity fund is commercially meaningful and comparable to standard venture capital benchmarks. In the short term, this makes a strong case for business model viability, and in the medium term, demonstrating this return profile in adaptation-focused pre-seed investing establishes a proof of concept that is currently absent from the market.

The CCRF represents an important advancement in adaptation finance, and the gaps identified in this assessment should be read in that context. As of 2023, when the CCRF was receiving technical support from the Global Innovation Lab for Climate Finance, no comparable vehicle existed in Africa: one that deployed patient, risk-tolerant pre-seed equity specifically into climate adaptation startups, paired with hands-on venture-building support and an explicit commitment to proving the asset class's commercial viability. The criteria gaps that show up as initial or progressing are largely those of an early-stage fund operating in a nascent market. For public finance providers, this assessment can give clarity about what effective support for CCRF looks like: providing concessional capital at the right stage, tracking the commitments that will determine whether the fund's market demonstration is ultimately legible to commercial investors, and recognizing that the evidence CCRF generates over the next several years, whether it confirms or refines the thesis, will be a contribution to the field regardless of how individual exits perform.

## SYSTEM LEVEL

### CRITERIA SELECTION RATIONALE


The five system-level criteria address the structural conditions that determine whether adaptation finance can flow at the scale needed. At the system level, criteria are assessed across all instruments collectively rather than calibrated to individual finance tools, because the questions at this level concern aggregate global patterns that cannot be meaningfully assessed by looking at any single instrument in isolation. This system-level lens also captures cross-cutting transparency constraints, including weak tracking of actual disbursement and limited comparability of concessional loan terms across providers.

1. **Debt Sustainability and Fiscal Risk** is drawn from the growing recognition reflected in international climate finance discussions, including the Bridgetown Initiative,<sup>25</sup> the G20 Sustainable Finance Working Group<sup>26</sup> and the new collective quantified goal for climate finance,<sup>27</sup> that sovereign debt positions can be a binding constraint on adaptation investment capacity, particularly in highly climate-exposed developing countries.
2. **Shift in Investor Attitudes and Investment Patterns** reflects the assessment in academic articles<sup>28</sup> and practitioner reports<sup>29</sup> on private adaptation finance that durable attitude and behavior change among investors is a prerequisite for private adaptation finance at scale.
3. **Policy and Regulatory Enabling Environment** draws on the Coalition of Finance Ministers for Climate Action (CFMCA)'s survey of finance ministries,<sup>30</sup> which found that most lack the tools and frameworks to integrate physical climate risks into fiscal planning, and that cross-institutional cooperation between finance ministries and central banks is a key enabling condition.
4. **Supply Chain and Indirect Beneficiary Resilience** reflects the systemic nature of physical climate risk, which cascades through economic networks rather than stopping at individual assets or borrowers.<sup>31</sup>
5. **Minimization of Maladaptation** addresses the risk that systemic financial and policy structures lock in climate-vulnerable trajectories at scale, such as through continued subsidization of fossil-fuel-dependent infrastructure, failure to integrate forward-looking climate risk into sovereign fiscal planning, or market and regulatory arrangements that perpetuate inequitable access to adaptation resources; at the system level, this criterion focuses on whether the aggregate pattern of public finance and policy is consistent with long-term climate resilience, rather than merely whether individual interventions avoid harm.<sup>32</sup>

## SYSTEM LEVEL

**Criterion 1: Debt Sustainability & Fiscal Risk**




Are interventions, considered alongside the recipient country's existing debt profile, avoiding materially worsening sovereign debt sustainability or creating contingent fiscal liabilities that displace future adaptation investment capacity? Are interventions actively supporting adaptation-contingent fiscal resilience?

Stage	All Finance Tools
 <p><b>Transformative</b></p>	<ul style="list-style-type: none"> <li>▪ Rigorous debt sustainability analysis is integrated and demonstrably shapes intervention choice and terms. Grants or highly concessional terms used where debt distress risk is elevated. Where debt instruments are used, terms (tenor, grace period, interest rate, currency) are disclosed in standardized and comparable ways and calibrated to fiscal capacity.</li> <li>▪ Explicit support for domestic resource mobilization or budget capacity for adaptation, leading to reduced aid/debt dependence over time. Instrument designs account for the dynamic relationship between climate shocks and fiscal capacity.</li> <li>▪ Evidence that fiscal systems remain functional after acute climate events (e.g., contingent financing lines, pre-arranged disaster finance, budget support linked to adaptation plan implementation).</li> </ul>
 <p><b>Progressing</b></p>	<ul style="list-style-type: none"> <li>▪ Debt sustainability analysis is taken into account, and findings reflected in intervention designs to some degree.</li> <li>▪ For countries at moderate debt risk, terms are concessional, but the additionality of concessionality relative to the debt risk level is not fully justified. Core loan terms are disclosed, but not in a standardized format that enables comparison across providers or instruments.</li> <li>▪ Contingent liabilities are documented but not fully integrated into national fiscal risk frameworks.</li> </ul>
 <p><b>Initial</b></p>	<ul style="list-style-type: none"> <li>▪ Non- or semi-concessional terms used in a country rated in debt distress or high risk of debt distress (per IMF/World Bank Debt Sustainability Analysis (DSA)).</li> <li>▪ Debt sustainability analysis is ignored in most interventions, and concessionality levels and core loan terms are not disclosed in a standardized, comparable way.</li> <li>▪ Contingent liabilities (e.g., guarantees, insurance obligations) are not reflected in fiscal risk assessment.</li> </ul>

## SYSTEM LEVEL

## Criterion 2: Shift in Investor Attitudes and Investment Patterns Toward Physical Climate Risk Integration and Adaptation Investment

Is there evidence that investor, lender, insurer, or government attitudes toward the sector, geography, or instrument type have durably shifted in a positive direction, including toward the integration of physical climate risk assessment in investment decision-making and the recognition of the business case for adaptation investments?

Stage	All Finance Tools
 <p><b>Transformative</b></p>	<ul style="list-style-type: none"> <li>▪ Evidence exists that investors are incorporating forward-looking climate hazard assessments, adaptation performance indicators, or physical climate risk screening into their investment processes. Reinsurers and insurers have updated pricing models to reflect forward-looking climate projections.</li> <li>▪ A statistically or materially significant increase in investment flows to the sector or geography is sustained over 2+ years.</li> <li>▪ Source mix has shifted toward commercial capital. Investment pattern shift is documented in accessible, publicly available data (e.g., transaction data captured by the Global Landscape of Climate Finance, sector financial databases).</li> <li>▪ Investor behavior is benefitting countries, sectors, and communities with greatest adaptation needs.</li> </ul>
 <p><b>Progressing</b></p>	<ul style="list-style-type: none"> <li>▪ There is some qualitative evidence of attitude shift (e.g., cited in investor interviews, referenced in market reports) but it is not systematically measured.</li> <li>▪ Some evidence exists that investors are beginning to incorporate physical climate risk and adaptation investment considerations into due diligence or portfolio management, but nascently and not systematically.</li> <li>▪ There is an observable increase in adaptation investment flows, but limited evidence that investment pattern shifts are reaching sectors or populations with the greatest adaptation needs vs. commercially attractive segments only.</li> </ul>
 <p><b>Initial</b></p>	<ul style="list-style-type: none"> <li>▪ No evidence found of attitude shift or change in investment patterns.</li> <li>▪ Investor sentiment toward the sector/geography unchanged or negative.</li> <li>▪ No evidence that investors, lenders, or insurers have changed how they assess or account for physical climate risk or assess adaptation investments.</li> <li>▪ No surveying or tracking of attitude change and/or investment trends conducted.</li> </ul>

## SYSTEM LEVEL

**Criterion 3: Policy and Regulatory Enabling Environment for Adaptation Finance**




Are interventions contributing to the development or implementation of policies, regulations, standards, or institutional arrangements that enable climate adaptation investments at scale?

Stage	All Finance Tools
 <p><b>Transformative</b></p>	<ul style="list-style-type: none"> <li>▪ Specific policy, regulatory, or institutional changes lead to improvements in the adaptation finance enabling environment (e.g., contributing to development and systematic uptake of adaptation finance taxonomies, supporting risk disclosure frameworks, informing adaptation-linked budget classification systems).</li> <li>▪ Active engagement with standard-setting bodies (e.g., climate taxonomy authorities, financial stability boards, national adaptation planning processes) leading to effective and useful standards or guidance.</li> <li>▪ Evidence that policy/regulatory changes have measurably increased adaptation finance flows or improved quality of adaptation investments.</li> <li>▪ Reporting systems enable comparison between committed, approved, and disbursed adaptation finance, helping identify delivery bottlenecks that are otherwise obscured in aggregate climate finance reporting.</li> <li>▪ Evidence of sustained cross-institutional cooperation between finance ministry and central bank functions, such as joint physical risk scenario development, coordinated taxonomy use, or aligned disclosure frameworks producing coherent adaptation finance strategies.</li> <li>▪ Contributions to shared physical risk scenario infrastructure and analytical capacity enabling finance ministries to integrate climate risks into fiscal planning and public investment decisions.</li> </ul>
 <p><b>Progressing</b></p>	<ul style="list-style-type: none"> <li>▪ Some engagement with policymakers or regulators on adaptation finance enabling environment, but no documented policy or regulatory changes.</li> <li>▪ Capacity, knowledge, and understanding generated that is potentially useful for policy development, including improved tracking of adaptation finance commitments, approvals, and disbursements, but with limited evidence institutionalized and standardized reporting.</li> <li>▪ Some participation in adaptation finance taxonomy or standard-setting processes.</li> <li>▪ Some evidence of engagement between finance ministry and central bank functions on physical risk scenario or analytical capacity, but coordination is ad hoc rather than institutional.</li> </ul>
 <p><b>Initial</b></p>	<ul style="list-style-type: none"> <li>▪ No evidence of policy, regulatory, or institutional change leading to improved adaptation finance enabling environment (e.g., adaptation investment taxonomies, mandatory physical climate risk disclosure requirements, climate-contingent fiscal rules).</li> <li>▪ Limited transparency on adaptation finance that is committed, approved, and disbursed.</li> <li>▪ No engagement with policymakers, regulators, or standard-setting bodies on adaptation finance frameworks.</li> </ul>

## SYSTEM LEVEL

**Criterion 4: Supply Chain and Indirect Beneficiary Climate Resilience**




Have interventions contributed to structural changes in the governance, regulation, or institutional arrangements that determine how supply chains, value chains, and downstream actors manage and disclose physical climate risk?

Stage	All Finance Tools
 <p><b>Transformative</b></p>	<ul style="list-style-type: none"> <li>Regulatory, institutional, or standards-based changes documented that require or incentivize supply chain climate resilience across a sector or geography, such as mandatory supply chain climate risk disclosure requirements, climate-resilient procurement standards adopted by government or industry bodies, or multilateral trade frameworks incorporating adaptation provisions.</li> <li>Evidence that these structural changes have measurably improved climate resilience across supply chains beyond the scope of any individual intervention. Evidence of supply chain stability improvements (e.g., faster recovery, reduced cascading losses).</li> <li>Coordination between finance ministries, trade regulators, and climate policy authorities is documented, with cross-institutional governance arrangements that embed adaptation into supply chain oversight and address maladaptive impacts on labor.</li> </ul>
 <p><b>Progressing</b></p>	<ul style="list-style-type: none"> <li>Some evidence of engagement with supply chain governance bodies or regulatory processes on climate resilience standards, but no specific regulatory or institutional changes.</li> <li>Some climate-exposed sectors have begun voluntary integration of adaptation measures but without regulatory underpinning or cross-sector coordination. Actors across value chains and governments have limited consideration of potential labor impacts.</li> <li>Limited evidence of reliability of critical goods and services being addressed at a systemic rather than project level.</li> </ul>
 <p><b>Initial</b></p>	<ul style="list-style-type: none"> <li>No evidence of contribution to regulatory, governance, or institutional change relevant to supply chain climate resilience.</li> <li>No engagement with trade ministries, procurement regulators, or supply chain standards bodies on climate risk integration.</li> <li>No consideration of how supply chain governance structures or regulations could be shifted to embed adaptation requirements.</li> <li>No consideration or analysis of reliability lapses, including for beneficiaries outside large, well-connected hubs.</li> </ul>

## SYSTEM LEVEL

**Criterion 5: Minimization of Maladaptation**

Are interventions assessing and avoiding the risk that financed activities lock in climate-vulnerable trajectories, defer necessary structural change, or undermine more appropriate long-term adaptation responses? Is there evidence that financed activities produce genuine, durable resilience outcomes?

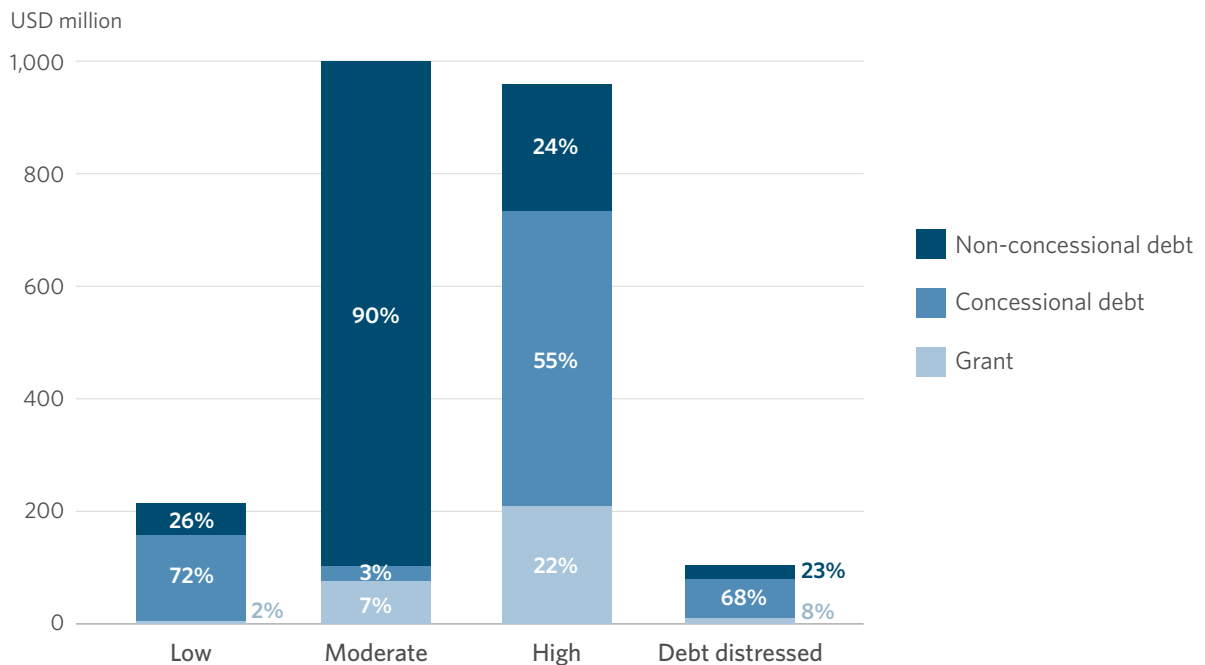
Stage	All Finance Tools
 <p><b>Transformative</b></p>	<ul style="list-style-type: none"> <li>▪ Rigorous maladaptation screening is embedded in financing practices, with reference to the best available science. There is evidence of iterative review as climate projections are updated.</li> <li>▪ Financed investments remain viable under projected climate scenarios, build local adaptive capacity, and do not displace more appropriate long-term adaptation responses.</li> <li>▪ Risk transfer terms include adaptation performance requirements (e.g., risk-reduction conditions for renewal).</li> <li>▪ Financed activities explicitly exclude activities that lock in vulnerability or fossil-fuel-dependent activities.</li> </ul>
 <p><b>Progressing</b></p>	<ul style="list-style-type: none"> <li>▪ Maladaptation risk is considered, but is not systematically embedded into financing practices.</li> <li>▪ Some assessment of whether financed activities are consistent with long-term adaptation pathways, but the analysis is not updated as climate projections change.</li> <li>▪ Some consideration of climate scenario viability for financed assets, but not across full portfolios.</li> <li>▪ Risk transfer terms include some requirement for risk reduction.</li> </ul>
 <p><b>Initial</b></p>	<ul style="list-style-type: none"> <li>▪ No assessment of whether financed activities could create lock-in of climate-vulnerable assets or defer more appropriate adaptation responses (e.g., financing seawalls where managed retreat is more appropriate).</li> <li>▪ No assessment to distinguish whether risk transfer approaches are enabling adaptation rather than compensating losses without reducing underlying vulnerability.</li> <li>▪ No assessment of maladaptation risk across portfolio (e.g., enterprises whose products/services reduce short-term climate risk but increase long-term exposure or lock in fossil-fuel-dependent processes).</li> </ul>

## CRITERION DEEP DIVE: DEBT SUSTAINABILITY & FISCAL RISK

### Adaptation Finance and Debt Sustainability: Analyzing Instrument Choice Across Risk Contexts

This analysis examines whether international public adaptation finance instruments align with recipient countries’ fiscal and debt realities. Adaptation finance is intended to strengthen resilience; yet, when delivered through sovereign debt instruments to fiscally constrained countries, it can deepen the vulnerabilities it seeks to reduce. Climate shocks erode fiscal space while debt service obligations remain fixed, creating a risk that debt-based adaptation finance contributes to future fiscal stress rather than alleviating it. This does not imply that all debt-financed adaptation is inappropriate. Much sovereign borrowing can be highly concessional in nature and can be justified where countries retain sufficient fiscal space or where investments generate economic returns. The concern arises when financing terms do not adjust as fiscal vulnerability increases, and investments are not considered within the country’s overall debt management framework.

The analysis combines data on international public adaptation finance flows to public-sector recipients in EMDEs (excluding China and EMDEs in Europe) from CPI’s Global Landscape of Climate Finance, with IMF–World Bank Joint Debt Sustainability Framework classifications of sovereign debt distress risk for countries with a DSA classification. Finance flows are grouped by three instrument types: grants, concessional debt, and non-concessional debt, and then compared across debt distress risk categories to assess whether instrument distribution changes as fiscal vulnerability rises.



Note: For debt distress risk levels as classified by World Bank/IMF, “Low” category includes Cambodia, Guyana, Myanmar, Nepal, Uzbekistan; “Moderate” category includes Honduras, Moldova, Solomon Islands, Bangladesh, Benin, Bhutan, Burkina Faso, Democratic Republic of Congo, Côte d’Ivoire, Guinea, Kyrgyz Republic, Lesotho, Madagascar, Mali, Marshall Islands, Mauritania, Micronesia, Nicaragua, Rwanda, Samoa, Senegal, Somalia, Tanzania, Timor-Leste, Togo, Uganda; “High” category includes Afghanistan, Burundi, Cameroon, Central African Republic, Chad, Comoros, The Gambia, Ghana, Guinea-Bissau, Haiti, Kenya, Kiribati, Maldives, Mozambique, Niger, Papua New Guinea, Sierra Leone, South Sudan, St. Vincent and the Grenadines, Tajikistan, Tonga, Tuvalu, Zambia, Cabo Verde, Dominica, Liberia, Vanuatu; “Debt distressed” category includes Republic of Congo, Djibouti, Ethiopia, Grenada, The Lao People’s Democratic Republic, Malawi, Sao Tome and Principe, Sudan, Zimbabwe.

The results do not show a smooth progression toward increasingly concessional finance as debt vulnerability rises. Instead, the clearest anomaly appears in countries at moderate risk of debt distress, where non-concessional debt accounts for 90% of adaptation finance flows, while concessional debt and grants account for only 3% and 7%, respectively. This suggests that moderate-risk countries are effectively being treated as standard sovereign borrowers despite elevated fiscal vulnerability. From a debt sustainability perspective, this is the point in the distribution where financing terms appear most misaligned with country circumstances, potentially creating a disincentive to making critical and timely investments in adaptation. In cases such as these, it may be useful to consider developing or scaling financing approaches, such as adaptation outcome-based debt swaps, that provide fiscal relief while facilitating sustained adaptation investment.

The high-risk and debt-distressed categories show some adjustment by capital allocators toward more concessional finance. In high-risk countries, concessional debt becomes the dominant instrument, and grants increase meaningfully. Similarly, the debt-distressed category shows a lean toward more concessional finance in the overall financing mix. However, non-concessional debt still accounts for roughly one-quarter of flows in both categories, while grants remain limited even where debt-service capacity is most constrained. This pattern could also reflect grant financing being prioritized for more immediate spending needs, such as in education and health, for countries in greater debt distress. By contrast, the low-risk category is dominated by concessional debt, with relatively limited grant financing and a notable but less concerning share of non-concessional debt given stronger fiscal conditions.

The findings suggest that debt sustainability considerations are not consistently shaping the selection of adaptation finance instruments, particularly for countries in the moderate-risk tier. This matters because sovereign debt vulnerability is tied to adaptation outcomes: when climate shocks reduce government revenues and increase expenditure pressures, debt-financed adaptation can itself become a source of fiscal fragility if financing terms are poorly calibrated. Directing adaptation finance through non-concessional sovereign debt in fiscally constrained contexts, therefore, risks creating a systemic misalignment between the objectives of adaptation finance and its fiscal consequences.

These findings connect directly to the Debt Sustainability and Fiscal Risk criterion within the quality assessment framework. This criterion functions as a system-level safeguard because the financing structure can materially affect long-term resilience outcomes independent of project-level design quality. Even well-designed adaptation investments may undermine resilience if the financing terms themselves worsen fiscal vulnerability or constrain future response capacity. The findings also reinforce the importance of the Maladaptation Minimization criterion: financing structures that narrow future fiscal space can reduce countries' ability to respond to escalating climate impacts over time.

# CONCLUSION AND IMPLICATIONS

The scale of unmet adaptation need is well documented. What is less understood is whether the finance deployed is well-designed enough to contribute to climate-resilient development. The decision-support tool outlined in this paper offers a structured way for public finance providers to screen their own investments and better understand adaptation quality at three distinct, interconnected levels: project, market, and system. At the project level, the tool assesses whether climate risks are genuinely understood and reflected in design, whether the intervention reaches those who need it most, whether it can adjust when conditions change, and whether it avoids harmful outcomes. At the market level, it asks whether finance is catalyzing replication, shifting risk perceptions and incentives, and building the pipeline of solutions needed at scale. At the system level, it asks whether finance is contributing to the structural conditions, including debt sustainability, investor behavior, and enabling policy, that make adaptation investment durable.

The first step in applying the tool is to identify the level at which the intervention operates. A project-level grant to a community watershed program raises different quality questions than a blended finance vehicle designed to shift market behavior in climate-resilient infrastructure. The tool is designed for two distinct use cases:

- **For new investments at the design stage:** Work through the relevant criteria and aim to structure design choices that are as consistent as possible with the transformative descriptors. Not every criterion will apply to every context, but the descriptors give a clear picture of what stronger practice looks like and make the trade-offs in design visible.
- **For existing investments under review:** Use the tool diagnostically. At the project level, identify where there are gaps and what changes could materially improve quality within the current intervention cycle. At the market and system levels, the tool can help providers assess whether their portfolio or engagement strategy is contributing to the conditions needed for durable adaptation outcomes and can inform how providers frame corrective action in engagement with borrower governments and co-investors.

A clear finding from developing this tool is the extent of ex-ante and ex-post data needed to assess adaptation finance quality, and how much of it is currently unavailable or inconsistently reported. This applies across all three levels. Some criteria require forward-looking information available at the point of design, such as downscaled climate projections or NAP alignment documentation. Others require backward-looking evidence that only becomes available over time, such as IRR disclosure from blended vehicles, evidence of policy change, or outcome-level data on beneficiary vulnerability reduction. Recognizing this distinction matters for calibrating assessment ambitions: some criteria can be evaluated at appraisal; others require sustained monitoring and, eventually, evaluation. The table below summarizes the key data needs and current gaps at each level.

## Summary of Data Needs and Gaps

Level	Key Data Needed	Current Gaps
Project	Forward-looking climate-risk evidence: downscaled projections, hazard maps, stress tests, and documentation of how risk findings shaped design.	Most institutions report that a risk assessment was conducted but do not disclose how it shaped design. Many countries still lack access to systematic observations as a basis for climate modeling.
	Targeting and access information: population data by gender, age, disability, vulnerability, and geography; cost per user; eligibility, co-financing, and application barriers.	End-user data are often aggregated, making it difficult to assess whether finance reaches exposed and underserved groups. Outcome-level indicators remain difficult to identify and reasonably track.
	Learning and maladaptation evidence: review findings that led to course correction; maladaptation screening records; community engagement and outcome indicators.	Adaptive-management evidence, harm screening, and resilience outcome indicators are not standard or consistently reported. Limited guidance on screening for different types of financiers.
Market	Financial performance data across blended vehicles (IRR, loss rates, subsidy dependence trends, claims ratios); records of commercial investor entry into financed sectors; evidence that specific designs or knowledge products have been cited or adopted by other actors.	Very few blended finance vehicles disclose financial performance over a sufficient time period, and this is not current standard practice. While individualized fund-level data may be challenging to share publicly, aggregated data could help provide market-level insights beyond what is currently available.
	Replication and investor-entry evidence: commercial investor entry, follow-on transactions, and documented adoption or citation of designs and knowledge products.	Replication is rarely attributed to specific interventions, and the use of knowledge products is not systematically tracked.
	Distributional and portfolio-risk evidence: who benefits across borrower and community types; portfolio-level equity, inclusion, and maladaptation screening.	Market beneficiaries are rarely captured systematically; maladaptation screening is rarely reported in accessible, portfolio-level form.
System	Finance-flow and fiscal-capacity evidence, e.g., CPI's Global Landscape of Climate Finance data disaggregated by sector, source, and instrument); IMF and World Bank Debt Sustainability Analyses; ministry of finance debt management reports; loan terms and contingent liabilities.	Debt data may exist through Debt Sustainability Analysis, but the link between fiscal-risk findings and specific lending decisions is almost never documented.
	Planning and policy-change evidence: NAP and NDC progress reports; adaptation budget tagging; policy, regulatory, taxonomy, or procurement changes supported by finance.	Policy engagement is not captured systematically, making attribution, learning, and dialogue with borrower governments difficult. Limited coherence and coordination across different adaptation taxonomies.
	Investment-shift and resilience evidence: longitudinal private investment flows into adaptation-relevant sectors by geography; investor behavior surveys; supply-chain resilience data.	Private investment flow data lack the sectoral and geographic granularity needed to fully capture volume and quality of flows. Adaptation "asset classes" are poorly defined, making it challenging to assess investor behavior across a diffuse market.

Some of the data gaps identified above reflect not only reporting and disclosure challenges but also the limited availability of practical guidance for providers on how to operationalize specific quality dimensions. Maladaptation screening is largely absent from standard project preparation, partly because accessible, finance-specific frameworks are only beginning to emerge; the Climate Bonds Initiative's [Resilience Criteria](#)<sup>33</sup> offers one structured approach. Determining how to structure meaningful community engagement remains an area where clear standards are lacking; IIED's [practical guidance](#)<sup>34</sup> on aligning operations with the Locally Led Adaptation principles provides a useful starting point. Outcome-based indicator reporting remains difficult because the causal chain between a financed intervention and measurable change in climate vulnerability is long and context-specific; the UNEP FI [Adaptation and Resilience Impact Measurement Toolkit](#)<sup>35</sup> offers a framework for financial institutions seeking to move in this direction. For providers still working to define what makes an investment genuinely adaptation-relevant, CPI's guide on [Assessing Climate Risk, Framing Resilience, and Reporting Impact](#)<sup>36</sup> provides grounding for developing investment theses that hold up to scrutiny.

Providers are encouraged to apply the tool, test it against their own portfolios, and share what they find. CPI welcomes feedback from public finance providers, recipient governments, and researchers about their experience applying this tool in practice, and where it can be further tailored or improved for increased utility. The frameworks and approaches used to assess the quality of adaptation finance, including the tool in this paper, should evolve through practical use, partner feedback, transparency, and evidence accumulation.

Improving adaptation finance quality is ultimately about making scarce public capital work more efficiently and effectively. High-quality adaptation finance directs grants and concessionality where markets will not reach; uses blended finance to demonstrate and scale viable models where markets can respond; aligns financial terms with fiscal realities; and builds evidence that allows others to act with greater confidence. The goal is not only more adaptation finance, but finance that changes decisions, protects vulnerable people, avoids maladaptation, and expands countries' capacity to invest in resilience over time.

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