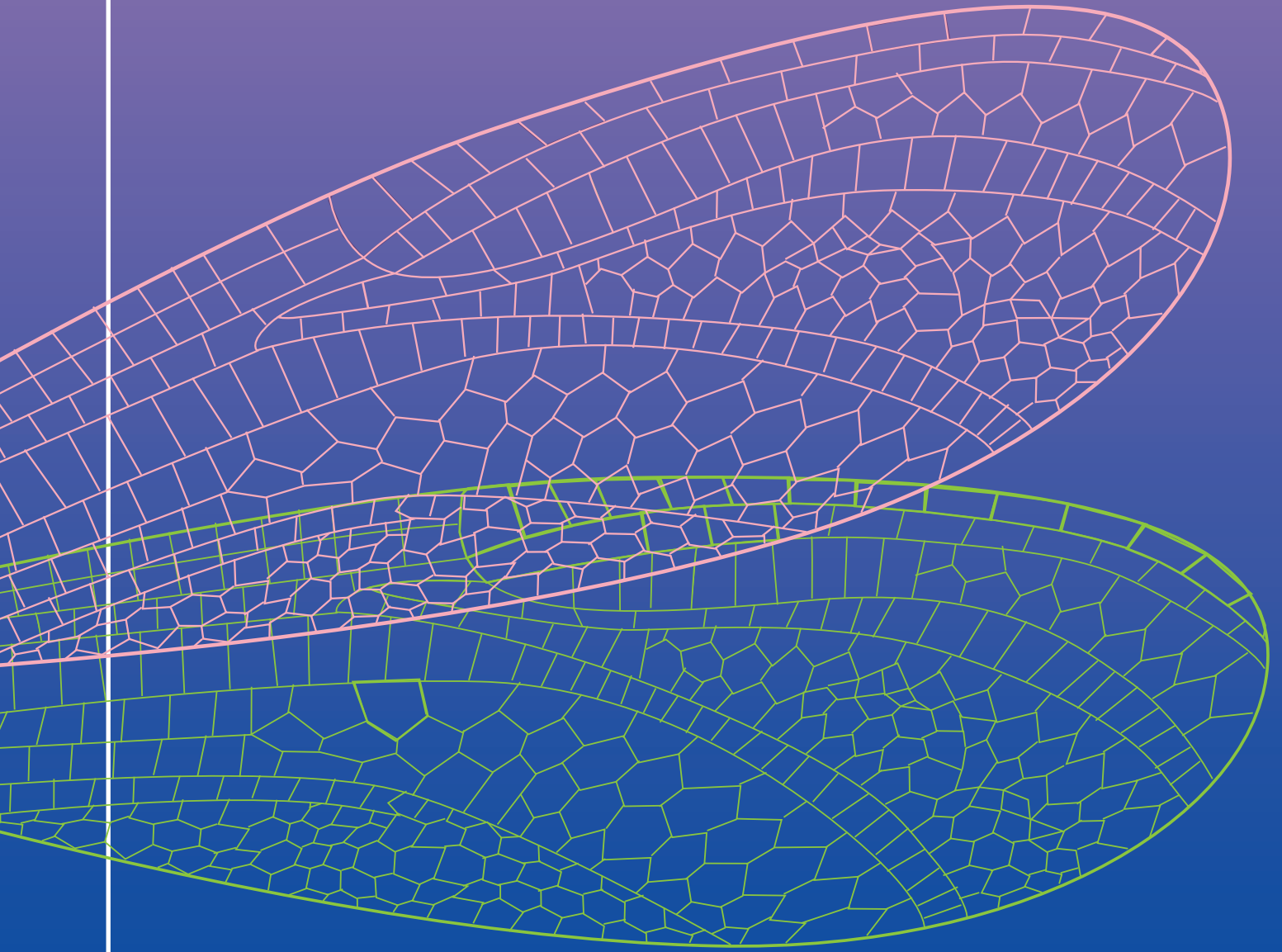


# Climate Bonds Resilience Taxonomy Methodology



## Glossary of Terms

Term	Definition
<b>activity</b>	An (economic) activity delivering goods or services.
<b>adaptation (or climate [change] adaptation)</b>	In human systems, the process of adjustment to actual or expected climate and its effects, to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects.
<b>climate hazard consequences</b>	Climate conditions that result from physical climate hazards and directly affect elements of society or ecosystems.
<b>climate vulnerability</b>	The sensitivity of a system or process to climate change (i.e., the degree to which outputs or attributes change in response to changes in climate inputs) that outweighs/exceeds the adaptability of that system (i.e., the extent to which changes are possible that take advantage of altered climate conditions).
<b>direct impacts</b>	The effect of physical climate hazards on exposed and vulnerable assets, people, and systems.
<b>significant harm</b>	The potential of an investment to negatively impact mitigation efforts and other social and environmental objectives.
<b>environmental/social/economic impact</b>	The impacts of climate hazard consequences on natural and human systems such as livelihoods; health and well-being; ecosystems and species; economic, social, and cultural assets; services (including ecosystem services); and infrastructure.
<b>ex ante</b>	A measurement that is based on forecasts rather than actual results.
<b>ex post</b>	A measurement that is based on actual results rather than forecasts.
<b>exposure</b>	The presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected.
<b>hazard</b>	The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources.
<b>indirect impacts</b>	The knock-on effects of the direct impacts of physical climate hazards upon assets, people, and systems.
<b>investment context</b>	The specific boundaries or setting within which the impact of a climate resilience investment is assessed.
<b>maladaptation</b>	The risk of an unintended measurable increase in vulnerability (or exposure) in the investment context and/or in the wider system within which the investment is situated.
<b>measure</b>	Specific intervention within an asset, activity or entity.
<b>measurable</b>	Able to be demonstrated through either quantitative metrics/indicators or qualitative assessments.
<b>physical climate risk</b>	Risks resulting from climatic events, such as storms, floods or increasing temperatures. The determinants of physical climate risk are hazards, exposure and vulnerability.
<b>proxy</b>	A means of confirming an investment's substantial contribution to resilience using robust and authoritative climate resilience assessment frameworks or standards pre-approved by Climate Bonds on the basis that they are equivalent in focus and ambition to the criteria specified in the CBRT.
<b>resilience (or climate resilience)</b>	The capacity of social, economic, and environmental systems to cope with climate related hazardous events, trends or disturbances, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.
<b>substantial contribution to climate resilience</b>	A measurable reduction in vulnerability (or exposure) to climate impacts in the investment context.
<b>vulnerability</b>	The propensity or predisposition to be adversely affected, which encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

# 1. Introduction, context, and objectives

## a. The need for the CBRT

As the effects of climate change become increasingly apparent and damaging, the need to scale up financing for climate resilience (or adaptation) from a wide range of sources, both public and private, grows increasingly urgent.<sup>1</sup> In 2023, the United Nations Environment Programme (UNEP) estimated an adaptation finance gap of USD194–366bn annually, with developing countries needing 10–18 times more than current flows.<sup>2</sup> Doubling international finance or relying solely on public sector finance is insufficient, as required investments exceed existing budgets. Limited fiscal capacity, competing priorities, and political constraints hinder the ability of governments to fund climate action. Public sector finance must be complemented by private sector investment, in addition to the international cooperation required to mobilise the necessary resources for effective climate mitigation and resilience building.

At present, current finance flows for climate resilience remain well below these estimated needs. In 2023, Climate Policy Initiative (CPI) determined that reported finance flows related purely to adaptation were USD63bn per year, with dual mitigation/adaptation benefit finance at USD51bn per year, out of total reported climate finance flows of USD1.27tn per year. Almost all of these flows came from the international public sector such as development finance institutions (DFIs), with only USD1.5bn coming from private finance sources.<sup>3</sup>

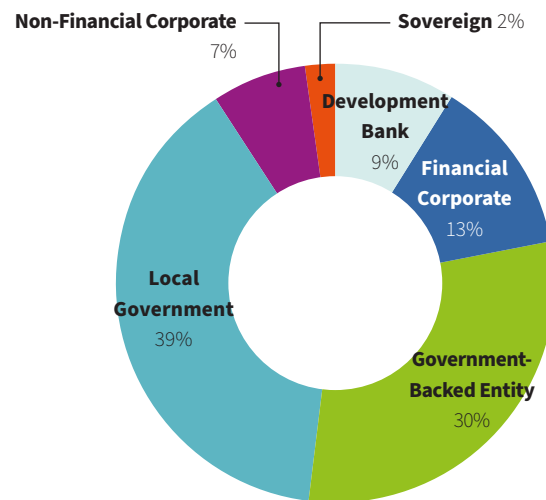
The sustainable debt market presents a substantial opportunity to bridge this gap between current finance flows for climate resilience and the estimated needs. Green, social, sustainable and sustainability-linked (GSS+) bonds, which have already channelled over USD 5.1tn from capital markets to sustainable activities, have emerged as a primary vehicle for financing climate action. While demand for thematic borrowing and investment has grown and diversified into areas/labels such as social, sustainability, SDG, blue, and resilience, the supply of projects still falls short, leaving investor demand unmet.

This issue is particularly acute in relation to climate resilience, which receives only a small portion of the labelled capital flows currently. Climate Bonds Initiative's (Climate Bonds) research established that only 19% of labelled green bonds were found to have any resilience-related use of proceeds.<sup>4</sup>

Table 1: A&R Scorecard

	Amount (cumulative)	Percentage against total GSS+ deals
<b>Number of issuers</b>	845	23%
<b>Number of deals</b>	6,494	19%

Chart 1: Issuer type distribution in A&R deals



The lack of clarity on what constitutes a climate resilience investment is one of the key reasons for the supply and demand mismatch in climate resilience investment markets. This uncertainty can make it difficult for both investors and issuers to identify credible and impactful projects for inclusion in thematic instruments, hindering the flow of capital towards this critical area.

Climate Bonds has been addressing the need for clarity by steadily expanding the universe of eligible projects that are aligned with climate goals; from clean energy to a broad range of mitigation investments, and now to adaptation and resilience (A&R). Central to this effort is the development of science-based and ambitious taxonomies and standards that guide, shape, and grow the market. Published in 2012 and regularly updated, the Climate Bonds Taxonomy was the first sustainable finance taxonomy. Additionally, the Climate Bonds Standard and Certification Scheme remains the only global green bond certification programme.

Sustainable finance taxonomies and standards are essential for directing private and public investments toward sustainability goals by providing clear definitions and a common framework for issuers and investors. The CBRT offers focused, detailed guidance on climate resilience, an area often under-prioritised or addressed only broadly in many existing taxonomies. The CBRT aims to fill this gap by supporting and informing the development of more comprehensive national and regional taxonomies. Additionally, it can guide other applications including sustainable debt issuances and other use cases as detailed in section 2(d).

With over 10 years of experience, Climate Bonds is uniquely positioned to lead the development of definitions for a global climate resilience taxonomy given the complexities of defining A&R. The organisation has extensive expertise in crafting internationally recognised taxonomies and standards. Furthermore, experience in supporting corporates, banks, multilateral, sovereign, and sub-sovereign entities across Latin America and the Caribbean (LAC), Africa, central Europe, central Asia, and the Association of Southeast Asian Nations (ASEAN) in applying these definitions has provided valuable insights into the practicalities of usability and data constraints. This expertise has directly influenced the development of the CBRT to be both scientifically rigorous and practical for a diverse range of stakeholders.

## b. Objectives of the Climate Bonds Resilience Taxonomy (CBRT)

The CBRT, a major expansion of the Climate Bonds Taxonomy, provides a classification system and interim screening criteria for climate adaptation and resilience investments. It aims to accelerate global capital flow for climate resilience investments by offering clear definitions, science-based criteria, and a common framework.<sup>5</sup> This allows issuers, investors, market regulators, observers, and policymakers to identify and develop actions and investments that make substantial, consistent, and verifiable contributions to climate resilience.

The CBRT has been developed through a multi-stakeholder approach, incorporating expertise from diverse sectors and stakeholders to support a comprehensive scope and build consensus. This collaborative effort aims to establish the CBRT as an evolving, globally applicable, clear, and detailed system that can grow and adapt with changing needs, integrating the most current scientific research, evidence, and existing methodologies. The involvement of diverse stakeholders also ensures that the CBRT effectively addresses the interconnected nature of climate resilience by incorporating a wide range of perspectives and knowledge.

## c. Purpose and intended audience of the Climate Bonds Resilience Taxonomy (CBRT) Methodology

This CBRT Methodology document (Methodology) accompanies the CBRT to provide additional clarity on its contents and guidance on how to interpret and apply the CBRT effectively. It outlines the foundational principles, definitional building blocks, and key decisions underlying the CBRT. It details the classification methodologies and rulesets that have been applied to populate and determine the eligibility of investments included in the taxonomy. This first version provides an extensive list of investments and their corresponding interim screening criteria, which the next iteration of the CBRT will validate, expand, and further develop with the list of investments and associated criteria that will be updated on a regular basis.

The primary audience for this document includes:

- i. Resilience taxonomy developers, such as regulators, governments or financial institutions, who may want to adopt the CBRT as a reference model for their own local or regional taxonomies.
- ii. CBRT developers including Climate Bonds staff, Technical working groups (TWGs), supporting consultants, and other experts and stakeholders involved in the further design, development, and/or extension of the CBRT.
- iii. Potential users of the CBRT seeking to validate its robustness before identifying, verifying, or investing in resilience transactions.

In addition to this Methodology, an additional accompanying resource is being developed that focuses on end-users of the CBRT, offering practical, step-by-step guidance on applying the taxonomy for various use cases.

## d. Process of Climate Bonds Resilience Taxonomy (CBRT) development

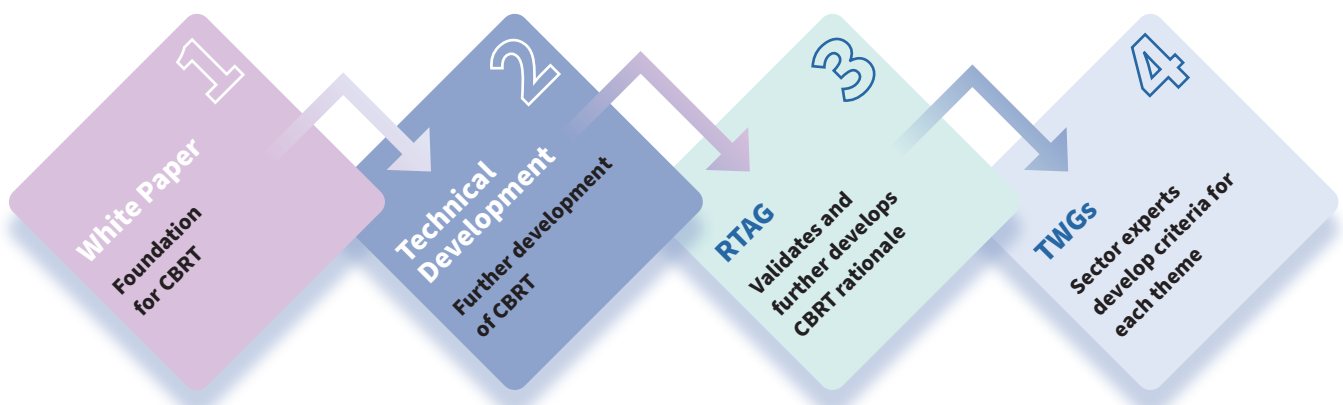
The starting point for the development of the CBRT was the 2023 Climate Bonds Resilience Taxonomy White Paper, which was developed by Climate Bonds, with support from the United Nations Office for Disaster Risk Reduction (UNDRR) with their global leadership role on disaster risk prevention and resilience building.<sup>6,7</sup> It was also supported by Cadlas as lead technical partner with extensive experience of climate resilience financing. This white paper was developed through a detailed programme of research and literature reviews, and set out a clear, upstream framework for defining investments that contribute towards climate resilience.<sup>8</sup>

Building on this foundation, the CBRT was developed by Climate Bonds and Cadlas with support from the Co-operators, a leading Canadian financial services co-operative, and guided by the Resilience Taxonomy Advisory Group (RTAG) over the period February – July 2024. The Inter-American Development Bank (IDB) also provided valuable assistance aimed at testing the applicability of the taxonomy during its development.

RTAG was composed of experts in the field of climate resilience financing from a range of organisations including financial institutions, finance sector industry associations, international organisations, academia, NGOs, consultancies, and think tanks (see list of contributors on page 33).<sup>9</sup> The development of the CBRT involved literature reviews, expert consultations, and reviews of and discussion with other relevant taxonomy developers at both global and regional levels. This work has culminated in the publication of this Methodology document and the first version of the CBRT (September 2024) which includes a list of climate resilience investments and interim screening criteria for assessing those investments.

The next stage of CBRT development (envisaged from late 2024 onwards) will involve assembling technical working groups (TWGs) focusing on the respective themes of the CBRT to review and update the proposed screening criteria. A detailed user guide will be published in 2024, featuring a ‘how to’ guide and supporting case studies aimed at CBRT users, such as issuers or investors. This will provide outward-facing guidance written from the perspective of CBRT users, e.g., issuers or investors.

Refinement of the CBRT will also continue through practical application of the CBRT. This iterative process will involve piloting the CBRT for different use cases, such as supporting investors to identify climate resilience investments, assisting governments in integrating climate resilience into their sustainable finance taxonomies using the CBRT as a reference model, and aiding issuers in aligning their bond use of proceeds (UoPs) with the CBRT. Feedback from these applications will drive further enhancements to the CBRT, ensuring it remains responsive to real-world applications and evolves to meet emerging resilience challenges effectively. The results of the TWG process and application and testing of the CBRT will result in the next iteration of the CBRT, which will feature an updated list of investments and screening criteria. It is important to note that the taxonomy by nature is a dynamic evolving tool that must be regularly maintained and updated.



## 2. Scope, core principles, and use cases

### a. Scope

The CBRT is an expansion of the Climate Bonds Taxonomy which was first released in 2012. The Climate Bonds Taxonomy is regularly updated based on the latest climate science, emergence of new technologies, sector-specific Criteria, and now with the inclusion of substantial contribution to adaptation and resilience objectives. The Climate Bonds Taxonomy, and the CBRT which is part of the broader taxonomy, is a guide to identify climate-aligned assets and projects. It is a tool for issuers, investors, governments, and municipalities to help them understand what the key investments are that will deliver a low-carbon and resilient economy. The Climate Bonds Taxonomy aims to encourage and be an important resource for common green definitions across global markets, in a way that supports the growth of a cohesive thematic bond market which delivers climate action.

The CBRT is a classification system within the Climate Bonds Taxonomy that organises activities, assets, and measures for investment (investments) that have the potential to make a substantial contribution to climate resilience, and the interim criteria for assessing them. It does not prescribe a mandatory list of such investments but provides a positive set of credible resilience investments that mitigate the risk of greenwashing. It makes no judgement on the financial performance of these investments nor does it address resilience at a company or entity level.<sup>10</sup> As a consequence, the CBRT can most readily be used for financing that is specifically allocated and ring-fenced for defined purposes, such as UoP debt financing.

### b. Definitions

The CBRT and its development are based on externally recognised and science-based definitions drawing from authoritative sources including the Intergovernmental Panel on Climate Change (IPCC), the EU Sustainable Finance Taxonomy, and others. Box 1 explains how such external sources have been used to define the basic terminology of the CBRT.

In addition, the CBRT uses widely recognised IPCC concepts and definitions to inform its approach to understanding physical climate risks and their determinants, as set out in Figure 1.

#### Box 1. Defining terms: climate resilience and adaptation

This document uses the terms *climate resilience and adaptation* interchangeably, and for reasons of consistency uses the term climate resilience preferentially except when explicitly referencing external sources that use the term adaptation (e.g., the EU Sustainable Finance Taxonomy). This is consistent with the Climate Bonds Climate Resilience Principles (2019) reflecting a view that the term *climate resilience* is more readily and intuitively understood by a wider range of non-specialist stakeholders.<sup>11</sup>

However, for reasons of clarity and transparency it is important to acknowledge the precise meaning of each term and how they relate to each other. The IPCC (2022) provides the following definitions<sup>12</sup>

**Resilience (or climate resilience).** The capacity of social, economic, and environmental systems to cope with climate related hazardous events, trends or disturbances, responding or reorganising in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.

**Adaptation (or climate change adaptation).** In human systems, the process of adjustment to actual or expected climate and its effects, to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects.

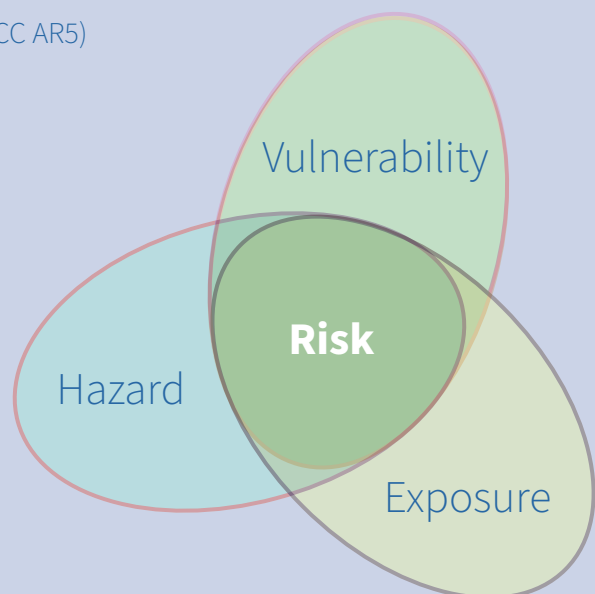
A simplified way of considering the relationship between these two concepts is that *adaptation* is what is done to achieve or contribute towards *climate resilience*. Given that the overall objective of the CBRT is to help mobilise and scale up capital flows that contribute towards achieving climate resilient economies, societies, and natural systems, the CBRT uses the term climate resilience to frame what it is aiming to achieve.

Figure 1: Determinants of physical climate risk (from IPCC AR5)

**Hazard:** The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources.

**Exposure:** The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected.

**Vulnerability:** The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.



## c. Core principles

The CBRT is underpinned by seven core principles that ensure its robustness, flexibility, and applicability across diverse contexts:

- **Principle 1: multi-stakeholder approach.** The CBRT has leveraged diverse perspectives from varying regions, economic contexts, sectors, and stakeholders during the development phase. It has drawn from the extensive industry experience, knowledge, resources, and evidence within the resilience domain. This approach also fosters consensus and ensures widespread adoption.
- **Principle 2: global applicability.** Climate resilience is highly context-specific and place-based. However, leveraging global capital markets necessitates a universal approach that facilitates cross-border investment flows. The CBRT is designed without regional or local biases but remains flexible for local adoption while aiming for interoperability through common definitions, principles, and structures. For example, it avoids setting specific thresholds within criteria and opts for uniform, harmonised metrics instead. Similarly, it refrains from prioritising sectors or investments, enabling countries or users to align it with their national adaptation plans or other resilience strategies and prioritisation processes.
- **Principle 3: usability and clarity.** Developed with end-users in mind, including financial institutions, corporates, and investors, the taxonomy is accessible even to those who are not climate experts and may have limited access to data. By following a logical, systematic approach, the CBRT ensures consistency and coherence and thus clarity. It has drawn on consultation with users and employed Climate Bonds expertise on taxonomies and usability challenges.
- **Principle 4: granularity.** Many existing guides and taxonomies for climate resilience (or adaptation) take a high-level, process-based approach, whereas the CBRT provides detailed activities and measures across numerous sectors. This approach addresses the need for clarity and precision in the identification of resilience investments, reducing the risk of greenwashing that can deter engagement from both investors and issuers. However, granularity is balanced with flexibility by taking a globally applicable approach as described in Principle 2 and still leverages process-based approaches where needed.
- **Principle 5: dynamic.** The CBRT is designed with a forward-looking approach, with plans for regular reviews, version updates, and road-testing/piloting to refine its effectiveness. As new investments are identified, the CBRT will expand to provide broader coverage, recognising that while it may never be exhaustive, it will continually increase its scope over time.
- **Principle 6: science and evidence-based.** Investments included in the taxonomy are supported by strong evidence in literature and research, demonstrating that they can contribute towards climate resilience while avoiding maladaptation and significant harm to other sustainability objectives. Each investment is linked to specific climate hazards and impacts, preventing the inclusion of business-as-usual investments that lack a clear contribution to resilience. Moreover, the CBRT Criteria and guidance draw from the best available research and science, including those from the IPCC and other credible, recognised sources.
- **Principle 7: systemic and multi-sectoral.** Recognising that resilience is crucial across all aspects of society, ecosystems, and economies, this principle ensures that the CBRT considers a wide range of sectors. It defines resilience comprehensively, moving beyond traditional physical measures aimed at protecting infrastructure from specific risks like flooding or climate hazards. While these are critical and included in the CBRT, it also considers investments that address underlying vulnerabilities and impacts when clearly associated and substantiated as related to climate change, such as social and economic inequalities that exacerbate climate impacts.

## d. Use cases

The CBRT has a wide range of applications and use cases. The main users of the CBRT are expected to be the following:

- **Government bodies** including regulators, ministries, treasuries, municipalities/city authorities, state-owned enterprises, etc.
- **Financial Institutions** such as banks, investors, asset managers, insurers, DFIs, etc.
- **Real economy entities** including corporates and other non-financial businesses, etc.
- **Market observers** such as SPO providers, credit rating agencies, standard setters, etc.
- **International organisations and development partners** such as UN agencies, climate finance mechanisms, OECD, bilateral donors, etc.

Government bodies, financial institutions and businesses are all likely to use the CBRT in sustainable debt issuances, which could entail both:

- supporting the issuance of sovereign, sub-sovereign, corporate or FI debt that credibly builds climate resilience; and
- guiding investors and underwriters to assess the credentials of climate resilience debt issuances.

Beyond debt issuance, these user categories may leverage the CBRT for various other purposes:

- **Government bodies** may use the CBRT to guide budget planning and tagging (sectoral and macro), directing fiscal incentives towards resilience investments, contributing to the development of national and regional climate resilience taxonomies and standards, and influencing other government financial levers such as development allowances, licensing powers, incentives, and procurement requirements.
- **Financial institutions** may employ the CBRT to advise investors on assessing the credibility of resilience investment opportunities, shaping taxonomy-aligned financial services and products (e.g., investment funds, etc.), enhancing the insurability of assets through the implementation of resilience measures and activities, and supporting DFIs in identifying resilience investments for concessional finance and de-risking.
- **Real economy firms** may use the CBRT to inform corporate strategic decision-making, reporting and disclosures related to resilience initiatives.
- **Market observers** such as SPO providers and credit ratings agencies may use the CBRT to inform the assessment, screening, and assurance of the credentials of resilience investments and actions.

Table 2: Summary of CBRT Use Cases

	Debt issuances (bonds & loans)	Other applications
<b>Government</b>	Support issuance of sovereign and sub-sovereign corporate or FI debt that credibly build resilience  Guide investors and underwriters to assess the credentials of resilience debt issuances	Guide budget planning and tagging
<b>Financial Institutions</b>		Direct fiscal incentives to investments in resilience
		Support the development of national and regional taxonomies and standards on A&R
		Guide investors on how to assess the credibility of resilience investment opportunities
<b>Real Economy Sectors</b>		Underpin the design of financial services and products that are taxonomy aligned
		Support DFIs in identifying resilience investments for concessional finance and derisking
		Inform corporate strategic decision-making, reporting and disclosures
<b>Market observers</b>	n/a	Inform assessment, screening & assurance of the credentials of resilience investments and/or action

### 3. Investment types covered by the Climate Bonds Resilience Taxonomy (CBRT)

#### a. Basic types of investments covered

The CBRT covers two basic types of investments: activities and measures, as defined in Table 3. This ensures that the CBRT covers a broad range of investment types that can contribute in a range of ways to building climate resilience.

	Definition	Examples
<b>Activity</b>	An (economic) activity delivering goods or services	<ul style="list-style-type: none"> <li>• Production of steel</li> <li>• Production of crops</li> <li>• Provision of drinking water</li> </ul>
<b>Measure</b>	Specific intervention within an asset, activity or entity	<ul style="list-style-type: none"> <li>• Installation of new equipment within a production facility</li> <li>• Adoption of new technologies, practices or operational changes within a facility</li> </ul>

#### b. Adapted/adapting investments and enabling investments

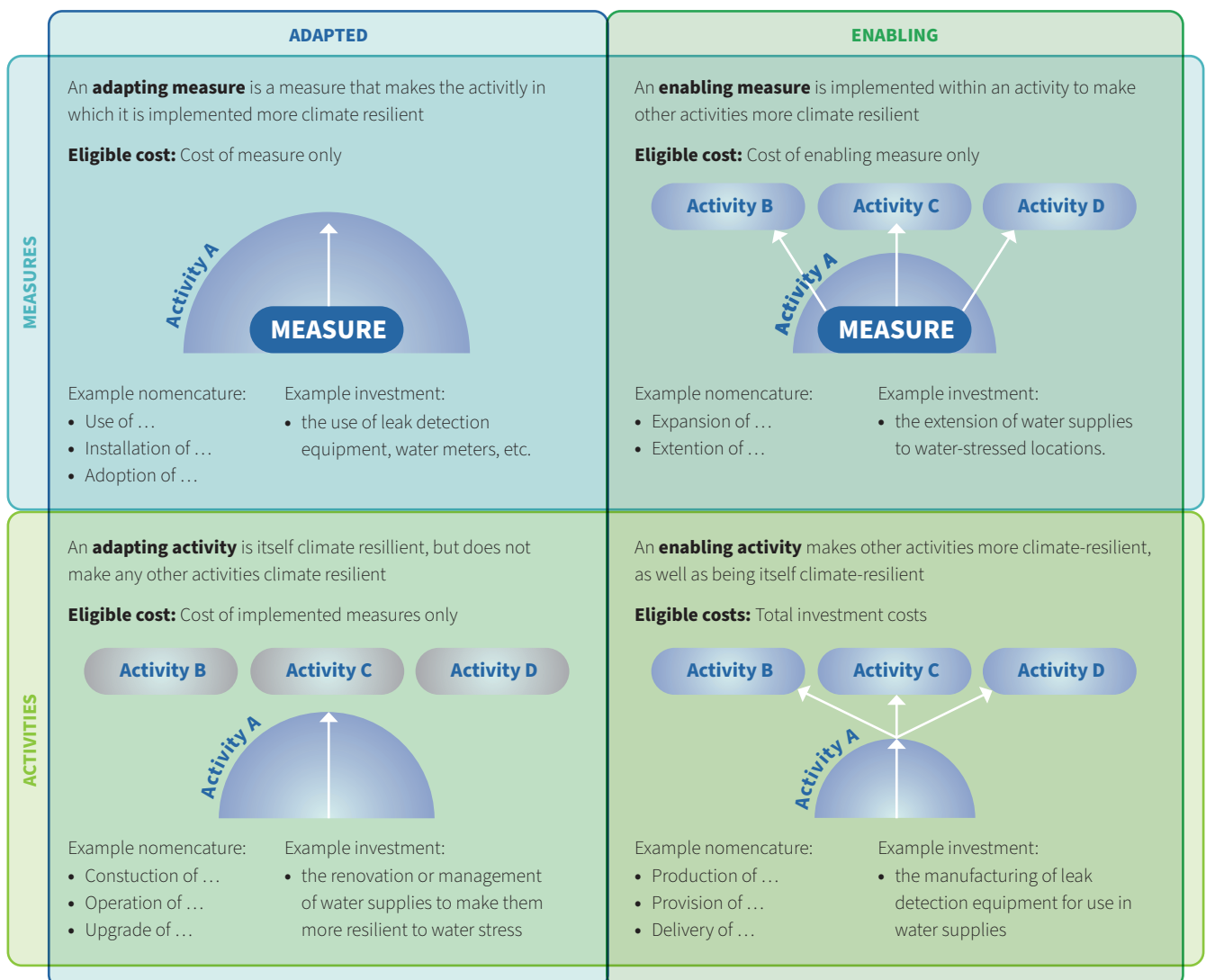
The CBRT incorporates an additional lens to classify activities and measures as either adapted or enabling. The distinction between adapted and enabling investments used in the CBRT draws upon the widely recognised distinction between adapted activities and enabling activities that is set out in the EU Sustainable Finance Taxonomy (adaptation objective). By layering the consideration of the purpose of the investment onto measures and activities, the CBRT is able to cover a broad range of investment types that can contribute in a range of ways to building climate resilience.

Moreover, the adapted/enabling lens helps in characterising investments accurately, allowing for the development of tailored criteria that reflect the investment’s nature, contribution, and objectives related to resilience. This categorisation also provides the basis for the identification of climate resilience-related costs within investments.<sup>13</sup> This is further detailed in the section below.

#### c. The Four Investment Types

The CBRT is comprised of four investment types as defined and depicted in the figure below and described in detail in this section:

Figure 2: Four specific investment types covered by the CBRT





**Adapting measure:**

This refers to a specific action or intervention taken within an activity to make it more climate resilient. The term adapting is used instead of adapted because the focus is on whether the measure improves the resilience of the overall activity within which it is implemented. Examples of adapting measures include the installation of leak detection equipment in residential buildings to build resilience to water stress, upgrading crop storage facilities to adapt to heat stress, or community education programmes on water conservation methods and storage solutions. Some adapting measures are tagged as climate resilience solutions in the taxonomy (See Box 2).

Only the cost of the adapting measure itself is eligible for resilience financing, not the cost of the entire asset or activity within which it is implemented. This is because resilience financing is specifically intended to support actions that directly contribute to reducing climate risk. The broader asset or activity may have other purposes beyond enhancing resilience, so only the expenses directly related to the adapting measure are considered eligible.

**Box 2: Definition of a climate resilience solution**

A climate resilience solution is a technology, product, service, information set, or practice that, by design, has the dedicated purpose of providing a specific and substantial contribution to reducing the climate vulnerability of the party that adopts or uses the solution, and/or of other parties who may benefit from its use or adoption. Some adapting measures are defined by the CBRT as climate resilience solutions, but not all. In the CBRT, investments are tagged as climate resilience solutions to support users in filtering and identifying them easily.

**Adapted activity:**

This refers to an economic activity that has implemented specific adapting measures to make it more climate resilient to the target climate impacts that it is intended to address, bringing the risk down to an acceptable level. For example, upgrading a building to be more fire-resistant, operating water supply systems to withstand drought, or providing healthcare services that can continue functioning during extreme weather events.

An adapted activity is climate resilient, with the primary purpose of the investment being to enhance the resilience of a specific economic activity. While it may also contribute to the resilience of other activities due to the interconnected nature of assets and activities, this is not the main intention.

For an adapted activity, only the costs associated with implementing the adapting measures are eligible for resilience financing, not the entire cost of the asset or activity-like adapting measures. This is because resilience financing is specifically intended to support actions that directly reduce climate risk.

Even though there is no difference in what counts as a resilience investment between adapting measures and adapted activities, making this distinction is still useful. Demonstrating that an entire activity is resilient to key climate impacts increases its attractiveness to investors, as it ensures that the activity can withstand climate hazards and continue to deliver on its intended objectives. This is especially important for activities that contribute to other goals, such as climate mitigation or essential services, as these benefits can only be achieved if the activity remains functional. By demonstrating that an investment is for an adapted activity, investor confidence in the long-term viability and effectiveness of the investment is increased.

**Enabling measure:**

This refers to a specific intervention implemented within an economic activity with the primary intention to enhance the resilience of one

or more other economic activities. Unlike adapting measures, which concentrate on making the activity itself more resilient, enabling measures aim to strengthen the resilience of other activities.

This distinction is important because enabling measures introduce a systems perspective to the taxonomy, highlighting how interventions can enhance the resilience of other interconnected activities or systems. These measures typically involve expanding or extending existing essential services and activities with the primary goal of addressing climate impacts and supporting the resilience of other systems or communities. For example, expanding the coverage of mobile health clinics in flood-affected areas primarily builds the resilience of the communities impacted by floods, rather than just improving the health system itself.

Another example is extending a water supply system to support a water-stressed community. The primary focus here is not on making the entire water supply system more resilient (though that is beneficial and encouraged), but rather on improving water access and resilience for communities that are currently underserved and vulnerable to water stress. The goal is to enhance the resilience of these communities by ensuring they have reliable access to water, which in turn supports their overall climate resilience.

Ensuring that the enabling measure is also itself resilient is crucial for investor confidence, as it guarantees that the enabling measure can reliably support the resilience of other systems over the long term. If the enabling measure is vulnerable to climate hazards and fails to deliver the intended resilience outcomes, the investment's value and impact may be compromised.

Similar to adapting measures and adapted activities, only the costs directly associated with implementing the enabling measure itself can be counted as resilience financing. This ensures that the focus remains on the specific actions that contribute directly to enhancing climate resilience, rather than the broader costs of the entire activity, which may serve additional purposes beyond resilience.

**Enabling activity:**

This refers to an activity that has the primary purpose of enhancing the climate resilience of other activities or systems. Enabling activities provide, produce, or deliver technologies, products, services, information sets, or practices specifically aimed at reducing climate vulnerability for the adopter or other beneficiaries, also referred to as Climate Resilience Solutions (refer to Box 2)

For example, the production of leak detection equipment improves the resilience of water distribution networks by preventing water loss and maintaining a reliable supply even under climate stress. Similarly, health-related information technology systems enhance the resilience of health services by improving their ability to respond to increasing outbreaks and incidences of disease caused by climate impacts. These activities focus on creating solutions that enhance the climate resilience of other systems or services, making them crucial for broader resilience efforts.

While it is important for these activities to be resilient themselves to ensure they can deliver their intended function amidst climate impacts, due to the high-impact nature of these activities on resilience outcomes, the requirements in the CBRT for demonstrating that enabling activities are themselves adapted are lighter-touch than for other investment types. This is discussed further in Section 6(b) and Annex V.

For enabling activities, the entire cost of the activity is eligible for resilience financing, which also sets them apart from other investment types, such as adapting measures and adapted activities, where only the costs directly associated with specific resilience measures are eligible. Since the primary purpose of enabling activities is to enhance the resilience of other systems or activities, the full cost of the economic activity is considered eligible as resilience investment.

**Summary**

The four investment types in the CBRT are interlinked, but they differ in their primary outcomes. Some investments are focused on building the resilience of a specific asset or activity, enhancing its ability to withstand climate impacts. Others aim at achieving broader systemic resilience, contributing to the overall resilience of systems and communities. This distinction highlights the diverse pathways through which investments can enhance climate resilience.

**d. Families of investments**

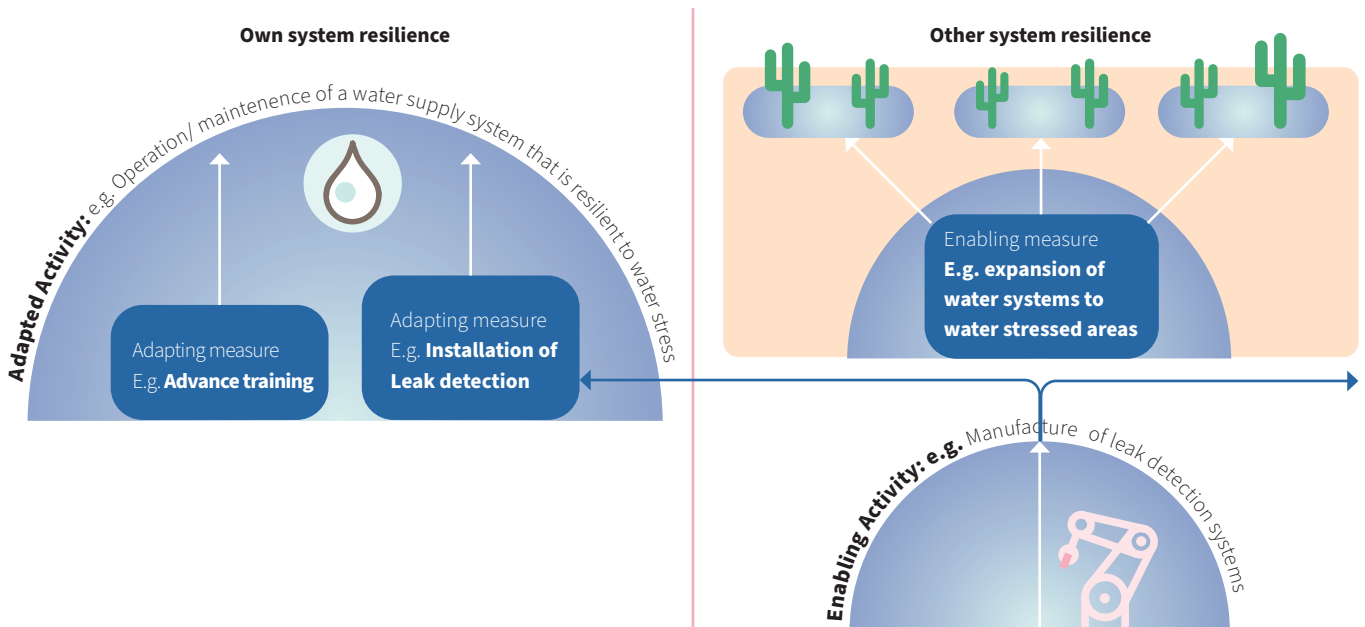
All investments within the CBRT have been categorised or tagged under one of the four investment types described above. The CBRT is also organised into families of investments, which group together investments across these four types that tackle the same climate impact within specific sub-sectors. This organisational structure illustrates how different investment types may be deployed to address given climate impacts. It also enables users to identify synergies more easily in addition to facilitating targeted strategies and more effective allocation of resources to achieve comprehensive climate resilience outcomes.

An illustration is provided through the example of investments that make **water supplies** (sub-sector) more resilient to **water stress** (hazard consequence). Specifically, investments that may contribute towards climate resilience by making **water supplies more resilient to water stress**, may include:

- **adapting measures** such as installing leak detection equipment and systems,
- **adapted activities** such as operating water supply systems to make them more resilient to water stress,
- **enabling measures** such as extending water supply networks to cover water-stressed locations, and
- **enabling activities** such as the production of leak detection equipment and systems that may be installed in water supply networks.

Enabling measures

Figure 3. Example of investments that make water supplies more resilient to water stress



## 4. Climate Bonds Resilience Taxonomy (CBRT) structure

The CBRT organises climate resilience investments and their associated criteria according to the sector and sub-sector in which they arise. This follows the approach of existing taxonomies by adopting structures that align with widely recognised sector classification systems such as NACE, ISIC or NAICS. The CBRT uses a breakdown of sub-sectors that represent specific and identifiable economic activities to aid navigation and use by economic actors. Sectors are organised under a set of seven Climate Resilience themes (See Figure 4 below) that organise the very broad range of investments that can contribute towards climate resilience, drawing from a range of authoritative sources, including the Sustainable

Development Goals (SDGs), Nationally Determined Contributions (NDCs) under the Paris Agreement, IPCC AR6, and others.

### a. Thematic & sectoral structure

Figure 4 presents the seven CBRT Climate Resilience themes (Resilient Agri-Food Systems, Resilient Cities & Settlements, Resilient Health Systems, Resilient Industry & Commerce, Resilient Infrastructure, Resilient Natural Systems, Resilient Social Systems). This thematic structure was defined in the 2023 Climate Bonds Resilience Taxonomy White Paper and has subsequently been used in several other related materials.<sup>14,15,16</sup>

Figure 4: CBRT Climate Resilience Themes



Table 4. Overview of the CBRT structure: themes, sectors and sub-sectors

THEMES	SECTORS	SUBSECTORS	
<b>Resilient Agri-Food Systems</b> 	Agricultural production	Animal production Agro-forestry	
	Aquacultural production	Fishing Other aquacultural production	
	Agri-food logistics, processing & retail	Wholesale of agricultural produce Manufacture of food & beverage products Retail of food products	
	<b>Resilient Cities &amp; Settlements</b> 	Construction & real estate activities	Construction, upgrade and maintenance of Residential buildings
			Construction, upgrade and maintenance Commercial buildings
			Construction, upgrade and maintenance Industrial buildings
Construction, upgrade and maintenance of Hospitals & other healthcare buildings			
Construction, upgrade and maintenance of Community buildings including schools			
Urban systems	Urban planning & management		
<b>Resilient Health Systems</b> 	Healthcare facilities	Operation of hospitals, clinics, nursing homes etc.	
	Human Health services and activities	Delivery of treatment and care	
		Emergency health services	
<b>Resilient Industry &amp; Commerce</b> 	Mining & quarrying	Mining & quarrying	
	Forestry & logging	Commercial timber production	
	Manufacturing	Process manufacturing	
		Pharmaceuticals & biotechnology	
		Technology manufacturing	
		Other discrete manufacturing	
	Commercial trade	Wholesale trade	
		Retail trade	
	Logistics services	Warehousing & storage	
		Logistics information management	
	Hospitality	Tourism	
		Leisure	
	Financial and insurance activities	Banking	
		Insurance	
	Other services	Scientific & engineering services including R&D	
Data & information services			
Other office-based services			

Table 5: Adaptation and Resilience scorecard

THEMES	SECTORS	SUBSECTORS
<b>Resilient Infrastructure</b> 	Energy	Hydropower generation
		Wind power generation
		Solar power generation
		Geothermal generation
		Nuclear power generation
		Biomass generation
		Electricity transmission, distribution & storage
	Information and Communication	Construction/operation of Transmission networks
		Construction/operation of Data facilities
	Civil engineering: Transport	Construction of Roads
		Construction/operation of Railways
		Construction/operation of Ports
		Aviation
	Water supply	Water supplies
Desalination		
Wastewater collection & treatment		
Flood management		
Waste management and remediation	Solid waste management	
<b>Resilient Natural Systems</b> 	Terrestrial Ecology	Terrestrial ecosystems
		Terrestrial biodiversity
	Freshwater Ecology	Freshwater ecosystems
		Freshwater biodiversity
	Marine Ecology	Marine ecosystems
		Marine biodiversity
<b>Resilient Social Systems</b> 	Education & awareness	Child education
		Public awareness
	Education & awareness	Social assistance
		Livelihoods support
	Public administration	Maintaining national security
		Disaster risk reduction
	Culture	Preservation of cultural heritage
Management of cultural facilities (e.g. museums, libraries, art galleries, concert halls)		

### Assignment of sectors and sub-sectors to Climate Resilience Themes

Investments can be assigned to multiple themes, sectors or sub-sectors. For example, an investment that provides a climate resilient supply of safe drinking water could be thought of as belonging to both the Resilient Infrastructure and Resilient Health Systems. The CBRT identifies and assigns investments to a **primary** theme, sector or sub-sector based on the theme, sector or sub-sector in which the investment is implemented. It also identifies and assigns investments to a **secondary** theme based on the theme, sector or sub-sector that primarily benefits from the investment. For example, an investment that makes water supplies more resilient to water stress will likely be *implemented* by a water utility

(primary theme: Resilient Infrastructure) while providing *benefits* to the communities served (secondary theme: Resilient Social Systems) and/or contributing towards improved health outcomes (secondary theme: Resilient Health Systems).

This primary/secondary overlaying allows CBRT users to identify all investments relevant to a given theme, sector or sub-sector, regardless of whether they are primary or secondary to that theme, sector or sub-sector. For example, a CBRT user looking to identify investments that contribute towards climate resilient health can find water infrastructure investments that may deliver health-related benefits, even if those investments are primarily assigned to the Resilient Infrastructure theme.

## b. Climate impacts breakdown

The CBRT identifies how each investment contributes to climate resilience by specifying the climate impacts it aims to address, categorised by **hazard consequences** and their **economic, social, and environmental impacts**. This focus on climate hazards and impacts is crucial because it ensures the taxonomy remains directly linked to the effects of climate change, providing a solid justification. By defining the specific impacts to be addressed, the CBRT helps establish clear screening criteria for investments, guiding what should be tested and measured. It also provides a useful search tag for users like investors or property developers who want to target investments that address particular climate hazards, such as wildfires, ensuring their actions are well-aligned with resilience objectives.

These climate impacts are broken down by:

- **hazard consequences**, i.e., the climate conditions resulting from physical climate hazards that directly affect society or ecosystems (see Table 6); and their
- **economic, social & environmental impacts**, i.e., the impacts of hazard consequences on livelihoods, health, ecosystems, economic, social and cultural assets, services (including ecosystem services) and infrastructure (see Table 7).

While these definitions are based on existing categorisations of climate hazards and impacts they are organised here to enhance practicality and useability for CBRT users, by bridging the science basis with real world application.<sup>17,18,19</sup>

The CBRT categorisation covers a wide range of climate impacts relevant to the investments across the Climate Resilience themes, using science-based definitions and sources such as the IPCC. It provides enough detail to reflect the diversity of climate impacts without making the CBRT structure excessively complex for users. This approach ensures a consistent and logical categorisation of the economic, social, and environmental impacts resulting from the consequences of physical climate hazards, such as heatwaves, extreme precipitation, or drought.

The climate impact categorisation of each investment is based on the likely **primary** climate impact. Where there is no obvious primary climate impact, for example, where the investment addresses multiple climate impacts, or the investment's substantial contribution to climate resilience is not hazard-specific (e.g., an investment that addresses crop pest infestations as the possible consequence of various climate hazards), the multi-hazard category has been used. Conversely, if the substantial contribution of a given investment is hazard-specific (e.g., a health sector investment that addresses the adverse health consequences of heat stress specifically) then the specific hazard must be identified.

## c. Transversal elements in the CBRT

There are several cross-cutting elements that span sectors, sub-sectors, and resilience impacts, which may be of particular interest to some users. These include cultural heritage, disaster risk reduction, gender, indigenous people, technology, vulnerable groups, and water. Some of these elements are addressed as sub-sectors (e.g., cultural heritage, disaster risk reduction, technology) because they relate to specific types of investments or activities within distinct sub-sectors. In other cases, these elements reflect climate impacts with particular or disproportionate relevance for certain stakeholders, requiring greater emphasis where needed. For example, gender perspectives may be necessary to address impacts on women and girls, or special consideration may be required for indigenous people or other vulnerable groups. Table 8 outlines how these cross-cutting transversal elements are incorporated into the CBRT.

Table 6: Climate hazard consequences

Hazard consequence	Definition / underlying hazards
<b>Heat stress</b>	Consequences of high temperatures associated with increased mean surface temperature and/or extreme heat events.
<b>Cold stress</b>	Consequences of low temperatures associated with cold spells, frost, permafrost, heavy snowfall & ice storm, snow, glacier & ice sheet, and lake, river & sea ice.
<b>Water stress</b>	Consequences of water scarcity associated with changes in mean precipitation, aridity, hydrological drought, agricultural & ecological drought, or reduced freshwater availability due to saline intrusion.
<b>Flood damage</b>	Consequences of flooding associated with heavy precipitation and pluvial floods, river floods, coastal floods, glacial lake outburst floods and changes in relative sea level.
<b>Storm damage</b>	Consequences of severe windstorms, tropical cyclones, sand & dust storm, hail, changes in mean wind speeds, convective storms
<b>Mass movement damage</b>	Consequences of landslides, coastal erosion, snow avalanches, permafrost thawing, subsidence, other climate-driven mass movement events.
<b>Wildfire damage</b>	Consequences of fire weather associated with the concurrence of high temperatures, aridity and windy conditions.
<b>Changes to marine conditions</b>	Consequences associated with changes in mean ocean temperatures, marine heatwaves, sea water salinity, sea water acidification, marine hypoxia, algal blooms.
<b>Multi hazard</b>	Consequences of multiple concurrent hazards including (but not limited to) shifts in the coverage of pests, pathogens and other disease vectors; soil degradation and soil erosion; and others.

Table 7: Economic, social & environmental impacts

Category	Impact	Definition
<b>Economic</b>	Asset value loss	Reductions in the value of assets including through physical damage and/or reduced insurability, including stranded assets).
	Net revenue loss	Reductions in net revenues including through productivity loss and through increased OPEX requirements.
<b>Social</b>	Population displacement	Internal displacement and/or forced migration.
	Negative health outcomes	Worsened human health outcomes, including mental health.
	Increased gender inequality	Exacerbation of gender-based violence, inequalities and disparities affecting women and/or sexual and gender minorities.
	Increased socio-economic inequality	Exacerbation of inequalities and disparities within society, including people living below the poverty line, indigenous people, and all types of excluded and/or marginalised populations and/or communities based on sexual orientation, beliefs, age, disability, employment, and education, etc.
	Reduced availability of / access to social, cultural & informational resources	Impaired availability of and/or access to resources such as education, culture, skills/training, information, etc.
<b>Environmental</b>	Biodiversity loss	Loss of biodiversity and species richness, including species range shifts
	Ecosystem loss / degradation	Loss, damage or fragmentation of ecosystems including the loss of ecosystem functions and ecosystem services.

Table 8: Integration of Cross-Cutting Elements in the CBRT

Transversal element	How/ where captured in the CBRT
<b>Cultural heritage</b>	<ul style="list-style-type: none"> <li>Included as a sub-sector: Preservation of cultural heritage (under the 'Culture' sector)</li> </ul>
<b>Disaster risk reduction</b>	<ul style="list-style-type: none"> <li>Included as a sub-sector: Disaster risk reduction (under the 'Public Administration' sector)</li> </ul>
<b>Gender</b>	<ul style="list-style-type: none"> <li>Included as a climate impact: Increased gender inequality (under the social impact category)</li> <li>Specific investments that address gendered climate impacts and reduce gender inequality included.</li> </ul>
<b>Indigenous people</b>	<ul style="list-style-type: none"> <li>Included as a climate impact: Increased socio-economic inequality (under social impact category)</li> </ul>
<b>Technology</b>	<ul style="list-style-type: none"> <li>Included as a sub-sector: Technology manufacturing (under the 'Manufacturing' sector)</li> <li>Specific technological measures included as adapting measures identified across multiple themes</li> </ul>
<b>Vulnerable groups</b>	<ul style="list-style-type: none"> <li>Included as a climate impact: Increased socio-economic inequality (under social impact category)</li> </ul>
<b>Water</b>	<ul style="list-style-type: none"> <li>Included as a sector: Water Infrastructure</li> <li>Recognised across a number of climate impacts (i.e. water stress; flood damage)</li> </ul>

# 5. Investment screening: qualifying investments

## a. Screening requirements

As noted, the CBRT provides specific interim screening criteria for assessing the credibility of climate resilience investments. Meeting these criteria ensures that an investment is genuinely contributing to climate resilience and helps prevent greenwashing, i.e., unsubstantiated claims about an investment's positive impact on climate resilience.<sup>20</sup>

These screening criteria take into account three requirements that all eligible investments must meet:

- i. The investment makes a **substantial contribution** to climate resilience.
- ii. Any **maladaptation** risks associated with the investment are managed; and
- iii. The investment **does no significant harm** (DNSH) to other sustainability objectives (specifically climate change mitigation).

## b. Substantial contribution to climate resilience

The concept of a substantial contribution to climate resilience is based on the EU Sustainable Finance Taxonomy's definition of a substantial contribution to adaptation (see Box 3). This definition focuses on reducing the risk of adverse climate impacts or of mitigating the adverse impacts themselves. By defining it as a **substantial** contribution, the EU Taxonomy establishes that an investment must cross a certain threshold to be considered as genuinely contributing to climate resilience.

The EU Taxonomy has established a strong foundation by fostering convergence around common high-level definitions and establishing the concept of substantial contribution. Building on this, the CBRT aims to provide a more detailed approach by defining substantial contribution to climate resilience with clear, investment-level screening criteria that are **measurable** on an ex-ante basis.

Although these criteria are still in draft form and will undergo further review by sector-specific experts, they serve as a foundational starting point for establishing a consistent approach and metrics.

### CBRT Definition of Substantial Contribution

The CBRT approach breaks down the determinants of physical climate risk, as illustrated earlier in this document in Figure 2, and focuses on those factors that an investment may measurably reduce, specifically vulnerability, and in some cases, exposure. Based on this, the CBRT defines a substantial contribution to climate resilience as a *'measurable reduction in vulnerability (or exposure) to climate impacts in the investment context'*.

### The importance of measurability

In the CBRT, **measurable** means that a substantial contribution can be demonstrated through either quantitative metrics or qualitative assessments. This allows for evaluation based on quantitative data or evidence of adherence to best practices and recognised standards, depending on the nature/context of the investment. Measurability ensures transparency and accountability in assessments. Currently, many investments, especially in Use of UoP bonds, are labelled as A&R with limited supporting information beyond basic descriptions of the interventions. By requiring measurable evidence, the CBRT aims to provide a clearer, more rigorous framework for verifying that investments genuinely contribute to reducing climate vulnerability or exposure.

### Vulnerability-based definition of substantial contribution

The CBRT emphasizes **vulnerability and exposure** over climate risk because they provide a more immediate and actionable assessment of climate resilience and adaptation options. Although both vulnerability

### Box 3: EU Sustainable Finance Taxonomy – Substantial Contribution to adaptation<sup>32</sup>

The EU Sustainable Finance Taxonomy defines a substantial contribution to adaptation as 'a substantial reduction of the risk of adverse current/future climate impacts; or a substantial reduction of those adverse impacts, both without increasing the risk of an adverse impact on people, nature or assets'.



This may be delivered through i. directly responding to climate change impacts (direct or indirect), e.g., coastal defences in response to flood risks and immunisation programmes in response to climate-driven infections; or

ii. reducing pressures that exacerbate and/or are exacerbated by climate change impacts (direct or indirect), e.g., reducing water consumption in response to increasing water stress.

and exposure consider future climate projections, they focus on how investments address and adapt to current and foreseeable climate impacts.

The CBRT incorporates both vulnerability and exposure because both are crucial to building climate resilience. However, the CBRT places greater emphasis on vulnerability because addressing it involves tackling the root causes of susceptibility to climate impacts, such as social, economic, or structural weaknesses. While reducing exposure, such as relocating infrastructure from hazard-prone areas, mitigates immediate risks it does not resolve the underlying vulnerabilities that contribute to those risks. By focusing on vulnerability, the CBRT aims to enhance overall adaptive capacity and resilience, leading to more sustainable and long-term solutions.

### Defining the Investment Context

In the CBRT, investment context refers to the specific boundaries or setting within which the impact of a climate resilience investment is assessed. These boundaries must be defined to provide a practical approach for evaluation and to ensure clear attribution of impact, given the inherently interconnected nature of systems and impacts. For example, the investment context could be at the asset level, where the focus is on improving the resilience of physical assets such as infrastructure or buildings. It could be at the community or population level, such as investing in a community-based early warning system for extreme heat events. These examples are illustrative, and other contexts may also apply depending on the specific objectives of the investment. Further guidance on establishing the investment context is provided in Annexes 3, 4 and 5.

## c. Maladaptation

Maladaptation is defined in IPCC AR6 as *'actions that may lead to increased risk of adverse climate-related outcomes, including via increased greenhouse gas (GHG) emissions, increased or shifted vulnerability to climate change, more inequitable outcomes, or diminished welfare, now or in the future. Most often, maladaptation is an unintended consequence.'*<sup>21</sup> The CBRT builds on this concept by using a more focused definition of maladaptation through the lens of physical climate risk assessment in the investment context. It also separates out issues related to increased GHG emissions, which are instead handled under DNSH to mitigation (see the following section).



Maladaptation for the purposes of the CBRT is defined as the risk of an unintended measurable increase in vulnerability (or exposure) in the investment context and/or in the wider system within which the investment is situated. This may be the result of physical climate risk uncertainty, or of miscalculation that leads to increased vulnerability (or exposure) to the climate impact that the investment is intended to address. It may also be caused by a failure to consider system boundaries that leads to increased vulnerability (or exposure) to physical climate risks that are externalities to the investment context. Some examples of maladaptation include:

- Investment in the introduction of heat-tolerant crop varieties: if not suited to local climate and temperature conditions, the investment may increase the vulnerability of agricultural livelihoods and food security. For example, heat-tolerant maize varieties were introduced in parts of Africa to enhance agricultural resilience to higher temperatures. However, some of these varieties have underperformed under local climate conditions, resulting in reduced crop yields and increased vulnerability for farmers.<sup>22</sup>
- Investments in large-scale irrigation projects. The introduction of large-scale irrigation systems in regions such as parts of South Asia and China has sometimes led to maladaptation. For instance, the expansion of irrigation in arid regions has led to a rise in groundwater levels and soil salinisation, which in turn has adversely affected local agriculture and reduced resilience to climate impacts.<sup>23</sup>
- Investment in coastal protection infrastructure. A notable example is the construction of seawalls in coastal cities like New York and New Orleans. While these structures were intended to protect against storm surges and sea-level rise, they have sometimes led to maladaptation. For example, the expansion of flood barriers in the Netherlands inadvertently increased flood risk in adjacent areas due to shifting water flow patterns and inadequate consideration of long-term climate projections.<sup>24</sup>

These examples highlight the critical need to consider local conditions, long-term climate projections, and system interactions to avoid unintended negative outcomes in adaptation efforts. The key guiding questions that should be asked when considering the potential for maladaptation associated with a given investment are the following:

- Have the inherent uncertainties in climate change projections been carefully considered, and have appropriate approaches for decision-making under such uncertainty been applied, such as use of multiple climate scenarios?
- Have the investment's system boundaries been carefully assessed taking a wider perspective to ensure that potential adverse impacts on other economic activities, people, or social and natural systems beyond the investment been fully considered?
- Has a precautionary principle been applied to minimise the risk of any unintended increase in vulnerability (or exposure) of any parties to climate change impacts, whether within the investment context or the wider system within which the investment is made?

The CBRT has adopted a pragmatic approach to identifying the potential for maladaptation by using expert judgment to flag, where possible, adapting measures that are commonly associated with higher risks of maladaptation. For all other investment types, maladaptation risks are considered as part of the process-based assessment criteria.

In the next development phase, the sector-specific TWGs will conduct a more thorough investigation into maladaptation risks for the different types of investments included in the CBRT.

## d. Do no significant harm to climate mitigation and to other sustainability objectives

The concept of Do no significant harm (DNSH) is derived from frameworks such as the EU Taxonomy Regulation (EU 2020/852) and has been widely adopted across various international taxonomies. It represents a standard benchmark to ensure that investments contributing to one objective do not significantly harm any other environmental or social objectives.<sup>25</sup> The CBRT also draws on other widely accepted good practices in environmental and social safeguards such as IFC Performance Standards, Equator Principles, etc.

Integrating DNSH ensures a holistic approach to sustainability by balancing resilience with mitigation other critical environmental and social considerations. Thus, to be eligible under the CBRT, all investments must avoid:

- undermining climate mitigation objectives by causing a significant increase in GHG emissions (e.g., high energy-intensity and/or fossil fuel use);
- undermining other environmental objectives by causing significant environmental harm (e.g., unsustainable water use or ecosystem loss); or
- undermining social objectives by causing significant adverse social impacts (e.g., flood diversion schemes that require involuntary resettlement of communities).

Similar to the approach for identifying maladaptation risks, the CBRT incorporates the DNSH principle by using expert judgment to identify and flag investments that may undermine climate mitigation, cause environmental damage, or have adverse social impacts. Investments with higher potential for significant harm have been flagged and require a process for evaluation per the guidelines described below. In the next development phase, sector-specific TWGs will conduct more detailed assessments to refine and develop criteria for DNSH as relevant and appropriate.

The CBRT addresses DNSH considerations for climate mitigation objectives separately from other social and environmental concerns. This distinction helps ensure that investments do not undermine key climate goals, particularly because investors focused on climate solutions are likely to use the CBRT and need to evaluate both mitigation and adaptation. For practicality, the CBRT has grouped other social and environmental concerns together and flagged where there are well-known risks of harm.

### Assessing DNSH to mitigation

The CBRT identifies investments with potential for significant harm to mitigation at both measure-level and activity-level. This approach ensures that both the specific measures implemented and the broader activities they are part of are considered. For example, an investment in flood-resilient breakwaters (*measure*) within a port that operates as a hydrocarbon terminal (*activity*) should take into account DNSH to mitigation at the activity level, even if the measure itself is not flagged as having the potential for DNSH to mitigation. In this example, even though the breakwaters themselves do not pose a significant risk to climate mitigation, the broader activity could still undermine mitigation efforts. This approach helps prevent A&R investments from unintentionally locking in high-emissions activities and undermining decarbonisation goals.

Currently, the CBRT does not include DNSH criteria for climate mitigation. Instead, it flags investments that are known to pose risks to mitigation efforts. Users should apply existing, external criteria or frameworks to assess DNSH to mitigation for these flagged investments. These may include, for example, EU Taxonomy DNSH to mitigation criteria (if in the EU), other national/regional sustainable finance criteria for DNSH to mitigation, or the Joint MDB Paris Alignment Approach.

If no applicable criteria or frameworks are available or appropriate to the investment context, then as a fall-back, investments must be checked to ensure:

- there is no lock-in of fossil fuel use, and
- there is no significant increase in GHG emission intensity per unit.<sup>26</sup>

Investments with inherently high risk of significant harm to mitigation (e.g., extraction of fossil fuels, fossil fuel power generation) are excluded from the CBRT.

### DNSH to other environmental & social objectives

The CBRT flags investments that have known potential for significant harm to other environmental and social objectives, such as pollution prevention or labour conditions. These flagged investments must be checked for DNSH to other environmental and social objectives. As noted, this initial flagging process is based on high-level expert judgement rather than sector-specific methodology and no detailed criteria have been provided at this stage.

Users of the CBRT should use existing, externally defined criteria or frameworks for checking DNSH to other environmental and social objectives in flagged investments. This may include using relevant guidance on environmental and social risk management, national legislation and regulations on environmental and social impact assessment or equivalent, [such as the IFC Performance Standards on Environmental and Social Sustainability, Equator Principles](#), the UN Global Compact, the [Higher Ground Foundation's Standard Framework](#), the EU Taxonomy, or others.<sup>27,28,29,30,31</sup>

Table 9: Examples of investment-level checks for DNSH to mitigation

	Investment	Potential SH to mitigation	Potential means of checking DNSH to mitigation
<b>Measures</b>	Irrigation management <i>(to make crop production more resilient to water stress)</i>	Increased energy use and GHG emissions due to use of irrigation pumps	<ul style="list-style-type: none"> <li>• Check at the activity-level (e.g. production of crops) to ensure that there is no fossil fuel lock-in or significant increase in GHG emission intensity (e.g. per tonne of crop produced)</li> </ul>
	Conventional cooling e.g. fans, air conditioning <i>(to make commercial buildings more resilient to heat stress)</i>	Increased energy use and GHG emissions	<ul style="list-style-type: none"> <li>• Product (cooling system) is best available technology as demonstrated by an energy efficiency standard/label and/or is a fossil fuel free substitute</li> </ul>
<b>Activities</b>	Renovation or management of commercial buildings <i>(to make commercial buildings more resilient to extreme heat)</i>	Increased energy use and associated GHG emissions	<ul style="list-style-type: none"> <li>• Check that there is no fossil fuel lock-in or significant increase in GHG emission intensity (e.g. per m2 of floorspace); OR</li> <li>• Use EU Mitigation Taxonomy DNSH criterion i.e. that 'the building is not dedicated to extraction, storage, transport or manufacture of fossil fuels'</li> </ul>
	Provision or expansion of weather-related insurance schemes <i>(to make various economic activities more resilient to multiple climate hazards)</i>	If the insurance scheme covers a high-emitting economic activity, then it could facilitate fossil fuel use and associated GHG emissions	<ul style="list-style-type: none"> <li>• Use EU Mitigation Taxonomy DNSH criterion i.e. that 'the activity does not include insurance of the extraction, storage, transport or manufacture of fossil fuels or insurance of vehicles, property or other assets dedicated to such purposes'</li> </ul>

## 6. Framework for developing and applying screening criteria for substantial contribution to climate resilience

As stated in section 5(b) of the document, the CBRT defines a substantial contribution to climate resilience as a *measurable reduction in vulnerability (or exposure) to climate impacts in the investment context*. To confirm that an investment makes this substantial contribution, criteria are needed to verify this reduction. Therefore, the screening criteria should be able to permit the following:

- **Be used ex ante.** An investment’s substantial contribution to climate resilience may need to be checked before the investment has taken place to ensure it aligns with the intended reduction in vulnerability or exposure. This allows for proactive decision-making based on expected results rather than relying only on observed.
- **Attributable to the investment.** The benefits should directly result from the specific interventions provided by the investment, not from external or unrelated factors.
- **Defined at the output-level.** The outputs of an investment are easier to measure on an ex-ante basis than outcomes (see Box 3 below for further description of output and outcomes in the CBRT).<sup>33,34</sup>

The CBRT screening criteria for substantial contribution vary for the four investment types defined in Section 3(c) adapting measures, adapted activities, enabling measures, and enabling activities.

Adapting measures are the foundational elements of all the other investment types. They can be:

- implemented/installed to make an activity adapted,
- produced/manufactured by an enabling activity, and
- deployed in different context to build resilience externally.

For adapting measures, a graduated approach to criteria development has been employed, starting with the simplest solutions, such as a list of automatically eligible investments to minimize the process burden. More detailed, process-based criteria for adapting measures are introduced only when necessary to assess substantial contribution, avoid maladaptation, or prevent harm.

### BOX 3. Substantial contribution to outputs and outcomes

**Output-level substantial contribution** focuses on the immediate, measurable results of an investment, such as products, capital goods, or services that directly reduce climate vulnerability. For example, installing green roofs in residential buildings produces the measurable result of improved heat absorption by the building structure. This improvement in heat absorption is considered the ‘substantial contribution’ to climate resilience at the output level, and criteria are developed to substantiate this impact.

**Outcome-level substantial contribution** represent the broader, longer-term impacts of an investment. As illustrated with the green roofs example, the output is enhanced heat absorption by the building structure, while the outcome is the resulting lower indoor temperatures during heat stress, which benefits the comfort and health of the inhabitants.

Understanding the causal linkage between outputs and outcomes helps frame what to measure, ensuring that criteria focus on immediate outputs, which are more practical to assess ex-ante while still considering their potential longer-term impacts. This approach is particularly important for enabling measures and activities, where demonstrating how outputs lead to meaningful long-term outcomes is key to validating their ‘enabling’ contribution.

For adapted activities, enabling measures, and enabling activities it is essential to verify which adapting measures were adopted, how they were selected, and whether the criteria for those measures were met and thus the screening criteria employ a process-based assessments. Figure 5 below illustrates this approach, followed by further details on the approach taken for developing criteria for each of the investment types.

Figure 5. Illustrates this approach, followed by further details on the approach taken for developing criteria for each of the investment types.

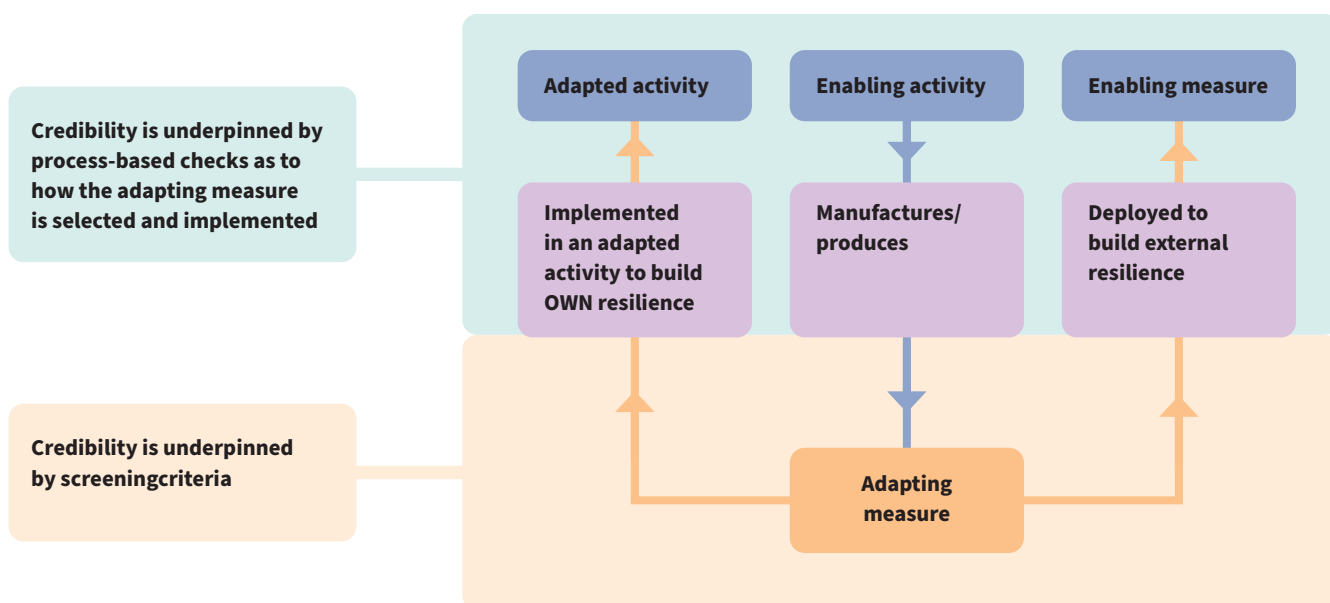
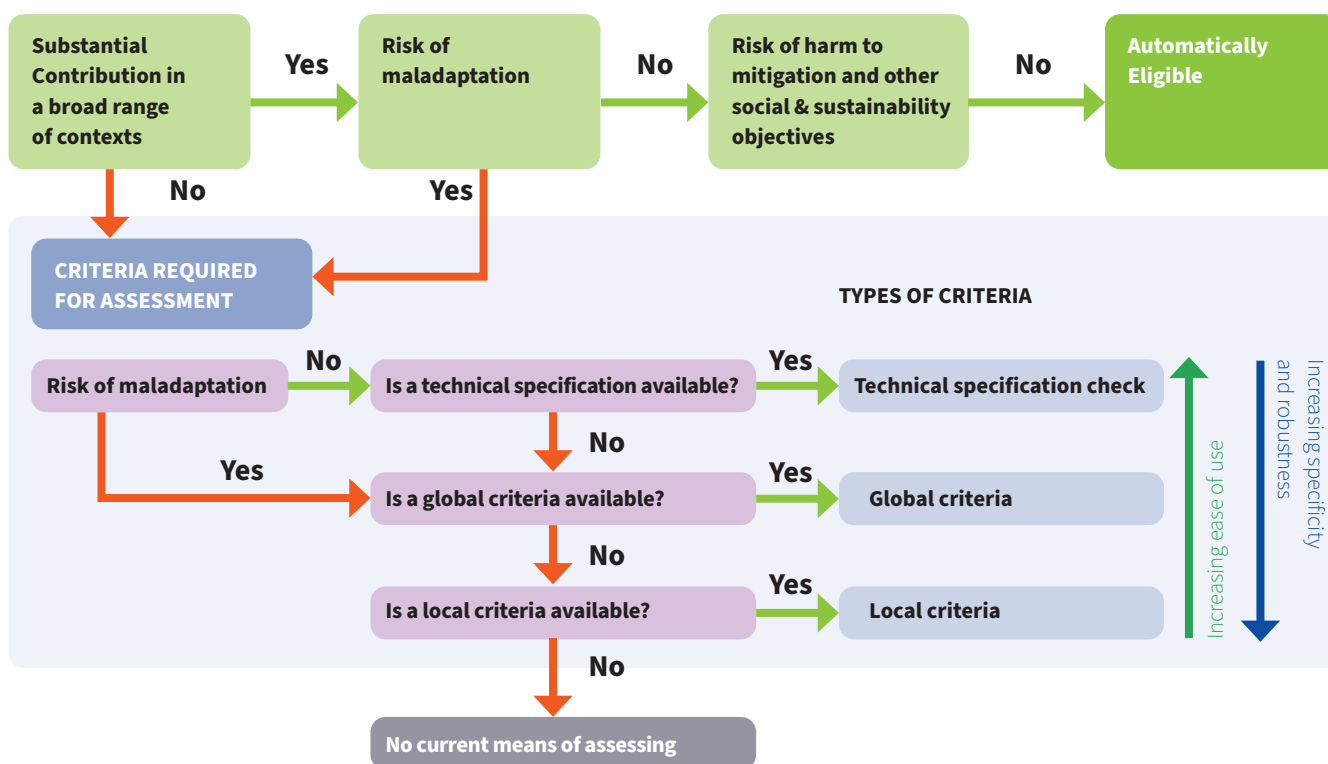


Figure 6: Determination of screening criteria for adapting measures



### Adapting measures: types of screening criteria

For adapting measures, the need for screening criteria and their nature are determined based on a consideration of i) whether the investment can deliver a substantial contribution to climate resilience across a broad range of contexts; and/or ii) whether the investment poses potential maladaptation risk. Screening criteria for adapting measures may be quantitative or qualitative and the means of checking them will vary as detailed in the following section and illustrated in Figure 6.

The approach is designed to make the process as straightforward as possible for users whenever feasible. The principle is to reduce the assessment burden by allowing clear, beneficial investments to pass through easily, introducing more complexity only when necessary.

#### No screening criteria (automatically eligible)

While most adapting measures will need to be tested against criteria to confirm their eligibility, 429 adapting measures have been determined to be automatically eligible under the CBRT and do not have associated screening criteria. As shown in Figure 6, the determination of whether an adapting measure is automatically eligible has been made in line with expert judgement (supported by literature reviews) on whether the investment can a) deliver substantial contribution to resilience across a broad range of contexts; b) has low risk of maladaptation; and c) minimal risk of doing harm to mitigation, environmental, or social objectives. A precautionary principle has been applied, meaning that if there is insufficient evidence to confidently determine that an investment meets these requirements they have not been included in the automatically eligible category.

For automatically eligible investments only, the CBRT does not require verification that an investment is needed in a given context on the basis of a physical climate risk assessment. This is because the CBRT operates on the assumption that issuers will only seek to raise capital for such an investment when they have a clear need and justification for it. However, users are encouraged to disclose information on how these investments contribute to climate resilience objectives. Examples of automatically eligible investments are provided in the table 10.

Table 10: Examples of automatically eligible investments (adapting measures)

Investment	Interim Screening Criteria
Installation of permeable paving and other external surfaces (Flood Damage)	N/A
Sending early warning system alerts for extreme precipitation (Storm Damage)	N/A
Installation of automated water control systems (Heat Stress)	N/A
Monitoring temperature and evapotranspiration datasets (Water Stress)	N/A

#### Technical Specification Check

All adapting measures that cannot guarantee a substantial contribution to climate resilience across a broad range of contexts require criteria to assess their substantial contribution. If there is no risk of maladaptation and suitable metrics exist to measure substantial contribution, then technical specification criteria are preferred. These types of criteria require minimum processes by end-users to confirm alignment. Technical specification criteria allow for the verification of the inherent quality of the measure, regardless of the implementation context. They are based on externally recognised benchmarks, performance standards, industry codes, standards, guidance or certifications with defined thresholds that can be readily verified with evidence from a manufacturer, industry association, certifier or other relevant body. These technical specifications-based criteria will be reviewed and confirmed by TWGs during the next phase of CBRT development. Wherever possible, this method is preferred due to its simplicity and practicality.

Table 11: Examples of technical specification check criteria (adapting measures)

Investment	Interim Screening Criteria
<b>Installation of fire-resistant building materials, fixtures and equipment (Wildfire Damage)</b>	[x] length of time that materials can withstand fire exposure
<b>Heat-resistant processing equipment and machinery (Heat Stress)</b>	Machinery operation continuity under [x] °C temperature
<b>Creation of infiltration ponds (Flood Damage)</b>	Water Absorption Capacity in [x] m <sup>3</sup>
<b>Development of curriculum design for health worker roles during emergencies (Multi Hazard)</b>	Percentage of projected health worker role competency needs met by curriculum design

### Investment-level assessment against a global threshold

Adapting measures that entail potential maladaptation risk cannot use technical specification criteria because they require a detailed investment-level assessment to identify and address such risks. Even if an investment delivers its substantial contribution to climate resilience across a broad range of contexts, a process-based assessment is necessary to avoid maladaptation. This involves evaluating the investment against a global threshold where appropriate and available. If not available, a local assessment is required as described in the next section.

Global thresholds are defined as investment-specific criteria that align with globally recognised best practices, industry standards, or regulations. For each investment, the achievement of the defined threshold must be assessed by the end-user against a counterfactual, which is the current actual performance (for existing assets) or current industry practice (for new assets). This comparison ensures that the adapting measure achieves a level of performance that makes a substantial contribution to climate resilience in its local context. The user must also undertake an assessment of maladaptation potential as part of the climate risk assessment. The CBRT includes some preliminary global threshold criteria, which will be reviewed and confirmed by TWGs during the next phase of CBRT development. Process-based guidance on how to undertake this assessment is included as Annex 1 and draws from existing good practices on project-level assessment in the context of climate resilience financing.<sup>35</sup>

Table 12: Examples of global threshold criteria (adapting measures)

Investment	Interim Screening Criteria
<b>Strengthening of building structure (Mass Movement Damage)</b>	Increased Lateral Load Resistance [x]kN against counterfactual
<b>Mechanically strengthening transmission &amp; distribution lines (Storm Damage)</b>	Increased Wind Resistance in [x] mph against counterfactual
<b>Implementation of controlled environment agriculture with cooling/ventilation (Heat Stress)</b>	Temperature reduction of [x] °C against counterfactual
<b>Implementation of school curricula on cold events (Cold Stress)</b>	Improved knowledge outcomes of children against counterfactual

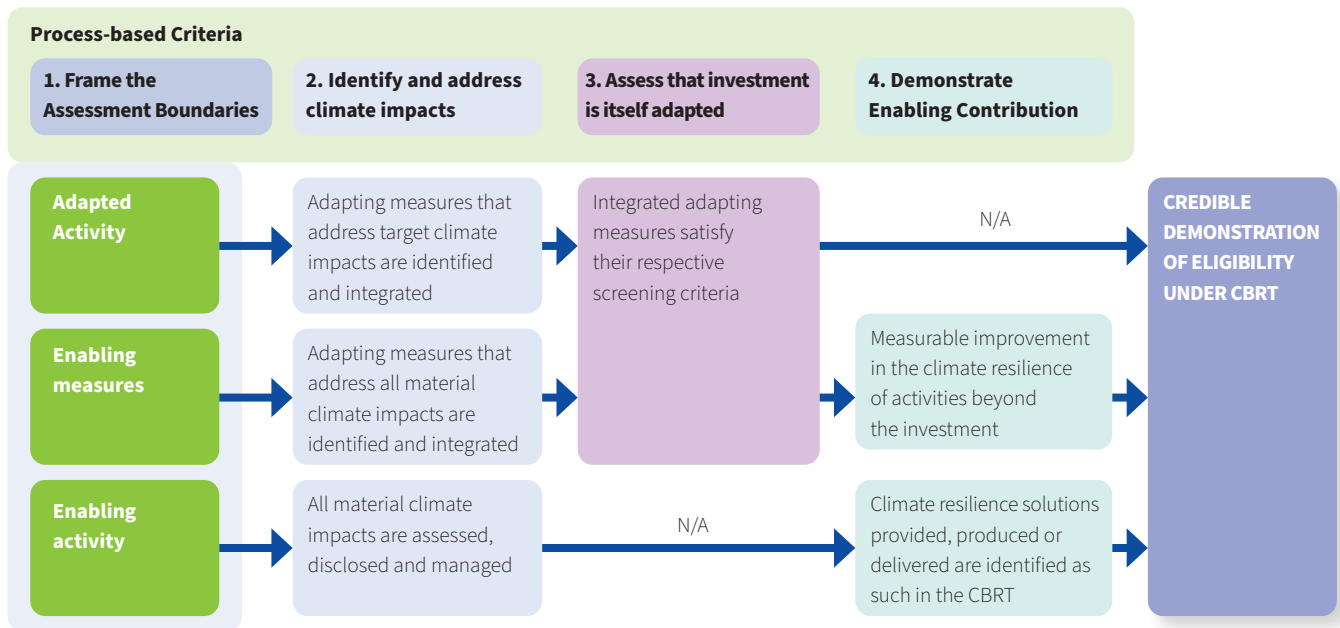
### Investment-level assessment against a local threshold

Adapting measures whose substantial contribution to climate resilience is determined by localised conditions (lack a global threshold) and carry potential maladaptation risks, require an investment-level assessment against a local threshold. Unlike fixed global thresholds, local thresholds are customised to specific investment contexts and conditions. The CBRT provides proposed units of measurement for these thresholds, but users must define the actual local thresholds based on their specific context. The assessment process involves evaluating both the substantial contribution of the investment to climate resilience and any potential maladaptation risks. This type of criteria is the most complex but also the most robust. Process-based guidance for performing this assessment is provided in Annex 2.

Table 13: Examples of localised threshold criteria (adapting measures)

Investment	Interim Screening Criteria
<b>Installation of flood barriers and floodproofing for buildings (Flood Damage)</b>	Reduction of floodwater inundation/intrusion by [x]m <sup>3</sup> against counterfactual
<b>Adjustment of reservoir capacity for hydropower generation (Water Stress)</b>	Water storage potential of [x]m <sup>3</sup> against counterfactual
<b>Creation of evacuation strategies (Heat Stress)</b>	Clear evacuation routes and plans for different scenarios
<b>Implementation of community-led mangrove restoration and coastal land maintenance</b>	Total area of mangrove forest restored and coastal ground area stabilised in [x]km <sup>2</sup>

Figure 7: Principles for developing screening criteria for adapted activities, enabling measures and enabling activities



### b. Adapted activities, enabling measures, and enabling activities: screening criteria

Adapted activities, enabling measures, and enabling activities all require process-based screening criteria. While these are distinct for each of these investment types, they also share certain common elements as illustrated in Figure 7.

Annexes 2, 3, and 4 provide guidance on how investment-level process-based assessments may be carried out for the different investment types in the CBRT. These assessments are to be performed **by the CBRT user**, using the screening criteria defined in the CBRT for specific investments. For **adapted activities, enabling measures, and enabling activities**, the process-based guidance draws from externally recognised guidance and frameworks including the EU Taxonomy’s technical screening criteria for substantial contribution to adaptation in economic activities.<sup>36</sup>

#### Adapted activities: screening criteria

Adapted activities require investment-level checks against process-based screening criteria, as shown in Figure 7 and described in Annex 3. This type of assessment ensures that the activity is resilient specifically to the climate impacts it is designed to address. The focus is on verifying that the adapting measures integrated into the activity effectively build resilience to the specific climate impacts targeted by the investment. An illustrative example is provided in Table 14.

#### Enabling measures: screening criteria

Enabling measures also require investment-level checks against process-based screening criteria, as shown in Figure 7. The assessment of enabling measures involves ensuring that the measure is resilient to all relevant climate impacts and verifying its contribution to the resilience of other activities.

For enabling measures, it is crucial to confirm that the enabling measure itself addresses all potentially material climate hazards. This involves identifying these hazards and integrating adapting measures to make the enabling measure resilient to current and future climate conditions. A resilient enabling measure is essential, as any failure in its own resilience would undermine its ability to build the resilience of other activities effectively.

Additionally, the assessment must evaluate whether the enabling measure positively impacts the climate resilience of other activities, such as those involving people, nature, and cultural heritage. This includes quantifying the enabling contribution using units of measurement provided by the CBRT, although specific thresholds are not set. Evaluating this contribution is vital for justifying the overall resilience benefits of the investment.

The CBRT provides process-based guidance for performing such checks in Annex 4 and an example application is provided in Table 15.

Table 14: Adapted activity example application: upgrading commercial buildings to make them more resilient to heat stress

Investment (adapted activity)	Target climate impact	Climate resilience outcome	Substantial Contribution (output-level)	Screening criteria
Constructing/ expanding / operating / upgrading power transmission and distribution systems	Flood Damage	Infrastructure asset upgraded with investment-appropriate adapting measures that reduce the vulnerability of that activity to flood damage	Power transmission & distribution more resilient to flood damage	<ul style="list-style-type: none"> <li>The projected flood conditions over the lifespan of the buildings has been assessed</li> <li>Adapting measures that contribute towards making those power transmission and distribution systems more resilient to flood damage (e.g. installing underground transmission / distribution lines, flood defences in sub-stations, etc.) have been identified and integrated into the investment</li> <li>These integrated adapting measures comply with their respective screening criteria</li> </ul>

Table 15: Enabling measure example application: Provision or expansion of targeted social assistance schemes

Investment (enabling measure)	Target climate impact	Climate resilience outcome	Substantial Contribution (output-level)	Screening criteria
Provision or expansion of targeted social assistance schemes	Mass Movement Damage	Other social assistance programmes more resilient to mass movement damage	Targeted social assistance schemes extended with investment-appropriate adapting measures that reduce vulnerability to Mass Movement Damage in activities beyond the investment	<ul style="list-style-type: none"> <li>All potentially material climate impacts that may affect the [extended] social assistance schemes being financed have been assessed</li> <li>Investment adapting measures that will contribute towards making the social assistance scheme more resilient to identified climate impacts (e.g. emergency housing and shelter assistance for families displaced, short-term cash assistance programs, vouchers for emergency supplies, etc.) have been identified and integrated</li> <li>Those integrated adapting measures comply with their respective screening criteria</li> <li>There is an enabling contribution beyond the investment (e.g. no. of additional people with access to social assistance schemes due to the investment)</li> </ul>

### Enabling activities: screening criteria

Enabling activities also require investment-level checks against process-based screening criteria, as shown in Figure 7. While it is crucial for enabling activities to be resilient to climate impacts, it is also important to minimise process burdens to avoid creating barriers to financing these critical investments, given their dedicated role in delivering resilience solutions. Therefore, assessments can be conducted either as stand-alone evaluations or by leveraging existing disclosure practices, such as ISSB standards. This proportionate, disclosure-based approach streamlines the process and reduces barriers to financing for climate resilience solutions. The CBRT provides process-based guidance for performing such checks in Annex 5.

### c. Use of proxies for assessing a substantial contribution to climate resilience

The CBRT makes provisions for the use of proxies, where appropriate, to simplify and streamline the assessment of an investment’s substantial contribution to climate resilience. A proxy is defined as a means of confirming an investment’s substantial contribution to resilience using robust and authoritative climate resilience assessment frameworks or standards pre-approved by Climate Bonds on the basis that they are equivalent in focus and ambition to the criteria specified in the CBRT. Proxies may include external, third-party certifications where possible and appropriate. Table 10 provides some examples of the kinds of proxies that may be considered for inclusion in the CBRT.

The process for identifying suitable proxies in the CBRT involves evaluating whether a proxy effectively confirms an investment’s substantial contribution to climate resilience. Proxies are assessed to ensure they align with the CBRT’s screening criteria for specific investments, typically at the activity level, and to determine if any additional checks are needed.

Currently, the CBRT includes preliminary screenings to identify potential proxies, which will then be further evaluated to ensure they meet the CBRT criteria. This evaluation will be a key part of the TWG review process across various themes in future development phases. Additionally, future development will focus on establishing criteria to assess the suitability of these proxies. The CBRT may also adopt open-source methods for ongoing updates to the list of proxies. A comprehensive list will be valuable for standard setters and investors; improving engagement and facilitating updates.

The use of such proxies, where available and appropriate, can reduce the process burden on CBRT users by leveraging credible external standards and certifications that are already in use. This is especially relevant for

investment types where process-based assessment would otherwise be required to check CBRT eligibility.

Other considerations in the use of proxies in the CBRT include:

- **Global vs regional, national, or local applicability.** Some potential proxies have global applicability, whereas others are limited to a specific geography. For example, it may not be appropriate to apply a Canadian standard for minimising overheating in buildings in a south-east Asian context. The CBRT therefore provides information on any geographical limitations on the application each proxy.
- **Sector specific or cross sectoral.** Most proxies are likely to be specific to particular sectors or industries etc., whereas others may have more generic applicability across a broader range of sectors and investments, e.g., Gold Standard’s Adaptation Framework or the Physical Climate Risk Assessment Methodology (PCRAM).<sup>37,38</sup>
- **Certification mechanisms.** Some proxies entail certification mechanisms, and some do not. For example, the BREEAM Climate Resilience in the built environment has a certification mechanism whereas PIANC’s guidance on climate change adaptation planning for ports and inland waterways does not. If there are no certification mechanisms (or if the user chooses not to use one), then the use of the proxy for checking CBRT eligibility may instead rest on self-declaration by the user.

Table 16: Examples of potential proxies that may be recognised under the CBRT

Investment (activity)	Potential proxies
<b>Constructing / expanding / operating / upgrading port facilities</b>  <i>(to improve resilience to a range of potential climate change impacts)</i>	PIANC (World Association for Waterborne Transport Infrastructure)  <i>Climate Change Adaptation Planning for Ports and Inland Waterways</i> <sup>39</sup>
<b>Constructing / renovating / managing residential buildings</b>  <i>(to improve resilience to increasing heat stress)</i>	Building Research Establishment (BREEAM):  <i>Climate Resilience in the Built Environment Certification</i> <sup>40</sup>

# 7. Using the Climate Bonds Resilience Taxonomy (CBRT)

## a. Applying the CBRT during ongoing development

This first version of the CBRT provides interim criteria based on the clear rulesets and methodologies developed with RTAG but expansion and validation by sector-specific experts is essential to ensure the credibility and robustness of these criteria.

While still under development, the current draft offers a comprehensive methodology and set of investments to enable users to take the core components and embed them into investment frameworks now.

This should inspire users to apply and integrate the CBRT, in the knowledge that it will continue to develop and expand in the same way that mitigation taxonomies are also dynamic. Early uptake and capacity-building are crucial as the CBRT evolves given the urgency for financing A&R.

Applying the taxonomy does not, however, need to take place all at once. One way to support the practical application of the CBRT is through a phased approach, adopting the concepts of eligibility and alignment established in the EU Taxonomy Regulation:

- **CBRT eligibility** refers to whether the activity is within the scope of the CBRT and included in the list of investments.
- **CBRT alignment** refers to whether an eligible measure or activity meets the applicable screening criteria.

A phased approach to the application of the CBRT would enable users to focus initially on defining the **eligibility** of investments under the CBRT. This would entail confirming that an investment:

- can be found within the sector/subsector structure of the CBRT;
- addresses at least one of the climate impacts defined in the CBRT; and
- can be defined as one of the four investment types defined in the CBRT (adapting measure, enabling measure, adapted activity, enabling activity).

If all these steps are confirmed, then the investment can be said to be within scope of the CBRT or eligible.

## b. Future application and use within the Climate Bonds Standard and Certification Scheme

The CBRT is a tool which will have multiple uses across different geographies.

Within the Climate Bonds Standard and Certification scheme, the CBRT will be used to certify debt instruments with proceeds that align with the CBRT Criteria in the same way that labelled green bonds are certified.

The CBRT will need further development through the TWGs before it can be included in the Certification Scheme. However, Climate Bonds plans to offer Certification in the future.

Similarly, the CBRT will be used as a basis for filtering all certified and uncertified UoP debt for a resilience-themed database if there is sufficient demand for such a data product in the future. Timeframes around the development of specific labels and products have not yet been defined.

## c. Inter-operability of the CBRT with other relevant taxonomies and frameworks

Inter-operability with existing frameworks is crucial for ensuring the adoption and effectiveness of the CBRT. Many users already adhere to established guidance, some of which may be regulatory, underscoring the need for clear alignment between these frameworks and the CBRT. This approach ensures that the CBRT complements and expands upon existing frameworks such as the Climate Bonds Climate Resilience Principles (and other relevant Climate Bonds resources, including Climate Bonds

Sector Criteria), the EU Sustainable Finance Taxonomy, and the Common Framework of Sustainable Finance Taxonomies for Latin America and the Caribbean.<sup>41,42,43</sup> Our goal is to support users in navigating and applying these frameworks seamlessly, fostering broader adoption and effective integration into investment and policy decisions.

### Inter-operability with the Climate Bonds Climate Resilience Principles

The CBRT draws from the Climate Bonds Climate Resilience Principles (CRPs), which were launched in 2019. They provide a framework and high-level criteria for climate resilience investments based on assessing climate risks, addressing and managing those risks, delivering climate resilience benefits, and ongoing monitoring and evaluation. The CBRT builds on the CRPs as follows:

- **Defining clear boundaries for assessing investments.** The CBRT uses a clear investment typology of adapting measures, enabling measures, adapted activities, and enabling activities that sets clear boundaries for how those different investment types are assessed.
- **Assessment of physical climate risks, risk reduction measures and climate resilience benefits.** The CBRT advances these principles by defining investments that require such assessments (as well as automatically eligible investments that do not) and providing clear criteria and guidance on how these assessments are managed for different investment types.
- **Mitigation trade-offs assessment.** The CBRT advances on this principle by applying the DNSH approach as defined by the EU Taxonomy, which was launched subsequently to the CRPs.
- **Ongoing monitoring and evaluation:** the CBRT Criteria provide a clear framework for monitoring an investment's contribution towards climate resilience as required.

In addition, the CBRT also draws as appropriate from other Climate Bonds resources such as:

- **Climate Bonds Standard and Certification Scheme:**<sup>44</sup> by providing a clear typology of investment types and corresponding differentiated assessment processes;
- **Climate Bonds Taxonomy:**<sup>45</sup> aligned with the clear and comprehensive categorisation of investments by sector and sub-sector with corresponding screening criteria.

### Inter-operability with the EU Sustainable Finance Taxonomy (Adaptation)

The CBRT also draws from the EU Sustainable Finance Taxonomy which sets standards for sustainable finance and sustainable activity across the European Union, including criteria for climate adaptation (climate resilience) given that adaptation is one of the six environmental objectives defined under the EU Taxonomy. The CBRT's process-based approach with regards to economic activities is aligned with its core definitions and principles and is specifically aligned with the definitions and principles of technical screening criteria (TSCs) for substantial contribution to adaptation that are defined in the 2021 Climate Delegated Act.<sup>46</sup>

However, the CBRT also identifies and provides interim screening criteria for measure-level investments, some of which are non-process based, and even makes some measures automatically eligible. In this way, the CBRT enhances granularity and applicability, providing more detailed guidance tailored to diverse global contexts and sectors. By providing clear and consistent screening criteria and standardised assessment guidance for a consistent set of investment types, the CBRT provides a streamlined way of applying the principles of the EU Taxonomy across a broad range of investments.



The specific ways in which the CBRT ensures interoperability with the EU Taxonomy adaptation TSCs are:

- **Physical risk assessments.** The CBRT provides TSC-aligned guidance on the assessment of physical risks (climate impacts) for activity-level investments.
- **Implementing climate resilience solutions.** The CBRT provides TSC-aligned guidance on the implementation of climate resilience solutions (adaptation solutions) for activity-level investments. This includes ensuring that the concepts of maladaptation and DNSH to other environmental and social objectives are applied as required by the TSCs.
- **Enabling climate resilience (adaptation) in other activities.** The CBRT provides TSC-aligned guidance on checking the enabling contribution of enabling activities on other economic activities.

The CBRT makes provision for applying these principles in streamlined and proportionate ways by defining a number of means by which they may be applied by CBRT users: stand-alone assessments, assessments against proxies (adapted activities only) or confirmation based on climate/sustainability-related disclosures (enabling activities only).

#### **Inter-operability with the multilateral development bank (MDB) joint methodology for tracking climate change adaptation finance**

The CBRT also allows for inter-operability with the MDB joint methodology for tracking climate change adaptation finance which is widely used by MDBs, DFIs, and other financial institutions for tracking financial flows related to adaptation/climate resilience.<sup>47</sup> Table 17 shows how the different investment types set out in the CBRT relate to the MDB joint methodology.

The MDB joint methodology ‘three steps’ are embedded into the CBRT’s process-based guidance for all investment types except for adapting measures that are automatically eligible or that are assessed against a technical specification.<sup>48</sup> For these investment types, additional assessment against the three steps is required to ensure inter-operability with the MDB joint methodology.

The CBRT investment types also map against the three ‘project types’ identified in the MDB joint methodology. Adapted activities correspond to type 1 projects (i.e., activities that integrate measures to manage physical climate risks and ensure that the project’s intended objectives are realised despite these risks) or type 2 projects (i.e., activities that directly reduce physical climate risk and build the adaptive capacity of the system within which the activity takes place). Enabling measures and enabling activities

correspond to type 3 projects (i.e., activities that contribute to reducing the underlying causes of vulnerability to climate change at the systemic level and/or removing knowledge, capacity, technological, and other barriers to adaptation). While adapting measures themselves do not correspond directly to any of those three project types, they are equivalent to the ‘measures integrated to manage physical climate risks’ that the MDB joint methodology defines for Type 1 projects.

#### **Inter-operability with the Common Framework of Sustainable Finance Taxonomies for Latin America and the Caribbean**

The objective of the Common Framework is to support Latin American and Caribbean (LAC) countries in developing sustainable finance frameworks that are interoperable across LAC jurisdictions and internationally. Inter-operability between the CBRT and LAC Common Framework is possible due to:

- shared commitments to pursuing inter-operability with other relevant frameworks;
- a common focus on making material positive contributions/substantial contributions towards sustainability objectives (including climate resilience) while avoiding significant harm to other objectives;
- both using clear, science-based definitions as the basis for defining screening criteria/screening criteria;
- both using clear sector breakdowns based on externally recognised sector classification systems, even though the LAC Common Framework is based on ISIC which is readily relatable to the sector/sub-sector breakdown used in the CBRT;
- both using the concept of enabling activities that promote sustainability (including climate resilience) improvements in other sectors, with the LAC Common Framework also introducing the concept of enabling sectors.

Furthermore, the LAC Common Framework also provides a valuable reference for how the application of the CBRT could be customised for specific regions or countries in due course, including by layering in geography-specific information about the significance of different climate impacts and sectors/subsectors, and using national climate resilience plans and strategies as a basis for identifying eligible investments.

Table 17: Comparison table of the CBRT investment types against the MDB Joint Methodology for Tracking Climate Change Adaptation Finance

<b>CBRT investment type</b>	<b>MDB Joint Methodology ‘three steps’</b>	<b>Equivalence with the MDB Joint Methodology ‘project types’</b>
<b>Adapting measure (automatically eligible)</b>	Additional assessment needed to ensure inter-operability	Equivalent to the ‘measures integrated to manage physical climate risks’ in Type 1 projects
<b>Adapting measure (technical specification)</b>	Included in process-based guidance (Annex I)	Equivalent to Type 1 or Type 2
<b>Adapting measure (global threshold)</b>		
<b>Adapting measure (local threshold)</b>	Included in process-based guidance (Annex II)	
<b>Adapted activity</b>	Included in process-based guidance (Annex III)	
<b>Enabling measure</b>	Included in process-based guidance (Annex IV)	Equivalent to Type 3
<b>Enabling activity</b>	Included in process-based guidance (Annex V)	Equivalent to Type 3

## Overview of Investments in the current stage of d. the CBRT

This Methodology document accompanies the CBRT which provides lists of the climate resilience investments and their interim screening criteria. These are organised under the seven CBRT Climate Resilience themes and broken down further by sector and sub-sector as described in Section 4 and displayed in Figure 4.

The total of 1,444 climate investments have been identified in this phase of development, broken down by investment type as follows:

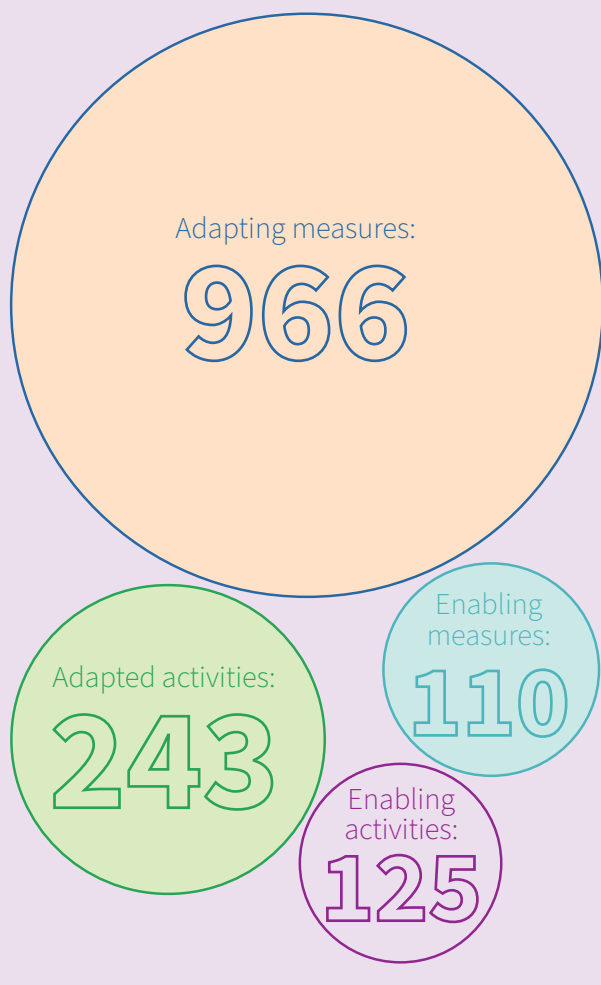
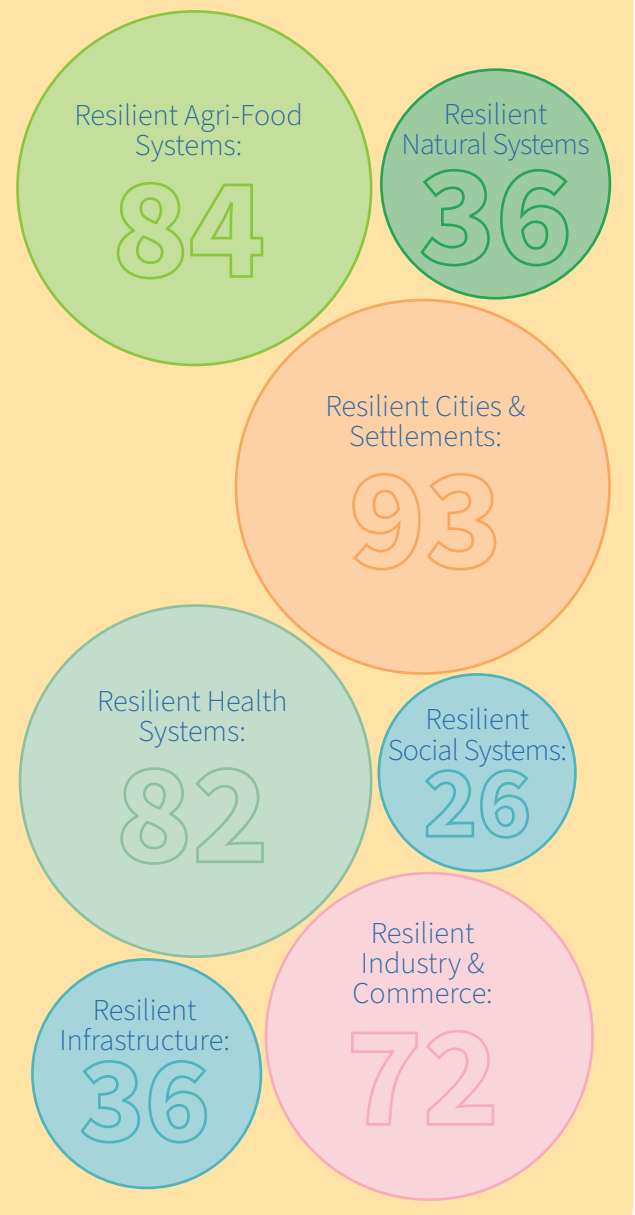


Table 17: Breakdown of adapting measures (automatically eligible, technical specification, global threshold, local threshold)

Screening Criteria	No. of Adapting Measures
Automatically Eligible	429
Technical Specification	118
Global Threshold	212
Local Threshold	207

A total of 429 automatically eligible investments have been identified, broken down by Climate Resilience theme as follows:



# Annex I: Adapting measures – assessment against global threshold

The CBRT defines the target climate impact that each adapting measure addresses.

## 1. Define the investment context for assessing the adapting measure

- Set assessment boundaries that correspond to the specific implementation of the measure, which may be more granular than the activity or even the asset in which it is implemented.
- For example, the adapting measure *Installing water-efficient fixtures and fittings* is assessed in the specific context in which the fixtures and fitting are installed (e.g., buildings, plumbing systems within buildings, etc.).
- In addition, the following three steps may also be considered:<sup>49</sup>
  - i. Set out the investment's context of vulnerability to climate change.
  - ii. Make an explicit statement of intent of the investment to reduce the climate change vulnerabilities identified.
  - iii. Articulate a clear and direct link between the investment and the climate change vulnerability identified in (i).

## 2. Establish an appropriate timescale for the assessment

This should normally be the same as the expected time horizon for the implementation of the measure (e.g., the installation of water-efficient fixtures or fittings) and should cover the expected lifespan of the adapting measure, and of the activity in which it is being implemented.

## 3. Use the investment-appropriate global threshold for assessing the performance of the adapting measure

Use the investment-specific global threshold as defined in the CBRT.

## 4. Define a counterfactual against which progress towards achieving the defined threshold may be measured.

- The counterfactual should be current actual performance (for existing assets) or current industry practice (for new assets) where available or definable.
- Current industry practice typically refers to the prevailing methods, procedures, standards, or techniques that are widely adopted and deemed up-to-date within a specific industry or profession. This term encompasses the following:
  - Best practices. Proven approaches that have been shown to yield optimal results.
  - Standard operating procedures. Commonly agreed ways of carrying out tasks or operations.
  - Regulatory compliance. Practices that conform to current laws, regulations, and guidelines.
  - Technological uptake. Use of current technologies and tools prevalent in the sector.
- The achievement of the defined threshold is assessed against this counterfactual, e.g. x% improvement, or confirmation that performance is in the upper range of current market or industry practices.

## 5. Means of implementing the assessment

This assessment may be implemented in the following ways:

- As a stand-alone assessment performed by the issuer, following the steps defined above and using the CBRT screening criteria.
- By confirming that the investment has been checked against a proxy identified in the CBRT for investments in the respective sub-sector. These proxies are defined in the CBRT as being equivalent in focus and ambition with the CBRT screening criteria and above process-based guidance. The CBRT specifies whether any additional checks are required alongside the use of a given proxy (e.g., DNSH).

# Annex II: Adapting measures – assessment against local threshold

The CBRT defines the target climate impact that each adapting measure addresses.

## 1. Define the investment context for assessing the adapting measure

- Set assessment boundaries that correspond to the specific implementation of the measure, which may be more granular than the activity or even the asset in which it is implemented.
- For example, the adapting measure *Installing water-efficient fixtures and fittings* is assessed in the specific context in which the fixtures and fitting are installed (e.g., buildings, plumbing systems within buildings, etc.).
- In addition, the following three steps may also be considered:<sup>50</sup>
  - i. Set out the investment's context of vulnerability to climate change.
  - ii. Make an explicit statement of intent of the investment to reduce the climate change vulnerabilities identified.
  - iii. Articulate a clear and direct link between the investment and the climate change vulnerability identified in (i).

## 2. Establish an appropriate timescale for the assessment

This should normally be the same as the expected time horizon for the implementation of the measure (e.g., the installation of water-efficient fixtures or fittings) and should cover the expected lifespan of the adapting measure, and of the activity in which it is being implemented.

## 3. Determine and use an investment-appropriate local threshold for assessing the performance of the adapting measure

- Define an investment-appropriate local threshold, using the units of measurement defined in the CBRT.
- The local threshold should reference as far as possible other examples of the use of the adapting measure in comparable investment contexts.

## 4. Define a counterfactual against which progress towards achieving the defined threshold may be measured

- The counterfactual should be current actual performance (for existing assets) or current industry practice (for new assets) where available or definable.
- Current industry practice typically refers to the prevailing methods, procedures, standards, or techniques that are widely adopted and deemed up-to-date within a specific industry or profession. This term encompasses the following:
  - Best practices. Proven approaches that have been shown to yield optimal results.
  - Standard operating procedures. Commonly agreed ways of carrying out tasks or operations.
  - Regulatory compliance. Practices that conform to current laws, regulations, and guidelines.
  - Technological uptake. Use of current technologies and tools prevalent in the sector.
- The achievement of the defined threshold is assessed against this counterfactual, e.g., x% improvement, or confirmation that performance is in the upper range of current market or industry practices.

## 5. Means of implementing the assessment

This assessment may be implemented in the following ways:

- As a stand-alone assessment performed by the issuer, following the steps defined above and using the CBRT screening criteria.
- By confirming that the investment has been checked against a proxy identified in the CBRT for investments in the respective sub-sector. These proxies are defined in the CBRT as being equivalent in focus and ambition with the CBRT screening criteria and above process-based guidance. The CBRT specifies whether any additional checks are required alongside the use of a given proxy (e.g., DNSH).

# Annex III: Adapted activities – investment-level assessment

The process-based criteria for **adapted activities** draws from the EU Taxonomy technical screening criteria for substantial contribution to adaptation and the Climate Bonds Climate Resilience Principles.<sup>51</sup>

## 1. Assessment framing

The purpose of this investment-level assessment is to verify that the adapted activity is resilient to the specific climate impacts that the investment is intended to address, through the integration of investment-appropriate adapting measures that build climate resilience to the specific climate impacts.

The assessment is performed within clear boundaries that take account of the nature of the activity and of any interdependencies that go beyond the activity itself, including any potentially critical or cascading impacts within the wider system within which the activity takes place.

In addition, the following three steps may also be considered:<sup>52</sup>

- i. Establish the investment's context of vulnerability to climate change.
- ii. Make an explicit statement of intent of the investment to reduce the climate change vulnerabilities identified.
- iii. Articulate a clear and direct link between the investment and the climate change vulnerability identified in (i).

## 2. Assess material climate impacts

The materiality of the **target climate impacts that the activity is addressing** are assessed, and the findings used to identify adapting measures that can be implemented in the activity to build resilience to those impacts.

The assessment of climate impacts should be proportionate to the scale of the activity and its expected lifespan. This should entail using climate projections at the smallest appropriate scale for activities with an expected lifespan of less than 10 years. For all other activities, this should entail using the highest available resolution, best available science-based climate projections across the existing range of future scenarios consistent with the expected lifetime of the activity, including at least 10- to 30-year climate projection scenarios for major investments. The assessment should be performed in a robust and flexible manner, which accounts for inherent uncertainties in future climate change projections. The level of assessment detail should match the expected level of materiality of the climate impact under both current and expected future climate conditions over the activity's lifetime. If any climate impacts are shown not to be material, then no further assessment will be required.

The assessment should use an appropriate timescale over which climate impacts are assessed, matching the intended lifespan of the activity. A baseline scenario of a suitable historical reference period should also be used. The assessment should make use of best practice guidance and take into account best available, science-based projections and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports, scientific peer-reviewed publications, and open source or paying models.<sup>53</sup> This should entail the use of multiple climate scenarios (e.g., SSP5-8.5 at a minimum and SSP2- 4.5 if available) and use bottom-up climate impact models to determine the context-specific climate hazards and impacts as appropriate for the size, type, location, and lifespan of the activity. This should include assessing the degree to which the activity is exposed to a specific climate hazard, depending on its geographic and sector market, and assessing the degree to which the activity is vulnerable to the hazard(s) that it is exposed to and the nature of any impacts that may be experienced as a result.

## 3. Assess whether activity is climate resilient (adapted)

The assessment should identify adapting measures that build the resilience of the activity to the specific target climate impacts that the investment is designed to address. These adapting measures are implemented in the investment and checked against their respective CBRT screening criteria for substantial contribution to climate resilience so that any material climate impacts identified through the climate risk and vulnerability assessment are mitigated to a tolerable level. These checks are simpler if the adapting measures implemented are all automatically eligible or only require a technical specification check but may be more complex if any of the adapting measures implemented require investment-level assessment e.g., against global or local thresholds.

The adapting measures implemented in the investment should, where possible, be consistent with any relevant local, sectoral, regional or national climate resilience plans and strategies including national adaptation plans (NAPs), nationally determined contributions (NDCs), and others. Where relevant and appropriate, they should consider the use of nature-based solutions or blue/green infrastructure.

The climate risk and vulnerability assessment and the consequent integration of adapting measures into the investment should take account of **maladaptation** as defined in section 5(b). This requires checking that none of the adapting measures implemented in the investment are expected to affect adversely the climate resilience of other people, of nature, of cultural heritage, of assets, and of other economic activities. In addition, the implementation of adapting measures in the activity should **do no significant harm** to mitigation nor to other environmental or social objectives, as defined in section 5(c).

Processes should remain in place over the lifespan of the investment at a minimum and over the lifespan of the activity, if possible, to keep this assessment under regular review and subject to periodic re-assessment subject to evolving needs and/or changes to climate conditions that affect the activity. This may include as necessary monitoring and measuring against the CBRT screening criteria or other pre-defined indicators, and remedial action may be considered where those criteria or indicators are not met.

## 4. Means of implementing the assessment

This assessment may be implemented in the following ways:

- As a stand-alone assessment performed by the issuer, following the steps defined above and using the CBRT screening criteria.
- By confirming that the investment has been checked against a proxy identified in the CBRT for investments in the respective sub-sector. These proxies are defined in the CBRT as being equivalent in focus and ambition with the CBRT screening criteria and above process-based guidance. The CBRT specifies whether any additional checks are required alongside the use of a given proxy (e.g., DNSH check).

# Annex IV: Enabling measures – investment-level assessment criteria

The process-based screening criteria for enabling measures draws from the EU Taxonomy technical screening criteria for substantial contribution to adaptation, the Climate Bonds Climate Resilience Principles, the external guidance includes the ARIC adaptation & resilience impact measurement framework for investors, the World Bank Group Resilience Rating System, the GIIN's climate adaptation & resilience metrics, and the ICMA impact reporting guidelines.<sup>54,55,56,57,58</sup>

## 1. Assessment framing

The purpose of this investment-level assessment is to verify that i) the enabling measure is resilient to all potentially material climate impacts through the integration of investment-appropriate adapting measures that build climate resilience to potentially material climate impacts; and ii) it makes an enabling contribution to the climate resilience of other activities.

The assessment is performed within clear boundaries that take account of the nature of the enabling measure and of any interdependencies that go beyond the investment itself, including any potentially critical or cascading impacts within the wider system within which the investment takes place.

In addition, the following three steps may also be considered:<sup>59</sup>

- i. Establish the investment's context of vulnerability to climate change.
- ii. Make an explicit statement of intent of the investment to reduce the climate change vulnerabilities identified.
- iii. Articulate a clear and direct link between the investment and the climate change vulnerability identified in (i).

## 2. Assess material climate impacts

The assessment should identify all climate impacts that are material to the investment using the CBRT climate impacts breakdown as defined in section 4(b), to identify which climate impacts may affect the performance of the investment during its expected lifetime. The materiality of those climate impacts to the investment should be assessed, and findings used to identify adapting measures that can be implemented in the investment to build resilience to those impacts.

The assessment of climate impacts should be proportionate to the scale of the investment and its expected lifespan. This should entail using climate projections at the smallest appropriate scale for activities with an expected lifespan of less than 10 years. For all other activities, this should entail using the highest available resolution, best available science-based climate projections across the existing range of future scenarios consistent with the expected lifetime of the investment, including at least, 10- to 30-year climate projections scenarios for major investments. The assessment should be performed in a robust and flexible manner that accounts for inherent uncertainties in future climate change projections. The level of assessment detail should match the expected level of materiality of the climate impact under both current and expected future climate conditions over the investment's lifetime. If any climate impacts are shown not to be material, then no further assessment will be required.

The assessment should use an appropriate timescale over which climate impacts are assessed, matching the intended lifespan of the investment. A baseline scenario of a suitable historical reference period should also be used. The assessment should make use of best practice guidance and take into account best available, science-based projections and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports, scientific peer-reviewed publications, and open source or paying models.<sup>60</sup> This should entail the use of multiple climate

scenarios (e.g., SSP5-8.5 at a minimum and SSP2- 4.5 if available) and use bottom-up climate impact models to determine the context specific climate hazards and impacts as appropriate for the size, type, location, and lifespan of the investment. This should include assessing the degree to which the investment is exposed to a specific climate hazard, depending on its geographic and sector market, and assessing the degree to which the investment is vulnerable to the hazard(s) that it is exposed to and the nature of any impacts that may be experienced as a result.

## 3. Assess whether investment is climate resilient (adapted)

The assessment should identify adapting measures that build the resilience of the investment to any specific climate impacts that are found to be material. These adapting measures are implemented in the investment and checked against their respective CBRT screening criteria for substantial contribution to climate resilience so that any material climate impacts identified through the climate risk and vulnerability assessment are mitigated to a tolerable level. These checks are simpler if the adapting measures implemented are all automatically eligible or only require a technical specification check but may be more complex if any of the adapting measures implemented require investment-level assessment e.g., against global or local thresholds.

The adapting measures implemented in the investment should, where possible, be consistent with any relevant local, sectoral, regional or national climate resilience plans and strategies including national adaptation plans (NAPs), nationally determined contributions (NDCs), and others. Where relevant and appropriate, they should consider the use of nature-based solutions or blue/green infrastructure.

The climate risk and vulnerability assessment and the consequent integration of adapting measures into the investment should take account of **maladaptation** as defined in section 5(b). This requires checking that none of the adapting measures implemented in the investment are expected to affect adversely the climate resilience of other people, of nature, of cultural heritage, of assets, and of other economic activities. In addition, the implementation of adapting measures in the investment should **do no significant harm** to mitigation nor to other environmental or social objectives, as defined in section 5(c).

## 4. Assess the enabling contribution

The assessment should check whether the investment makes an enabling contribution through the provision of a technology, product, service, information, or practice, or through promoting their use to build the climate resilience of other activities including people, nature, or cultural heritage. This entails checking that the investment makes a measurable improvement in the climate resilience of activities **beyond** the activity in which it is implemented.

The CBRT defines the units of measurement that may potentially be used to assess this enabling contribution but does not define specific thresholds. These units of measurement may include, for example, the number of beneficiaries/people made more climate resilient by the investment, the economic value of assets made more climate resilient by the investment, or the extent of natural ecosystems made more climate resilient by the investment. Relevant external guidance includes the ARIC framework for assessing the climate resilience impact of investments, the World Bank Group Resilience Rating System, the GIIN climate adaptation & resilience metrics, and the ICMA impact reporting guidelines.<sup>61,62,63</sup>

Processes should remain in place over the lifespan of the investment at a minimum and over the lifespan of the investment, if possible, to

keep this assessment under regular review and subject to periodic re-assessment subject to evolving needs and/or changes to climate conditions that affect the investment. This may include as necessary monitoring and measuring against the CBRT screening criteria or other pre-defined indicators and remedial action may be considered where those criteria or indicators are not met.

## **5. Means of implementing the assessment**

This assessment may be implemented in the following ways:

- As a stand-alone assessment performed by the issuer, following the steps defined above and using the CBRT screening criteria.
- By confirming that the investment has been checked against a proxy that identified in the CBRT for investments in the respective sub-sector. These proxies are defined in the CBRT as being equivalent in focus and ambition with the CBRT screening criteria and above process-based guidance. The CBRT specifies whether any additional checks are required alongside the use of a given proxy (e.g., DNSH; checking the enabling contribution on the climate resilience of other activities).

# Annex V: Enabling activities: - investment-level assessment

The process-based guidance for investment-level assessments against CBRT screening criteria for **enabling activities** draws from the EU Taxonomy technical screening criteria for substantial contribution to Adaptation, the Climate Bonds Climate Resilience Principles, the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and the ISSB's IFRS S2 on climate-related disclosures.<sup>64,65,66</sup>

## 1. Assessment framing

The purpose of this investment-level assessment is to verify that i) the enabling activity is resilient to all potentially material climate impacts; and ii) provides a technology, product, service, information, or practice that builds the climate resilience of other activities.

The assessment is performed within clear boundaries that take account of the nature of the activity and of any interdependencies that go beyond the activity itself, including any potentially critical or cascading impacts within the wider system within which the activity takes place.

In addition, the following three steps may also be considered:<sup>67</sup>

- i. Set out the investment's context of vulnerability to climate change.
- ii. Make an explicit statement of intent of the investment to reduce the climate change vulnerabilities identified.
- iii. Articulate a clear and direct link between the investment and the climate change vulnerability identified in (i).

## 2. Assess material climate impacts

The assessment should identify all climate impacts that are material to the activity using the CBRT climate impacts breakdown as defined in section 4(b), to identify which climate impacts may affect the performance of the economic activity during its expected lifetime. The materiality of those climate impacts to the activity should be assessed, and findings used to identify adapting measures that can be implemented in the activity to build resilience to those impacts.

The assessment of climate impacts should be proportionate to the scale of the activity and its expected lifespan. This should entail using climate projections at the smallest appropriate scale for activities with an expected lifespan of less than 10 years. For all other activities, this should entail using the highest available resolution, best available science-based climate projections across the existing range of future scenarios consistent with the expected lifetime of the activity, including at least, 10- to 30-year climate projections scenarios for major investments. The assessment should be performed in a robust and flexible manner that accounts for inherent uncertainties in future climate change projections. The level of assessment detail should match the expected level of materiality of the climate impact under both current and expected future climate conditions over the activity's lifetime. If any climate impacts are shown not to be material, then no further assessment will be required.

The assessment should use an appropriate timescale over which climate impacts are assessed, matching the intended lifespan of the activity. A baseline scenario of a suitable historical reference period should also be used. The assessment should make use of best practice guidance and take into account best available, science-based projections and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports, scientific peer-reviewed publications, and open source or paying models.<sup>68</sup> This should entail the use of multiple climate scenarios (e.g., SSP5-8.5 at a minimum and SSP2- 4.5 if available) and use bottom-up climate impact models to determine the context specific climate hazards and impacts as appropriate for the size, type, location,

and lifespan of the activity. This should include assessing the degree to which the activity is exposed to a specific climate hazard, depending on its geographic and sector market, and assessing the degree to which the activity is vulnerable to the hazard(s) that it is exposed to and the nature of any impacts that may be experienced as a result.

## 3. Assess whether activity is climate resilient (adapted)

The assessment should identify adapting measures that build the resilience of the activity to any target climate impacts that are found to be material. These adapting measures are implemented in the investment and checked against their respective CBRT screening criteria for substantial contribution to climate resilience so that any material climate impacts identified through the climate risk and vulnerability assessment are mitigated to a tolerable level. These checks are simpler if the adapting measures implemented are all automatically eligible or only require a technical specification check but may be more complex if any of the adapting measures implemented require investment-level assessment e.g., against global or local thresholds.

The adapting measures implemented in the investment should, where possible, be consistent with any relevant local, sectoral, regional or national climate resilience plans and strategies including national adaptation plans (NAPs), nationally determined contributions (NDCs), and others. Where relevant and appropriate, they should consider the use of nature-based solutions or blue/green infrastructure.

The climate risk and vulnerability assessment and the consequent integration of adapting measures into the investment should take account of **maladaptation** as defined in section 5(b). This requires checking that none of the adapting measures implemented in the investment are expected to affect adversely the climate resilience of other people, of nature, of cultural heritage, of assets and of other economic activities. In addition, the implementation of adapting measures in the activity should **do no significant harm** to mitigation nor to other environmental or social objectives, as defined in section 5(c).

## 4. Assess the enabling contribution

The assessment should check that the technology, product, service, information, or practice, that the enabling activity provides is defined as a climate resilience solution in the CBRT.

## 5. Means of implementing the assessment

This assessment may be implemented in the following ways:

- As a stand-alone assessment performed by the issuer, following steps 1-4 as set out above and using the CBRT screening criteria.
- By obtaining confirmation through the issuer's climate- or sustainability-related disclosure practices (for example, ISSB disclosures) that the activity has adequately assessed steps 1-3 as set out above, in addition to confirming that the technology, product, service, information or practice that the activity produces or promotes is defined as a climate resilience solution in the CBRT as per step 4.



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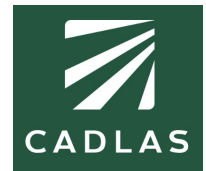
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## Endnotes

1. For the purposes of this document, the terms 'climate resilience', 'resilience', 'climate adaptation' and 'adaptation' are all used interchangeably. For further details refer to Box X, in Section X.
2. [Adaptation Gap Report 2023 | UNEP - UN Environment Programme](#)
3. <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2023/>
4. [cbi\\_sotm23\\_02h.pdf \(climatebonds.net\)](#)
5. The interim screening criteria in this version of the CBRT will be finalised in the next phase of development with the support of thematic working groups that will be convened in Phase 2 of CBRT development.
6. [Resilience Taxonomy White Paper | Climate Bonds Initiative](#)
7. [UNDRR - Homepage | UNDRR](#)
8. [Cadlas | Home](#)
9. [Closing the Resilience Financing Gap | Climate Bonds Initiative](#)
10. Further considerations and guidance on entity-level investments (e.g., corporate financing or equity investment in companies or other private or public entities) may be provided in further phases of CBRT development.
11. [Microsoft Word - climate-resilience-principles-climate-bonds-initiative-20190917.docx \(climatebonds.net\)](#)
12. [IPCC AR6 WGII Annex-II.pdf](#)
13. This is aligned with how the EU Taxonomy defines the eligibility of investment costs of adapted activities and enabling activities.
14. [Resilience Taxonomy White Paper | Climate Bonds Initiative](#)
15. [Adaptation & Resilience Taxonomy - Tailwind Climate](#)
16. [Standard-Chartered-Bank-Guide-For-Adaptation-And-Resilience-Finance-FINAL.pdf \(sc.com\)](#)
17. [Fifth Assessment Report — IPCC](#)
18. [Sixth Assessment Report — IPCC](#)
19. [https://ec.europa.eu/sustainable-finance-taxonomy/assets/documents/CCM\\_Appendix\\_A.pdf](https://ec.europa.eu/sustainable-finance-taxonomy/assets/documents/CCM_Appendix_A.pdf)
20. This first version of the CBRT provides interim screening criteria only, which will be validated and finalised in the next update and version of the CBRT
21. [Annex VII: Glossary \(ipcc.ch\)](#)
22. Lobell, D.B., Schlenker, W., & Costa-Roberts, J. (2011). Climate trends and global crop production since 1980. *Science*, 333(6042), 616-620. doi:10.1126/science.1204531
23. Scott, C.A., Farina, M., & Schneider, K. (2014). Global assessment of the impact of groundwater depletion on agricultural productivity. *Environmental Research Letters*, 9(4), 044013. doi:10.1088/1748-9326/9/4/044013
24. Smith, H., van der Veen, A., & de Lange, M. (2021). The unintended consequences of flood defenses: A case study of the Netherlands. *Journal of Hydrology*, 601, 126668. doi:10.1016/j.jhydrol.2021.126668
25. Examples of environmental objectives include climate change mitigation, climate resilience (or climate change adaptation), or other environmental objectives such as pollution prevention and control. Examples of social objectives include decent working conditions and human rights.
26. The term per unit refers to the measurement of GHG emissions using a relevant unit for the specific investment, such as energy output, production volume, or economic value. This unit should be defined based on the nature of the investment and the most relevant metric for assessing emission intensity.
27. [Performance Standards on Environmental and Social Sustainability | International Finance Corporation \(IFC\)](#)
28. [Home Page - Equator Principles \(equator-principles.com\)](#)
29. [The Ten Principles | UN Global Compact](#)
30. [Higher Ground Foundation | Standard Framework Principles \(thehighergroundfoundation.org\)](#)
31. [EU taxonomy for sustainable activities - European Commission \(europa.eu\)](#)
32. [EU taxonomy for sustainable activities - European Commission \(europa.eu\)](#)
33. Outputs: the products, capital goods and services which result from an investment.
34. Outcomes: the likely or achieved short-term and medium-term change and effects of intervention outputs.
35. e.g., [Integrating Climate Information and Adaptation in Project Development](#)
36. [Commission Delegated Regulation \(EU\) 2021/ of 4 June 2021 supplementing Regulation \(EU\) 2020/852](#)
37. [Gold Standard Updates Pilot Adaptation Framework | Gold Standard](#)
38. [https://storage.googleapis.com/wp-static/wp\\_ccri/c7dee50a-ccri-pccram-final-1p.pdf](https://storage.googleapis.com/wp-static/wp_ccri/c7dee50a-ccri-pccram-final-1p.pdf)
39. [Climate Change Adaptation Planning for Ports and Inland Waterways - Pianc](#)
40. [BBF certification climate resilience \(bregroup.com\)](#)
41. [Microsoft Word - climate-resilience-principles-climate-bonds-initiative-20190917.docx \(climatebonds.net\)](#)
42. [EU taxonomy for sustainable activities - European Commission \(europa.eu\)](#)
43. [Common Framework of Sustainable Finance Taxonomies for Latin America and the Caribbean | UNEP - UN Environment Programme](#)
44. [Certification under the Climate Bonds Standard | Climate Bonds Initiative](#)
45. [CBI\\_Taxonomy\\_Tables-05A.indd \(climatebonds.net\)](#)
46. [Commission Delegated Regulation \(EU\) 2021/ of 4 June 2021 supplementing Regulation \(EU\) 2020/852](#)
47. [Joint methodology for tracking climate change adaptation finance \(worldbank.org\)](#)
48. These are: i) setting out the project's context of vulnerability to climate change, ii) making an explicit statement of intent of the project to reduce the climate change vulnerabilities identified, and iii) articulating a clear and direct link between specific project activities and the climate change vulnerability.
49. These three steps are mandatory if the CBRT is to be applied in a way that is consistent with the MDB joint methodology for tracking climate change adaptation finance ([Joint methodology for tracking climate change adaptation finance \(worldbank.org\)](#)).
50. These three steps are mandatory if the CBRT is to be applied in a way that is consistent with the MDB Joint Methodology for Tracking Climate Change Adaptation Finance ([Joint methodology for tracking climate change adaptation finance \(worldbank.org\)](#)).
51. [Microsoft Word - climate-resilience-principles-climate-bonds-initiative-20190917.docx \(climatebonds.net\)](#)
52. These three steps are mandatory if the CBRT is to be applied in a way that is consistent with the MDB Joint Methodology for Tracking Climate Change Adaptation Finance ([Joint methodology for tracking climate change adaptation finance \(worldbank.org\)](#)).
53. [Sixth Assessment Report — IPCC](#)
54. [Microsoft Word - climate-resilience-principles-climate-bonds-initiative-20190917.docx \(climatebonds.net\)](#)
55. [Adaptation & Resilience Impact: A measurement framework for investors – United Nations Environment – Finance Initiative \(unepfi.org\)](#)
56. [RRS \(worldbank.org\)](#)
57. [Navigating Impact Project Launch: Climate Adaptation & Resilience Theme | IRIS+ System \(theigin.org\)](#)
58. [Impact Reporting » ICMA \(icmagroup.org\)](#)
59. These three steps are mandatory if the CBRT is to be applied in a way that is consistent with the MDB Joint Methodology for Tracking Climate Change Adaptation Finance ([Joint methodology for tracking climate change adaptation finance \(worldbank.org\)](#)).
60. [Sixth Assessment Report — IPCC](#)
61. [Adaptation & Resilience Impact: A measurement framework for investors – United Nations Environment – Finance Initiative \(unepfi.org\)](#)
62. [Navigating Impact Project Launch: Climate Adaptation & Resilience Theme | IRIS+ System \(theigin.org\)](#)
63. [Impact Reporting » ICMA \(icmagroup.org\)](#)
64. [Task Force on Climate-Related Financial Disclosures | TCFD \(fsb-tcfd.org\)](#)
65. [Microsoft Word - climate-resilience-principles-climate-bonds-initiative-20190917.docx \(climatebonds.net\)](#)
66. [IFRS - IFRS S2 Climate-related Disclosures](#)
67. These three steps are mandatory if the CBRT is to be applied in a way that is consistent with the MDB Joint Methodology for Tracking Climate Change Adaptation Finance ([Joint methodology for tracking climate change adaptation finance \(worldbank.org\)](#)).
68. [Sixth Assessment Report — IPCC](#)

# Climate Bonds INITIATIVE

Prepared by the Climate Bonds Initiative



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Lead Technical Partner

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