



Financing the Transition addendum:  
**Defining nature and adaptation**  
investment opportunities

January 2026

# Contents

<b>1 Introduction and context</b>	<b>3</b>
1.1 Strategic context	3
1.2 The interconnectedness of climate, nature and society	6
Case study: health	10
<b>2 Investing in climate adaptation to drive resilience</b>	<b>12</b>
2.1 The climate adaptation funding gap	13
2.2 Assessing current definitions of climate adaptation	15
2.3 Considerations for emerging markets	17
<b>3 Investing in nature-related solutions</b>	<b>20</b>
3.1 The nature and biodiversity funding gap	21
3.2 Assessing current definitions of nature-related solutions	22
3.3 Considerations for emerging markets	25
<b>4 Prudential's definition of adaptation and nature opportunities</b>	<b>26</b>
4.1 Our high-level principles	27
4.2 Our definition of climate adaptation investment opportunities	28
4.3 Our definition of nature-related investment opportunities	29
4.4 An integrated understanding of 'climate solutions'	30
<b>5 Moving forward</b>	<b>32</b>

# About Prudential

Prudential plc provides life and health insurance and asset management in Greater China, ASEAN, India and Africa. Prudential's mission is to be the most trusted partner and protector for this generation and generations to come, by providing simple and accessible financial and health solutions.

The business has dual primary listings on the Stock Exchange of Hong Kong (HKEX: 2378) and the London Stock Exchange (LSE: PRU). It also has a secondary listing on the Singapore Exchange (SGX: K6S) and a listing on the New York Stock Exchange (NYSE: PUK) in the form of American Depository Receipts.

It is a constituent of the Hang Seng Composite Index and is also included for trading in the Shenzhen-Hong Kong Stock Connect programme and the Shanghai-Hong Kong Stock Connect programme.

[www.prudentialplc.com](http://www.prudentialplc.com)

This document is intended to be a technical paper and should be read by audiences with requisite understanding of finance, investment and environmental, social and governance (ESG) knowledge, including (but not limited to) knowledge on climate change and climate transition.

Prudential's Financing the Transition framework (2024) and the addendum as set out in this paper, have been assessed against market standards and are in line with applicable taxonomies on the date(s) of publication. This paper and the framework will continue to evolve in line with evolving and transitioning taxonomies, regulation, market standards and practices.

Prudential plc is not affiliated in any manner with Prudential Financial, Inc., a company whose principal place of business is in the United States of America or with the Prudential Assurance Company, a subsidiary of M&G plc, a company incorporated in the United Kingdom.

# Executive summary

This paper augments Prudential plc's Financing the Transition (FTT) framework to make climate adaptation and nature-related solutions explicitly investable, alongside climate mitigation. This is because climate, nature, and society form an interconnected system where reinforcing feedbacks can drive either degradation or resilience. The goal for us as an asset owner is to broaden the investable universe in line with our fiduciary duty while preserving rigour, so more capital flows to resilience and nature-positive outcomes, especially in emerging markets.

We do this by helping to address two stubborn frictions: first, the lack of standardised, investable definitions for climate adaptation and nature; second, the distinct realities of emerging markets in the form of heterogeneous economies, data gaps, currency and policy risk, and fast-growing demand in carbon-intensive sectors. Together, these frictions skew capital toward developed market mitigation, starve adaptation and nature-related solutions of funding, and raise the risk of both greenwashing and maladaptation.

Consistent with FTT, adaptation and nature investments are needed across all asset classes, and both pure-play and diversified companies can qualify when there is a credible theory of change. Evidence can be quantitative, qualitative or process-based (or a combination), with safeguards against maladaptation and conflicts between mitigation and nature (such as through applying the principle of 'do no significant harm'). To ensure discipline, activities flow through FTT's Level I-III gates for policy alignment, category fit, and intentionality/measurability, and are evaluated for alignment to evolving taxonomies. Asset owner definitions are high-level and thematic (to give managers flexibility) while being anchored in science and market standards.

The paper adopts a just and inclusive approach: emerging markets are more vulnerable to physical climate risk, often more biodiverse, and should be enabled to monetise natural capital without repeating nature-negative pathways historically taken by developed markets. Data

scarcity and model blind spots inflate perceived risk and suppress investment, yet this mispricing creates opportunity for long-horizon capital, potentially supported by blended finance, to fund locally relevant adaptation and nature solutions.

## What we will invest in:

- **Climate adaptation:** (thematic, grounded in the Intergovernmental Panel on Climate Change (IPCC), plus health): ecosystem-based adaptation; resilient infrastructure; water management; agricultural adaptation; and health adaptation (eg heat stress, air quality, disease). Cross-cutting 'climate intelligence' tools can enable multiple themes.
- **Nature-related solutions:** (i) nature-positive restoration and conservation (eg wetlands, sustainable forestry, marine protection), and (ii) nature enablers that reduce drivers of biodiversity loss (eg circularity, pollution reduction, sustainable agriculture and aquaculture, green urban infrastructure, nature-based water treatment, health and urban cooling, sustainable tourism).

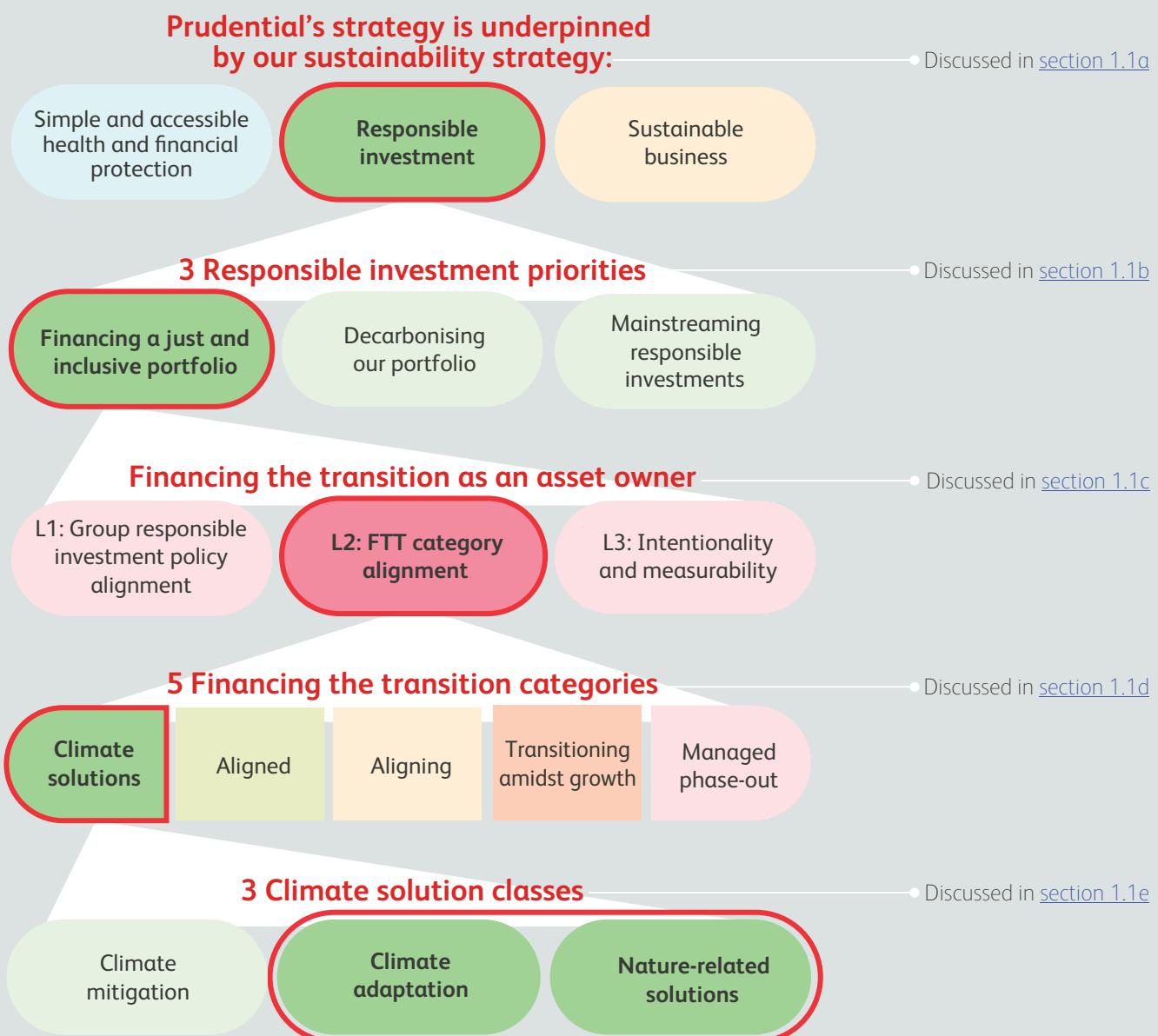
Climate adaptation and nature-related solutions remain underrepresented within current FTT investments despite their materiality and investability. The adaptation funding gap is large, especially in Asia and Africa, creating room for commercially viable solutions with strong avoided-loss economics, from flood protection to early-warning systems. Near-term priority areas include heat resilience; clean air and water; disease surveillance enabled by artificial intelligence (AI) and climate-linked insurance; and resilient health facilities.

Prudential will continue to evolve the framework with the market, aligning where possible to global standards and taxonomies while retaining flexibility to reflect local context and accelerate real-world progress. Feedback from asset managers, policymakers and stakeholders is welcomed.

## 1.1 Strategic context

This paper should be read as an extension of Prudential's Financing the Transition (FTT) framework, first published in 2024. While the original framework set out how Prudential, as an asset owner, finances the transition through a common set of principles, categories and safeguards, this paper deepens and refines that approach by focusing on climate adaptation and nature-related solutions.

The accompanying diagram and following sections situate this addendum within Prudential's broader sustainability and responsible investment strategy. It shows how 'climate solutions' sit alongside portfolio decarbonisation and engagement-led transition pathways. In doing so, the paper clarifies how adaptation and nature can be assessed, categorised and financed within the existing Level I-III framework, without changing its core architecture or fiduciary intent.



### 1.1a Our sustainability strategy

As a life and health insurer and long-term investor across Asia and Africa, our sustainability strategy is guided by our purpose: 'For every life, for every future'. We want to positively impact the future and wellbeing of our planet and our societies, with an ambition to deliver real-world impact and long-term resilience. As a company owned by independent shareholders, this means creating value underpinned by good governance and responsible business practices while ensuring we meet our fiduciary duty.

The three pillars of our sustainability strategy are tied to these three roles we play – as an insurer, investor, and a global business. We are committed to responsible investment, focusing on our fiduciary duty given climate change impacts and our strategic commitment to emerging markets where we operate. We have pledged to decarbonise our investment portfolio and become a net-zero asset owner by 2050 with interim decarbonisation targets, and our strategy, targets, and progress are described in detail in our [group sustainability report](#).

### 1.1b Responsible investment across the group

Prudential plc's approach to the just and inclusive transition to net zero, first outlined in our [Just and Inclusive Transition paper \(2022\)](#), places the realities of emerging markets<sup>1</sup> at the forefront of our responsible investment strategy, shaping our decisions as an asset owner and across our asset management subsidiaries. Fairness and flexibility for emerging markets is a key concern of the Paris Agreement as reflected by the principle of 'common but differentiated responsibilities' and mentioning of the 'specific needs and special circumstances of developing country Parties', among other things. While all countries must combat climate change together, their obligations differ based on their historical emissions and current capabilities.

This focus on a just and inclusive transition for emerging markets is the first of three priorities of our responsible investment strategy, and it shapes how we decarbonise our existing portfolio and engage issuers, other asset managers, policymakers, and the rest of the investment ecosystem to mainstream such investments in emerging markets. As a capital allocator operating across both developing and developed economies, Prudential must

interpret, adapt, and apply transition principles in line with differing regional, national, and sectoral circumstances.

While not the focus of this paper, a [2024 Eastspring Investments and Prudential publication](#) captures the complementarity of our asset management and asset ownership transition frameworks with a practical example – the Eastspring Just Transition Portfolio.

### 1.1c The asset owner's role in financing the transition

Prudential is uniquely positioned as both a global and a local asset owner, influencing our engagement approach and collaboration with in-group and external asset managers.

As a local asset owner in many emerging markets in Asia and Africa, we invest a significant portion of our assets in the countries where we operate, matching local liabilities with local assets where possible and often becoming significant buyers of securities traded in local markets. We believe that these local investments contribute to the growth of local markets, supporting employment and positively impacting society. There is therefore a need for flexibility within our principles-based approach for emerging markets, given Article 2.1(c) of the Paris Agreement that speaks to how financing the climate transition should not just support net zero and resilience, but to do so 'in the context of sustainable development and efforts to eradicate poverty'.

Additionally, asset owners are often challenged to adopt higher-level and broader definitions of transition and responsible investments, which are wide enough to account for the diverse approaches among their asset managers necessary to respond to different conditions across economies, sectors, and asset classes.

Our Financing the Transition (FTT) framework addresses these systemic challenges facing asset owners:

- Needed flexibility for emerging markets in line with the 'common but differentiated responsibilities' principle; and
- Lack of a standardised definition of financing 'brown-to-green', ie transition finance.

<sup>1</sup> In our paper, we group developing and emerging markets, and align our definition of emerging markets with MSCI's [Market Classification Framework](#).

The framework specifies three hurdles for every allocation:

- **Level I (group responsible investment policy alignment):** Baseline eligibility and exclusions, stewardship expectations and environmental, social, and governance (ESG) integration;
- **Level II (category alignment):** A common classification that places each investment in the transition universe, while maintaining flexibility for emerging markets and asset managers;
- **Level III (intentionality and measurability):** A stated transition thesis supported by decision-useful metrics and reporting cadence.

This three-level principles-based framework, framed at the asset owner level, is how we fulfil our fiduciary duty while scaling capital to real-economy transition in diverse emerging market contexts.

Beyond the framework, we discuss engaging issuers, asset managers and policymakers in our [2024 paper focused on active ownership and stewardship as an asset owner](#).

### 1.1d Categorising transition investments

Four of our five FTT categories focus on how an issuer operates: its governance, decarbonisation pathway, and the credibility and timing of its transition actions. This operational lens recognises that there is wide divergence across countries, regions and industries in both starting points and transition capacity. Emerging markets are particularly diverse: different economies face different sectoral structures, development needs and infrastructure gaps. While this paper refers collectively to 'emerging markets', our approach anticipates further differentiation – by region, sector and, ultimately, country – as data quality and policy frameworks evolve.

The distinctive feature of our framework within these four categories is 'Transitioning amidst growth'. It is designed for issuers in carbon-intensive sectors in emerging markets that are materially reducing emissions intensity from higher starting points while serving fast-growing demand. This category codifies flexibility consistent with the Paris Agreement's 'common but differentiated responsibilities' and the logic of our Just and Inclusive Transition framework: credible progress may follow different trajectories depending on local context, but should remain measurable and time-bound.

By contrast, 'climate solutions' assesses what the issuer produces: its products, services or technologies that deliver measurable positive outcomes for the climate or the natural environment. It is structurally distinct from the operational categories, focusing on the solution contribution rather than the pathway.

### 1.1e Clarifying adaptation and nature-related 'climate solutions'

Across the broader investment ecosystem, climate solutions have typically been seen through the mitigation lens: activities that avoid or reduce greenhouse gas emissions. These definitions have guided the growth of green finance over the past decade but have left adaptation and nature-related solutions less clearly articulated.

However, as climate impacts intensify, the investment landscape is shifting from a singular focus on emissions reduction to a broader emphasis on resilience. The capacity of societies, economies, and ecosystems to absorb and adapt to climate shocks is increasingly being recognised as a defining measure of long-term value creation and human welfare. Similarly, the conservation and restoration of natural capital have emerged as essential conditions for sustaining economic activity itself.

Recognising these dynamics, Prudential is expanding the 'climate solutions' category of our FTT framework to encompass a wider spectrum of activities that significantly contribute to three interlinked climate solution classes:

- 1 **Climate mitigation** – avoiding or reducing greenhouse gas emissions.
- 2 **Climate adaptation** – strengthening the resilience of communities, infrastructure, and ecosystems to withstand and recover from climate impacts.
- 3 **Nature-related solutions** – conserving, restoring, or sustainably managing biodiversity and ecosystem services, or reducing our negative impacts on nature.

This paper sharpens the 'climate solutions' FTT category by making adaptation and nature-related activities explicitly investable alongside mitigation. These activities are then seated inside our Level I–III gates for diligence, monitoring and disclosure, supporting our responsible investment and group sustainability commitments.

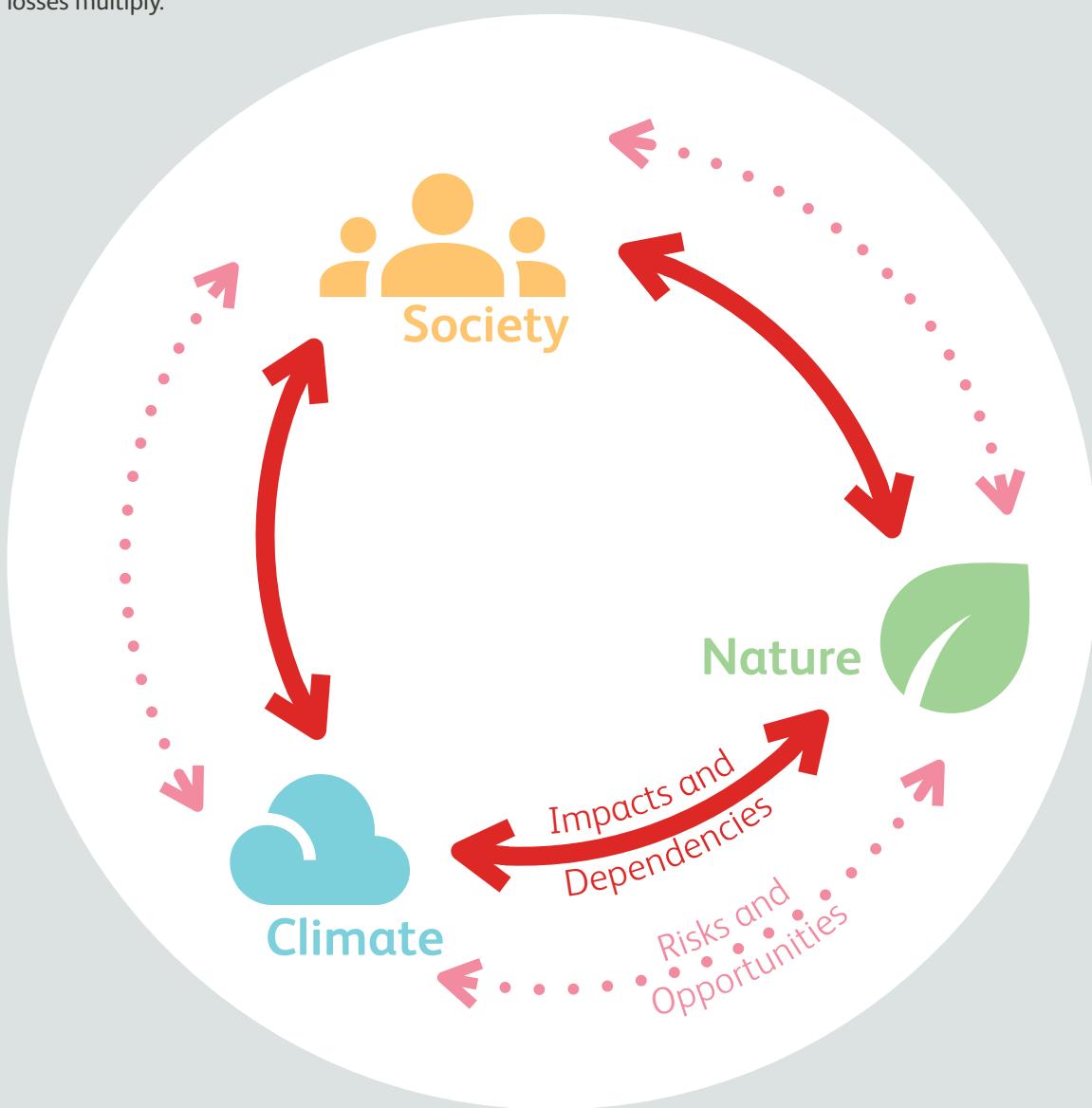
## 1.2 The interconnectedness of climate, nature and society

Climate, nature and society form a single, interconnected system in which each component both shapes and depends on the others. Natural ecosystems are the building blocks of human society and play an essential role in managing the extent of climate change; human activity alters the climate and the natural systems it relies upon; and climate change, in turn, impacts the resilience of ecosystems and human wellbeing.

These reciprocal feedback mechanisms can drive a vicious cycle of degradation or a virtuous cycle of resilience. When ecosystems deteriorate, the services that support health, livelihoods and economies decline. Communities become more vulnerable and economic losses multiply.

Reverse the flow and a different pattern appears: protected or restored ecosystems buffer floods, stabilise hydrology, store carbon and sustain the biodiversity necessary for the continued replenishment of natural capital. Societies suffer fewer losses and can plan, insure and invest over the long term. With less pressure on nature, carbon sinks endure and future sequestration rises, easing climate risk.

Understanding the interconnectedness of climate, nature, and society is core to this paper, and explains why Prudential treats climate mitigation, climate adaptation and nature-related activities as synergistic 'climate solutions'. We will map these relationships and link them to risks and investable opportunities.

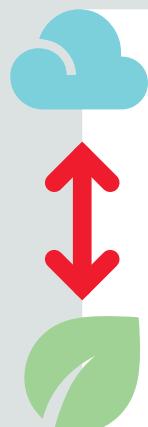


### 1.2a Impacts and dependencies

To better capture the interconnectedness between climate, nature and society, we borrow the vocabulary developed by the Taskforce on Nature-related Financial Disclosures (TNFD): dependencies, impacts, risks and opportunities (DIRO)<sup>2</sup>.

Originally developed to help individual organisations assess nature-related issues, dependencies describe the ecosystem services that an individual organisation relies on from nature, while impacts describe how the firm's activities alter nature's state, positively or negatively, directly or cumulatively. We have found this vocabulary to be equally applicable at the system level between each pair: nature <> climate, nature <> society, and climate <> society, briefly exploring the dependencies and impacts in both directions.

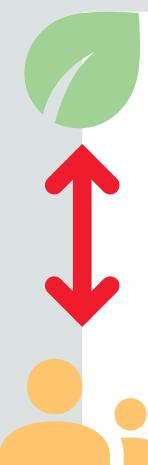
Having established present dependencies and impacts, we explore potential consequences – namely risks and opportunities – that reveal where innovation, growth and investment can happen.



#### Climate <> nature relationship

Climate change is a direct driver of nature degradation. Climate-induced events like flooding, wildfires, ocean acidification, and cyclones disrupt the water cycle, alter soil temperatures, and accelerate habitat and wildlife loss. Climate change is an external factor that influences the state of nature, leading to changes in the availability of ecosystem services.

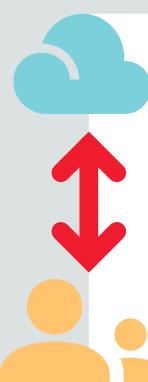
The loss of key ecosystems also increases the pace of climate change through adverse changes in the carbon, nitrogen and water cycles. Destruction of forests and peatlands (natural capital) accelerates climate change by releasing stored carbon into the atmosphere and reducing the ability to sequester future carbon. This relationship is mutually reinforcing: the loss of nature drives climate change, and climate change drives further nature degradation, while the preservation and restoration of nature helps to limit climate change. This in turn minimises further nature degradation.



#### Nature <> society relationship

Societal activities generate impact drivers (eg land/ocean use change, resource use, pollution) that lead to changes in the state of nature (degradation or enhancement). Human health, food systems and economic productivity depend on stable ecosystem services like fertile soils, water quality and flow, flood protection, habitats that buffer against zoonotic spillover of disease, pollination and temperature regulation.

Unsustainable land use, pollution and over-extraction diminish nature's capacity to provide essential services, while climate change compounds these pressures. As nature degrades, it impacts society: lower crop yields from pollinator decline, disease transmission, fisheries collapse and higher disaster losses where mangroves and wetlands once acted as natural flood barriers. Nature loss also has macroeconomic impacts, from food insecurity and migration pressures to declining tax revenues and supply-chain fragility.



#### Climate <> society relationship

Human society and activity, ranging from agriculture to leisure to real estate, has been structured around (and thereby largely depends on) a degree of predictability in the operation of climate systems. Society's activities (primarily through the economy) produce greenhouse gas (GHG) emissions, which are a core impact driver of climate change.

Deforestation, driven by economic activity, is also a significant source of GHG emissions. As climate change worsens, climate systems become increasingly unpredictable. This intensifies events such as floods, droughts and heatwaves, leading to societies experiencing asset losses, chronic and acute health shocks, and fiscal strain.

<sup>2</sup> TNFD, [Guidance on the identification and assessment of nature-related issues: The TNFD LEAP approach](#) (2023).

## 1.2b Risks and opportunities

This current state of dependencies and impacts establishes the system's exposure to change. These exposures subsequently give rise to risks and opportunities, which represent the potential consequences (threats or gains) that materialise for nature, climate and society over time.

- **Risks** are the potential threats posed to nature, climate or society that arise from their dependencies and impacts on the other elements in the interconnected system, leading to potential disruption, degradation, or destabilisation. These threats are typically described in terms of physical and transition risk drivers; when these are correlated, persistent or amplified across sectors and regions, they can cause systemic consequences.
- **Opportunities** are activities that create positive outcomes for nature, climate or society, generated either by adapting to identified risks or through strategic transformation that actively works to slow, halt or reverse climate change or the loss of nature.

### Risk categories

While it is impossible to catalogue all risks that arise from the relationships between climate, nature, and society, we classify these based on drivers (physical or transition) and origins (climate or nature). Portfolio risk assessment is not the focus of this paper, but these risk categories guide us as we identify opportunities to invest in solutions – including issuers helping other organisations mitigate risks.

Risk Origin: Climate	Risk driver: Physical	Risk driver: Transition
Risk Origin: Nature	<p><b>Physical climate risks</b></p> <p>Direct hazards from a changing climate – some sudden (eg more intense storms and floods), others gradual (eg rising seas and chronic heat) – damage assets, disrupt supply chains and alter water and food security. These effects translate into operational and financial strain over time, while also stressing ecosystems and eroding biodiversity.</p> <p>While the physical climate risk is included in climate scenario modelling, it is generally agreed that this risk is underestimated (eg per the Network for Greening the Financial System<sup>3</sup>) and does not account for tipping points or socioeconomic impacts. The absence of clear guidance on how companies should adapt to a changing climate means that preparedness is rarely factored into corporate assessments by investors and analysts.</p> <p><b>Nature-related physical risks</b></p> <p>Degradation of ecosystems erodes the services organisations rely on (eg water regulation, pollination, coastal protection) creating risks that are typically location-specific. These can be acute (oil spills, wildfires, pest outbreaks) or chronic (pollution, long-term ecological decline), driven by shifts in the living and non-living conditions that support healthy ecosystems. As forests, soils, oceans and wetlands are damaged, they lose their capacity to store carbon and regulate water and temperature, which in turn accelerates climate change and further degrades nature.</p> <p>A lack of understanding and quantification of these risks, combined with data limitations and the local nature of the topic, results in limited assessment at a company level.</p>	<p><b>Climate transition risks</b></p> <p>As economies move towards net zero, policy and legal changes, technology shifts, market repricing, and reputational pressures can unsettle business models. The nature, timing and speed of this transition determine the financial exposure.</p> <p>Of these risk categories, climate transition risks are best understood today and are starting to be priced into investments. A delayed or disorderly transition means higher cumulative emissions and greater physical climate risk; a timely, credible transition helps stabilise the climate and ease pressure on nature.</p> <p><b>Nature-related transition risks</b></p> <p>Where economic actors are misaligned with efforts to protect, restore or reduce negative impacts on nature, they face policy, market, technology, reputational and liability risks as rules, expectations and technologies evolve. Well-designed measures can drive restoration and expansion of natural carbon sinks; poorly designed measures can displace pressures to other geographies or species, undermining both climate and nature outcomes.</p> <p>Rules on deforestation-free supply chains, biodiversity targets and liability are accelerating, but most investors are only beginning to map exposures to nature-related transition risks.</p>

Note: Systemic risks emerge from the interaction and accumulation of physical and transition risks across actors, sectors and geographies, rather than from a distinct third type of risk driver.

<sup>3</sup> Network for Greening the Financial System, [NGFS scenarios for central banks and supervisors – Phase 5](#) (2025).

### Opportunities for climate mitigation

Activities that cut emissions or increase removals across power, industry, buildings, transport and land use create societal value (and contribute to the stability and growth of portfolios invested in these societies). The value story is twofold: operational gains and market share from low-carbon products today, given transition risks; plus lower long-run hazard exposure as system-wide warming is limited. Examples include renewables and storage, grid modernisation, efficiency improvements and electrification, industrial abatement (including methane control and carbon capture), carbon management, and verified nature-based sequestration.

Climate mitigation opportunities lower future warming, which reduces the expected severity and frequency of climate hazards compared with higher-emissions pathways, eases climate stress on ecosystems, and reduces both physical and transition climate risks. Given mature taxonomies and measurable outcomes, mitigation is the most well established category of 'climate solutions'.

### Opportunities for climate adaptation

Activities that reduce exposure and vulnerability to climate impacts allow assets, supply chains and communities to operate through more volatile climate conditions. Examples include resilient water and sanitation, climate-smart agriculture, urban cooling and heat-health, coastal and flood defences, early-warning systems, and risk-transfer instruments.

Climate adaptation opportunities directly lower physical climate risk today via avoided losses, higher availability and reduced earnings volatility; well-designed ecosystem-based measures also help stabilise local ecosystem services. Because many benefits are diffuse and long-dated, blended and concessional finance are often required.

### Opportunities for nature-related solutions

Activities that positively restore, conserve or regenerate nature, or those that enable a nature-positive economy by limiting the drivers of ecosystem degradation and biodiversity loss. Value shows up in real asset cash flows, reduced input and compliance costs across value chains, and new instruments/markets (eg biodiversity-linked financing).

Nature-based solutions rebuild or safeguard ecosystem services, thereby reducing physical nature risk at the source. These solutions also buffer physical climate risk where carbon and hydrology sinks are protected, and lower nature transition risk by aligning with evolving policy, market, technology and reputational expectations.

### Managing risks

This paper is focused on opportunities: investments in 'climate solutions' that actively contribute to adapting to a changing climate, as well as nature-related solutions. While not the focus of this addendum, our broader *Financing the Transition* framework also accounts for climate risks to our portfolio.

To manage climate adaptation and nature risks appropriately, we prefer to assess companies just as we assess their progress on climate mitigation (through assessments of their transition plans and alignment to decarbonisation pathways).

For adaptation, we aim to assess companies on their transition to become resilient to the impacts of climate change. For nature, we aim to assess companies on their transition to become nature-positive or nature-neutral (ie adoption of nature considerations into business-as-usual operations).

## Case study: health

### Climate-health nexus

As climate change intensifies, its impacts on human health are becoming more severe and widespread – ranging from heat-related illnesses and vector-borne diseases to mental health challenges and disrupted healthcare systems. Climate adaptation in health is essential to protect vulnerable populations and maintain the productivity of the workforce, especially in regions like Asia and Africa where Prudential operates. However, health receives just 0.5 per cent of global climate finance and 2 per cent of adaptation funding<sup>4</sup>. Asia faces an annual health adaptation gap of US\$3.5 billion<sup>5</sup>, even as climate-driven deaths from heat stress, malnutrition, and disease are expected to rise by 250,000 annually between 2030 and 2050<sup>6</sup>.

Climate-related health risks include:

- Increased heatwaves leading to cardiovascular and respiratory stress;
- Changing disease patterns, such as the spread of dengue and malaria;
- Food and water insecurity, affecting nutrition and hygiene; and
- Mental health impacts from displacement and disaster trauma.

Prudential is actively building resilience against the health impacts of climate change. One prominent example is our partnership with Climate Resilience for All (CRA) on an initiative in India through our philanthropic arm, the Prudence Foundation. In 2025, this initiative provided essential protection for 225,000 self-employed women in India against extreme heat, offering fully subsidised insurance coverage, cash assistance, and training.

Additionally, the Prudence Foundation, in partnership with AVPN, has launched a report on [Unlocking Capital for Climate and Health](#). The report highlights that there is a massive financing gap and misaligned flows: Health-focused adaptation receives just 0.5 per cent of global climate finance, while adaptation overall continues to lag, particularly in Asia where mobilised capital falls far short of annual needs. Catalytic and blended capital are necessary to unlock this misalignment, and there is a practical toolkit to deploy them. Flexible, early-stage, and blended capital can de-risk innovation and crowd in private investors. The report introduces an investment toolkit (venture score grid, minimum viable score, macro risk adjusters) to help investors realistically assess readiness and deploy capital more effectively. Additionally, the report identifies four priority opportunity areas that show near-term investability: heat resilience, clean air and water, AI-driven disease surveillance and climate-linked insurance, and resilient health facilities.

<sup>4</sup> HealthQuad; PwC; Quadria Capital, [Financing the Climate-Health Frontier](#) (2025)

<sup>5</sup> AVPN & Dalberg Advisors, [Climate & Health Opportunity Primer](#) (2024)

<sup>6</sup> World Health Organization. [Climate Change](#) (2023).



### Nature-health nexus

The nature-health nexus refers to the intricate and dynamic relationship between natural environments and human health. Research increasingly shows that access to green spaces, clean air, and biodiversity can significantly enhance physical and mental wellbeing, reduce stress, and lower the risk of chronic diseases. Conversely, environmental degradation, such as pollution, deforestation, and climate change, can negatively impact health by increasing exposure to toxins, reducing food and water security, exacerbating health inequalities, and increasing vector-borne diseases.

Understanding this nexus is crucial for developing sustainable policies that promote both ecological integrity and public health.

Prudential has partnered with the Earth Observatory of Singapore (EOS) to launch the [Prudential EOS Climate Impacts Initiative](#), a two-year research project aimed at understanding how climate change affects air quality and public health. Covering 10 countries across Asia and Africa, the initiative analyses historical air pollution trends and their health impacts, and projects future scenarios based on different climate pathways. Led by Associate Professor Steve Yim, the study seeks to inform policies that enhance climate resilience and reduce health risks associated with deteriorating air quality.



## 2 Investing in climate adaptation to drive resilience

Climate adaptation and resilience investments are financial and strategic efforts aimed at preparing for and responding to the impacts of climate change.

Despite the importance of these investments, there is a significant funding gap due to various challenges such as unclear definitions, optimism and recency bias, and the high costs associated with long-term projects.

Emerging markets, being most vulnerable to climate change, require substantial investments and face additional hurdles like insufficient data, local needs, and higher physical risks.

## 2.1 The climate adaptation funding gap

Public and private investments in climate adaptation are not new. Humanity has always defended itself against natural disasters, and Prudential's Financing the Transition (FTT) framework gives us the mandate to invest in climate adaptation within the 'climate solutions' FTT category. However, while some existing FTT strategies include adaptation, as an asset owner we rarely see any dedicated climate adaptation investments within these funds. The large financing gap for climate adaptation suggests that this challenge is not Prudential-specific and extends to other asset owners and managers.

The financing gap for climate adaptation is especially significant for emerging markets ranging from US\$310 billion to US\$365 billion annually by 2035, including both immediate needs and medium-term strategic adaptation measures<sup>7</sup>. The final extent of needs and the funding gap in climate adaptation ultimately hinges on humanity's success in mitigating climate change. The United Nations also estimates that the adaptation finance gap is US\$284 billion to US\$339 billion per year until 2035, with needs that are 12 to 14 times as much as current finance flows<sup>8</sup>.

It is important to note that there is significant uncertainty around these numbers as adaptation finance is currently not tracked consistently due to challenges around labelling and definitions. Additionally, these investment flows only track adaptation project investment flows. Investments by companies into managing the impact of physical climate risks on their own operations are not included, which could result in an overestimation of these financing gaps. Nevertheless, there is general agreement that the financing gap for climate adaptation is significant.

There is a clear economic rationale for both public and private sector investors to invest in adaptation. The United Nations Environment Programme (UNEP)<sup>9</sup> estimates that the private sector could deliver 15 to 20 per cent of total national adaptation funding needs. Research also suggests that a US\$50 billion investment in flood defences for coastal cities could reduce projected losses in 2050 from US\$1 trillion to just US\$60 billion<sup>10</sup>. Similarly, the UN Adaptation Gap Report projects that investments in climate adaptation will keep rising yearly, the market may grow to US\$500 billion to US\$1.3 trillion by 2030<sup>11</sup>. Additionally, there are indications that climate adaptation is currently not priced into markets<sup>12</sup>. These characteristics could lead to interesting investment opportunities.

<sup>7</sup> UNEP, [Adaptation Gap Report 2025](#) (2025).

<sup>8</sup> ADB, [Asia-Pacific Climate Report 2024: Catalyzing Finance and Policy Solutions](#) (2024).

<sup>9</sup> UNEP, [Adaptation Gap Report 2025](#) (2025).

<sup>10</sup> Klusak, P, M Agarwala, M Burke, M Kraemer and K Mohaddes, [Rising Temperatures, Falling Ratings: The Effect of Climate Change on Sovereign Creditworthiness](#), *Management Science*, 69(12) (2023), pp 7468–7491.

<sup>11</sup> BCG, [The Private Equity Opportunity in Climate Adaptation and Resilience](#) (2025).

<sup>12</sup> Global Adaptation & Resilience Investment Working Group, [The Unavoidable Opportunity: Investing in the Growing Market for Climate Resilience Solutions](#) (2024).

## 2.1a Reasons for the funding gap

However, the funding gap persists for reasons such as:

- **Responsibility and capacity:** Adaptation is often seen as a government-only concern, with countries most in need lacking resources for long-term projects<sup>13</sup>. However, companies equally need to invest in adaptation to ensure their businesses are resilient to the impacts of physical climate risks.
- **Unclear definitions:** The lack of a common approach to measuring adaptation, the vagueness of definitions, and the absence of a common understanding of needs and capabilities among investors, policymakers, and scientists.
- **Optimism bias:** The optimism bias is potentially the most significant cognitive bias<sup>14</sup>, which can lead to downplaying the likelihood or severity of physical climate risks, leading to inaction on the false premise that disaster recovery would be less costly than proactive preparation.
- **Recency bias:** Recency bias leads people to focus on recent experiences, so if no recent climate events have occurred, they may underestimate future risks, even if long-term data shows increasing danger<sup>15</sup>. For example, 66 per cent of businesses in the European Union (EU) reported threats from climate change, but only 22 per cent had adaptation strategies<sup>16</sup>. As a result, many governments and businesses still tend to focus more on disaster recovery than on proactive adaptation which results in less support for upfront investments in adaptation.
- **Investment challenges:** Climate adaptation projects are often long-term, with benefits that are hard to quantify financially, making returns seem less attractive. The World Resources Institute argues that there is a triple dividend of adaptation actions: avoided losses from acute and long-term physical climate risk events (first dividend), induced economic or development benefits (second dividend), and additional social and environmental benefits (third dividend). However, economic return is not always equal to financial return – not all these dividends are quantifiable, nor do all of these accrue to the investor, which discourages private sector investment.
- **Local needs:** Highly localised adaptation needs complicate investment for global investors.
- **Data gaps:** There is limited data on adaptation projects at both country and asset levels. Data is also often unable to separate adaptation measures within traditional areas of financing (eg infrastructure) nor adequately capture the interplay between mitigation and adaptive solutions (eg heating, ventilation, and air conditioning solutions may benefit adaptation, while negatively impacting climate change mitigation).
- **Lack of policy support:** Few policies or regulatory incentives exist to encourage adaptation investment<sup>17</sup>, and only 60 countries had formal adaptation plans as at the end of 2024<sup>18</sup>.
- **Emphasis on mitigation:** Most sustainable finance today focuses on climate mitigation instead of adaptation, further limiting funding flows<sup>19</sup>.

Some of the above challenges translate to a lower rate of investment return for adaptation investment, making it harder to invest in adaptation solutions.

<sup>13</sup> OECD, [Scaling Up Adaptation Finance in Developing Countries: Challenges and Opportunities for International Providers](#) (2023).

<sup>14</sup> Kahneman, [Thinking, Fast and Slow](#) (2011).

<sup>15</sup> J.P. Morgan, [Building resilience through climate adaptation](#) (2025).

<sup>16</sup> Beattie, Optimism bias and climate change, [British Academy Review](#), pp33 (2018).

<sup>17</sup> OECD, [Scaling Up Adaptation Finance in Developing Countries](#) (2023).

<sup>18</sup> UNFCCC, [NAP Progress Publication 2024](#) (2024).

<sup>19</sup> MSCI Institute, [Methodology: Developing an investible universe of climate adaptation and resilience companies](#) (2024).

## 2.2 Assessing current definitions of climate adaptation

Asset owners are faced with a fragmented mix of climate adaptation definitions. This fragmentation creates a persistent ‘mitigation bias’, because mitigation taxonomies and metrics are more mature, more comparable across geographies, and easier to scale in portfolios. This hampers investment in solution providers that help companies willing to spend significantly in building their resilience to physical climate risks.

The lack of a unified definition of climate adaptation leads to international funds, investors, and philanthropic organisations investing in better-established and more understandable climate mitigation solutions instead. This definitional challenge is perhaps the most urgent, relatively easy to address, and very relevant for investors aiming to invest in adaptation.

### 2.2a Challenges in defining climate adaptation

While existing taxonomies include adaptation and separate guidance is available (for a full overview, see the adaptation taxonomy database)<sup>20</sup>, climate adaptation taxonomy development lags climate mitigation taxonomy. The Observer Research Foundation<sup>21</sup> and the OECD<sup>22</sup> set out clearly the main reasons for this:

- Adaptation is more country-specific than mitigation, and therefore draws less attention from international investors and leads to challenges in developing widely applicable general recommendations. Country-specific opportunities may not always offer the scale, diversification, or liquidity required by large institutional investors.
- Due to the context-specific nature of adaptation, just examining the activity is not enough to determine if an investment aids adaptation; local circumstances need to be assessed.
- Adaptation measures often seamlessly blend into activities intended for other reasons. For example, improving access to education can also yield adaptation benefits. As such, it is not always possible to readily separate out the elements or share of an activity contributing to adaptation.

As a result, adaptation definitions by the public sector have focused on identifying finance for adaptation based on processes rather than on the intrinsic characteristics of the activity or the sector that the activity belongs to.

### 2.2b Existing definitions of climate adaptation

At a global level, the OECD’s Rio markers classify adaptation based on the intention behind the activity and the ability to demonstrate that the proposed activity will contribute to climate adaptation. Similarly, the adaptation component of the EU Taxonomy requires that a process of climate risk assessment and management be undertaken to justify that an activity contributes to adaptation<sup>23</sup>.

Meanwhile, multiple private sector initiatives are beginning to define climate adaptation investments. These include the Institutional Investors Group on Climate Change (IIGCC)’s Climate Resilience Investment Framework, Climate Resilience Investments in Solutions Principles (CRISP) framework, Climate Bonds Resilience Taxonomy Methodology, the Boston Consulting Group and Temasek’s Climate Adaptation & Resilience Investment Opportunity Map, and Standard Chartered’s Guide for Adaptation and Resilience Finance.

These examples are diverse. They converge on themes and safeguards, but differ in how prescriptive they are, how they handle local context, and how easily they map across asset classes.

<sup>20</sup> Environmental Change Institute, University of Oxford, [A&R Taxonomy compilation](#) (2024).

<sup>21</sup> Korostikov, [The Utility of a Unified Adaptation Taxonomy in Mobilising Adaptation Finance](#), Observer Research Foundation (2024).

<sup>22</sup> OECD, [Scaling Up Adaptation Finance in Developing Countries](#) (2023).

<sup>23</sup> Ibid.

### Adaptation or resilience?

Climate adaptation and climate resilience are often used interchangeably in policy and finance discussions. For clarity and concision, this paper uses 'climate adaptation' as the overarching term.

However, Standard Chartered's [Guide for Adaptation and Resilience Finance](#) offers a nuanced distinction: while both concepts aim to manage and reduce climate-related risks,

- **Adaptation** refers to the process of adjusting systems, practices, and structures to cope with and moderate potential damage from natural hazards and climate impacts; whereas
- **Resilience** describes the ability of systems and communities to withstand, absorb, adapt to, and recover from those impacts while maintaining essential functions.

Together, they represent complementary approaches to strengthening the capacity of societies, economies, and ecosystems to deal with a changing climate.

Current frameworks aim to identify products and services contributing to climate adaptation opportunities (the 'what' of an organisation), while still prescribing process-related actions that shape how it operates to minimise climate risk, such as avoidance of maladaptation (see [section 4.1](#)) and ensuring there is a process in place for 'do no significant harm'.

They group the different adaptation activities around multiple themes. While all initiatives define these slightly differently, they are mostly aligned to the adaptation options as set out by the Intergovernmental Panel on Climate Change (IPCC) in their Sixth Assessment Report (see [section 4.2](#)).

For asset owners, the common threads are useful, but not yet sufficient for portfolio comparability:

- Themes help with classification;
- Safeguards reduce downside risk; and
- 'Pure-play versus enabler' clarifies business-model exposure.

There is a need to synthesise a minimal, repeatable evidence set that travels across regions and asset classes without erasing local context.

### 2.2c A way forward for asset owners

While the development of these definitions is encouraging, it is difficult for asset owners like Prudential to adopt these definitions directly. Asset owners require definitional flexibility as the asset managers they work with have their own methodologies, views and preferences. Definitions used by asset owners therefore have to be higher-level and preferably aligned to market standards instead of individual organisations, while referencing the principles used in developing public sector and asset manager-focused definitions. On the other hand, the process-based approaches such as the Rio markers are not suitable for asset owners either, as many investments do not state these explicit goals.

This paper therefore adopts a thematic approach grounded in IPCC categories, with the addition of health adaptation to reflect material societal impacts and Prudential's mandate. This creates a small number of activity themes that managers can detail further, supported by minimal process proofs and outcome-oriented evidence. [Section 4.2](#) sets out Prudential's definition of climate adaptation and themes in full and explains how cross-asset application and manager flexibility are preserved within a consistent architecture.

## 2.3 Considerations for emerging markets

Adaptation efforts will be crucial for emerging markets as these markets are typically the most vulnerable to the physical impacts of climate change and have fewer resources to finance adaptation solutions. There are also important considerations<sup>24</sup> when investing for resilience in emerging markets which are discussed in this section.

### 2.3a Risk migration and human impact

Emerging markets tend to have higher physical risk and are less well prepared to deal with the consequences<sup>25</sup>. This could create an incentive for global investors to move capital away from emerging markets to manage this risk, but this is not a long-term solution. For one, many companies in developed markets rely on companies in emerging markets in their supply chains. Understanding supply chain risks is challenging, but avoiding investments with direct exposure to emerging markets does not manage the supply chain risk.

This higher physical risk might not be reflected in financial numbers. An International Chamber of Commerce (ICC) report found that extreme weather events have cost the global economy US\$2 trillion from 2014 to 2023, with US\$451 billion in damages over the last two years. The US incurred the highest costs at almost US\$1 trillion. This is because costs are higher in developed markets due to the concentration of higher-value assets in these markets and the loss of extensive legacy infrastructure which needs to be rebuilt.

However, that does not mean that emerging markets are not impacted – the financial impact might be lower as the value of the impacted assets is lower, but the physical impact is still there and the relative impact on gross domestic product (GDP) might be higher<sup>26</sup>. For example, between 2000 and 2021, nearly 40 per cent of all climate-related disasters globally occurred in Asia<sup>27</sup>.

### 2.3b Why perceived risk can be further inflated

Beyond genuinely higher physical climate exposure, emerging markets often face overstated perceived risk driven by how risks are currently measured and reported. This can further disadvantage emerging markets in investment decisions, reinforcing the bias against allocating capital to where adaptation is most needed.

- Many approaches to measuring physical climate risk rely on partially opaque ‘black-box’ models, which limits users’ ability to interrogate results or underlying model assumptions.
- Defined thresholds frequently embed local climatic baselines where they were originally developed; applied out-of-context, they inflate or underestimate risk rather than measuring it. For instance, temperature-based indicators originally used to assess heat stress in temperate climates may not account for climatic norms in other regions. Temperature-based heat-stress indicators that flag ‘extreme’ conditions in temperate zones may simply reflect normal equatorial climates (eg a 25°C exceedance rule applied globally), misclassifying emerging-market heat risk.

<sup>24</sup> IIGCC, [Climate Resilience Investment Framework Consultation 2025](#) (2025).

<sup>25</sup> Notre Dame Global Adaptation Initiative, [Country Index](#) (2025).

<sup>26</sup> ICC & Oxera, [The economic cost of extreme weather events](#) (2024).

<sup>27</sup> Fernández García et al., Global trend and epidemiological profiles of climate-related disasters from 2000 to 2021, [Tropical Medicine & International Health](#), 29(8) (2024), pp 731–738.



- Data scarcity in emerging markets leads to more inaccurate and missing assessments of the risks in emerging markets. Missing data is often attributed to weak risk management, rather than recognised as being driven by measurement constraints, further inflating perceived physical risk.
- In addition, the uncertainty in future climate risk trajectories and technology availability to emerging markets may make it challenging to price for potential shifts in market dynamics.

### 2.3c Locality and modelling blind spots

Climate adaptation needs are location-specific because investors must consider differing regional, national, and local circumstances and, in many cases, ideally adopt a country-specific approach. This complicates the identification of relevant climate adaptation solutions, as a simple taxonomy of investable activities like what was used to classify climate mitigation solutions does not account for local climate adaptation needs.

Furthermore, the modelling of the physical climate risk faced by issuers tends to be focused on location of their assets (asset impairment) and business disruption, instead of where their business activities happen. For example, the physical risk of a property and casualty insurance company estimated by data providers for use by investors is mostly driven by the location of its office, instead of the exposure to physical risk through its insurance products<sup>28</sup>. This underweights product- and customer-level transmission of physical climate risk through underwriting, lending, or supply contracts.

<sup>28</sup> Based on Prudential's research

## 2.3d Investing in climate adaptation for emerging markets

Taken together, the measurement gaps, data scarcity, model misapplication and scope blind spots described above create systematic mispricing and chronic underinvestment relative to the true need for adaptation in emerging markets. This presents long-horizon asset owners with investment opportunities:

- Demand for adaptation: The higher vulnerability to climate change also creates a larger demand for adaptation solutions.
- Broader investment universe: The opportunities for investment in adaptation and resilience solutions in emerging markets are broader. Providing access to energy, communications, water, healthcare and other critical infrastructure can make communities in emerging markets more resilient to climate impacts, to a greater degree than incremental improvements in developed markets which already benefit from these services.
- Innovation potential: Emerging markets have a greater demand for greenfield investments that are climate-resilient and provide an opportunity to leapfrog outdated technologies and adopt climate-smart innovations.
- Natural capital: Many emerging economies are biodiversity hotspots with vast forests, wetlands, and coastlines, which also have large adaptation benefits. These resources can attract more climate funding due to its multiple benefits for adaptation, carbon sequestration and tourism.
- Blended finance opportunities: Guarantees, concessional capital, insurance and debt swaps are more available for investments in emerging markets. Blended finance solutions are often needed for climate solution investments in emerging markets, and especially for adaptation. These solutions help de-risk these investments by using concessional public capital to attract private funding and can therefore be a key enabler in unlocking private capital for climate adaptation.
- Climate intelligence: Localised geospatial and monitoring, reporting, and verification (MRV) tools that map hazards and ecosystem condition at asset, activity, and supply-chain level can help to close country-specific data gaps, correct asset-only modelling biases, and make local adaptation more investable.

As a long-horizon asset owner, we can leverage these opportunities to support a just and inclusive transition for emerging markets in line with our fiduciary duty, as we broaden the investable universe of adaptation opportunities. Prudential's definition of climate adaptation themes and our principles-based approach is described in [section 4](#).



## 3 Investing in nature-related solutions

Nature refers to the natural world, including biodiversity, ecosystems and the services they provide, as well as the broader biosphere in which all life exists<sup>29</sup>.

The Kunming–Montreal Global Biodiversity Framework aims to increase biodiversity finance from developed to developing countries, but a significant funding gap remains.

Emerging markets face challenges in monetising their natural resources due to historical deforestation patterns, and carbon credits offer a potential solution if credibility issues are addressed.

## 3.1 The nature and biodiversity funding gap

The adoption of the Kunming–Montreal Global Biodiversity Framework (GBF) by Parties to the Convention on Biological Diversity in December 2022, marked a shift in the global recognition of the importance of biodiversity. With US\$44 trillion global economic value at stake (over 50 per cent of global GDP)<sup>30</sup>, biodiversity loss has been recognised as one of the most severe global risks over the next decade<sup>31</sup>.

The GBF includes ambitious targets on financing:

- 1 Mobilise at least US\$200 billion per year from all sources (public and private, domestic and international) for biodiversity-related funding.
- 2 Increase international biodiversity finance from developed to developing countries to:
  - US\$20 billion per year by 2025; and
  - US\$30 billion per year by 2030.
- 3 Identify and reform or eliminate subsidies harmful to biodiversity by at least US\$500 billion per year by 2030.

Despite growing global commitments, a substantial biodiversity financing gap – estimated at US\$598 billion to US\$824 billion annually – persists<sup>32</sup>. This shortfall, much like the gap in climate adaptation finance, stems from the nature of biodiversity as a negative externality.

Several key factors contribute to this:

- Lack of economic valuation: The ecosystem services provided by nature – such as pollination, water purification, and climate regulation – are not adequately priced or reflected in market transactions. Similarly to climate adaptation, much of the value of natural capital is hard to quantify financially, making returns seem less attractive. The value of natural capital on an economic level also often exceeds the financial returns to individual investors, which discourages private sector investment.
- Difficulty in risk pricing: Nature risks are complex, long-term, and often poorly understood, making them hard to quantify and integrate into financial decision-making.
- Challenges in measuring non-financial benefits: In addition to the quantification problems described above, many of nature's contributions, such as cultural, spiritual, health, or community wellbeing, are intangible and difficult to capture in traditional cost-benefit analyses.
- Weak regulatory frameworks: In many jurisdictions, there is limited policy or regulatory pressure to internalise costs related to nature loss or incentivise investment in nature-related solutions.
- Highly localised needs: Nature priorities vary significantly by region and ecosystem, making it difficult to design scalable, one-size-fits-all financing solutions.
- Nature includes many different topics: Nature impacts and dependencies are numerous and every impact and dependency requires its own assessment using different metrics. This includes defining benefits from natural systems at various levels from ecosystems to species.

<sup>29</sup> TNFD, [Glossary](#) (2024).

<sup>30</sup> World Economic Forum, [New Nature Economy Report II: The Future of Nature and Business](#) (2020).

<sup>31</sup> World Economic Forum, [Global Risks Report 2024 Digest](#) (2024).

<sup>32</sup> The [Paulson Institute and the Nature Conservancy](#) estimate that as of 2019, spending on biodiversity conservation is between \$124 and \$143 billion per year, against a total estimated biodiversity protection need of between \$722 and \$967 billion per year.

## 3.2 Assessing current definitions of nature-related solutions

For investors in nature-related solutions, the challenge lies in striking the right balance between narrow specificity and broad impact. A conservation-only lens misses the less obvious risks and opportunities in value chains; an economy-wide dependence lens is too diffuse to be investable. Asset owners need scope clarity that recognises both outcome-oriented restoration and conservation as well as pressure-reduction in real-economy activities, with evidence that aggregates across portfolios.

### 3.2a Challenges in defining investments in nature

Definitions of investing in nature are currently clustered at two ends of a continuum:



- An approach focused on **opportunity for impact**: On one end, a very narrow definition focuses on a single type of investment: nature-based solutions limited to nature conservation and preservation (eg mangroves). The Paulson Institute and Nature Conservancy estimate that between US\$6.8 billion and US\$10.4 billion flows into nature-based solutions, carbon and biodiversity offsets<sup>33</sup> (the most common way to invest in nature).
- A **risk-based** approach: At the other extreme, some suggest taking an extremely broad view by including all economic value moderately or highly dependent on nature; the World Economic Forum (WEF) estimates this accounts for about half of global GDP (US\$44 trillion). This suggests a theoretical universe of interventions so broad that it could include any company investment aimed at reducing or eliminating dependency on nature's services (for example, building supply chains resilient to ecosystem decline or substituting nature-dependent inputs).

While risks and opportunities do not need to be equal, the three-orders-of-magnitude gulf between US\$44 trillion of economic value exposed to nature risks and the roughly US\$10 billion of annual investment flowing into narrowly-defined nature-based conservation and preservation solutions reveals a significant blind spot where a more nuanced definition can drive investment decisions.

The United Nations Environment Programme (UNEP) uses a wider definition of nature-based solutions, and includes, for example, sustainable supply chains. They estimate that approximately US\$133 billion currently flows into nature-based solutions annually (using 2020 as the base year), with public funds making up 86 per cent and private finance 14 per cent<sup>34</sup>. Broader definitions of nature-based solutions are needed, but practical frameworks for investors are currently limited.

However, there are initiatives underway to define 'nature-positive' finance. The WEF notes that 'the focus of nature finance needs to broaden from conservation and restoration to include the reduction and avoidance of negative impacts in company value chains'<sup>35</sup>. This includes topics that are closely related to climate change, such as circular economy, waste management and sustainable water management. Some of these solutions are already commercially viable.

Beyond the risk and opportunity gap, there are opportunities to better capture the drivers of biodiversity, beyond the GBE's definition as 'the diversity within species, between species, and of ecosystems'. Focusing on drivers instead of outcomes could bring much-needed clarity to investor decisions.

<sup>33</sup> Paulson Institute, The Nature Conservancy and the Cornell Atkinson Center for Sustainability, [Financing Nature: Closing the Global Biodiversity Financing Gap](#) (2020).

<sup>34</sup> UNEP, [State of Finance for Nature](#) (2021).

<sup>35</sup> World Economic Forum, [Nature Positive: Corporate Assessment Guide for Financial Institutions](#) (2025).

## 3.2b Existing nature-related definitions

Examples of **broader** definitions have been proposed by multiple organisations (Cambridge Institute for Sustainability Leadership<sup>36</sup>, Singapore Sustainable Finance Association<sup>37</sup> and the World Economic Forum<sup>38</sup>). However, these definitions tend to focus on specific examples, and a clear overview of investable opportunities and broad principles is somewhat lacking. Asset owners can build on these guidelines with clear definitions of what qualifies for investment.

Meanwhile, the Science Based Targets Network (SBTN) emphasises similar principles as the WEF. They outline the following steps as part of their action framework for nature:

- 1 Avoid and reduce pressures that contribute to nature loss;
- 2 Regenerate and restore ecosystems to facilitate nature's recovery; and
- 3 Transform underlying systems within which companies operate to address the drivers of nature loss<sup>39</sup>. This approach expands the scope for nature-related financing as it also highlights the need for addressing the drivers of nature loss through companies.

Additionally, the World Bank has published a 'Nature Finance Tracking Methodology'<sup>40</sup> also aiming to broaden the definition of nature-related finance beyond nature-based solutions. In short, eligible sectors (including the financial sector, mining and transportation) have been identified and finance needs to make a substantive and measurable positive contribution to nature while avoiding adverse impacts. This taxonomy provides a disciplined accounting framework for nature finance, which we can build on to define issuer-level criteria that support investment across asset classes.

Finally, some asset managers have attempted to link nature-related financing to issuers' positive contributions to the Sustainable Development Goals, most importantly Goals 12 (Responsible Consumption and Production), 13

(Climate Action), 14 (Life below Water), and 15 (Life on Land)<sup>41</sup> or are using the non-climate change definitions within the EU Taxonomy. However, while these taxonomies clearly define climate mitigation actions, they are not as specific on nature-related activities.

## 3.2c A leading definition from nature-related lending

The closest example that matches our needs as an asset owner is the International Finance Corporation (IFC)'s Biodiversity Finance Reference Guide<sup>42</sup> which distinguishes three categories of borrowing:

- 1 Investment activities that seek to generate biodiversity co-benefits. This category of accepted use of proceeds includes financing for activities within or through established business operations and production practices that seek to address the key drivers of biodiversity loss. Proceeds could finance activities that seek to expand existing biodiversity-positive operations, or transition existing operations or practices to biodiversity-positive approaches.
- 2 Investments in biodiversity conservation or restoration as the primary objective (or a mix of both). This category covers direct financing of conservation, restoration, and related services.
- 3 Investments in nature-based solutions to conserve, enhance, and restore ecosystems and biodiversity. These solutions provide infrastructure-type and other services that are material to projects' operations and that can displace or complement man-made structures (such as grey infrastructure).

A list of activities is then proposed for each of these investment categories in the IFC's guide. However, the guide applies to green bonds and loans only, and it is unfortunate that this broader definition has not been adopted by the market yet, or for other asset classes.

<sup>36</sup> University of Cambridge Institute for Sustainability Leadership (CISL), [Scaling Finance for Nature: Barrier Breakdown](#) (2024).

<sup>37</sup> Singapore Sustainable Finance Association, [Financing our Natural Capital: A practical guide for FIs getting started on nature financing](#) (2025).

<sup>38</sup> World Economic Forum, [Nature Positive: Financing the Transition in Cities](#) (2025).

<sup>39</sup> Science Based Targets Network, [Science-Based Targets for Nature: Initial Guidance for Business](#) (2020).

<sup>40</sup> World Bank, [International Development Association's Twentieth Replenishment Mid-Term Review: Note on Nature Finance Tracking Methodology](#) (2023).

<sup>41</sup> Eg Goldman Sachs, [Systematically identifying potential biodiversity risks](#) (2025).

<sup>42</sup> International Finance Corporation, [Biodiversity Finance Reference Guide](#) (2023).



## 3.2d A way forward for asset owners

Building on the progress made so far in defining investments in nature-related solutions, our approach involves two parts:

- 1 Nature-based solutions:** Restoration and conservation activities that deliver measurable, net-positive outcomes
- 2 Nature enablers:** Activities that reduce the five key drivers of biodiversity loss across value chains.

(Refer to [section 4.3](#) for our full definition of nature-related investments.)

This dual lens recognises the overlap between nature-related investments and climate adaptation themes, preserves asset-manager flexibility in selecting activities, and focuses on measurable outcomes that can be aggregated across portfolios.

This enables asset owners to bridge the definitional divide between narrow conservation efforts and diffuse economy-wide dependencies, addressing the core challenge that faces definitions of nature-related investment. Our framework translates scientific and policy ambitions into investable categories, allowing asset managers to align existing approaches (such as the IFC Biodiversity Finance

Reference Guide) within a broader, outcome-oriented scope, as they also invest in solutions that limit the impact of nature-related physical and transition risks for other organisations.

## 3.3 Considerations for emerging markets

Emerging markets often score lower on nature-related metrics not because they lack ambition, but because their economies feature more primary and secondary industries which are more tightly coupled to ecosystem and natural resources and because the costs of conserving and restoring those assets fall on countries with lower GDPs and less fiscal space. This mirrors the historic-emissions debate in climate: responsibilities are common, yet capabilities and starting points differ. Developed markets accrued growth through centuries of ecosystem conversion and now enjoy cheaper capital, denser data, and stronger institutions with economies featuring tertiary industries which are further removed from a direct reliance on natural capital; many emerging markets are being asked to deliver conservation and restoration while still industrialising.

### 3.3a Investing in nature-related solutions for emerging markets

Definitions, incentives, and data choices can tilt investment flows against emerging markets, yet careful design can flip those same forces into bankable nature outcomes. This logic applies across the five major drivers of nature loss – changes in land and sea use, over-exploitation of species, pollution, climate impacts, and invasive species<sup>43</sup>.

- 1 Land and sea use change is where urban expansion and new infrastructure exert the greatest pressure. The principle is to plan growth so healthy ecosystems are treated as core assets. Coastal setbacks, watershed zoning, and green-blue urban design reduce flood and heat risk while supporting productivity, allowing agriculture and industry to intensify on existing land rather than expand into high-value habitats.
- 2 Direct exploitation becomes investable when value shifts from volume to verified stock health. Managed forestry, sustainable fisheries, and low-impact aquaculture align returns with regeneration and traceability, enabling pricing premiums and greater value capture in-country while easing pressure on intact ecosystems.
- 3 Pollution is the clearest arena where emerging markets can leapfrog legacy development pathways. Invest in circularity early so cleaner production outcompetes 'dirty-first' baselines. Nature-based treatment, nutrient efficiency, and waste-to-value models convert avoided costs and quality standards into contractable cash flows rather than deferred liabilities.
- 4 Climate change both drives and is amplified by nature loss, making ecosystem health a durable resilience hedge for countries. Reefs, mangroves, wetlands, and watersheds reduce disaster losses and volatility for cities and farms; urban cooling lowers heat-health burdens and energy demand.
- 5 Invasive species are a persistent balance-sheet risk. Investments in border biosecurity, ballast-water controls, and landscape-level pest management protect yields, timber quality, and tourism may lead to steady, compounding avoided loss that suits long-horizon capital.

The diversity of investment opportunities expands the investable universe far beyond activities that only contribute directly to the restoration and conservation of nature, as we consider 'nature enablers' that support a nature-positive transition.

<sup>43</sup> IPBES, [Global assessment report on biodiversity and ecosystem services](#) (2019).

<sup>44</sup> FAO, [Global Forest Resources Assessment 2020: Key findings](#) (2020).

#### What is a forest?



The definition of a forest used in the Kunming–Montreal Global Biodiversity Framework considers some wood, fibre, and energy plantations as forests, while agroforestry plantations are explicitly excluded<sup>44</sup>.

This disadvantages emerging economies most dependent on agriculture, and that may be less accountable for historical forest loss. Because most dashboards report today's deforestation rate and tree-cover change based on a recent starting point rather than in comparison to starting forest cover or historical clearing, deforestation rates in a country with high intact tropical forest can look worse than a temperate country with little remaining natural forest but steady plantation gains.

The result is a measurement bias that undervalues keeping ecosystems intact and overvalues narrow tree-cover increases. Intactness-based metrics such as the Biodiversity Intactness Index offer a fairer baseline by benchmarking the abundance of native species against an undisturbed state.



## 4 Prudential's definition of adaptation and nature opportunities

Prudential's Financing the Transition (FTT) framework includes both climate adaptation and nature-related 'climate solutions'. In the absence of a clear market standard, Prudential provides its own definition for both topics in this section as an update to our proprietary FTT framework.

Our objective is to raise awareness about the importance of both topics with asset managers, policymakers and other stakeholders to expand the investable universe in line with our fiduciary duty.

## 4.1 Our high-level principles

The following high-level principles apply to Prudential's definition of climate adaptation and nature (in addition to all other requirements of the FTT framework<sup>45</sup>):

- Prudential believes nature and adaptation investments will be needed across all asset classes to close the large financing gap, consistent with our overall FTT framework.
  - Therefore, both pure-play and large, diversified companies are eligible for classification as long as there is a theory of change supporting how these companies contribute to climate adaptation or nature.
- Prudential recognises the difficulty in defining 'contributing to adaptation' and 'nature-related solutions' due to the local nature of the topics, the relative immaturity of market standards and challenges with data. We therefore allow quantitative, qualitative or process-focused indicators (or a combination of these). Examples include:
  - Quantitative – number of individuals benefitting from adaptation measures that reduce their exposure or vulnerability to climate-related risks. Increase in crop yields due to an investment in agricultural crop irrigation technologies.
  - Qualitative or process-focused (or both) – the intention behind the activity and the ability to demonstrate that the proposed activity will contribute to climate adaptation or nature (eg Rio markers for adaptation investments).
- The risk of unintentional negative consequences needs to be managed carefully through applying the 'do no significant harm' principle and assessing the asset manager's approach to manage this principle. These unintentional negative consequences for mitigation, adaptation and nature include:
  - Maladaptation, which is defined by the IPCC in its latest synthesis report<sup>46</sup> as 'actions that may lead to increased risk of adverse climate-related outcomes, including via increased greenhouse gas 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 of excessive focus on adaptation that led to insufficient effort in climate mitigation, thereby exacerbating the overall negative impact of climate change.'
  - The conflict between climate mitigation and nature. For example, while offshore wind is an effective source of clean energy, it is also known to introduce underwater noise pollution, habitat loss and seabed disturbance that disrupts local ecosystems – especially if not carefully planned and mitigated.

<sup>45</sup> This includes 'do no significant harm', intentionality and measurability (see [Prudential's Financing the Transition framework](#))

<sup>46</sup> IPCC, [Climate Change 2023: Synthesis Report](#) (2023), pp 35–115.

## 4.2 Our definition of climate adaptation investment opportunities

Prudential's asset owners use a thematic approach for the definition of adaptation investments. The themes are aligned to the adaptation options recognised by the Intergovernmental Panel on Climate Change (IPCC) which is rooted in science and allows flexibility for asset managers to define activities in more detail.



### Ecosystem-based adaptation

This involves protecting and restoring natural ecosystems to mitigate climate impacts. Examples include reforestation, coral reef restoration, wetland restoration, and sustainable land management.



### Infrastructure adaptation

Upgrading infrastructure to withstand extreme weather events. Measures include building flood defences, improving drainage systems, and designing climate-resilient buildings for both acute and chronic risks.



### Water Management

Implementing efficient water use practices and technologies to address changing precipitation patterns and water scarcity. Techniques include rainwater harvesting, desalination, and improved irrigation methods.



### Agricultural adaptation

Developing climate-resilient crops and farming practices to maintain food security under rising temperatures and increasing climate volatility. Approaches include crop diversification, soil conservation, and agroforestry.

In addition to the IPCC topics, Prudential has added:



### Health adaptation

Addressing climate-related health risks, including disease outbreaks, heat stress, air pollution and mental health impacts.

The IPCC also recognises economic adaptation: supporting communities and economies – especially vulnerable populations – to adapt through skills, jobs, and financial inclusion. While important, this topic has received concessional funding from non-commercial capital providers and risks enlarging the eligible investment universe to the point where it no longer provides decision-useful insights for investors. Economic adaptation will be taken into consideration as an adaptation theme, but only if the investment contributes to one or more of the other adaptation themes as well.

Additionally, some activities have wide-ranging use cases across the different adaptation themes. For example, climate intelligence solutions – the collection, analysis, and application of data and insights related to climate patterns, environmental changes, and their impacts on ecosystems, economies, and societies<sup>47</sup> – will be crucial and depending on the solutions it can contribute to any of the themes (eg precision agriculture).

<sup>47</sup> Causeartist, [Climate Intelligence](#) (n.d.).

## 4.3 Our definition of nature-related investment opportunities

Prudential has classified nature-related investment opportunities using two themes:



### Nature-based solutions

These are activities that contribute to the direct restoration and conservation of nature, with overall net-positive nature outcomes associated.

- Examples include wetland restoration (marsh/mangroves), sustainable forestry, marine protection and these can be in the form of biodiversity credits



### Nature enablers

These are assets and entities that play an indirect but essential role in supporting a nature-positive transition and therefore seek to address the key drivers of biodiversity loss. By enabling the deployment and scaling of sustainable solutions, or assisting other actors in transforming their operations, enablers help reduce pressures on nature. Their primary impact lies in stopping further nature loss and aiding the restoration, conservation, recovery, or rehabilitation of ecosystems to move closer to achieving no net loss of natural capital. The following themes are included (though this list is **not** exhaustive):

- Circular economy: eg waste-to-fuels, recycling, nature-based packaging.
- Pollution reduction: eg sustainable supply chain.
- Sustainable agriculture and aquaculture: eg regenerative agriculture, agroforestry, sustainable fisheries/low-impact aquaculture.
- Infrastructure and urban development: eg green infrastructure, urban biodiversity planning.
- Water and sanitation: eg nature-based water treatment, sustainable irrigation technologies.
- Health: eg urban cooling solutions. The urban heat island (UHI) effect poses several risks, including increased energy consumption, elevated air pollution, and negative health impacts. Specifically, the UHI effect can lead to higher temperatures, exacerbating heat-related illnesses like heat exhaustion and stroke, and potentially increasing mortality rates. Nature-based solutions can be designed into urban planning to reduce the UHI effect.
- Sustainable tourism: eg sustainable tourism that creates opportunities for enhanced biodiversity protection or reduced biodiversity threat<sup>48</sup>.

Prudential believes that this definition demonstrates a scope broader than conventional nature-based solutions, while allowing asset managers to adopt or align with generally accepted frameworks like the IFC's Biodiversity Finance Reference Guide.

<sup>48</sup> International Finance Corporation, [Biodiversity Finance Reference Guide](#) (2023).

## 4.4 An integrated understanding of 'climate solutions'

The interconnectedness of climate, nature and society is anchored in today's dependencies and impacts. Humanity relies on ecosystems for materials, services and stability, while simultaneously altering those same systems through emissions, land-use change and pollution. These present-day dependencies and impacts sow the seeds of tomorrow's risks and of opportunities to finance the solutions that prevent, reduce or reverse them. Thoughtful urban design, for example, weaves green space into city fabric, softening the urban heat island effect, lowering energy demand for cooling, and shaping the health of vulnerable communities.

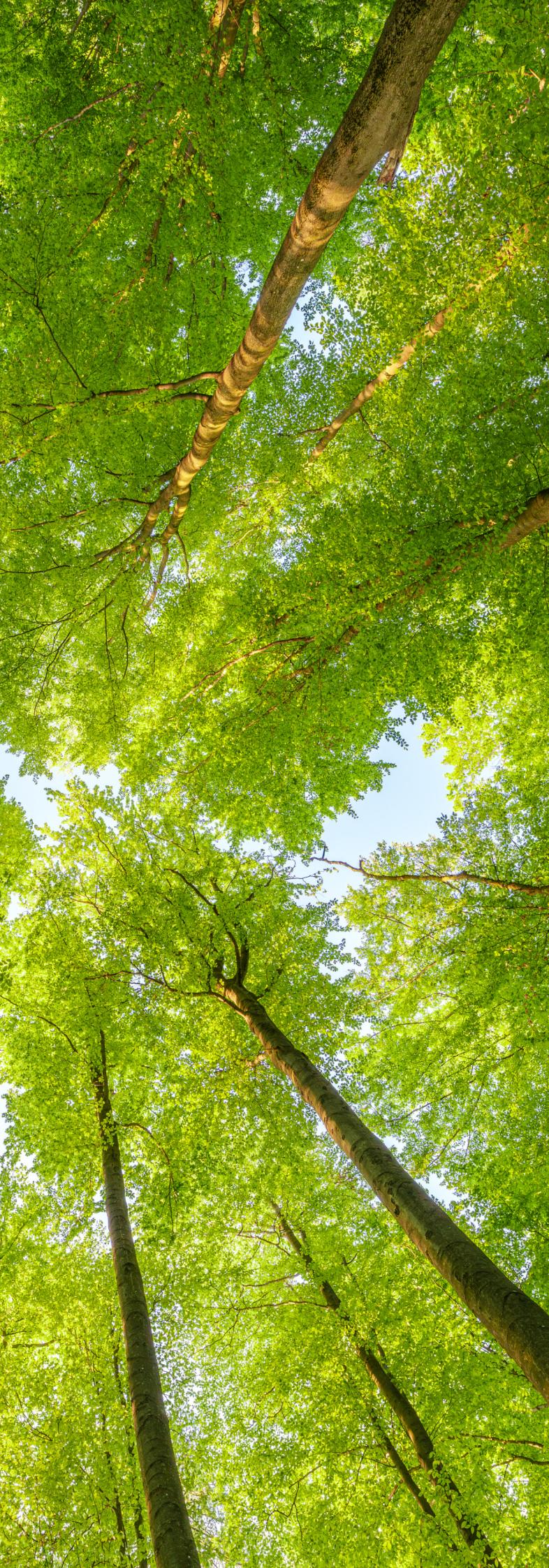
Within Prudential's FTT framework, the 'climate solutions' category deliberately unites mitigation, adaptation and nature because real-world projects rarely sit in silos. Restoring wetlands, enhancing natural flood defences and scaling regenerative agriculture can simultaneously cut emissions, harden communities against extreme weather and revive ecosystems. Treating these synergies as a single opportunity set lets us deploy capital more effectively as it will broaden the investment universe for FTT. Additionally, we expect synergies for asset managers as well, as knowledge and skills on adaptation and nature are required to implement the 'do no significant harm' principle of the FTT framework. For example, this principle already requires asset managers to ensure that climate mitigation investments do not significantly harm nature.

By broadening the investable universe in this way, we meet our fiduciary duty, diversify return drivers and give asset managers the flexibility to surface solutions that deliver resilience, emissions reduction and biodiversity gains together, advancing a just and inclusive transition.



#### 4 Prudential's definition of adaptation and nature opportunities





## 5 Moving forward

Prudential's publication of the Financing the Transition (FTT) framework in September 2024 marked a significant step toward advancing our sustainability objectives. Apart from committing investments in line with the FTT framework, the framework has been used for engagement with a wide range of stakeholders: peers, asset managers, policymakers, regulators and investors.

This multi-stakeholder engagement aims to address sustainability challenges at a systemic level and increase the investment universe addressing these issues, helping to mainstream responsible investments in emerging markets.

Investments in both climate adaptation and nature-related solutions must be scaled up to secure a resilient future. By establishing a clear definition, our objective is to contribute to the debate by encouraging consideration of investment opportunities beyond the most immediate or apparent options, as those may not always align with fiduciary responsibilities as a long-term asset owner. It is also essential to account for the unique circumstances of emerging markets, as both adaptation and nature-focused topics can inadvertently introduce biases against these regions.

In terms of adaptation, emerging markets often face greater vulnerability to climate change and are less prepared for climate impacts, which may prompt investors to reallocate capital to manage physical climate risks. Regarding nature, emerging markets are typically more biodiverse and should be allowed to monetise their natural resources as developed markets, but without the negative impacts on nature and biodiversity. Furthermore, certain frameworks and definitions – such as those pertaining to forests – may reflect historical biases that disadvantage emerging markets.

We hope that these enhanced definitions will support the discussion on mobilising more capital for both climate adaptation and nature-related solutions. The base FTT framework continues to anchor our transition finance approach. This paper is a supplemental addendum that evolves the framework in line with emerging standards and industry best practice. The 2024 framework should therefore be read alongside this and future updates that add depth and nuance to our approach as a responsible asset owner.

## Next steps

### Financing the Transition framework

We intend to continually evolve our framework as the market evolves to stay aligned with global framework development. We aim to align to market standards and leading taxonomies as much as possible, but as set out in this paper, we take a more inclusive approach if we believe certain challenges remain unaddressed by market standards. This approach allows us to strike a balance between acknowledging local market contexts, aligning with global best practices, while still driving tangible real-world progress in the race to net zero. **We welcome feedback, comments and engagement on this framework.**

### Beyond opportunities – portfolio nature and climate adaptation risks

The risk assessment of physical climate risk and nature and biodiversity is still in the early stages, but we consider it to be very important to ensuring the long-term growth of our investment portfolio.

- Physical climate risk: Prudential aims to develop capabilities to assess companies on their 'transition' to adapt to and become more resilient to the impacts of climate change.
- Nature and biodiversity: Prudential aims to develop the capabilities to assess companies on their 'transition' to become nature-positive or nature-neutral (ie adoption of nature considerations into business-as-usual operations).

## **Prudential plc**

Defining nature and adaptation investment opportunities –  
An addendum to Prudential's Financing the Transition Framework

[www.prudentialplc.com](http://www.prudentialplc.com)

### **Lead Author**

**Liza Jansen**

Head of Responsible Investment  
Prudential plc

### **Supporting authors**

**Diana Guzman**

Chief Sustainability Officer  
Prudential plc

**Enci Wang**

Senior Group Manager, Responsible Investment  
Prudential plc

**Quan Hao Tan**

Assistant Manager, Responsible Investment  
Prudential plc

**Roelof Coertze**

Group Director for Environment  
Prudential plc

### **No reliance on information and disclaimer**

The information and opinions contained in this document are for general information purposes only, do not and are not intended to constitute legal or other professional advice (including but not limited to investment advice) and should not be relied on or treated as a substitute for specific advice relevant to particular circumstances. The lack of reliable, accurate, independently verifiable, consistent and comparable data on emissions and projections thereof as it relates to climate transition means any information contained in this document is for illustration purposes only.

No representation or warranty, express or implied, is or will be made in relation to the accuracy or completeness of the information contained in this document. Prudential plc and its subsidiaries, affiliates and associated companies and their respective directors, officers, employees and agents expressly disclaim any and all liability which may arise out of or be based on any information contained in this document, any errors herein or omissions here from. In particular, no representation or warranty is given as to the achievement or reasonableness of any future projections, targets, estimates, prospects or returns, and any such (future) projections, targets, estimates, prospects or returns are inherently uncertain and likely to be subject to changes which have not been foreseen.