



ALIGNING FINANCE WITH ADAPTATION AND RESILIENCE GOALS

Targets and Metrics for Financial Institutions: Technical Note

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Targets and Metrics for Financial Institutions: Technical Note

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Financial institutions and governments are beginning to develop frameworks and metrics for adaptation and resilience (A&R) finance analogous to those for net zero and nature recovery. This technical note, and the accompanying database of A&R metrics, is part of a series of outputs intended to facilitate and inform discussions around how to implement the concept of ‘*climate resilience aligned finance*’. It provides a synthesis and preliminary analysis of targets and metrics for aligning finance with climate-resilient development as part of a collaboration with the UN Environment Programme Finance Initiative’s (UNEP FI) Principles for Responsible Banking (PRB) working group on adaptation. The accompanying database¹ includes the full set of metrics and is developed in collaboration with the UNEP FI and PRB. While this technical note is focussed on financial institutions, the targets and metrics analysed will also have relevance to governments, philanthropy, public financial institutions (inc. banks and development finance institutions) and civil society organisations.

1. Introduction

Adaptation to climate change is increasingly urgent. The 2022 *Global State of the Climate* report by the World Meteorological Organisation confirmed that the years 2015-2022 were the eight warmest on record and it recorded the grave impacts of extreme weather and climate events on populations and economies around the world. In 2022 alone, droughts continued to plague East Africa, record-breaking rainfall occurred in Pakistan and record-breaking heatwaves affected tens of millions of people in China and Europe. The impacts of these extreme events were enormous: driving food insecurity and costing billions of dollars in loss and damage (WMO 2023). Developing economies’ annual adaptation costs alone are estimated to be in the range of US\$160–340 billion by 2030 to adapt agriculture, infrastructure, and water supplies; five to ten times greater than current flows (UNEP 2022). Meanwhile, progress on adaptation goals across many high income countries is weak (CCC 2023).

Aligning finance with adaptation and climate-resilient development is critical to filling this gap. Mullan and Ranger (2021) define climate resilience aligned finance as: “*ensuring that financial flows are consistent with those needed to achieve climate-resilient development at a societal level*”. Financial institutions and corporates are both exposed to physical climate-related risks

¹ <https://www.cgfi.ac.uk/adaptation-and-resilience-metrics/>

and, through their actions, can have a sizeable impact on the physical climate-related losses and damages of others. Risk management is the first step in aligning finance and this can have positive spillovers for societal resilience. Investing in resilient buildings and infrastructure, for example, or resilient supply chains and sustainable agriculture, could have significant benefits for the economy overall. Providing products and services, such as climate data, drought-resistant crops or insurance, can also help communities or businesses reduce their risks. However, a business that did not conserve water in a water stressed area or contributed to deforestation or pollution could aggravate the risks to communities. As noted by UNEP (2022), a failure to adapt puts the whole world at risk.

Building more climate-resilient economies and societies will require scaling up the billions of financial flows for adaptation, but also driving the trillions of dollars of public and private financial flows and investment away from potentially mal-adapted activities towards those that contribute to climate-resilient economies and societies (Mullan and Ranger, 2022). Indeed, this goal is encoded within the Paris Agreement Article 2.1c, which places adaptation and mitigation on an even footing (UNFCCC, 2015): *“Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.”*

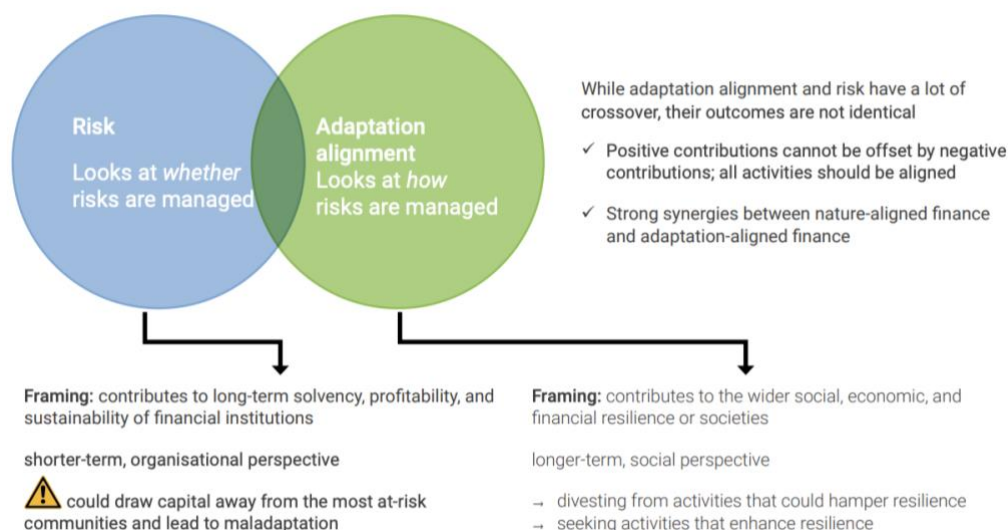


Figure 1: Graphic summarising the differences between risk management and adaptation alignment for financial institutions from Mullan and Ranger (2021). Source: UNEP FI (2022)

There is growing private finance and investor demand for projects with positive outcomes for adaptation and resilience (IIGCC 2022) and growing focus from governments, Central Banks, regulators and supervisors and the financial sector itself on ensuring financial resilience to physical climate change and the alignment of finance with adaptation goals.

Mullan and Ranger (2022) proposed an operational framework for financial institutions to align finance and investment with climate resilient development (Fig 1 and 2), and UNEP FI (2022) further built upon this and proposed potential indicators for monitoring and reporting (Fig 2).

This technical note, and the accompanying database, are part of a series of products intended to facilitate and support discussions around operationalising the concept of climate resilience aligned finance. They provide a synthesis and preliminary analysis of existing targets and metrics for aligning finance with climate resilient development.

2. Indicators for measuring adaptation alignment

While globally agreed upon metrics exist for climate mitigation², the same standardisation does not yet exist for climate adaptation. Existing frameworks such as that of the Taskforce for Climate-Related Financial Disclosures (TCFD) (as of May 2023) included very limited coverage of metrics and indicators for adaptation beyond physical risk assessment. The need to address this gap was recognised by the Climate Financial Risk Forum (CFRF 2023).

Measuring alignment to adaptation and resilience goals, and disclosing that information where appropriate, could yield significant benefits for society, financial institutions and investors, synonymous with those for alignment to mitigation (net zero) goals:

- Increase the ability of financial institutions to effectively allocate capital in ways that support resilience and adaptation goals.
- Increase the ability of financial institutions to track their own contributions to resilience and adaptation goals.
- Enable investors and lenders to assess the position of companies and portfolios in relation to adaptation and resilience goals at global, national and local levels, provided that there is clarity about the use of proceeds.
- Create opportunities to derive value (reputational, commercial positioning, cost of capital benefits) through increasing alignment with the Paris goals.
- Reinforce incentives for physical risk management across the private sector, and help to integrate and price risk in a comprehensive way.
- More widely, the disclosure of such information by private institutions will improve global understanding of the drivers, trends and outcomes relating to alignment for climate resilience and contribute to the wider assessment in progress against the Paris goals, as well as Inform public sector action to strengthen adaptation and resilience.

Such metrics could form an important part of adaptation plans. These metrics do not replace existing mechanisms for tracking international adaptation finance, but will provide vital information on the alignment of broader (and several times larger) non-climate financial flows with adaptation and resilience goals. Over time, this could help to drive trillions of dollars into adaptation-aligned activities and away from activities that undermine resilience and lead to maladaptation. They should also help to enhance the resilience of financial institutions themselves to physical climate risks; a win-win for society and financial institutions. As noted in Section 1, making clear which private investments and financial flows are Paris-aligned in terms of climate-resilience is an integral part of achieving the Paris goals.

² The common metric for climate mitigation is greenhouse gas (GHG) emissions. The [Greenhouse Gas Protocol](#) provides a standardized methodology for organizations to calculate their GHG emissions.

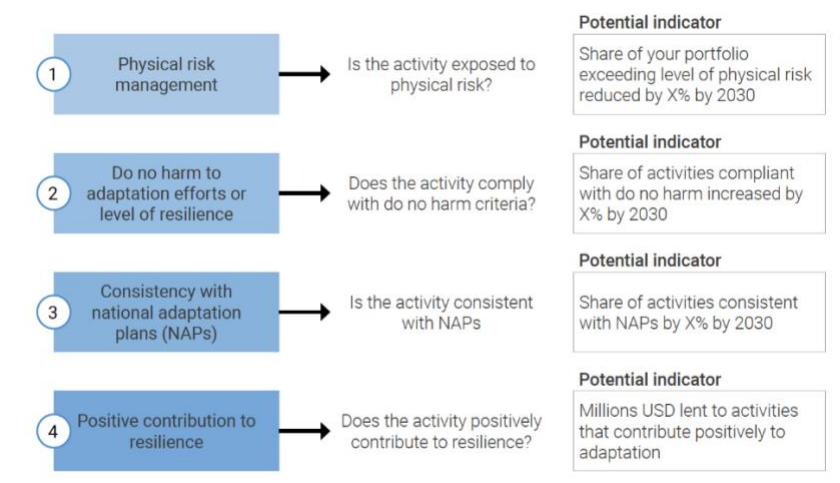


Figure 2: Approach to achieving positive adaptation alignment (Mullan and Ranger, 2021) with potential indicators (UNEP FI 2022). Source: UNEP FI (2022).

3. Indicator Synthesis and Analysis: Data and Methods

Various climate adaptation and resilience metrics have been proposed by different disclosure frameworks, regulatory bodies, development banks, governments, intergovernmental organizations, and public and private institutions. These existing metrics vary in both scope and complexity. We collate and review the existing climate adaptation and resilience metrics; classify them based on their format, principle, and component³; and indicate whether they can be calculated using open data, including that available through the Global Resilience Index Initiative (GRII). By reviewing the metrics that are currently available, we hope to identify the gaps in existing metrics, the data and methodological challenges in their calculation, and eventually propose a set of adaptation and resilience metrics that will be integrated into the GRII. This analysis is complemented by the work of the UNEP FI PRB Working Group on Adaptation, which is engaging with banks to narrow in on a set of viable indicators.

In total, 30 sources were reviewed to date (more will be added over time). These sources are listed in Table 1, alongside the provider (typically the institution who produced the source material) and a link to the relevant source. Sources of metrics varied from industry disclosure guidelines to reports published by development institutions. If a metric was deemed to be related to climate adaptation and resilience (according to the authors’ own calculation) it was included. In total, 302 different metrics were reviewed.

Table 1. Sources Reviewed for Adaptation and Resilience Metrics

| Provider | Source / Report | Link |
|-------------------------|--|--|
| ISSB | IFRS S2 Climate-related Disclosures | link |
| SASB | Industry Standards (77 total) | link |
| TCFD | Metrics and Targets 2021 Report, Appendix 2 | link link |
| UNEP FI | Physically Fit? How financial institutions can better disclose climate-related physical risks in line with the recommendations of the TCFD | link |

³ See Table 2

| | | |
|------------------------------------|---|--|
| IIGCC | Working towards a climate resilience investment framework | link |
| CFRE | Climate Disclosures Dashboard 2.0 | link |
| IADB | A Framework and Principles for Climate Resilience Metrics in Financing Operations Adaptation Solutions Taxonomy | link link |
| World Bank | Resilience Rating System | link |
| GCA | Adaptation Metrics: Current Landscape and Evolving Practices | link |
| ICMA | Suggested Impact Reporting Metrics for Climate Change Adaptation Projects | link |
| OECD | OECD DAC Rio Markers for Climate Climate-resilient finance and investment | link link |
| GRI | Reporting Standards | link |
| EU Taxonomy | Taxonomy Report: Technical Annex | link |
| GBP | Impact Reporting Reporting Working Group: Suggesting Impact Reporting Metrics for Climate Change Adaptation Projects | link |
| EBRD | GET Technical Guide | link |
| MDBs | Joint MDB Assessment Framework for Paris Alignment for Direct Investment Operations | link |
| Race to Resilience | Race to Resilience Metrics Framework | link |
| CPI | FAST-Infra Sustainable Infrastructure Label: Dimensions & Criteria Indicators | link |
| ACT Initiative | ACT PHYSICAL RISKS & ADAPTATION | link |
| CDP | CDP 2021 Climate Change scoring methodology | link |
| GBP | The GBP Impact Reporting Working Group - Suggested Impact Reporting Metrics for Climate Change Adaptation Projects | link |
| IRIS | IRIS 5.3 Taxonomy | link |
| ARIC | ARIC Metrics Menu | N/A |
| Equator Principles | THE EQUATOR PRINCIPLES JULY 2020 | link |
| EIB | JOINT REPORT ON MULTILATERAL DEVELOPMENT BANKS' CLIMATE FINANCE | link |
| SBTN | SBTN Technical Guidance: Step 1 – Assess SBTN Technical Guidance: Step 3: Freshwater - Measure, Set & Disclose | link link |

After inclusion, the metrics were classified (see Table 2). The first classification was by format: whether the metric was *quantitative* or *qualitative*. Some metrics required users to provide a *qualitative* description of an action. For example, the SASB Chemicals Industry standards requires organizations to provide a “description of water management risks and discussions of strategies and practices to mitigate those risks”. Metrics that could be reported as numbers were classified as *quantitative*. An example of such a metric is the TCFD recommended metric “number and value of mortgage loans in 100-year flood zones”.

The second metric classification was by principle. Here, principle is defined according to the core principles of climate resilience aligned finance put forward in Mullan and Ranger (2022): *risk management*, *do no significant harm (DNSH)*, *adaptation opportunities*, and *supports societal objectives*. A metric was classified as *risk management* if it referred to the process of risk assessment or the management of identified risks by an organization. An example of a metric classified as *risk management* is the IIGCC metric “proportion of portfolio assessed as exposed to material physical risks”. A metric was classified as *do no significant harm (DNSH)*

if it captured that an activity does not undermine the resilience of others. Metrics such as the SASB metric “terrestrial acreage disturbed, percentage of impacted area restored” fall into this category. If a metric captured the opportunities associated with climate change it was classified as *adaptation opportunities*. An example of such a metric is the ISSB metric “assets or business activities aligned with climate-related opportunities”. If a metric showed that an activity had a demonstrable positive impact on societal resilience it was classified as *supports societal objectives*. Metrics such as the GBP metric “reduction in number of customers / employees suffering loss of essential services” were classified as such. It should be noted that metrics could be classified as meeting the criteria of multiple different principles.

The third metric classification was by component. Component refers to the stage in the results-chain of an activity the metric refers to. Ordered increasingly along the results-chain, a metric could be classified as: *input*, *output*, *outcome*, or *impact*. An *input* metric refers to the resources used during the activity. An example of an *input* metric is the GRI metric “the costs of actions taken to manage the risk or opportunity”. An *output* metric refers to the products or services that occur as a result of the activity. Examples include the EBRD metric “additional water made available in the face of increasing climatic variability as a result of the project”. To be classified as an *outcome* metric, a metric needs to capture the benefits delivered as a result of the activity over the short or medium term. The Race to Resilience metric “# of individuals accessing goods and services” is an example of an *outcome* metric. An *impact* metric considers the high-level strategic goal of the activity. It is similar to an *outcome* metric but is more of a long-term vision. An example of an *impact* metric is the Race to Resilience metric “# individuals with increased resilience”. The final classification metrics are wider characteristics based upon Mullan and Ranger (2021).

Table 2. Metric Classification

| | Description |
|------------------------------------|--|
| Classification 1: Format | Metrics are classified based on whether they are reported qualitatively or quantitatively |
| Qualitative | A metric that is not based on numbers. These metrics will often involve a description of processes |
| Quantitative | A measurable metric based on numbers |
| Classification 2: Principle | Metrics are classified based on the key principles of climate resilience aligned finance put forward in Mullan and Ranger (2022) |
| Risk management | Relevant climate-related risks and opportunities have been identified and managed |
| Do no significant harm (DNSH) | The activity does not undermine the resilience of people or ecosystems |
| Adaptation opportunities | Product, service or finance provided to support client to adapt |
| Supports societal objectives | The activity actively facilitates societal resilience in line with relevant goals and plans ('Resilience through') |

| | |
|--|--|
| Classification 3: Component | Metrics are classified based on the component of the results-chain of an activity they refer to. |
| Input | Raw materials used during the activity – could refer to money, data, personnel etc. |
| Output | The tangible and intangible products that result from the activity |
| Outcome | The benefits that the activity delivers (short or medium term) |
| Impact | High-level strategic goal of the activity (long term) |
| Classification 4: Characteristics | |
| Process-based (yes, no) | An indicator based upon the activity undertaken by the reporting institution. |

In addition to classifying the identified metrics according to format, principle, component and characteristics. We also labelled metrics based on their origin, for example, whether the metric came from disclosure standards or a MDB guideline document.

Next Steps: Feasibility Analysis and Indices Construction

The next step of the analysis will be to assess the feasibility of each indicator in terms of data available publicly and client data. As a starting point, in the database, we provide a preliminary evaluation of whether or not the indicators could be calculated using data from the GRII, or if there were plans to include functionality for these types of metrics in future.

To mobilise finance at scale for adaptation, and disclose and track progress nationally and globally, it is vital that all stakeholders have access to the same basic globally consistent indicators. Central to this *common language* are consistent, transparent, open and comparable metrics that allow economic activities to be assessed and measured in terms of their impact on climate resilience (UNDRR-CGFI 2022). The next step in this work will be to generate indices needed by financial institutions and make these available openly via the Global Resilience Index Initiative (GRII)⁴. In providing this transparent baseline view of risk, the GRII enables institutions to assess risks in a transparent and comparable manner and helps mobilize finance and investment aligned with climate adaptation and resilience.

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⁴ The GRII was launched at COP26 under the patronage of Mark Carney. At COP27, the GRII launched its new global demonstrator, a report, and four financial use cases. These can all be accessed [here](#).

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