

# Climate Solution Investment Reporting Guidance Booklet

**UN-CONVENED NET-ZERO  
ASSET OWNER ALLIANCE**

as of 23<sup>rd</sup> of February 2023

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# 1. EXECUTIVE SUMMARY

## Why the booklet needed?

This booklet is designed to help investors to understand what can be counted as a Climate Solution investment, outlining guidance on different principles and the requirements of each. It will ultimately guide AOs to report on Climate Solutions in an aligned way, using the different principles.

## What is in this booklet?

The booklet outlines in a clear format the primary regulatory and industry-based taxonomies (e.g. EU Taxonomy, Green Bond Principles, Climate Bond Initiative). It also presents a review on the commonality of the different principles, case studies from Asset Owners on portfolio alignment and existing and upcoming regulation in the area of Climate Solutions reporting, e.g. SFDR.

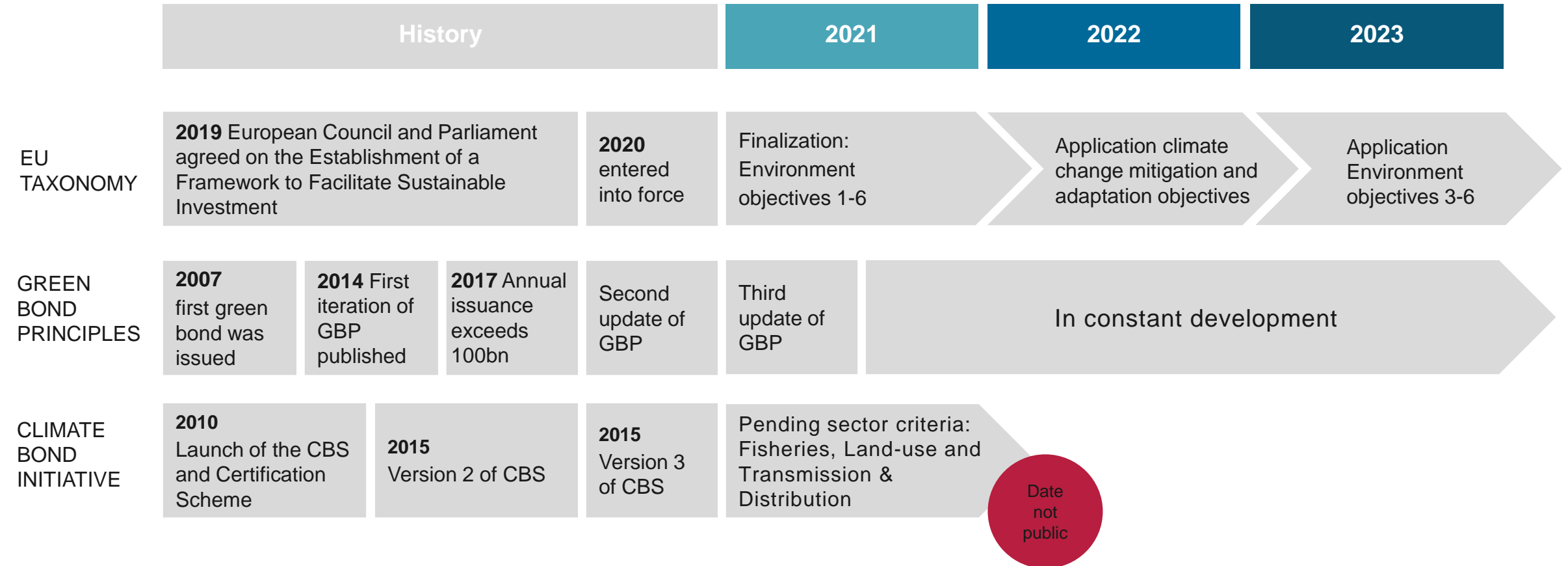
## What we suggest

The booklet should be used in conjunction with the Climate Reporting Template. In the template, we have provided more detailed information on the applicability criteria for investments in each Climate Solution theme and guidance on what sectors are most applicable when exploring relevant climate solution investments.

## 2. OVERALL COMPARISON/ASSESSMENT OF PRINCIPLES

| Criteria   | Green Bond Principles (GBPs)  | Climate Bond Initiative (CBI)   | EU Taxonomy   |
|--|---|---|---|
| <b>Ownership and governance</b>  | <ul style="list-style-type: none"> <li>Developed by industry body ICMA and governed by an executive committee including issuers, investors and underwriters. Other stakeholders (NGOs) can participate as observers.</li> </ul>   | <ul style="list-style-type: none"> <li>Standard developed by the Climate Bond Initiative (CBI), an international investor-focused not-for-profit organisation, and governed by the Climate Bonds Standards Board.</li> </ul>                        | <ul style="list-style-type: none"> <li>Developed by the Technical Expert Group (TEG) on Sustainable Finance and will be further developed by the Platform on Sustainable Finance</li> </ul>   |
| <b>Overarching objectives</b>  | <ul style="list-style-type: none"> <li>Categories which contribute to environmental objectives such as: climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control.</li> </ul>              | <ul style="list-style-type: none"> <li>The CBI taxonomy is focused on climate mitigation, rather than other environmental objectives.</li> </ul>  | <ul style="list-style-type: none"> <li>Six environmental objectives: climate change mitigation; climate change adaptation covered so far. Sustainable use and protection of water and marine resources; transition to a circular economy; pollution prevention and control; protection and restoration of biodiversity and ecosystems.</li> </ul> |
| <b>Sectors covered</b>   | <ul style="list-style-type: none"> <li>Suggested principles include: Energy, Buildings, Transport, Water management, Waste management &amp; pollution control, Nature-based assets and land use, agriculture and forestry, Industry &amp; energy-intensive commercial, ICT</li> </ul> | <ul style="list-style-type: none"> <li>Energy, transport, water, buildings, land use and marine resources, industry, waste and pollution, ICT</li> </ul>  | <ul style="list-style-type: none"> <li>Agriculture and forestry, manufacturing, electricity, gas, steam and air conditioning supply, water sewerage waste and remediation, transport, ICT, buildings</li> </ul>   |
| <b>Technical standards</b><br><i>Contains detailed performance criteria and thresholds</i>       | <ul style="list-style-type: none"> <li><b>GBP do not opine on what is “green”</b> except at high level of key areas of concern and broad project categories - but note that issuers can reference existing taxonomies or develop their own framework.</li> </ul>                      | <ul style="list-style-type: none"> <li>The <b>CBI taxonomy uses only one metric/threshold</b>, when necessary supported by a screening indicator.</li> </ul>  | <ul style="list-style-type: none"> <li>For a given economic activity, the EU taxonomy uses six <b>sets of metrics and thresholds</b>, one for each environmental objective.</li> </ul>  |
| <b>Integrating pathways in the technical standards</b>   | <ul style="list-style-type: none"> <li>Not applicable, since <b>no screening criteria is given</b></li> </ul>   | <ul style="list-style-type: none"> <li>Focus only on screening an economic activity based on a metric that is applied today and <b>not a pathway</b>.</li> </ul>  | <ul style="list-style-type: none"> <li>The EU Taxonomy is screening a number of activities on the basis not just of a threshold met today, the threshold will be tightened over time.</li> </ul>  |
| <b>Level of granularity</b>  | <ul style="list-style-type: none"> <li>GBP <b>not granular</b>, recognises that what is 'green' can vary across sectors but leaves it to issuer/refers to external screening criteria/taxonomies.</li> </ul>  | <ul style="list-style-type: none"> <li>The CBI provides <b>green definitions that are sector specific, developed by scientists and industry experts</b>. Provides specific technical criteria for eligible projects and physical assets.</li> </ul> | <ul style="list-style-type: none"> <li>The technical screening criteria allows for a precise and granular determination which activities in a given economic sector qualify as sustainable.</li> </ul>  |
| <b>Data availability</b><br><i>Possibility for issuers to provide data on screening criteria</i> | <ul style="list-style-type: none"> <li>Not applicable, guideline that clarify how to launch a credible green bond, since no screening criteria is given no data available</li> </ul>  | <ul style="list-style-type: none"> <li>Data availability can indirectly be an issue for CBI's screening indicators (but most indicators seem quantifiable) – sources: MSCI, Bloomberg and other</li> </ul>  | <ul style="list-style-type: none"> <li>Data availability issues likely given breadth of screening criteria – sources: MSCI, Bloomberg and other, maturity levels differ, convergence of data is expected in 2022.</li> </ul>  |
| <b>Mandatory/voluntary</b>   | <ul style="list-style-type: none"> <li><b>The reporting is voluntary</b> and there are no penalties when there is a violation of the GBPs.</li> </ul>   | <ul style="list-style-type: none"> <li><b>Reporting is mandatory under CBC</b> as well as third-party assurance on the report.</li> </ul>   | <ul style="list-style-type: none"> <li><b>Mandatory requirement for financial market participants offering financial products within the EU</b> and large public interest companies under the NFRD.</li> </ul>  |

## 2. TIMELINE



# CASE STUDIES

- 3.1. Listed equity, listed bonds
- 3.2. Private equity and debt
- 3.3. Green / transitioning bonds

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# 3.1. PRINCIPLES FOR CLIMATE SOLUTION INVESTMENT ASSESSMENT – LISTED EQUITY & CORPORATE DEBT\*

## Guiding Principles:

- Our investment in a climate solution is directly proportional to the revenue generated by our invested companies from activities/products that provide the climate solution.
- Our total investment in all climate solutions is a sum of our investments in each climate solution.

Use High Level Climate Principles as per Taxonomy

Get Security Level MV for Portfolio Positions

Get Issuer Level Revenue Breakup Between High Level Principles (E.g. Use MSCI Sustainable Revenue Metrics)

$$\text{AuM Invested in a Principle} = \sum((\text{Security's MV in Portfolio}) * (\text{Issuer Revenue \% from the Principle}))$$
  
e.g.: 
$$\text{AuM Invested in Green Buildings} = \sum((\text{Security's MV in Portfolio}) * (\text{Issuer Revenue \% from Green Buildings}))$$

$$\text{Total AuM in Climate Investments} = \sum (\text{AuM Invested in each Principle})$$

\* Please check case study in excel report tab "Case Study"



## 3.2. PRINCIPLES FOR CLIMATE SOLUTION INVESTMENT ASSESSMENT – PRIVATE EQUITY & PRIVATE DEBT

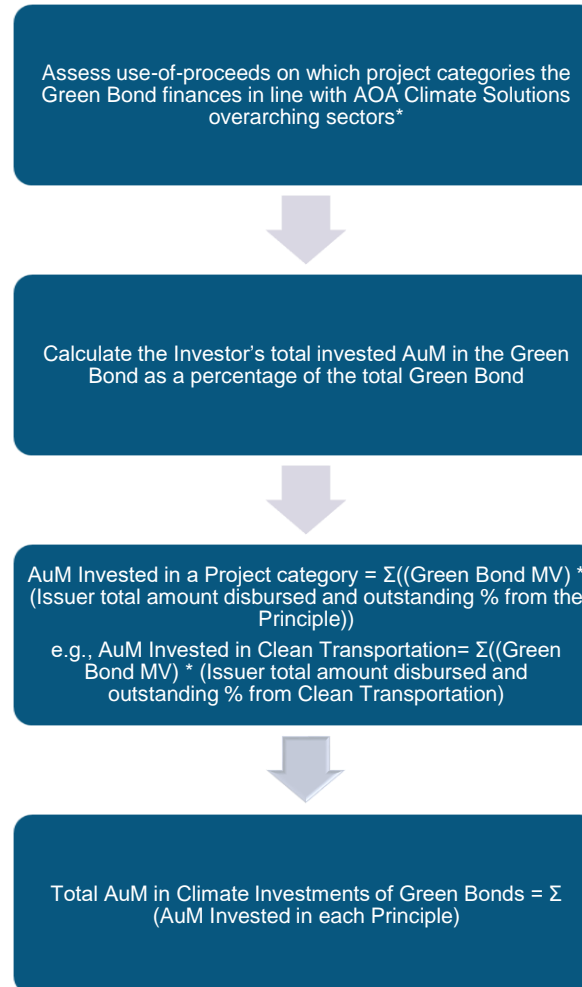
### Guiding Principles:

- Propose same methodology as suggested for listed equity and corporate debt i.e. revenue based calculation
- Data availability likely to be more of an issue than for listed assets. Will require support of underlying investment managers. Expected to involve degree of judgment/estimation.
- Investments in climate solutions or sustainability themed funds may be counted fully towards target (equally applicable to public assets)
- Any of cited frameworks (or equivalent) may be useful for this exercise
- For private debt, judgement will be required as to what level of ownership is considered. For directly held private debt the borrowing subsidiary may be the more relevant entity.
- For directly held private equity the ultimate parent owner is the entity of interest. For Private Equity funds only the share of climate solution related equity must be reported.

# 3.3. ASSESSMENT OF CLIMATE SOLUTION INVESTMENT– GREEN BONDS

## Guiding Principles:

- Impact data is possible to withdraw from the **Green Bond Impact Reporting** where also possible to see **specific impact KPIs**.
- Our investment in a climate solution is directly proportional to the total amount distributed and outstanding by our invested green bond's use-of-proceeds.
- Our total investment in all climate solutions is a sum of our investments in each climate solution.



### Example: Green Bond Impact Report USD 1000 mn

Company X uses 50% of the proceeds of its 2021 green bond to finance the manufacture of motorbikes, passenger cars and light commercial vehicles as well as 50 % to production of wind power parks.

#### Clean Transportation

Total amount disbursed and outstanding: USD 500 mn  
 GHG Emissions Avoided, per year: 5,000 tonnes

#### Renewable Energy

Total amount disbursed and outstanding: USD 500 mn  
 GHG Emissions Avoided, per year: 6,000 tonnes

### Investor A

Invested USD 250 mn in the Green Bond financing clean transportation and renewable energy projects

$USD\ 250\ mn / 1000 = 0,25$   
 $0,25 * 500 = USD\ 125\ mn$   
 $0,25 * 5000 = 1250\ tonnes\ avoided\ emissions$

$0,25 * 500 = USD\ 125\ mn$   
 $0,25 * 6000 = 1500\ tonnes\ avoided\ emissions$

# PRINCIPLES

- 4.1 Mapping Asset Classes to existing principles
- 4.2 ICMA – International Capital Market Association
- 4.3 Climate Bond Initiative
- 4.4 EU Green Bond Standard
- 4.5 EU Taxonomy Real Estate – Energy Performance Certificate (EPC)
- 4.6 Challenges for Emerging Markets

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# 4.1 ASSET CLASS MAPPING TO RESPECTIVE PRINCIPLES

## Asset Class Mapping

Which Principle can be used/translated for/to which asset classes?

| HIGH LEVEL PRINCIPLE / Asset Classes   | Public Equity | Corporate Bonds | Sovereign Debt                | Private Debt | Infrastructure Debt | Infrastructure Equity | Private Equity | Real Estate                      |
|--|---------------|-----------------|-------------------------------|--------------|---------------------|-----------------------|----------------|----------------------------------|
| <a href="#">Green Bond Principles</a>  |               | <b>x</b>        | in case of a green bond - yes | (x)          | (x)                 | (x)                   |                |                                  |
| <a href="#">Climate Bond Initiative</a>                                      |               | <b>x</b>        | in case of a green bond - yes | (x)          | (x)                 | (x)                   |                |                                  |
| <a href="#">EU Taxonomy</a>  | <b>x</b>      | <b>x</b>        | <b>x</b>                      | <b>x</b>     | <b>x</b>            | <b>x</b>              | <b>x</b>       | <i>hardly applicable for now</i> |
| <a href="#">People's Bank of China Green Bond Endorsed Project Catalogue</a> |               | <b>x</b>        | <b>x</b>                      | (x)          | (x)                 | (x)                   |                |                                  |
| <a href="#">MSCI Internal Taxonomy and other providers</a>                   | x             | x               |                               | (x)          |                     |                       | (x)            |                                  |

(X) means could be translated

# 4.2 INTERNATIONAL CAPITAL MARKET ASSOCIATION (ICMA)

- 4.2.1 Green Bond Principles
- 4.2.2 Climate Transition Finance Handbook
- 4.2.3 Harmonized Framework for Impact Reporting
- 4.2.4 Green Loan Principles

## 4.2.1 GREEN BOND PRINCIPLES

### Voluntary Process Guidelines for Issuing Green Bonds

- The Green Bond Principles (GBP) are **voluntary process guidelines that recommend transparency and disclosure.**
- The GBP provide issuers with **guidance on the key components** involved in launching a credible Green Bond;
- They aid investors by promoting availability of information necessary to evaluate the environmental impact of their Green Bond investments.
- And they assist underwriters by moving the market towards expected disclosures that will facilitate transactions.
- The cornerstone of a Green Bond is the utilisation of the **proceeds of the bond for Green Projects**, which should be appropriately described in the **legal documentation for the security.**
- All designated Green Projects should provide clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer.

## 4.2.1 GREEN BOND PRINCIPLES

| Use of Proceeds  | Process for project evaluation and selection   | Management of proceeds   | Reporting  |
|--|--|--|--|
| <ul style="list-style-type: none"><li>• Green Projects should provide <b>clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer.</b></li><li>• Categories which contribute to environmental objectives such as: <b>climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control.</b></li></ul> | <ul style="list-style-type: none"><li>• <b>Clear communication</b> of Green Bond issuer to investors about <b>sustainability objectives</b>, how the <b>projects fit within the eligible Green Projects categories</b>, the <b>related eligibility criteria</b></li><li>• Issuers are encouraged to <b>disclose this information within the context of the issuer's overarching objectives, strategy, policy</b> and/or processes relating to environmental sustainability and any <b>green standards or certifications</b> referenced in project selection.</li></ul> | <ul style="list-style-type: none"><li>• <b>Net proceeds should be tracked by the issuer in an appropriate manner</b> and attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for Green Projects</li><li>• Balance of tracked net proceeds <b>should be periodically adjusted</b></li><li>• High level of transparency, <b>third party should verify the internal tracking method and the allocation of the funds</b></li></ul> | <ul style="list-style-type: none"><li>• Make up to date information on the <b>use of proceeds annually available</b> (list and description of projects, qualitative and quantitative performance indicators/measures, key underlying methodologies and assumptions)</li><li>• The annual report should include a <b>list of the projects</b> to which Green Bond proceeds have been allocated, a brief <b>description of the projects</b> and the amounts allocated, and their <b>expected impact.</b></li></ul> |

# 4.2.1 GREEN BOND PRINCIPLES

## Green Project Mapping = High-level mapping to GBP Environmental Objectives and other Green Classifications

Mapping of the GBP-project categories to environmental objectives

| GBP-project categories  | Environmental objectives  |                           |              |                               |                                  |
|---|---------------------------|---------------------------|--------------|-------------------------------|----------------------------------|
|   | Climate change mitigation | Climate change adaptation | Biodiversity | Natural resource conservation | Pollution prevention and control |
| Renewable energy  | ● ● ●                     |                           |              | ●                             | ●                                |
| Energy efficiency   | ● ● ●                     |                           |              |                               | ●                                |
| Pollution prevention and control  |                           |                           |              | ●                             | ● ● ●                            |
| Environmentally sustainable management of living natural resources and land use               | ●                         | ● ●                       | ● ● ●        | ● ● ●                         |                                  |
| Terrestrial and aquatic biodiversity conservation   |                           | ●                         | ● ● ●        | ● ● ●                         |                                  |
| Clean transportation  | ● ● ●                     |                           |              | ●                             | ● ● ●                            |
| Sustainable water and wastewater management   |                           | ● ●                       | ● ●          | ● ●                           | ● ● ●                            |
| Climate change adaptation   |                           | ● ● ●                     |              |                               |                                  |
| Eco-efficient and/or circular economy adapted products, production technologies and processes | ● ●                       |                           | ●            | ● ● ●                         | ●                                |
| Green buildings   | ● ● ●                     | ●                         |              | ● ● ●                         | ●                                |

qualifies for Alliance Climate Solution Reporting

Contribution to objective:

primary ● ● ●

secondary ● ●

tertiary ●

High level equivalence across classification standards

| GBP-project categories  | China Green Bond Catalogue                          | CBI                                 | MDB-IFEC (climate change mitigation only)                   | EU Taxonomy |
|---|---|-------------------------------------|---|-------------|
| Renewable energy  | Clean energy  | Energy                              | Renewable energy  | TED         |
| Energy efficiency   | Energy saving                                       |                                     | Energy efficient transmission and distribution systems      |             |
| Pollution prevention and control  | Pollution prevention and control                    | Waste and pollution control         | Waste   |             |
| Environmentally sustainable management of living natural resources and land use               | Ecological protection and climate change adaptation | Nature based assets                 | Agriculture, forestry and land use                          |             |
| Terrestrial and aquatic biodiversity conservation   |   |                                     | Afforestation and reforestation, and biosphere conservation |             |
| Clean transportation  | Clean transportation                                | Transport                           | Transport   |             |
| Sustainable water and wastewater management   | Resource conservation and recycling                 | Water                               | Wastewater  |             |
| Climate change adaptation   | Ecological protection and climate change adaptation | No relevant category                | No relevant category  |             |
| Eco-efficient and/or circular economy adapted products, production technologies and processes | Energy saving                                       | Resource conservation and recycling | Industry and energy intensive commercial                    |             |
| Green buildings   |   |                                     | Low carbon buildings  |             |



## 4.2.2 CLIMATE TRANSITION FINANCE HANDBOOK

### Introduction

- The document seeks to provide clear guidance and common expectations to capital markets participants on the **practices, actions and disclosures** to be made available when **raising funds in debt markets for climate transition-related purposes**.
- Given that transition pathways must be tailored to the sector and operating geographies of an issuer and noting that issuers are generally at different starting points and on different pathways, this document does **not seek to provide definitions or taxonomies of transition projects**, noting that there are several efforts in this area underway globally.
- Rather, it clarifies the **issuer-level disclosures** which are recommended to credibly position the issuance of Use of Proceeds or Sustainability-Linked instruments to finance the transition, particularly of 'hard-to-abate' sectors.
- There are **four key elements to these recommendations**:
  1. Issuer's climate transition strategy and governance;
  2. Business model environmental materiality;
  3. Climate transition strategy to be 'science-based' including targets and pathways; and,
  4. Implementation transparency.

## 4.2.2 CLIMATE TRANSITION FINANCE HANDBOOK

| Issuer's climate transition strategy and governance  | Business model environmental materiality  | Climate transition strategy to be 'science-based' including targets and pathways   | Implementation transparency   |
|--|---|--|---|
| <ul style="list-style-type: none"> <li>Issuer's strategy should be guided by the <b>objective of limiting global temperature increases ideally to 1.5°C and</b>, at the very least, to well below 2°C.</li> </ul> <p>Disclosure</p> <ul style="list-style-type: none"> <li><b>Long-term target</b></li> <li><b>Relevant interim targets</b></li> <li><b>Issuer's levers towards decarbonisation</b></li> <li><b>Clear oversight and governance of transition strategy</b></li> </ul> <p>Independent review, assurance and verification</p> <ul style="list-style-type: none"> <li>Alignment of long-term and short-term targets</li> <li>Credibility of the issuers strategy to reach the targets</li> </ul> | <ul style="list-style-type: none"> <li>The planned climate transition trajectory should be relevant to the environmentally-material parts of the issuer's business model, <b>taking into account potential future scenarios</b> which may impact on current determinations concerning materiality.</li> </ul> <p>Disclosure</p> <ul style="list-style-type: none"> <li><b>Discussion of the materiality</b> of the planned transition trajectory may be included</li> </ul> <p>Independent review, assurance and verification</p> <ul style="list-style-type: none"> <li>Not appropriate in all cases but accounting profession may provide guidance</li> </ul> | <p>Planned transition trajectory should:</p> <ul style="list-style-type: none"> <li><b>be quantitatively measurable</b></li> <li>be aligned with, benchmarked or otherwise referenced to <b>science-based trajectories</b></li> <li><b>be publicly disclosed</b> include interim milestones</li> <li><b>be supported by independent assurance or verification.</b></li> </ul> <p>Disclosure</p> <ul style="list-style-type: none"> <li><b>Short, medium, and long-term GHG reduction targets</b> aligned with Paris</li> <li><b>Baseline;</b></li> <li><b>Scenario</b> utilised, and methodology applied</li> <li><b>GHG objectives covering all scopes</b></li> <li>Targets formulated in <b>intensity and absolute terms.</b></li> </ul> | <ul style="list-style-type: none"> <li>It is recommended to provide <b>transparency with regard to the planned capital and operational expenditure decisions</b></li> <li>Issuers should report in qualitative and quantitative fashion the climate-related outcomes</li> <li>if considered <b>social</b> expenditures</li> </ul> <p>Disclosure</p> <ul style="list-style-type: none"> <li><b>percentage of assets/revenues/ expenditures/divestments</b> aligned to the various levers outlined in Element 1</li> <li><b>Capex roll-out plan</b> consistent with the overall strategy and climate science</li> </ul> |

## 4.2.3 HARMONIZED FRAMEWORK FOR IMPACT REPORTING

### Introduction

- The GBP recommend the use of both **qualitative performance indicators** and, where **feasible, quantitative performance measures** with the disclosure of the key underlying methodology and/or assumptions used in the quantitative determination. The handbook outlines **general core principles and recommendations for reporting** in order to provide issuers with a reference as they develop their own reporting. The handbook also offers impact **reporting metrics and sector specific guidance** for the aforementioned project categories.
- The compilation of the handbook was led by an informal Technical Working Group comprising EBRD, EIB, International Finance Corporation (IFC), KfW, NIB and the World Bank.

## 4.2.3 HARMONIZED FRAMEWORK FOR IMPACT REPORTING

### Core Principles and Recommendations

1. Green bond issuers are encouraged to **report on both the use of green bond proceeds**, as well as the **expected environmental impacts** at least on an **annual basis**.
2. Issuers are recommended to **define and disclose the period and process for including projects** in their report.
3. The report should indicate the **total signed amount, the amount of green bond proceeds allocated to eligible disbursements and additional information** such as year of signing or project stage from a financing point of view.
4. Issuers are encouraged to **put in place a formal internal process for the allocation of proceeds** linked to their lending and investment operations for Green Projects and to report on the allocation of proceeds.
5. It is recommended that issuers either provide **a list of projects to which green bond proceeds have been allocated or report solely on a portfolio level** and explain **the key characteristics** of the approach they select for their report.
6. Depending on the way in which proceeds are allocated, there can be differences in the approach to impact reporting.
  - If allocations are to **individual projects**:
    - the specific projects, the total project results with information about the total project size and/or the issuer's share of total financing
    - Aggregates project-by-project results including only the pro-rated share of the total projects' results
  - If allocations are to a **portfolio of projects**: overall results of the portfolio (portfolio report based on portfolio allocation)
7. The impact report should illustrate the **expected environmental impact made possible as a result of projects** to which green bond proceeds have been allocated
8. Report the **estimated lifetime results** and/or project economic life (in years) to provide users with a basis for understanding the impact of the project over its lifetime.

## 4.2.3 HARMONIZED FRAMEWORK FOR IMPACT REPORTING

### Core Principles and Recommendations

9. In case the issuer **samples ex-post verification** of specific projects: **relevant results** should be included in the reporting.
10. To facilitate comparison of project results, issuers should aim **to report on at least a limited number of sector specific core indicators** for projects included in their green bond programs.
11. For the calculation of indicators, where there is no single commonly-used standard, issuers **may follow their own methodologies while making these available to investors**. Issuers should **provide full transparency** on the applicable GHG accounting methodology and assumptions, which can be referenced.
12. Investors should be aware **that comparing projects, sectors, or whole portfolios is difficult** because general assumptions on inputs in calculations, like grid factors and calculation methods, as well as cost structures between countries also vary significantly
13. Issuers may elect, for consistency reasons, **to convert units reported for individual projects**. This should be based on a standard conversion factor to facilitate comparison and aggregation. However, complex recalculations that are not publicly disclosed in project documentation should be avoided.
14. Issuers are encouraged **to be transparent about projects with partial eligibility**
15. In case the expected impacts of different project components (such as for example energy efficiency (“EE”) and renewable energy (“RE”) components of the same project) may not be reported separately, issuers **may attribute the results to each component based on their relative share in the related financing, disclosing the attribution approach**. Alternatively, issuers could combine the reporting metrics for both sectors into a single table (option 2 in the reference reporting templates).
16. Issuers should be **transparent on how they report all green bond-related cash-flows in one currency** when they allocate green bond proceeds and report on the projects to which green bond proceeds have been allocated.

## 4.2.3 HARMONIZED FRAMEWORK FOR IMPACT REPORTING

### Sector Specific Guidance and Reporting Metrics (one selected Core Indicators for each section)

#### Renewable Energy

Annual GHG emissions reduced/avoided in t of CO<sub>2</sub> equivalent

#### Energy Efficiency

Annual energy savings in MWh/GWh (electricity) and GJ/TJ (other energy savings)

#### Sustainable Water and Wastewater Management

Annual water savings: annual absolute water use before and after the project in m<sup>3</sup>/a, reduction in %

#### Clean Transportation

Reduction of air pollutants: particulate matter (PM), sulphur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and non-methane volatile organic compounds (NMVOCs)

#### Waste Management and Resource Efficiency

Waste that is prevented, minimised, reused or recycled before and after the project in % of total waste and/ or in tonnes p.a.

#### Biodiversity

**Protected areas and other effective area-based conservation measures (OECM):** Maintenance/ safeguarding/increase of protected area/OECM/habitat/ natural landscape area in km<sup>2</sup> and in % for increase

#### Green Buildings

**Energy performance:** kWh/m<sup>2</sup> of GBA p.a.; and % of energy use reduced/avoided vs local baseline/building code  
**Carbon Performance:** kgCO<sub>2</sub>/m<sup>2</sup> of GBA p.a;

#### Climate Change Adaptation

Reduction in the number of power lines incapacitated due to storms  
Reduction in the number of wildfires, and/or in the area damaged by wildfires in km<sup>2</sup>

## 4.2.3 HARMONIZED FRAMEWORK FOR IMPACT REPORTING

### Reporting Template (Energy Efficiency as example)

Illustrative Summary Template for Project-by-Project Report:

| Energy Efficiency (EE) | Signed Amount <u>a/</u> | Share of Total Project Financing <u>b/</u> | Eligibility for green bonds | EE component       | Allocated Amount <u>c/</u> | Project lifetime <u>d/</u> | #1) Annual energy savings (electricity / other) |       | #2) Annual GHG emissions reduced/ avoided <u>e/</u> | Other Indicators  |
|------------------------|-------------------------|--|-----------------------------|--------------------|----------------------------|----------------------------|---|-------|---|---|
| Project name <u>f/</u> | currency                | %  | % of signed amount          | % of signed amount | currency                   | in years                   | MWh/GWh   | GJ/TJ | in tonnes of CO <sub>2</sub> equivalent             |   |
| e.g. Project 1         | XX                      | XX   | XX                          | XX                 | XX                         | XX                         | XX  | XX    | XX  | XX people benefited; XXX t CO <sub>2</sub> eq. Absolute annual project emissions. |

Illustrative Summary Template for Portfolio-based Report:

| Energy Efficiency (EE) | Signed Amount <u>a/</u> | Share of Total Portfolio Financing <u>b/</u> | Eligibility for green bonds | EE component | Allocated Amount <u>c/</u> | Average portfolio lifetime <u>d/</u> | #1) Annual energy savings (electricity / other), possibly per unit of financing |       | #2) Annual GHG emissions reduced/avoided (possibly per unit of financing) <u>e/</u> | Other Indicators per unit (possibly per unit of financing)                       |
|------------------------|-------------------------|--|-----------------------------|--------------|----------------------------|--------------------------------------|---|-------|---|--|
| Portfolio name         | currency                | %  | %                           | %            | currency                   | years                                | MWh/GWh   | GJ/TJ | in tonnes of CO <sub>2</sub> equivalent   |  |
| e.g. Portfolio 1       | XX                      | XX   | XX                          | XX           | XX                         | XX                                   | XX  | XX    | XX  | XX people benefited; XX t CO <sub>2</sub> eq. Absolute annual project emissions. |

## 4.2.4 GREEN LOAN PRINCIPLES

### Introduction

- **Voluntary recommended guidelines**, built on and refer to the Green Bond Principles
- aim is to create a **high-level framework of market standards and guidelines**, providing a consistent methodology for use across the green loan market, whilst allowing the loan product to retain its flexibility, and preserving the integrity of the green loan market while it develops

#### Green Loan Definition:

- any type of loan instrument made available **exclusively to finance or re-finance, in whole or in part, new and/or existing eligible Green Projects**
- Green loans must align with the four **core components of the GLP** (see next slide)
  - **1) Use of proceeds**
  - **2) Process of Project Evaluation and Selection**
  - **3) Management of Proceeds**
  - **4) Reporting**



## 4.2.4 GREEN LOAN PRINCIPLES

| Use of Proceeds   | Process for Project Evaluation and Selection   | Management of Proceeds  | Reporting   |
|---|--|---|---|
| <ul style="list-style-type: none"><li>• Fundamental determinant of green loan is the utilization of the loan proceeds for Green Projects</li><li>• Green Projects should provide <b>clear environmental benefits, which will be assessed and, where feasible, quantified, measured and reported by the borrower.</b></li><li>• Categories which address key environmental concern such as <b>climate change, natural resource depletion, loss of biodiversity, air/water/soil pollution</b></li></ul> | <ul style="list-style-type: none"><li>• The borrower should <b>clearly communicate</b> to its lenders:</li><li>• <b>sustainability objectives</b>, the process by which the borrower determines how its projects fit within the eligible categories and the <b>related eligibility criteria</b></li><li>• Borrowers are encouraged to <b>position this information</b> within the context of their overarching objectives, strategy, policy and/or and <b>disclose any green standards or certifications</b> to which they are seeking to conform.</li></ul> | <ul style="list-style-type: none"><li>• <b>Net proceeds should be tracked by the borrower in an appropriate manner</b></li><li>• when green loan takes the form of one or more tranches, each tranche(s) must be <b>clearly designated, with its proceeds credited to a separate account</b> or tracked by the borrower in an appropriate manner.</li><li>• High level of transparency, <b>internal governance process to track allocation of funds</b></li></ul> | <ul style="list-style-type: none"><li>• Make up to date information on the <b>use of proceeds annually available</b> (list and description of projects, qualitative and quantitative performance indicators/measures, key underlying methodologies and assumptions)</li><li>• Transparency on <b>expected impact</b> particularly important</li><li>• <b>External review is recommended</b> through i.e. Consultancy, Verification, Certification or Rating</li></ul> |

# 4.3 CLIMATE BOND INITIATIVE (CBI)

4.3.1 Standard & Certification Scheme Version 3.0

4.3.2 Taxonomy

4.3.3 Sector Criteria

4.3.4 Transition Principles

## 4.3.1 CLIMATE BOND STANDARD & CERTIFICATION SCHEME 3.0



### Key Components Climate Bond Standard & Certification Scheme 3.0

- The Certification Scheme allows investors, governments and other stakeholders to **identify and prioritise 'low-carbon and climate resilient' investments** and avoid 'greenwash'.
- aims to **provide the green bond market with the trust** and assurance that it needs to achieve scale
- builds on **the broad integrity principles contained in the Green Bond Principles**
- For investors: screening tool that **labels bonds or loans** as Certified Climate Bonds, Loans or Debt Instruments
- For issuers: a **voluntary initiative to demonstrate to the market that their bond or loan meets science-based standards for climate integrity**, and best practice standards for management of proceeds and transparency.

#### Key features:

- **Full alignment with the Green Bond Principles, Green Loan Principles**, the proposed EU Green Bond Standard, ASEAN Green Bond Standards, Japan's Green Bond Guidelines and India's Disclosure & Listing Requirements for Green Bonds
- **Clear mandatory requirements** for use of proceeds, selection of projects & assets, management of proceeds and reporting
- **Sector criteria** for determining the low-carbon and climate resilient credentials of projects and assets
- An assurance framework with **independent verifiers and consistent procedures**
- Certification awarded by the Climate Bonds Standard Board and is confirmed after issuance of the bond or loan with **mandatory independent verification and annual reporting for the term of the investment**
- The financing assets are **consistent with achieving the goals of the Paris Agreement**

## 4.3.1 CLIMATE BOND STANDARD & CERTIFICATION SCHEME 3.0



### Key Components Climate Bond Standard & Certification Scheme 3.0

#### Key Components:

- **Climate Bonds Taxonomy,**
- **Sector Eligibility Criteria,**
- **guidance material** and certification documents

#### How the certification works:

- The requirements of the Climate Bonds Standard are separated into the two distinct phases of issuing a bond, loan or other debt instrument:
  - 1. **Pre-Issuance Requirements** which need to be met for issuers seeking certification ahead of issuance,
  - 2. **Post-Issuance Requirements** which need to be met by issuers seeking ongoing certification following the issuance.
- Verification by an **Approved Verifier is mandatory** in the Certification process. Ongoing Certification includes requirements for **annual reporting with public disclosure.**

#### Ongoing reporting:

- All issuers are required to **report annually** to maintain the Certification and the reporting is divided into
  - 1) **Allocation reporting** (confirming the allocation of bond proceeds to eligible projects ),
  - 2) **Eligibility reporting** (confirming the characteristics or performance of projects and assets to demonstrate their eligibility),
  - 3) **Impact reporting** (closure of metrics or indicators which reflect the expected or actual impact)

## 4.3.2 CLIMATE BOND INITIATIVE TAXONOMY













































### Introduction

- The Climate Bonds Taxonomy is the **high-level roadmap for the relevant sectors**.
- It forms the basis of the Climate Bonds green bond database methodology, used by Climate Bonds to **assess the climate alignment of all green bonds** (certified or uncertified) for inclusion in the database, which is then used by index providers, analysts and other market players.
- It **identifies the assets and projects needed to deliver a low carbon economy** and gives **GHG emissions screening criteria consistent with the 2° global warming target** set by the COP 21 Paris Agreement. It has been developed based on the latest climate science including research from the IPCC and the IEA and has benefited from the input of hundreds of technical experts from around the world.
- The following sectors are covered by the CBI Taxonomy:

|           |           |                             |                   |
|-----------|-----------|-----------------------------|-------------------|
| ENERGY    | WATER     | LAND USE & MARINE RESOURCES | WASTE & POLLUTION |
| TRANSPORT | BUILDINGS | INDUSTRY                    | ICT               |

## 4.3.2 CLIMATE BOND INITIATIVE TAXONOMY

| ENERGY  | TRANSPORT  | WATER  | BUILDINGS   | LAND USE & MARINE RESOURCES  | INDUSTRY   | WASTE  | ICT                                |
|---|--|--|---|--|--|--|------------------------------------|
| Solar                          | Private transport           | Water monitoring        | Residential                        | Agriculture                           | Cement production                   | Preparation                     | Broadband networks                 |
| Wind                           | Public passenger transport  | Water storage           | Commercial                         | Commercial Forestry                   | Steel, iron & aluminium production  | Reuse                           | Telecommuting software and service |
| Geothermal                     | Freight rail                | Water treatment         | Products & systems for efficiency  | Ecosystem conservation & restoration  | Glass production                    | Recycling                       | Data hubs                          |
| Bioenergy                      | Aviation                    | Water distribution      | Urban development                  | Fisheries & aquaculture               | Chemical production                 | Biological treatment            | Power management                   |
| Hydropower                     | Water-borne                 | Flood defence           |   | Supply chain management               | Fuel production                     | Waste to energy                 |                                    |
| Marine Renewables              |  | Nature-based solutions  |   |  |  | Landfill                        |                                    |
| Transmission & distribution  |  |  |   |  |  | Radioactive waste management  |                                    |
| Storage                      |  |  |   |  |  |  |                                    |
| Nuclear                      |  |  |   |  |  |  |                                    |

 Certification Criteria approved  
 Criteria under development  
 Due to commence

Overview of the Taxonomy over the parts of each sector which already provides approved Certification Criteria

10/2020

## 4.3.3 CLIMATE BOND INITIATIVE SECTOR CRITERIA



### Key Components Sector Criteria

- The Sector Eligibility Criteria are **science-based and provide detailed definitions for the eligibility of specific projects and assets.**
- The Criteria ensure that projects & assets are **consistent with achieving the goals of the Paris Climate Agreement** and the rapid transition to a low-carbon & climate resilient future.
- **sets climate change benchmarks for each sector** that are used to screen assets and capital projects so that only those that have climate integrity, either through their contribution to climate mitigation, and/or to adaptation and resilience to climate change, will be certified. Where a bond encompasses a mixed portfolio of assets across several sectors, **each sub-category of assets will be subject to the relevant Sector Criteria** for those assets.
- Criteria Development Process: Criteria are developed in accordance with guidance for standard setting organisations published by ISEAL.

## 4.3.3 CLIMATE BOND INITIATIVE SECTOR CRITERIA



### Taxonomy table of asset and projects for the sector Transport

| GEOHERMAL |                                      |   |   |  |   |
|-----------|--------------------------------------|---|---|--|---|
|           | Generation facilities (power & heat) | Electricity generation facilities   | ● | Direct emissions less than 100gCO2/kWh | ● |
|           |                                      | Direct heat application such as Geothermal Heat Pump (GHP)  | ● |  |   |
|           | Supply chain facilities              | Manufacturing facilities wholly dedicated to geothermal energy developments such as geothermal turbines | ● |  | ● |
|           |                                      | Dedicated storage, distribution, installation, wholesale and retail                                     | ● |  |   |
|           | Infrastructure                       | Dedicated transmission infrastructure   | ● |  | ● |
|           |                                      | Dedicated supporting infrastructure   | ● |  | ● |



# 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES



## Introduction

- framework that identifies credible transitions aligned with the Paris Agreement

### Purpose:

- **Define transition as a concept** by presenting a starting point for the market to see a credible brown to green transition as ambitious, inclusive and aligned with the Paris Agreement (thereby avoiding greenwash).
- **Put forward a framework for use of the transition label** in practice and propose clearly demarcated roles for both a green and a transition label

### Categories

- Economic activities can be categorised in 5 categories (see side) based on:
  - i. how long the product or service delivered by the activity will be needed (which depends in turn on the availability of low carbon substitutes); and
  - ii. the viability of decarbonising the activity so that it aligns with the Paris Agreement.
- Enabling activities (enable decarbonization elsewhere like goods and services, e.g. manufacture of wind turbines) are across all categories
- Applicable on activity and entity-level (and proposed to apply on whole entities)

#### **NEAR ZERO**

Activities already at or near net-zero emissions that may require some further decarbonisation but not a significant transition - e.g. wind power generation.

#### **PATHWAY TO ZERO**

Activities needed beyond 2050 and have a clear 1.5-degree decarbonisation pathway - e.g. shipping

#### **NO PATHWAY TO ZERO**

Activities that are needed beyond 2050 but at present, do not have a clear 1.5 degree decarbonisation pathway to 2050 - e.g. long-haul passenger aviation.

#### **INTERIM**

Activities currently needed but should be phased out by 2050 - e.g. production of energy from municipal waste

#### **STRANDED**

Activities that cannot be brought into line with global warming targets and have an alternative, low-emissions substitute - e.g. electricity generation from coal.

## 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES

### 5 Transition Principles



#### 1. In line with 1.5 degree trajectory

All goals and pathways need to align with zero carbon by 2050 and nearly halving emissions by 2030.



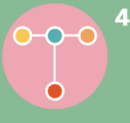
#### 2. Established by science

All goals and pathways must be led by scientific experts and be harmonised across countries.



#### 3. Offsets don't count

Credible transition goals and pathways don't count offsets, but should count upstream scope 3 emissions.



#### 4. Technological viability trumps economic competitiveness

Pathways must include an assessment of current and expected technologies. Where a viable technology exists, even if relatively expensive, it should be used to determine the decarbonisation pathway for that economic activity.



#### 5. Action not pledges

A credible transition is backed by operating metrics rather than a commitment/pledge to follow a transition pathway at some point in the future. In other words, this is NOT a transition to a transition.

- The principles define the characteristics of credible transition pathways which must align with 1.5 degree targets. They are consistent with the evaluating transition activities in the EU Taxonomy.
- **Principle 1 - Credible transition goals and pathways align with 1.5°C global warming limits:** Global emissions need to drop by 45% from 2010 levels by 2030 and down to net zero globally by 2050. There is a need to go beyond Nationally Defined Contributions and best- in-class benchmarks
- **Principle 2 - Credible transition goals and pathways are established by the climate science community and are not entity specific:** Transition pathways should not be determined by individual institutions on a case-by-case basis. Rather, pathways should be harmonized globally
- **Principle 3 - Credible transition goals and pathways don't count offsets but should count upstream scope 3 emissions as much as is possible:** The only exception to this is if the offsetting is very directly linked to the key activity in question and offsets emissions that cannot be minimised in any way. Transition pathways should take into account scope 1 and 2 and upstream scope 3 emissions as under the control of the transitioning entity, but not downstream scope 3.
- **Principle 4 - Credible transition pathways take into account technological viability, but not economic competitiveness:** Entities carrying out an activity that does not follow its decarbonisation pathway, even if the reason is maintaining cost- competitiveness, are not making a credible transition

## 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES

### 5 Transition Principles



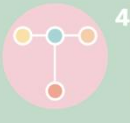
**1. In line with 1.5 degree trajectory**  
All goals and pathways need to align with zero carbon by 2050 and nearly halving emissions by 2030.



**2. Established by science**  
All goals and pathways must be led by scientific experts and be harmonised across countries.



**3. Offsets don't count**  
Credible transition goals and pathways don't count offsets, but should count upstream scope 3 emissions.



**4. Technological viability trumps economic competitiveness**  
Pathways must include an assessment of current and expected technologies. Where a viable technology exists, even if relatively expensive, it should be used to determine the decarbonisation pathway for that economic activity.

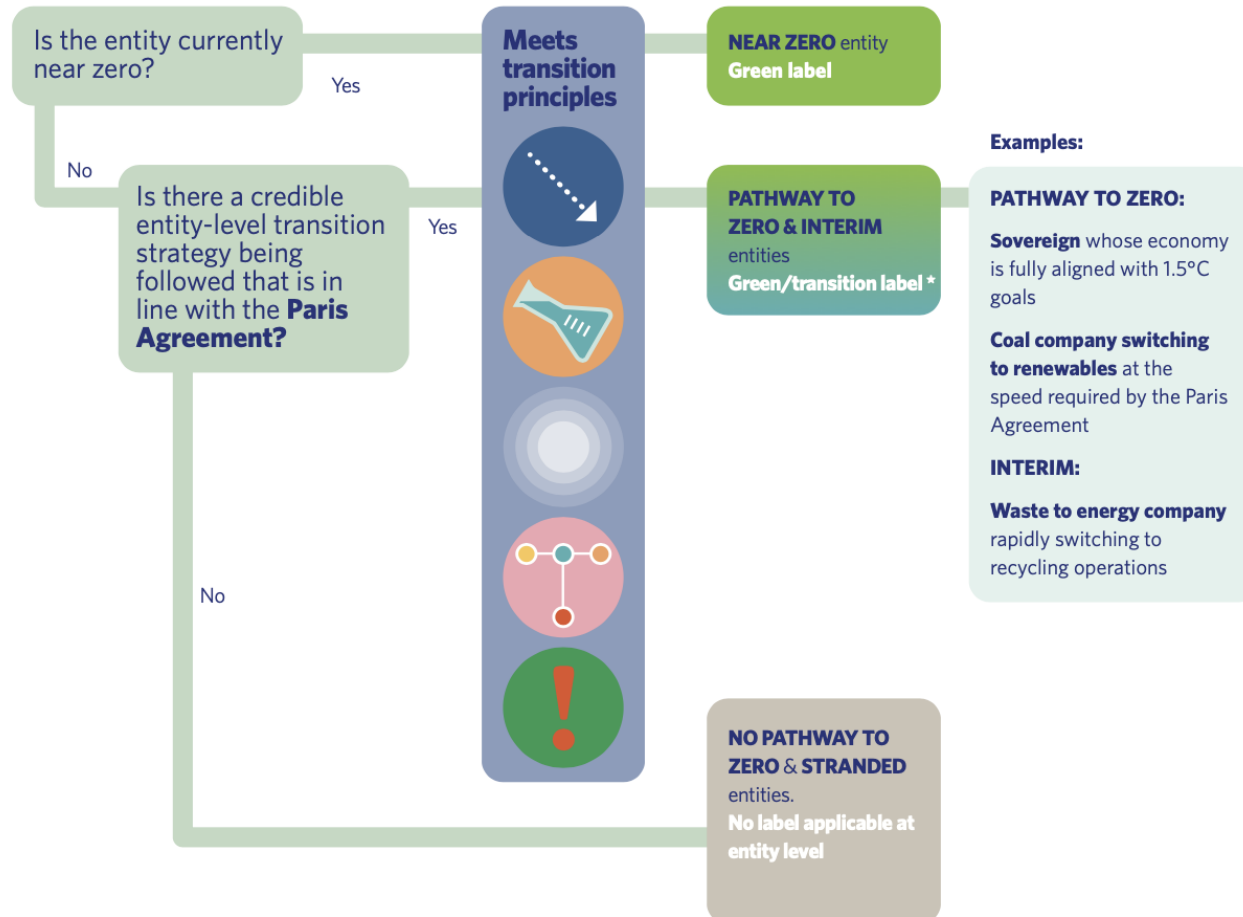


**5. Action not pledges**  
A credible transition is backed by operating metrics rather than a commitment/pledge to follow a transition pathway at some point in the future. In other words, this is NOT a transition to a transition.

- **Principle 5 - Credible transition means actually following the transition pathway – pledges and policies are not sufficient:**
  - For use-of-proceeds bonds: if the measure or activity aligns with a transition pathway over the financing term that meets principles 1-4 and it is needed post 2050, then it is delivering credible transition. While many investors may look for an accompanying entity-level decarbonisation strategy, particularly for a highly emitting sector, such strategies are welcomed rather than essential.
  - For fixed term but general purpose finance: if the entity follows a transition pathway over the financing term that meet principles 1-4 then it is delivering credible transition. This should be demonstrated via a credible entity-level transition strategy.
  - For open ended entity level finance (e.g. equity investments): if the entity follows a transition pathway that meet principles 1-4 then it is delivering credible transition. This should be demonstrated via a credible entity-level transition strategy.

## 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES

### Use of Green and Transition Label for Entity Level Investments



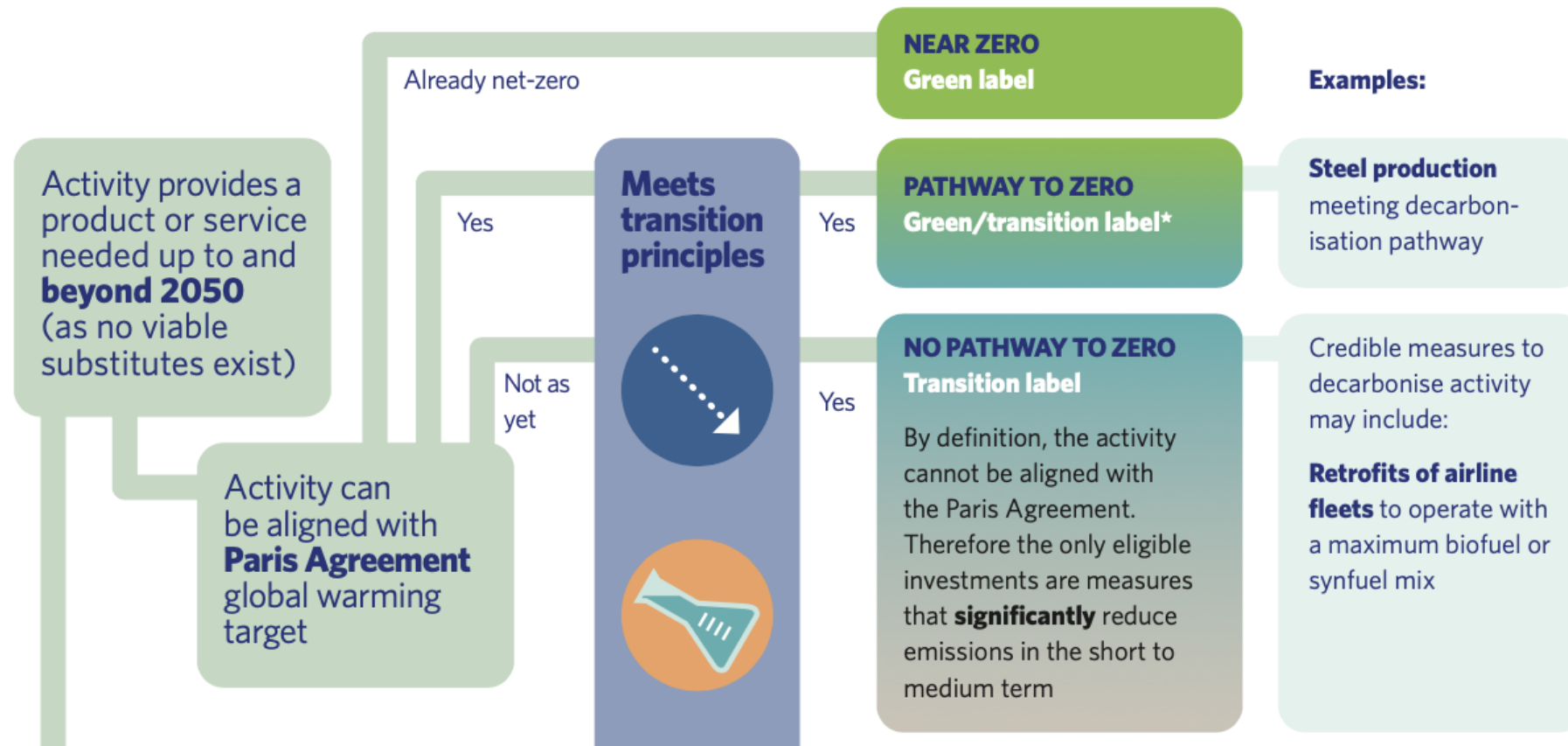
1) **Green label** continues to be used for eligible investments in activities or entities that have a long-term role to play and are either already near zero or are following decarbonisation pathways in line with halving global emissions by 2030 and reaching net zero by 2050

2) **Transition label** be used for eligible investments that:

- are making a substantial contribution to halving global emissions levels by 2030 and reaching net zero by 2050 but will not have a long term role to play; OR
- will have a long term role to play, but at present the long term alignment to net zero goals is not certain.

## 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES

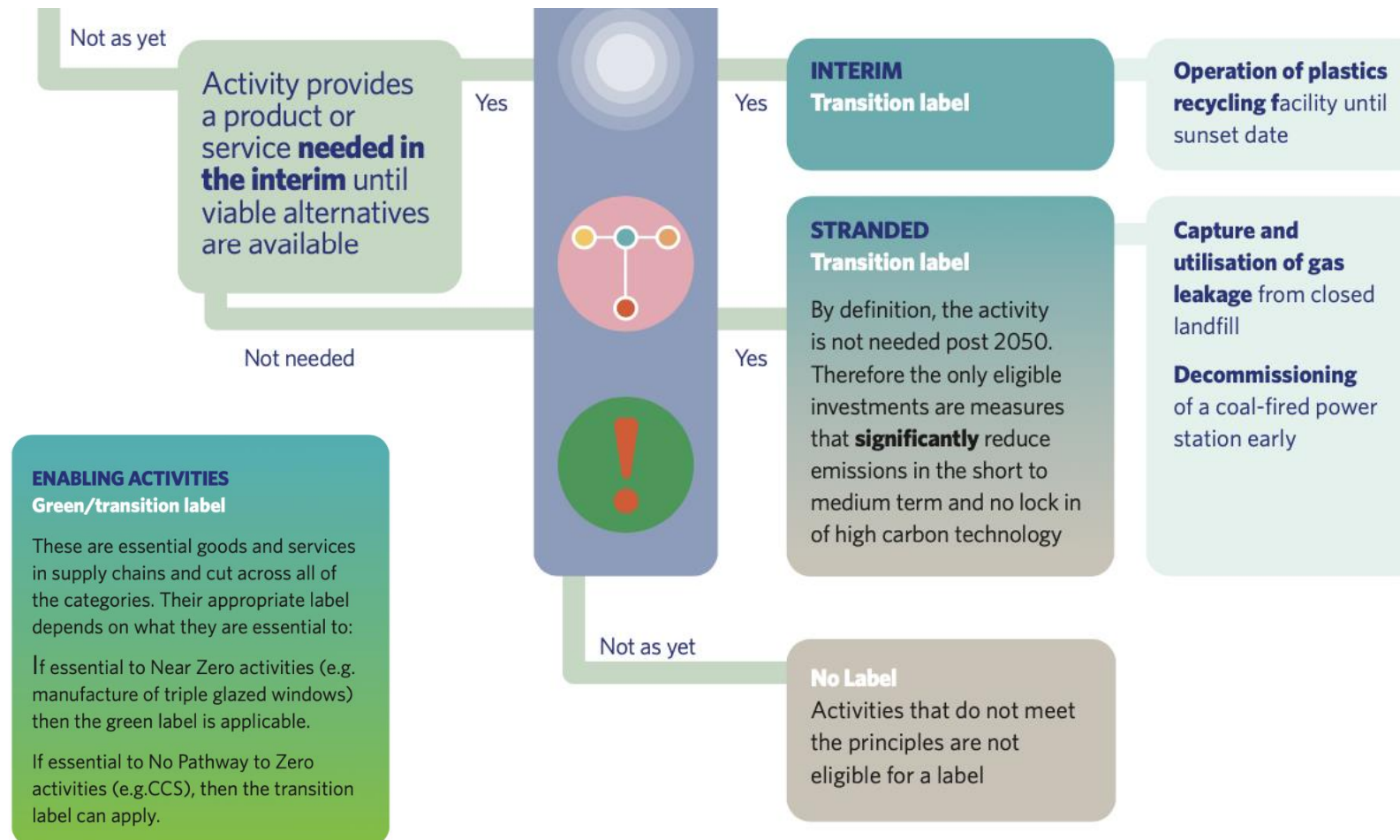
### Use of Green and Transition Label for Investments in Activities and associated Measures 1/2





## 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES

### Use of Green and Transition Label for Investments in Activities and associated Measures 2/2



# 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES

## How to apply the principles – a guide on credible transition

Table 3: How to apply the principles for a credible activity or entity level transition

| Activity category    | Entity   | Activity  |
|----------------------|--|---|
| Near zero            | N/A  |   |
| 'Pathway to Zero'    | Decarbonise entity (and therefore all activities) as fast as possible along 2050 transition pathways in line with Principles                                       | Decarbonise activity as fast as possible along 2050 transition pathways in line with Principles.                              |
| 'No pathway to zero' | N/A (No pathway exists therefore there is no credible transition at the activity or entity level, but see 'Measures' below for decarbonisation options)            |   |
| 'Interim'            | Phase out all interim activities in line with sunset date AND<br>In the meantime, decarbonise entity along appropriate transition pathways                         | Phase out activity in line with sunset date AND<br>In the meantime decarbonise activity along appropriate transition pathways |
| 'Stranded'           | Phase out all stranded activities and switch to low carbon alternatives  | N/A (the aim is not to decarbonise stranded activities but phase them out)  |
| Enabling             | The activity makes a substantial contribution to facilitating another activity to follow an appropriate transition pathway. Their own decarbonisation is secondary |   |

Table 2: Categorisation of activities within the brown-to-green spectrum

|                | Activity category  | Examples relating to power generation  | Examples relating to transport  | Other examples  |
|----------------|--------------------|--|---|---|
| BROWN TO GREEN | Near zero          | <ul style="list-style-type: none"> <li>Solar energy generation</li> <li>Wind energy generation</li> <li>Generation of bioenergy from agricultural or forestry waste products</li> </ul>  | <ul style="list-style-type: none"> <li>Manufacture or operation of electric modes of transport</li> </ul>   | <ul style="list-style-type: none"> <li>Production of green hydrogen</li> <li>Landscape restoration</li> </ul>   |
|                | Pathway to zero    | <ul style="list-style-type: none"> <li>Hydropower generation <sup>i</sup></li> </ul>   | <ul style="list-style-type: none"> <li>Shipping <sup>ii</sup></li> </ul>  | <ul style="list-style-type: none"> <li>Manufacture of steel, <sup>iii</sup> cement <sup>iv</sup></li> <li>Manufacture of packaging <sup>v</sup></li> <li>Crop production <sup>vi</sup></li> <li>Property management <sup>vii</sup></li> </ul> |
|                | Interim            | <ul style="list-style-type: none"> <li>Waste to energy from municipal solid waste <sup>viii</sup></li> <li>Production of energy from bioenergy (non-waste products) <sup>ix</sup></li> <li>Gas power generation with CCS <sup>x</sup></li> </ul> | <ul style="list-style-type: none"> <li>Production of biofuels for shipping <sup>xi</sup></li> <li>Gas production for heavy industry <sup>xii</sup></li> </ul>                             | <ul style="list-style-type: none"> <li>Production of blue hydrogen <sup>xiii</sup></li> <li>Fossil-fuel plastics recycling <sup>xiv</sup></li> <li>Production of mineral water <sup>xv</sup></li> </ul>                                       |
|                | No pathway to zero | <ul style="list-style-type: none"> <li>Electricity generation from solid fossil fuels</li> </ul>   | <ul style="list-style-type: none"> <li>Long-haul passenger aviation <sup>xvi</sup></li> <li>Manufacture or operation of fossil fuel powered passenger vehicles <sup>xvii</sup></li> </ul> | <ul style="list-style-type: none"> <li>Production of hydrogen using steam generated from fossil fuels</li> </ul>  |
|                | Stranded           | <ul style="list-style-type: none"> <li>CCS for power generation <sup>xviii</sup></li> </ul>  | <ul style="list-style-type: none"> <li>Manufacture of electric fuel cells or batteries</li> </ul>   | <ul style="list-style-type: none"> <li>Single use fossil fuel plastics</li> </ul>   |
|                | Enabling           | <ul style="list-style-type: none"> <li>Manufacture of renewables components</li> </ul>   | <ul style="list-style-type: none"> <li>Metals recycling <sup>xix</sup></li> </ul>   | <ul style="list-style-type: none"> <li>CCS for industry <sup>xx</sup></li> <li>Energy storage</li> </ul>  |

## 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES

### Categorisation of activities and examples

Table 4: Examples of likely credible transitions at activity and entity level

| Activity category         | Credible transition at activity level   | Credible transition at entity-level  |
|---------------------------|---|--|
| <b>Near zero</b>          | Construction of wind farms by a mixed power generation company (e.g. oil, gas and wind)                             | N/A  |
| <b>Pathway to zero</b>    | Farm following low carbon agricultural practices<br>A steel production facility that meets decarbonisation pathways | Property management company undertaking deep retrofits to all properties in its portfolio<br>Sovereign whose economy is fully aligned with 1.5°C goals<br>Bank whose loan portfolio includes only loans to entities/ activities/ projects meeting appropriate decarbonisation pathways |
| <b>No pathway to zero</b> | N/A   | N/A  |
| <b>Interim</b>            | Operation of plastics recycling facilities (within sunset date for plastics use and production)                     | Waste to energy company with full capture and utilisation of energy (within sunset date)<br>Waste to energy company rapidly switching to recycling operations  |
| <b>Stranded</b>           | N/A   | Coal fired power generation company rapidly expanding into renewables  |
| <b>Enabling</b>           | Establishing metals recycling facilities  | Company specialising in R&D into e.g. CCS for industry, synthetic plastics, new feedstocks to reduce / eliminate ruminant emission, cement-less concrete, hydrogen or electric kiln furnaces that generate sufficient heat intensity   |

Table 5: Likely examples of credible transition measures

| Activity category         | Measures to decarbonise activities   | Measures to transition away from activities that ought not be part of the long term economy                                  |
|---------------------------|--|--|
| <b>Near zero</b>          | Replacement of wind turbines with more efficient models  | n/a  |
| <b>Pathway to zero</b>    | Deep retrofits of residential properties<br>Retrofit of shipping vessels to run on green ammonia<br>Installation of CCS in steel manufacturing facility<br>Kiln electrification for cement production<br>Switch to use of 100% recycled materials in clothing production | n/a  |
| <b>No pathway to zero</b> | Retrofits of airline fleets to operate with a maximum biofuel or synfuel mix   | n/a  |
| <b>Interim</b>            | Installation of gas capture at a waste-to-energy plant treating only residual waste<br>Switch from fossil fuel based plastics to compostable alternative in production of bottled mineral water<br>Capture and utilise gas leakage in gas pipelines                      | Early shut down of waste to energy facilities when circular economy sufficiently established and residual waste is minimised |
| <b>Stranded</b>           | Capture and utilisation of gas leakage from closed landfill<br>[Noting that these investments are recognised not because of the need or desire to transition stranded activities, but rather to maximise opportunities to halve global emissions by 2030]                | Early decommissioning of a coal-fired power station  |
| <b>Enabling</b>           | R&D in technologies for the production of new construction materials using low emission cement and steel   | n/a  |



## 4.3.4 CLIMATE BOND INITIATIVE TRANSITION PRINCIPLES

### A review of market transactions

Table 6: A summary of transactions reviewed

| Issuer         | Labelled               | Sector           | Use of Proceeds   | Provisional assessment*   |
|----------------|------------------------|------------------|---|---|
| <b>Cadent</b>  | Transition             | Gas distribution | Methane leakage control, network repairs & hydrogen readying, low-carbon vehicles | <b>Green/transition bond</b> - readying for hydrogen, a near zero solution, so long as fugitive emissions addressed, and decarbonising other high emitting activities with potential pathways to net zero |
| <b>EBRD</b>    | Green transition       | Development bank | Energy efficiency of fossil fuel use in industry                                  | <b>Green/ transition bond</b> - decarbonising high emissions activities with potential pathways to net zero, subject to following appropriate decarbonisation pathways                                    |
| <b>ENEL</b>    | SDG                    | Power utility    | NA (General corporate bond with renewable energy targets)                         | <b>Green/ transition bond</b> - entity transitioning to near zero activities  |
| <b>Marfrig</b> | Sustainable transition | Beef processing  | Purchase of beef avoiding farms using deforested land or forced labour            | <b>Neither green nor transition</b> - does not address key sources of emissions)  |
| <b>Orsted</b>  | Green                  | Oil & gas        | Renewables  | <b>Green bond</b> - near zero activities  |
| <b>Repsol</b>  | Green                  | Oil & gas        | Energy efficiency of fossil fuel operations                                       | <b>Neither green nor transition</b> - due to potential lock in of stranded activities   |
| <b>SNAM</b>    | Climate action         | Gas distribution | Renewable Energy, Energy efficiency of fossil fuels & methane capture             | <b>Transition bond</b> - due to decarbonisation of a potential interim activity, alongside other green proceeds, subject to addressing fugitive emissions   |

\* Provisional assessments based on the nature of the investment/ use of proceeds. Firmer assessments not possible in the absence of transition pathways against which to benchmark the decarbonisation impacts of the investment and fuller details to assess the credibility of transition strategies and targets

# 4.4 EU GREEN BOND STANDARD

## 4.4 EU GREEN BOND STANDARD

### Summary

- EU-GBS aims to facilitate the awareness of sustainability by further clarifying how economic activities can be combined with positive environmental impacts in a credible and measurable way
- Standard contributes to the EU's long-term competitiveness and its economic and environmental resilience

#### Draft Model proposed by the TEG

- Scope: EU-GBS is a **voluntary standard** proposed to issuers that wish **to align with leading best practices** in the market. It is designed to be **globally relevant** and accessible to issuers located **in and outside the EU**. It builds on market best practices such as the Green Bond Principles (GBP).
- Objective: enhancing **transparency, integrity, consistency and comparability** of EU Green Bonds
- Definition:
  - 1) The issuer's Green Bond Framework **shall confirm the alignment** of the green bond with the EU-GBS;
  - 2) The proceeds shall be exclusively used to **finance or re-finance in part or in full new and/or existing Green Projects**
  - 3) The alignment of the bond with the EU-GBS shall have been **verified by an accredited Verifier**
- Core Components:
  - 1) Green Projects
  - 2) Green Bond Framework
  - 3) Allocation and Impact Reporting
  - 4) Verification

## 4.4 EU GREEN BOND STANDARD

| Specific topic   | Green Bond Principles (GBP)  | Proposed EU Green Bond Standard (EU-GBS)   |
|--|--|--|
| Use of Proceeds in legal documentation   | Recommended  | Required in the legal documentation (for instance, in the Base Prospectus or in the Final Terms).  |
| Eligibility criteria (1): Substantial contribution to environmental objectives | High-level categories for eligible Green Projects  | Alignment with a detailed EU Taxonomy, including four requirements (1) substantial contribution to environmental objectives, (2) do-no-significant harm (3) minimum social safeguards; and (4) technical screening criteria (see below and detailed description in section 4.1 of the EU-GBS, Annex 1).<br><br>Green Bond Framework (GBF) required (see section 4.2 of the EU-GBS). A template is provided in Annex 2.<br><br>Specific requirements, related to capital/operating expenditures and look-back periods are provide in section 4.1 of the EU-GBS (Annex 1). |
| Eligibility criteria (2) : Do-no-significant harm                              | n/a  | Ensure that economic activities do-no-significant harm to any of the EU Taxonomy's Environmental Objectives  |
| Eligibility criteria (3) : Social safeguards                                   | Communicate clearly to investors the "process applied to identify and manage potentially material environmental and social risks associated with the projects" | Ensure compliance with minimum social safeguards represented by the principles and rights set out in the eight fundamental conventions identified in the International Labour Organisation's declaration on Fundamental Rights and Principles at Work.   |
| Eligibility criteria (4): Technical Screening Criteria                         | n/a  | Sector specific screening criteria, including principles, metrics and related thresholds on sectors that are deemed environmentally sustainable.   |

| Specific topic  | Green Bond Principles (GBP)   | Proposed EU Green Bond Standard (EU-GBS)  |
|---|---|---|
| Disclosure of proportion of proceeds used for refinancing | Recommended   | Required. Specific technical requirements, see section 4.3 of the EU-GBS (Annex 1).<br>A reporting template is provided Annex 3.  |
| Impact monitoring and reporting                           | Recommended wherever possible   | Required.<br>A reporting template is provided Annex 3.  |
| External review requirements                              | Recommended. External review may be partial, covering only certain aspects of an issuer's green bond or associated Green Bond Framework or full, assessing alignment with all four core components of the GBP <sup>18</sup> | Required.<br>Verification of the Green Bond Framework and the Final Allocation Report by an accredited verifier to confirm conformity with the EU-GBS.<br>Detailed requirements are provided in section 4.4 of the EU-GBS in Annex 2. |
| Publication of external verification                      | Recommended   | Required  |
| Accreditation of external reviewers/ verifiers            | Not addressed in GBPs   | A centralised scheme of accredited verifiers, operated by ESMA.<br>Voluntary interim registration scheme for an estimated transition period of up to 3 years.   |

# 4.5 EU TAXONOMY

## FOCUS REAL ESTATE

## 4.5.1 EU TAXONOMY AND REAL ESTATE

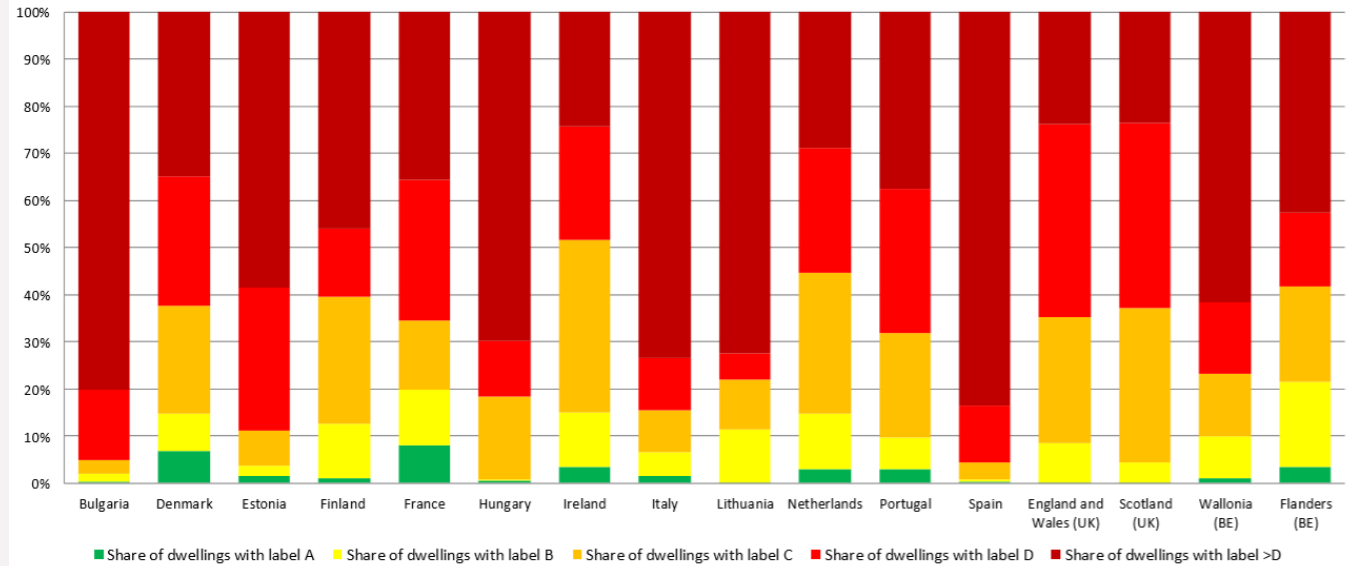
### The Delegated Acts proposed new criteria for Construction and Real Estate

- **Acquisition and ownership of buildings** - for buildings built before December 31, 2020, the building should either have at least an Energy Performance Certificate class A, or, as an alternative, be within the top 15% most energy-efficient of the national or regional building stock (expressed as operational Primary Energy Demand).
- **Construction of new buildings** – To qualify, a building's primary energy demand must be at least 10% better than the threshold for a Near Zero Energy Building (NZEB).

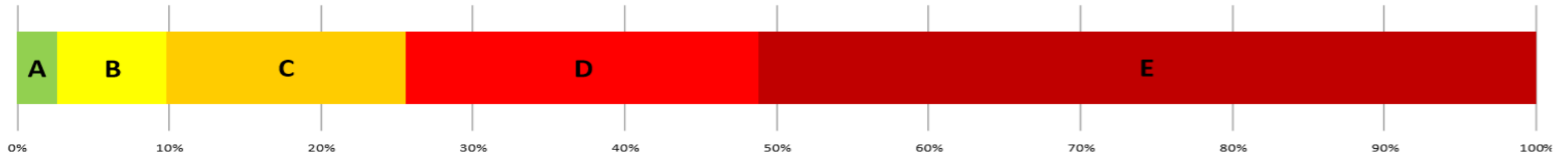
## 4.5.1 EPC – ENERGY PERFORMANCE CERTIFICATE

- The European Union has established **clear legislative frameworks to reduce energy demand from buildings**. The directives on the Energy Performance of Buildings (EPBD) and on Energy Efficiency (EED) are being implemented by the EU Member States to this end.
- Under the EPBD, EU member States have established **energy performance certification** systems with independent mechanisms for implementing and controlling national pathways towards improving the energy efficiency of buildings.
- The building is given a rating between A (Very efficient), and G (Inefficient).

Distribution of the building stock in the EU per EPC class



Distribution of the building stock in the EU per EPC class





# 4.6 TRANSITION, ENABLING, AND ADAPTATION FINANCE

4.6.1. Transition Finance

4.6.2. Transition Enabling Finance

4.6.3. Adaptation Finance

## 4.6.1 TRANSITION FINANCE

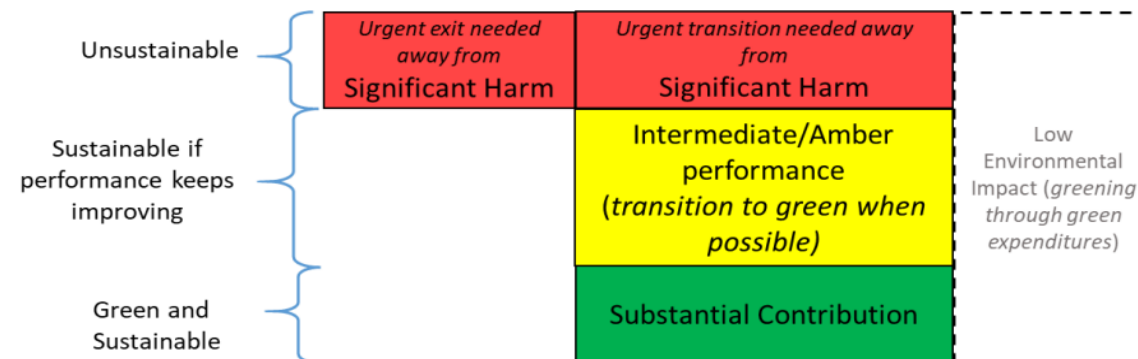
### EU Taxonomy

Under EU **article 10.2** a transitional activity is an economic activity for which there is no technologically and economically feasible low carbon alternative and substantially contributes to climate change mitigation (i.e. supports the transition to a climate-neutral economy consistent with a 1.5°C pathway). These can only be considered transitional when compliant with the technical screening criteria:

- I. has greenhouse gas emission levels that correspond to the best performance in the sector or industry;
- II. does not hamper the development and deployment of low-carbon alternatives; and
- III. does not lead to a lock-in in carbon-intensive assets considering the economic lifetime of those assets.

**The EU Platform on Sustainable Finance is currently working on extending the EU Taxonomy framework to possibly recognise economic activities performing at an intermediate level.** The work aims to advise the Commission on designing future “Amber” and “Red” categories that would complement the currently mostly “Green” EU Taxonomy, shifting the approach towards a traffic light system.

Simplified graphic showing how an extended environmental Taxonomy fits across the whole economy



## 4.6.1 TRANSITION FINANCE

### ASEAN Taxonomy

The ASEAN taxonomy uses a traffic light system on their framework which is divided into Foundation Framework (FF) and the Plus Standard (PS).

**Transition (amber) activities under PS will typically belong to one of three types of activities listed below:**

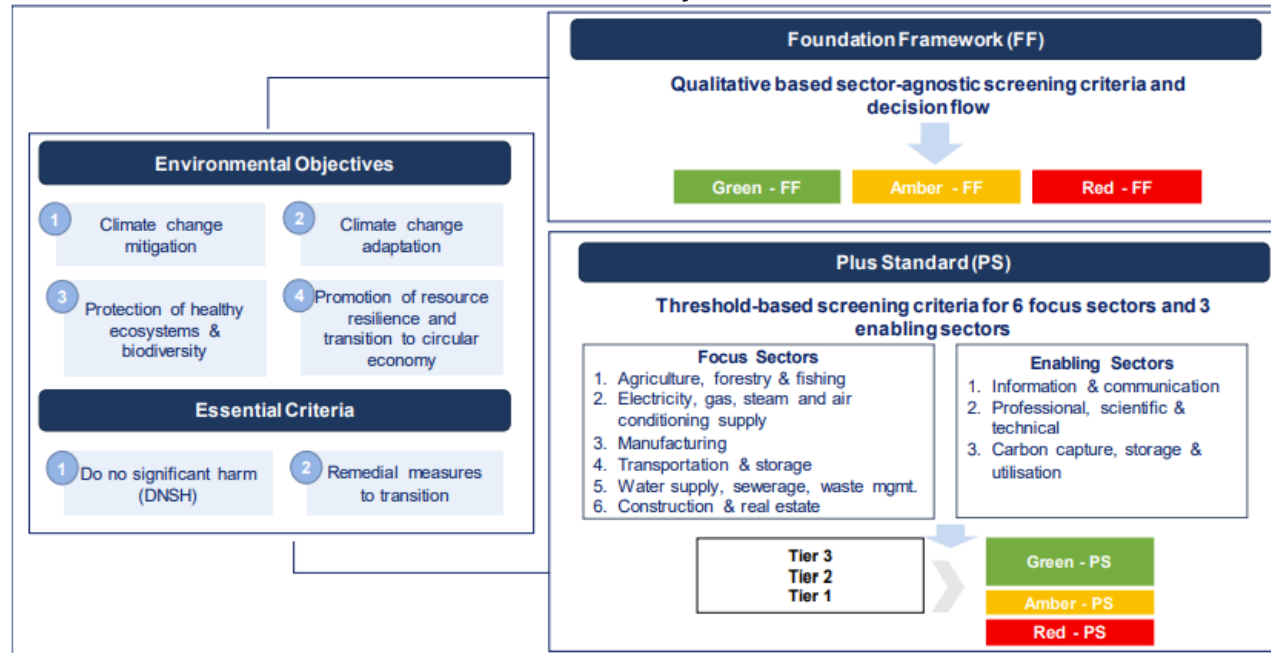
- a. Activities not currently zero- or near zero emission that are following a decarbonisation pathway aligned with the trajectory required by the Paris Agreement.
- b. Activities facing significant barriers to decarbonisation: such as where low emissions alternatives are not yet available or economically viable and therefore do not currently have a viable well-established technological pathway towards decarbonisation but are making all available/possible short-term emissions reductions while zero emissions alternatives are being developed (e.g., zero emission marine transport).
- c. Interim solutions: activities which generate less emissions compared to an alternative and need to be carried out for a limited period of time while alternative low carbon technologies are developed into viable and scalable solutions. Such activities will eventually be ineligible in the Taxonomy, with the timeframes for eligibility to be determined in the Plus Standard (e.g., electricity generation from existing natural gas plants with carbon capture and storage).

# 4.6.1 TRANSITION FINANCE

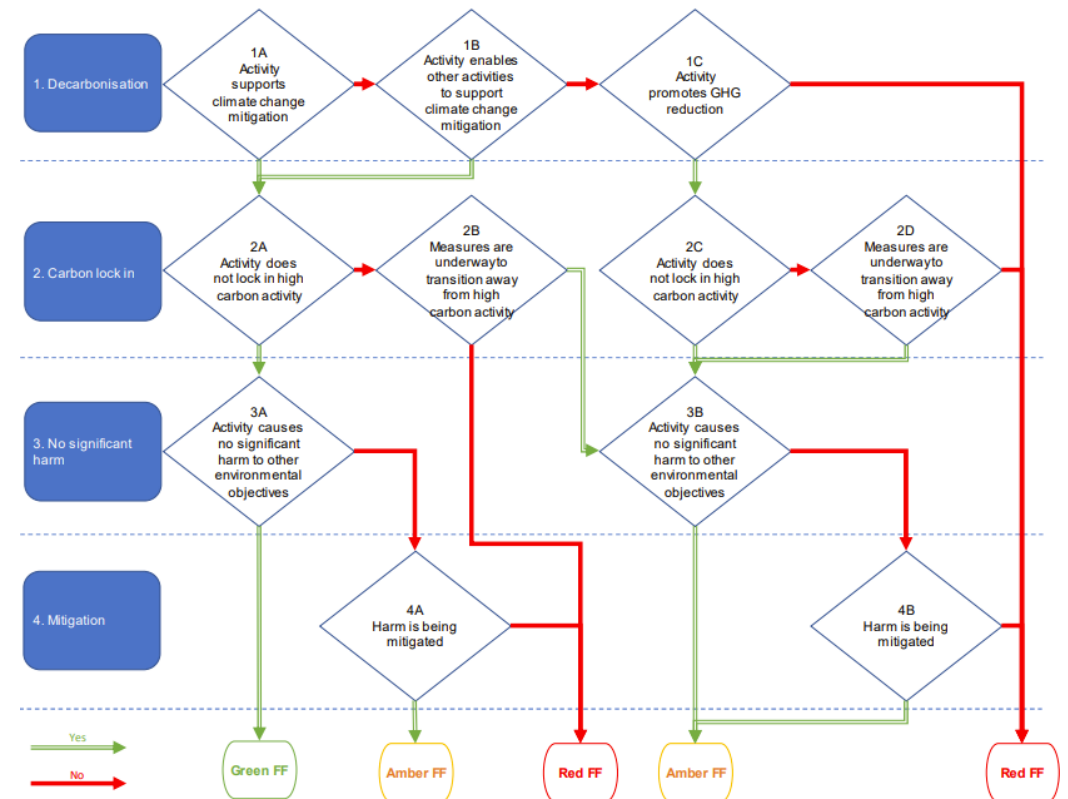
## ASEAN Taxonomy

An activity can be assessed as transition (amber) under FF if it fulfils the conditions laid down in the decision tree

Overview of taxonomy classifications



Sector agnostic decision tree



## 4.6.1 TRANSITION FINANCE

### Singapore Taxonomy

**The Singapore taxonomy also proposes a traffic light system in which transition activities are considered amber.**

The amber category in the Taxonomy includes activities that are not presently on a net zero pathway, but are either:

- a. Moving towards a green transition pathway within a defined time frame; or
- b. Facilitating significant emissions reductions in the short term with a prescribed sunset date.

The amber category is relevant only for transitioning of existing infrastructure and activities and does generally not apply to new projects.

**An activity should be following an identified pathway to net zero by a specified sunset date.** At the sunset date, there is no longer an amber category and either the activity is aligned with the Paris Agreement pathway or it is downgraded to “red”. The specific sunset date will be determined at the activity level given that different activities will require different timelines to transition.

A list of metrics, upper thresholds, and guidance for different sectors is provided in in pages 55-90.

## 4.6.1 TRANSITION FINANCE

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A list of metrics, upper thresholds, and guidance for different sectors is provided in in pages 55-90.

## 4.6.1 TRANSITION FINANCE

### CBI Framework

The CBI framework proposes a transition label be used for eligible investments that:

- are making a substantial contribution to halving global emissions levels by 2030 and reaching net zero by 2050 but will not have a long term role to play; OR
- will have a long term role to play, but at present the long term alignment to net zero goals is not certain.

Table 3: How to apply the principles for a credible activity or entity level transition

| Activity category    | Entity   | Activity  |
|----------------------|--|---|
| Near zero            | N/A  |   |
| 'Pathway to Zero'    | Decarbonise entity (and therefore all activities) as fast as possible along 2050 transition pathways in line with Principles                                       | Decarbonise activity as fast as possible along 2050 transition pathways in line with Principles.                              |
| 'No pathway to zero' | N/A (No pathway exists therefore there is no credible transition at the activity or entity level, but see 'Measures' below for decarbonisation options)            |   |
| 'Interim'            | Phase out all interim activities in line with sunset date AND<br>In the meantime, decarbonise entity along appropriate transition pathways                         | Phase out activity in line with sunset date AND<br>In the meantime decarbonise activity along appropriate transition pathways |
| 'Stranded'           | Phase out all stranded activities and switch to low carbon alternatives  | N/A (the aim is not to decarbonise stranded activities but phase them out)  |
| Enabling             | The activity makes a substantial contribution to facilitating another activity to follow an appropriate transition pathway. Their own decarbonisation is secondary |   |

Table 4: Examples of likely credible transitions at activity and entity level

| Activity category  | Credible transition at activity level   | Credible transition at entity-level  |
|--------------------|---|--|
| Near zero          | Construction of wind farms by a mixed power generation company (e.g. oil, gas and wind)                             | N/A  |
| Pathway to zero    | Farm following low carbon agricultural practices<br>A steel production facility that meets decarbonisation pathways | Property management company undertaking deep retrofits to all properties in its portfolio<br>Sovereign whose economy is fully aligned with 1.5°C goals<br>Bank whose loan portfolio includes only loans to entities/ activities/ projects meeting appropriate decarbonisation pathways |
| No pathway to zero | N/A   | N/A  |
| Interim            | Operation of plastics recycling facilities (within sunset date for plastics use and production)                     | Waste to energy company with full capture and utilisation of energy (within sunset date)<br>Waste to energy company rapidly switching to recycling operations  |
| Stranded           | N/A   | Coal fired power generation company rapidly expanding into renewables  |
| Enabling           | Establishing metals recycling facilities  | Company specialising in R&D into e.g. CCS for industry, synthetic plastics, new feedstocks to reduce / eliminate ruminant emission, cement-less concrete, hydrogen or electric kiln furnaces that generate sufficient heat intensity   |



## 4.6.1 TRANSITION FINANCE

### Japanese Guidance

The Ministry of Economy, Trade and Industry (METI) developed a roadmap to provide a concrete direction for transition toward achieving carbon neutrality in 2050 for GHG-intensive industries. It is assumed that companies will refer to this roadmap when considering climate change measures using transition finance. The roadmap is expected to assist financial institutions in determining whether a company's strategies and initiatives toward decarbonization qualify for transition finance when the company raises funds.

The Guidelines take into account the ICMA Handbook and aim serve as a reference for of trough examples of responses and interpretations so that they can serve as a reference for fundraisers, the financiers and other market participants when they consider concrete actions to transition finance.

**The METI website provides more guidance for specific Economic and Industrial Sectors**

|                |                         |                          |
|----------------|-------------------------|--------------------------|
| Iron and Steel | <a href="#">English</a> | <a href="#">Japanese</a> |
| Chemical       | <a href="#">English</a> | <a href="#">Japanese</a> |
| Power          | <a href="#">English</a> | <a href="#">Japanese</a> |
| Gas            | <a href="#">English</a> | <a href="#">Japanese</a> |
| Oil            | <a href="#">English</a> | <a href="#">Japanese</a> |
| Pulp and Paper | <a href="#">English</a> | <a href="#">Japanese</a> |
| Cement         | <a href="#">English</a> | <a href="#">Japanese</a> |

## 4.6.2 TRANSITION ENABLING FINANCE












### EU Taxonomy

#### Article 16 - Enabling activities<sup>1</sup>

An economic activity shall qualify as contributing substantially to one or more of the environmental objectives set out in Article 9 by directly enabling other activities to make a substantial contribution to one or more of those objectives, provided that such economic activity:

- does not lead to a lock-in of assets that undermine long-term environmental goals, considering the economic lifetime of those assets; and
- has a substantial positive environmental impact, on the basis of life-cycle considerations.

Technical screening criteria by sector<sup>2</sup>

| Classification  |   | Environmental Contributions                             |                     |                         |                                     |                 |                            |                     |                      |
|---|---|---|---------------------|-------------------------|-------------------------------------|-----------------|----------------------------|---------------------|----------------------|
| NACE Macro-sector   | NACE Activity   | 1. Climate change mitigation (Substantial Contribution) |                     |                         | 2. Climate change adaptation (DNSH) | 3. Water (DNSH) | 4. Circular economy (DNSH) | 5. Pollution (DNSH) | 6. Ecosystems (DNSH) |
|   |   | Own performance   | Enabling activities | Transitional activities |                                     |                 |                            |                     |                      |
|    | Manufacture of low carbon technologies                    |   | ✓                   |                         | ✓                                   | ✓               | ✓                          | ✓                   | ✓                    |
|    | Storage of Electricity                                    |   | ✓                   |                         | ✓                                   |                 | ✓                          |                     | ✓                    |
|    | Storage of Thermal Energy                                 |   | ✓                   |                         | ✓                                   |                 | ✓                          |                     | ✓                    |
|    | Storage of Hydrogen                                       |   | ✓                   |                         | ✓                                   |                 | ✓                          |                     | ✓                    |
|    | Landfill gas capture and utilization                      | ✓   |                     |                         | ✓                                   |                 |                            | ✓                   |                      |
|   | Direct Air Capture of CO2                                 |   | ✓                   |                         | ✓                                   | ✓               |                            | ✓                   | ✓                    |
|  | Capture of anthropogenic emissions                        |   | ✓                   |                         | ✓                                   | ✓               | ✓                          | ✓                   | ✓                    |
|  | Transport of CO2  |   | ✓                   |                         | ✓                                   | ✓               |                            | ✓                   | ✓                    |
|  | Infrastructure for low carbon transport (land transport)  |   | ✓                   |                         | ✓                                   | ✓               | ✓                          | ✓                   | ✓                    |
|  | Infrastructure for low carbon transport (water transport) |   | ✓                   |                         | ✓                                   | ✓               | ✓                          | ✓                   | ✓                    |
|  | Data-driven climate change monitoring solutions           |   | ✓                   |                         | ✓                                   |                 |                            |                     |                      |

<sup>1</sup>Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0852&from=EN>

<sup>2</sup>Source: [https://finance.ec.europa.eu/system/files/2020-03/200309-sustainable-finance-teg-final-report-taxonomy\\_en.pdf](https://finance.ec.europa.eu/system/files/2020-03/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf)

## 4.6.3 ADAPTATION FINANCE

### EU Taxonomy

There is no developed methodology for defining quantitative screening criteria for adaptation and defined adaptation targets at the national, sectoral, or subnational level do not exist.

**Article 7** - Substantial contribution to climate change adaptation – An economic activity shall be considered to contribute substantially to climate change adaptation where:

- a. *that economic activity includes adaptation solutions that either substantially reduces the risk of adverse impact or substantially reduces the adverse impact of the current and expected future climate on that economic activity itself without increasing the risk of an adverse impact on other people, nature and assets; or where*
- b. *that economic activity provides adaptation solutions that, in addition to the conditions laid down in Article 11a, contribute substantially to preventing or reducing the risk of adverse impact or substantially reduces the adverse impact of the current and expected future climate on other people, nature or assets, without increasing the risk of an adverse impact on other people, nature and assets.*

1.a The adaptation solutions referred to in point (a) of paragraph 1 shall be assessed and prioritised using the best available climate projections and shall, as a minimum, prevent or reduce:

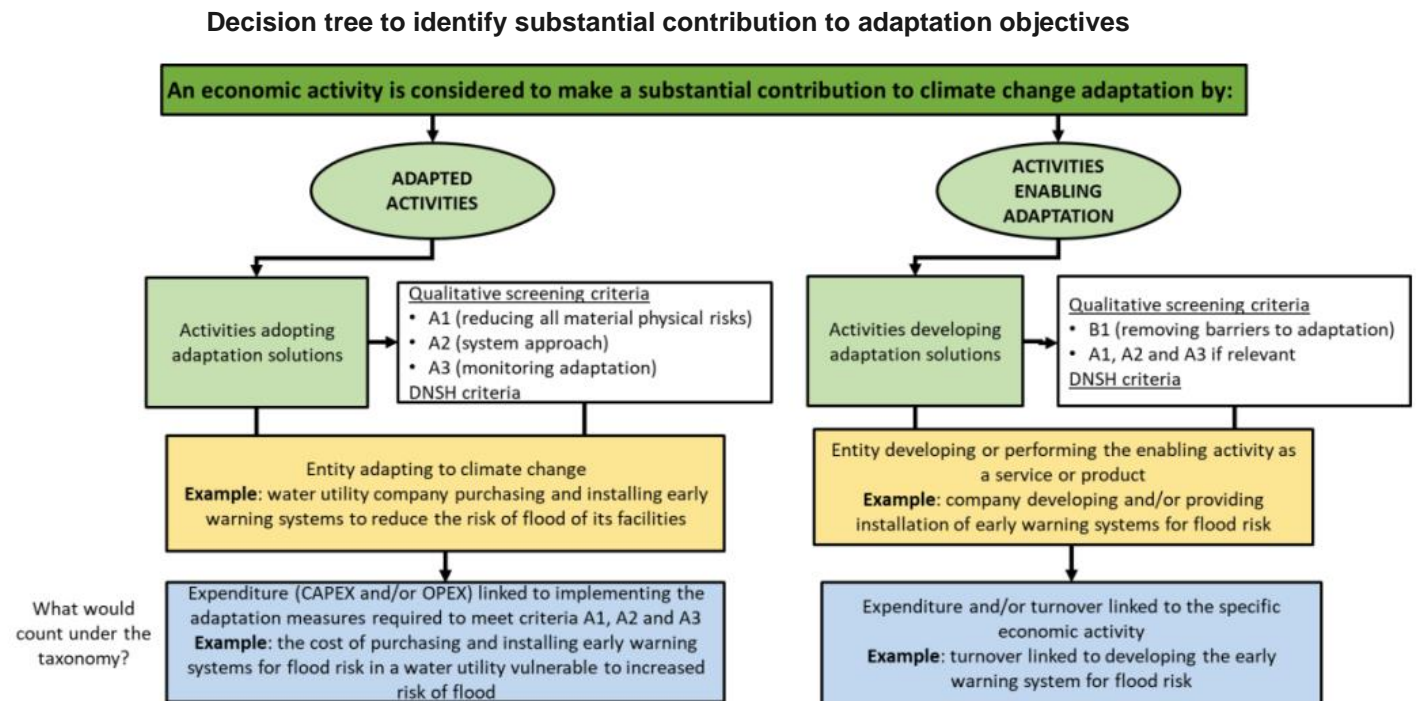
- (a) The location-specific and context-specific adverse impact of climate change on the economic activity; or
- (b) The adverse impact that climate change may have on the environment within which the economic activity takes place

## 4.6.3 ADAPTATION FINANCE

### EU Taxonomy

#### The adaptation taxonomy comprises two types of substantial contribution to adaptation objectives:

1. Adapted activities: an economic activity is adapted to all material physical climate risks identified for the economic activity to the extent possible and on a best effort basis; and/or
2. Activities enabling adaptation of an economic activity: the activity reduces material physical climate risk in other economic activities and/or addresses systemic barriers to adaptation, and is itself also adapted to physical climate risks.



# 4.7 CHALLENGES IN EMERGING MARKETS

## 4.7 CHALLENGES EMERGING MARKETS

### The energy transition is lagging in emerging markets

- Emerging markets have not contributed historically much to carbon emissions, but their share of current emissions is significant
- For achieving net zero emissions globally, it's crucial emerging markets transition. However, this is currently not happening fast enough: coal-fired electricity generation outside of the US and Europe has barely dropped in the last years
- At the same time, green bonds are hardly issued in emerging markets: of all green bonds, only 20% is issued in emerging markets. Of this, 2/3 is issued by China with Korea as second largest issuer. Green bonds are basically non-existent in other emerging markets

Research points to several issues when global standards and framework are applied to emerging markets:

- **Difficult systematic issues resulting in lack of credibility and low investor interest**
  - Participation in green bond markets depends on a country having credible NDCs
  - Lack of ESG data which makes it difficult and/or very costly for issuers to gather all data needed for investors. This in combination with uncertainty about acceptance of entity-level green frameworks by investors, leaves few upside for issuers
  - Doubts about (or lack of) third-party verifications
- **Lack of supply and interest in creating supply**
  - A lack of eligible projects to finance exclusively through green bonds
  - A lack of understanding or interest in sovereign debt management offices
- **ESG ratings tend to reward developed, green countries**
  - ESG ratings tend to be backward looking and correlate highly with GDP per capita
  - EMs suffer from the “resource curse” –revenue produced by national oil and gas companies are vital for economic development
  - ESG ratings for emerging markets largely focused on Governance, not reflecting environmental and social progress

# COMPARISON OF TAXONOMIES

05



## 5. HIGH LEVEL COMPARISON OF TAXONOMY SYSTEMS

| System  | Environmental objectives   | Approach on eligibility  | Usability  | Other noteworthy aspects  |
|---|--|--|--|---|
| <b>CBI Taxonomy</b>   | (i) CCM and (ii) CCA   | “Traffic lights”: green (automatically eligible); orange (subject to eligibility criteria); and red (not eligible).  | The CBI Taxonomy is mainly designed for financial products. The compliance with an adapted version of the CBI Taxonomy (based on less stringent and descriptive criteria) is required for inclusion of green debt in the CBI’s Green Bond List (used by index providers and stock exchanges to determine investment eligibility). The compliance with the CBI Taxonomy is also a core pillar the cornerstone of the CBI Certification. | The CBI’s guidance on eligibility goes beyond its taxonomy. Issuers wishing to certify their bonds need to comply with the detailed Sector Criteria, the Climate Resilience Principles, and the Climate Transition Principles, (where relevant).  |
| <b>China’s Green Bond Endorsed Project Catalogue (2021 Edition)</b> | Green bonds’ role to support:<br>(i) improving the environment,<br>(ii) addressing climate change,<br>(iii) saving and efficiently utilising resources, etc.   | Descriptive eligibility: projects are considered eligible for green bonds, if they meet the conditions set out in their respective descriptive explanation in the catalogue. Some but not all projects make reference to related national industrial standards, have simple quantitative requirements, and/or make a high-level mention of DNSH. | The 2021 Project Catalogue is used to define green eligibility for green bond only.  | In comparison with the previous 2015 edition, clean utilisation of coal and oil is substantially removed from the list of eligible projects. Nuclear energy and enabling activities including green services are included.  |
| <b>EU Taxonomy</b>  | (i) CCM, (ii) CCA, (iii) sustainable use and protection of water and marine resources, (iv) transition to a circular economy, (v) pollution prevention and control, (vi) and protection and restoration of biodiversity and ecosystems | An activity needs to substantially contribute to the environmental objective(s); do no significant harm to others; be conducted in compliance with minimum social safeguards; and comply with the Technical Screening Criteria which are introduced with delegated acts.   | Large public companies and asset managers will use the EU Taxonomy to disclose the taxonomy alignment level of their businesses and products. The EU Taxonomy will also be referred in official EU product labels such as the EU Green Bond Standard.  | The EU Taxonomy refers extensively to the lifecycle assessment of activities, explicitly excludes solid fossil fuels, and categorises activities as “low carbon” and “transitional” for the CCM objective, and as enabling activities for all environmental objectives.                   |
| <b>ISO Taxonomy (under development)</b>                             | Expected to be same as under the EU Taxonomy   | To identify activities with positive environmental benefits, it applies activity descriptions, performance criteria and thresholds, together with the DNSH requirements.   | It will be used together with the other standards in the ISO 14030 series for the evaluation of environmental performance of green debt instruments, including green bonds and green loans.  | The ISO Taxonomy makes extensive references to the lifecycle considerations as part of its eligibility assessment. “Greening by” (or enabling) activities are eligible by their very nature, while “greening of” activities need to meet the performance thresholds provided in an annex. |

## 5. HIGH LEVEL COMPARISON OF TAXONOMY SYSTEMS

| System  | Environmental objectives   | Approach on eligibility   | Usability  | Other noteworthy aspects   |
|---|--|---|--|--|
| <b>Malaysia's Climate Change and Principle-based Taxonomy</b> | (i) CCM and (ii) CCA (with additional three environmental objectives to consider for DNSH: pollution, biodiversity, and resource efficiency) | It does not provide an exhaustive or illustrative list of green activities or projects but designs the key testing questions at both transaction and issuer levels to be used by financial institutions to classify their assets into categories related to climate transition. The level of climate-friendliness ranges from category C1 ("climate supporting") to C2 and C3 ("transitioning") to C4 and C5 ("watchlist"). | It is principally designed for financial institutions to classify the assets in their lending and investment portfolios, measure the climate-related risks and exposure, and report to BNM, for internal risk management and supervisory purposes. | The testing questions for classification look at both transaction and issuer levels. It examines the positive environmental impacts at the transaction level and the negative environmental impacts (i.e., harm) and efforts to remedy and improve them at both transaction and issuer levels.   |
| <b>MDBs-IDFC Common Principles</b>                            | (i) CCM and (ii) CCA   | Descriptive eligibility: The Common Principles introduce definitions for CCM and CCA-related financing. Inclusion in the non-exhaustive list of eligible activities is descriptive and not subject to greenness thresholds.   | Mainly used for the monitoring and reporting of climate financing in a consistent manner among development banks.  | The Common Principles on CCM includes "transition"-related projects/activities at a high level, with the backstop of principles such as avoiding carbon-lock in, importance of long-term structural shift towards green technologies, and replacing the old technologies before their lifetime (with a distinction of greenfield vs. brownfield investments in energy efficiency). |
| <b>OECD Rio Markers</b>                                       | (i) CCM, (ii) CCA, (iii) biodiversity, and (iv) desertification  | Descriptive eligibility: The Rio Markers introduce definitions and high-level criteria for CCM, CCA, biodiversity and desertification objectives, and then applies a basic scoring based on the underlying intention to undertake the relevant activity. The Markers also present a comprehensive, but indicative list for CCM and CCA-related activities as further guidance.  | The OECD Rio Markers are used mainly for monitoring and reporting of the development finance flows related to the Rio Conventions. They are also used by sovereigns in climate budget tagging with the application of coefficients.                | The OECD Rio Markers are not designed for financial products nor to aggregate and determine impact. They are found as pragmatic and simple to implement for the public sector but received criticism because of the potential risk of over-reporting.  |

## 5. HIGH LEVEL COMPARISON OF TAXONOMY SYSTEMS

| System  |  | Environmental objectives   | Approach on eligibility  | Usability  | Other noteworthy aspects  |
|---|--|--|--|--|---|
| Mongolian Green Taxonomy  |  | (i) CCM and CCA, (ii) pollution prevention, (iii) resource conservation, and (iv) livelihood improvement   | It stipulates a list of activities considered as environmentally sustainable for investment purposes and does not provide technical criteria.  | The taxonomy is designed to be applied for a wider range of financial instruments, including loans, bonds, equity investment, insurance, etc. Beyond the eligibility of green financial products, it is also used for banks to report exposures and for the central bank to track the development of its green loan markets.                     | It includes livelihood improvement as one of its overall objectives, adding a social element to the taxonomy.   |
| Singapore's Green Finance Industry Taskforce Taxonomy (under development) |  | (i) CCM, (ii) CCA, (iii) protect biodiversity, and (iv) promote resource resilience  | it will classify economic activities using activity specific numeric metrics and require complying with the "do no significant harm" principle and minimum safeguards. The metrics chosen could be consistent globally but the thresholds for the metrics could be region or country specific. | Details on the use of the taxonomy are to be revealed. Between the lines, the consultation paper hints that taxonomy will be used by FIs to classify their portfolios and loan books. It is not evident whether it will be used for green bond classification or fund disclosure.  | It proposes to use a traffic light system, i.e., green, yellow and red, to address transition.  |
| South Africa's taxonomy (under development)                               |  | (i) CCM, (ii) CCA, (iii) other environmental impact objectives (The first version will initially focus on CCM and CCA).  | Mirroring the approaches of the EU Taxonomy, the South African taxonomy will review the economic activities identified in the EU Taxonomy, apply the criteria of "make significant contribution" and "do no significant harm", and set technical criteria or thresholds.                       | Details on the use of the taxonomy are to be confirmed. It will establish a governance mechanism and appoint an institution as the custodian of the taxonomy to monitor user applications and incorporate the taxonomy in any further regulations, standards, etc. to ensure comprehensive integration of its taxonomy into regulatory policies. | The taxonomy for green will draw the lines between "net zero" activities, "pathway to zero" activities, and activities that are needed for the future South African green economy but at present have "no pathway to zero". |
| Bangladesh's taxonomy   | Screening  | (i) CCM, (ii) CCA, (iii) sustainable protection of water and marine resources, (iv) transition to a circular economy, waste prevention and recycling, (v) pollution prevention and control, (vi) protection and restoration of biodiversity and healthy ecosystems | Mirroring the contents of the EU Taxonomy, mentions the use of technical screening criteria, six environmental objectives, and the principles of substantial contribution to one of the six environmental objectives, DNSH and minimum social and governance safeguards.                       | It is mainly used to encourage and supervise banks and FIs to grant sustainable loans and conduct sustainable investments. The list of green products/projects/initiatives is also used as eligibility criteria for whether bank assets can be refinanced with BB under the Refinance Scheme for Green Finance                                   | It also provides two exclusion lists of economic activities considered ineligible for financing and sustainable finance respectively.   |
|   | List of Green Products/ Projects/ Initiatives for Term Finance | N/A  | The list simply names the eligible categories and sub-categories.  |  |   |

Source: <https://www.icmagroup.org/assets/documents/Sustainable-finance/ICMA-Overview-and-Recommendations-for-Sustainable-Finance-Taxonomies-May-2021-180521.pdf>

Please check for additional taxonomy comparisons of the "International Platform of Sustainable Finance" in the appendix

# REGULATIONS

06

# 6 SFDR REQUIRES SUSTAINABILITY CLASSIFICATION FOR LIFE AND ASSET MANAGEMENT PRODUCTS FROM MARCH 10, 2021.<sup>1</sup>

Will be constantly updated

|  | Article 6 / Article 7   | Article 8   | Article 9  |
|--|---|---|--|
| Product category   | <u>For all products</u>   | <b>Products with sustainability characteristics:</b><br>“a financial product promotes, among other characteristics, <b>environmental or social characteristics</b> , or a combination of those characteristics, <b>provided that the companies in which the investments are made follow good governance practices</b> ”   | <b>Sustainable investment products:</b><br>1) „a financial product has sustainable investment <sup>2</sup> as its objective and an index has been designated as a reference benchmark “ or<br>2) „a financial product has sustainable investment as its objective and no index has been designated as a reference benchmark “ or<br>3) A financial product has a reduction in carbon emissions as its objective  |
| What needs to be disclosed (pre-contractual; periodic report; website) | <p>Article 6:</p> <ul style="list-style-type: none"> <li>Describe <b>how sustainability risks are integrated into investment decisions</b>; and</li> <li>State the <b>likely impact of sustainability risks on the return of the financial product</b> <u>or</u></li> <li>If sustainability risks are considered not to be relevant, provide a clear and concise explanation of the reasons therefor.</li> </ul> <p>Article 7:</p> <ul style="list-style-type: none"> <li><b>Describe if &amp; how Principle Adverse Impacts (PAIs) are considered</b> ( from Jan. 2023) <u>or</u></li> <li>If PAIs are not considered explain reasons therefore</li> </ul> | <p>1) Information on how those characteristics are met;</p> <p>2) If an index has been designated as a reference benchmark, info on whether and how this index is consistent with those characteristics</p> <p>Ad 1.) <b>From Jan. 2022 mandatory templates detailing, e.g.</b></p> <ul style="list-style-type: none"> <li><b>Investment strategy used to attain the E&amp;S characteristics</b>, incl. <b>binding elements</b> to attain E&amp;S characteristics</li> <li><b>List of sustainability indicators used to measure</b> the attainment of the characteristics</li> <li><b>Policies to assess good governance</b></li> <li>Share of “sustainable investments”</li> <li><b>Performance of sustainability indicators</b>, also compared to previous periods</li> <li><b>Top investments of financial products</b></li> <li>Methodologies and data used to assess, measure and monitor the E&amp;S characteristics</li> <li><b>Engagement policies</b></li> </ul> | <ul style="list-style-type: none"> <li>For 1): (a) information on how the designated index is aligned with that objective; (b) an explanation as to why and how the designated index aligned with that objective differs from a broad market index.</li> <li>For 2.) information on how sust. Investment objective is met (<i>details below</i>)</li> <li>For 3.) Explanation that the reference benchmark qualifies as an EU Climate Transition Benchmark or an EU Paris-aligned benchmark; where no EU Climate Transition Benchmark or EU Paris aligned benchmark is available , an explanation of the extent to which the product complies with the minimum standards for those benchmarks.</li> </ul> <p><b>From Jan 2022 mandatory template with details on:</b></p> <ul style="list-style-type: none"> <li><b>Investment strategy used to attain the sust. Investment objective</b>, incl. <b>binding elements</b></li> <li><b>List of sustainability indicators used to measure</b> the attainment of the sust. Investment objective</li> <li><b>Policies to assess good governance</b></li> <li><b>Share of “sustainable investments”</b> and “others” ;</li> <li>How do sust. Investments not significantly harm other sust. Investment objectives</li> <li><b>To what extent was sust. Investment objective met</b></li> <li>Performance of sustainability indicators, also compared to previous periods</li> <li><b>Top investments</b></li> <li>Methodologies and data used to assess, measure and monitor the sust. Investment objective</li> <li><b>Engagement policies</b></li> </ul> |
| Examples for strategies used   | <ul style="list-style-type: none"> <li>Conventional investment strategies</li> <li>„Basic“ ESG strategies, integrating material ESG risk consideration into investment analysis and security selection with unconstrained investment universe.</li> </ul>   | <ul style="list-style-type: none"> <li>Best-in-class approach</li> <li>Exclusions, that are material to the composition of the resulting portfolio and are not required by law anyways</li> <li>Sustainability themed investing</li> <li>Normative screening</li> </ul>   | <ul style="list-style-type: none"> <li>Impact strategies investing in order to generate intentional env. and social outcomes aligned with e.g. SDGs that are measured against specific extra-financial KPIs;</li> <li>Majority of underlying investments have to be “sustainable investments”</li> </ul>   |

1. Level 1 disclosure as of March 10, 2021. Level 2 disclosure with more details required as of Jan 1, 2022.

2. ‘sustainable investment’ means an investment in an economic activity that contributes to an environmental objective, or an investment in an economic activity that contributes to a social objective, in particular an investment that contributes to tackling inequality or that fosters social cohesion, provided that such investments do not significantly harm any of those objectives and that the investee companies follow good governance practices,

**ANNEX**

# GREEN BOND PRINCIPLES – TABLE II

The China Green Bond Catalogue:

<https://policy.asiapacificenergy.org/sites/default/files/Preparation-Instructions-on-Green-Bond-Endorsed-Project-Catalogue-2015-Edition-by-EY.pdf>

CBI:

<https://www.climatebonds.net/files/files/CBI-Taxonomy-Sep18.pdf>

MDB-IDFC:

[https://www.eib.org/attachments/documents/mdb\\_idfc\\_mitigation\\_common\\_principles\\_en.pdf](https://www.eib.org/attachments/documents/mdb_idfc_mitigation_common_principles_en.pdf)

EU Taxonomy:

[https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en)



# INTERNATIONAL PLATFORM OF SUSTAINABLE FINANCE

## Introduction International Platform of Sustainable Finance

- Launched in October 2019 and is a **multilateral forum** for facilitating exchanges
- Members are **public authorities** in charge of developing environmentally sustainable finance and policies and initiatives (Argentina, Canada, Chile, China, EU, Hongkong India, Indonesia, Japan, Kenya, Morocco, New Zealand, Norway, Senegal, Singapore, Switzerland, UK)

### The platform aims to

- Exchange and disseminate information to promote **best practices in environmentally sustainable finance**;
- **Compare** the different initiatives and **identify barriers and opportunities** to help scale up environmentally sustainable finance internationally;
- While respecting national and regional contexts, enhance international coordination where appropriate on environmentally sustainable finance issues. Where appropriate, some willing members could strive to align initiatives and approaches.

### Objectives

- **scale up the mobilisation** of private capital towards environmentally sustainable finance at global level
- **promote integrated markets** for environmentally sustainable finance

# OVERVIEW OF ENVIRONMENTAL RELATED DISCLOSURES

| Key Characteristics   | China  | European Union  | India  |
|---|--|---|--|
| Mandatory vs voluntary  | Mandatory (for specific purpose: issuance of green bonds)                                      | Mandatory (for large undertaking & financial market participants: disclosure requirements; For MS & the EU: when setting out measures for green financial products)   | Mandatory (for listing of green bonds on recognized stock exchanges) |
| Scope of application<br>[undertakings concerned, circumstances]   | Green financial products, e.g. green bonds and green loans                                     | Financial products; large undertakings  | Green Bonds  |
| Objectives/goals pursued<br>[climate change mitigation, climate change adaptation, environmental, etc.] | Environment improvement, climate change mitigation, more efficient resource utilization, etc.] | 6 environmental objectives:<br>1. Climate change mitigation<br>2. Climate change adaptation<br>3. Sustain. use & protection of water<br>4. Circular Economy<br>5. Pollution prevention and control<br>6. Protection of healthy ecosystems<br>To qualify, activities have to make a substantial contribution to one objective, and do no significant harm to the others, while complying with social safeguards. | Environmental sustainability, climate change                         |
| Level of details<br>[activities, corporates, financial assets]  | Activities and projects within select sectors  | Activities within select sectors <u>7 sectors</u> : Agriculture & forestry, manufacturing, electricity, gas, steam, air conditioning, water, transport, ICT & buildings   | Projects funded by green bonds                                       |
| Different shades of green and/or brown activities   | Binary   | Binary<br>(Solid fossil fuels are excluded)   | Binary   |
| Incentives  | No   | No  | No   |

Table 1:  
Overview of taxonomies of China, EU, India

# OVERVIEW OF ENVIRONMENTAL RELATED DISCLOSURES

| Key Characteristics  | Argentina  | Canada   | Chile   | China  | European Union  | India   |
|--|--|--|---|--|---|---|
| Mandatory vs voluntary                                       | Mandatory (corporates) and voluntary (banks)                           | Mandatory for material risks   | Mandatory (issuers of securities) and “comply or explain” (listed corporations) | Mandatory  | Mandatory   | Mandatory   |
| Undertakings affected  | Public listed companies  | Reporting issuers  | Listed corporations   | Listed companies and Key Pollutant Discharging Enterprises | Large publi-interest entities with +500 employees)                            | Top 1000 companies based on market capitalization (incl. banks)           |
| Reporting against International standards & frameworks       | GRI (banks on a voluntary basis)                                       | Voluntary use of recognized reporting standards and frameworks (e.g. TCFD) | ISO 26000:2010, GRI or IIRC   | NA   | Voluntary use   | Voluntary use by top 500 listed entities by market capitalization of IIRC |
| Location of disclosures                                      | Annual report or other public report (eg. Corporate governance report) | Annual Information Form; Management Discussion & Analysis                  | Annual report or special report (eg. Corporate governance practices)            | Annual and semi annual report                              | Annual report or separate report  | Annual report   |
| Information assured  | NA   | NA   | NA  | Third party verifiers                                      | NA (ie. Statutory auditor or audit firm only checks existence of information) | Optional third party verification   |
| Materially lens (financial and/or environmental materiality) | Financial materiality  | Financial materiality  | Environmental materiality   | Double materiality   | Double materiality  | Environmental and social materiality                                      |

Table 2:  
Overview of environmental-related disclosure approaches in IPSF members

# OVERVIEW OF ENVIRONMENTAL RELATED DISCLOSURES

| Key Characteristics   | Morocco  | New Zealand                     | Norway                                 | Singapore   | Switzerland   |
|---|--|---------------------------------|--|---|---|
| Mandatory vs voluntary  | Mandatory (for companies issuing securities on the market)                     | Voluntary                       | Mandatory                              | Mandatory   | Voluntary   |
| Undertakings affected   | issuers of securities on the market (both financial and non-financial issuers) | Listed companies                | Large companies                        | Listed companies  | Voluntary for Financial and non-financial companies             |
| Reporting against International standards & frameworks        | Required use of an internationally recognized standard                         | Recommended use of GRI and IIRC | Voluntary use (e.g. TCFD)              | Voluntary use (e.g. GRI, IIRC, SASB, TCFD, CDSB)                | Voluntary use of SIX Exchange Regulation (eg. GRI and TCFD)     |
| Location of disclosures                                       | Annual report  | Annual report                   | Annual report or other public document | Annual report or special report (sustainability report)         | Sustainability report in accordance with International Standard |
| Information assured   | Voluntary external assurance by independent professional bodies                | NA                              | NA                                     | Voluntary external assurance by independent professional bodies | NA  |
| Materiality lens (financial and/or environmental materiality) | Double materiality   | Double materiality              | Double materiality                     | Double materiality  | Financial materiality   |

Table 3:  
Overview of environmental-related disclosure approaches in IPSF members