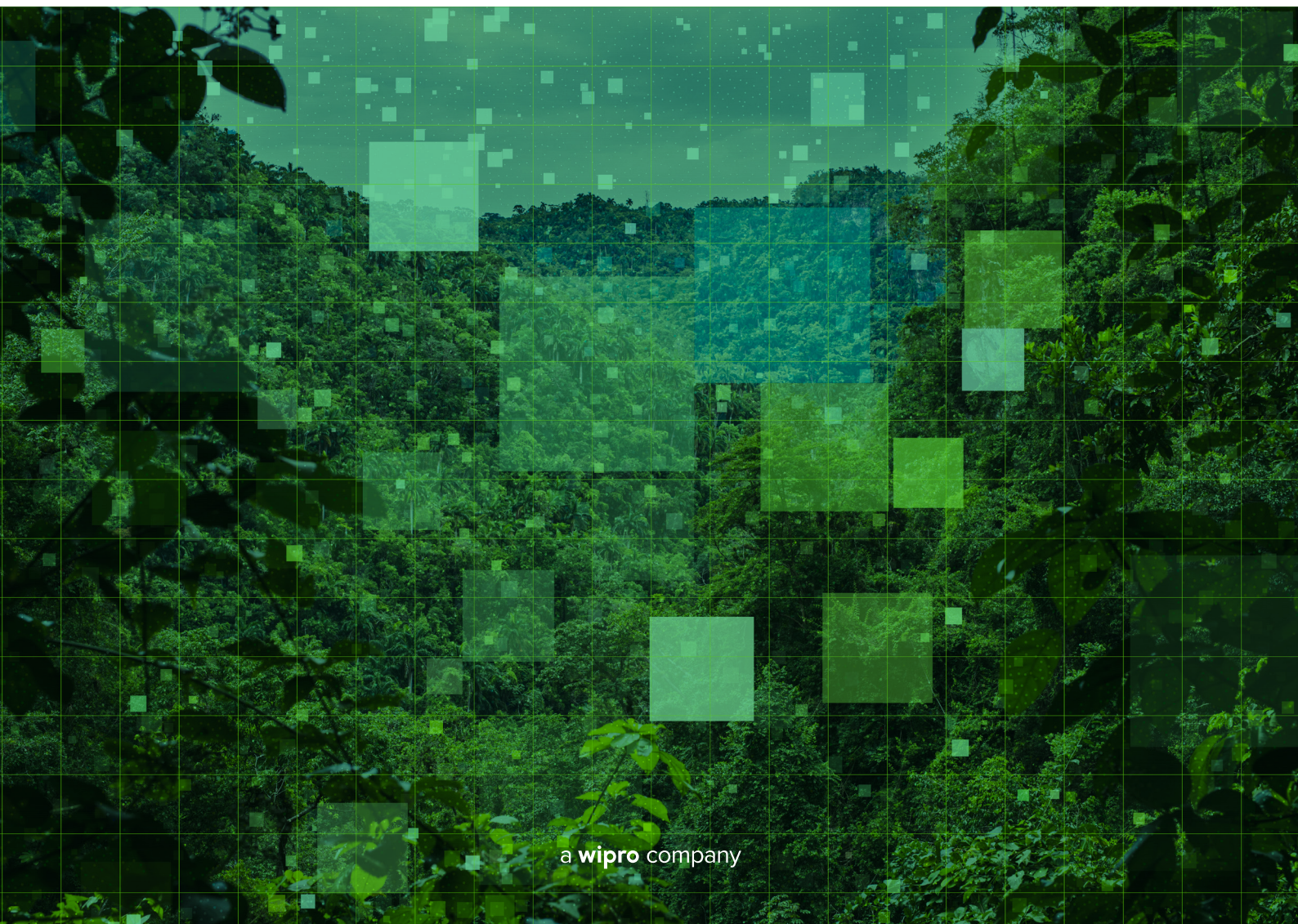


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THE MEANING OF GREEN: NAVIGATING TAXONOMIES FOR SUSTAINABLE FINANCING IN APAC



IN BRIEF

- Countries and regions around the world are seeking to green their financial systems by developing sustainability taxonomies that provide a common set of definitions.
- Despite attempts to harmonize taxonomies, significant differences remain and taxonomies will continue to evolve over time – something we explore in this paper by comparing key APAC taxonomies to each other and to the influential EU Taxonomy.
- This has significant implications for FIs seeking to interpret taxonomies across different operating markets and for how they should respond to the challenge of collecting and managing sustainability data.
- Financial institutions will need to better understand the differences between taxonomies and develop tools to help them cope including an overarching Climate Aligned Finance (CAF) framework and a strategy for automating internal IT systems to lessen the ongoing burden of data collection, assessment and disclosure.

There is consensus on the urgent need to finance climate actions and the transition to a low-carbon global economy. To reach net zero by 2050, the world's annual average capital investment must increase by more than double from its level in recent years to US\$5 trillion by 2030, according to scenario analyses based on climate science.ⁱ

However, until recently, there have been no clear and common definitions of what a green asset is, leading to concerns that capital might be mobilized in the wrong direction. Meanwhile, the financial institutions that are raising much of this green finance worry that the lack of clarity could mean they are accused of 'greenwashing', that is, representing investments as greener than they really are.

Working out how to qualify the financing of a company or project as 'green' became clearer with the roll-out of the EU Taxonomy in 2020, intended to establish a list of environmentally sustainable economic investments. Taxonomy-aligned financing activities could now be regarded as green finance. But with more than 26 jurisdictions around the world having adopted or announced plans or drafts of their own taxonomy,ⁱⁱ the problem is shifting from a drought of definitions to a deluge. For banks or asset managers facilitating the global flow of finance, this is giving rise to two important business challenges:

- 1. How can financial institutions (FIs) interpret and implement these taxonomies across their operating markets?**
- 2. How can FIs cope with the extensive and complex data collection and assessments required by these taxonomies?**

This white paper explores these two challenges with a special focus on APAC markets, specifically China and ASEAN member countries.

APAC REGION TAXONOMIES: COMMONALITIES AND NUANCES

Project-specific, or use-of-proceeds-specific, green finance standards existed before the EU Taxonomy, with key examples being the industry-sponsored Green Loan Principles (GLP) and Green Bond Principles (GBP). These helped give rise to local standards such as China's Green Bond Catalogue. In China, the world's second largest issuer of green bonds,ⁱⁱⁱ issuer companies used the standards as a credible basis to develop their own green criteria.

However, these credit-related standards largely rely on voluntary adoption and their application is confined to certain financial instruments (mostly debt issuance, rather than equity investments). GLP and GBP are also largely principles-based rather than rules-based, and rely on issuers, financiers and external verifiers to ensure the green commitments in the deal are delivered, without regulators playing much of an active role.

This helps explain why the broader and more prescriptive EU Taxonomy, although not applicable to non-EU entities, has had such an influence around the world. Following in the footsteps of the EU, more than 15 APAC jurisdictions to date,^{iv} including Australia, Singapore and Japan, have announced plans or are drafting their own taxonomies to identify, "the activities or investments that deliver on environmental objectives, helping drive capital more efficiently toward priority environmentally sustainable projects," as the World Bank puts it.^v

The proliferation of taxonomies has raised concerns about market fragmentation. Differences in taxonomy development approach, definitions of sustainable activities, and eligible criteria can lead to confusion. National and international organizations and platforms have therefore made efforts to coordinate their efforts and harmonize taxonomies to facilitate cross-border finance flows while respecting local contexts and priorities. The key initiatives include the Common Ground Taxonomy (CGT), published by the International Platform on Sustainable Finance (IPSF), which assessed the commonalities and differences of the EU and China taxonomies, the regional ASEAN Taxonomy, and a guide issued by the World Bank on how to help emerging markets develop national green taxonomies. Countries such as Chile, UK, Singapore and

Bangladesh are treating the EU Taxonomy as a benchmark and seeking to adopt or adapt its environmental objectives, activities and criteria to create their own taxonomies.

Despite these attempts at co-ordination, many taxonomies remain quite different to their peers in terms of either their fundamental nature or their key details. So how do taxonomies in the APAC region compare to one another and to the EU Taxonomy? In particular, do the taxonomies in APAC regions and the EU taxonomy share the same high-level environmental objectives? What kind of environmentally sustainable activities are defined and how?

We took a close look at the EU Taxonomy and three taxonomies in the APAC region to try to answer these questions. The APAC taxonomies we chose were:

- **The ASEAN Taxonomy** – The ASEAN Taxonomy is a regional taxonomy which aims to serve as an overarching guide for the ASEAN member states (AMS). A multi-tiered approach is adopted, which includes a principle-based Foundation Framework and a Plus Standard that provides additional guidance including activity-level criteria and thresholds.
- **China Taxonomy** – This refers to the EU-China CGT, which draws on EU Taxonomy and the 'Green Bond Endorsed Projects Catalogue (2021 Edition)' which represents the most up-dated, unified green definitions at activity and project level in China.
- **Singapore Taxonomy** – Drafted taxonomy for Singapore-based financial institutions published by Singapore's Green Finance Industry Taskforce (GFIT). The full taxonomy is expected to be finalized in 2023 with criteria and thresholds for eight focus sectors.

The short answer to our first question, apparent from Table 1, is that the four taxonomies are indeed generally aligned in terms of environmental objectives, and 'Climate Change Mitigation' is presently the main objective governing the development of activity classification, activity-level criteria and/or threshold for all taxonomies.

Table 1. Overlapping Environmental Objectives of Taxonomies

Jurisdictions	EU	ASEAN	China	Singapore
Environmental objectives	Climate change mitigation	Climate change mitigation	Climate change response	Climate change mitigation
	Climate change adaptation	Climate change adaptation		Climate change adaptation
	The sustainable use and protection of water and marine resources	Protection of healthy ecosystem and diversity	Environmental improvement (pollution control and ecological conservation)	Protect healthy ecosystems and biodiversity
	The protection and restoration of biodiversity and ecosystems			
	Pollution prevention and control			
	The transition to a circular economy	Promotion of resource resilience and transition to circular economy	More efficient resource utilization (circular economy, waste recycling and pollution prevention)	Pollution prevention and control
			Promote resource resilience and circular economy	

Source: EU Taxonomy Regulation, Catalogue of Green Bond Endorsed Projects (2021 Edition), EU-China Common Ground Taxonomy (CGT), ASEAN Taxonomy for Sustainable Finance (Version 1), Singapore's Second GFIT Taxonomy Consultation Paper

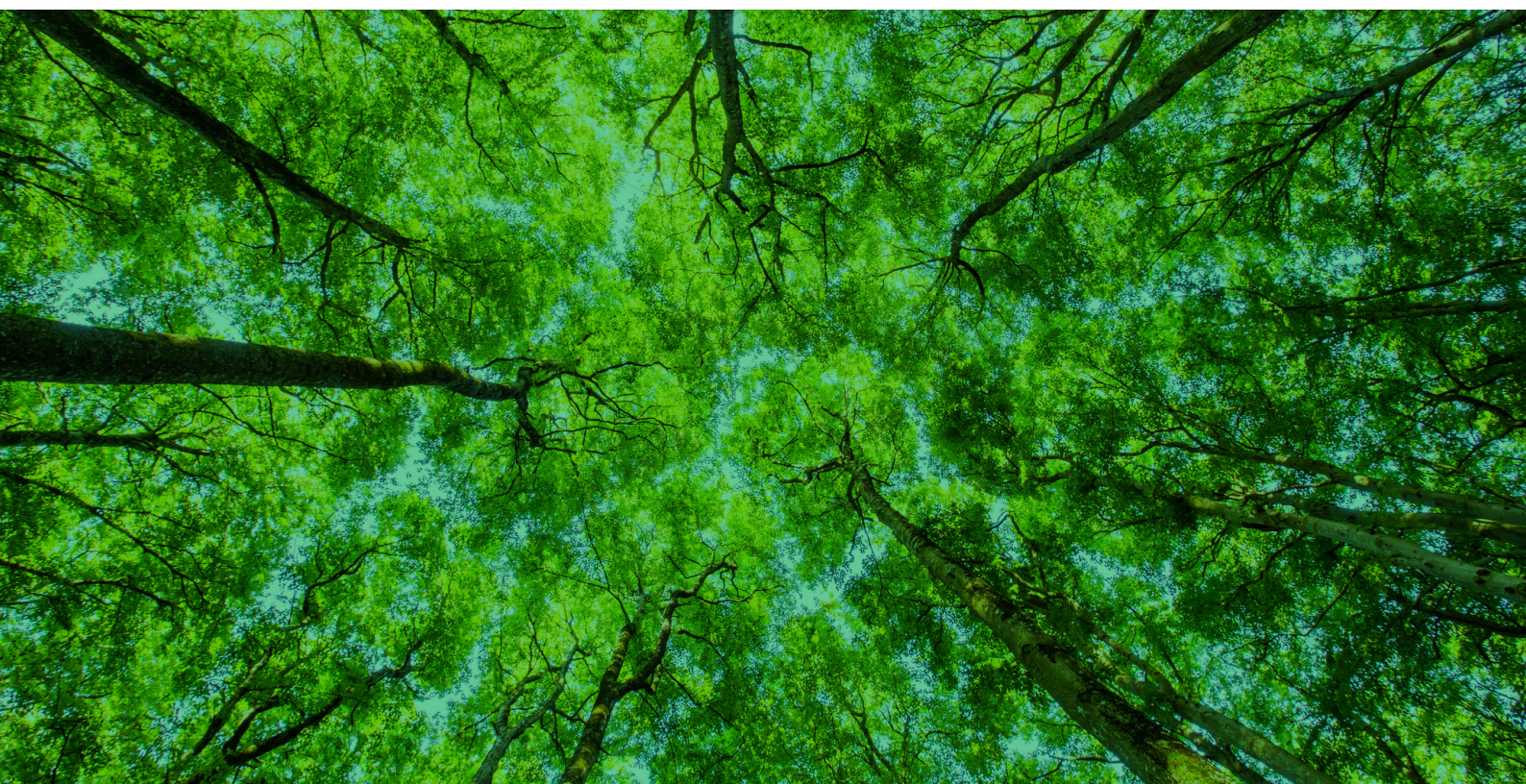


Table 2. Benchmarking of Approach & Scope of Taxonomies

Jurisdictions	State of play	Taxonomy development approach	Sector coverage and classification	Types of activities defined	Activity-level criteria and threshold	Financial products covered
EU	In regulation	Technical screening criteria-based	EU: 10 Macro-NACE sectors CGT: 6 ISIC sectors	Substantial contribution by/as: <ul style="list-style-type: none"> “Own performance – low-carbon activity” “Enabling activity” “Transitional activity” 	Climate change mitigation and adaption: Quantitative/Qualitative performance thresholds Do No Significant Harm (DNSH): Mixture of qualitative, quantitative, process-based requirements Compliance-based minimum social safeguard requirements	<ul style="list-style-type: none"> Pensions and asset management products Insurance-based investment products Corporate & investment banking products
ASEAN	Under development	Principle-based Foundation Framework (FF), and technical screening criteria-based Plus Standard (PS)	6 ISIC priority sectors, 3 ISIC enabling sectors	2-tier traffic light system: <ul style="list-style-type: none"> Green FF (environmentally sustainable) Amber FF (contributes to decarbonization but causing harm to other environmental objectives) Red FF (harmful) Green PS Amber PS Red PS 	Climate change mitigation thresholds and DNSH requirements to be set out in PS ‘Remedial Measures to Transition’ as an essential criterion for all activities	<ul style="list-style-type: none"> Not specified
China	In use	Whitelist-based, binary (green/not green)	China: various sectors under 6 self-defined categories CGT: 6 ISIC sectors	List of eligible green activity/project	Certain activities are required to meet relevant regulatory standards with a mixture of quantitative and qualitative criteria	<ul style="list-style-type: none"> Financial bonds Corporate bonds Enterprise bonds Debt financing tools Asset-backed securities.
Singapore	Under development	Technical screening criteria-based	8 ISIC focus sectors mapped to NACE	Traffic light system: <ul style="list-style-type: none"> Green activity (environmentally sustainable) Amber activity (transition) Red activity (harmful) 	Climate change mitigation: Quantitative/Qualitative performance thresholds ^{vi} DNSH: Mixture of qualitative, quantitative, principle-based requirements Compliance-based minimum social safeguard requirements	<p>Primary:</p> <ul style="list-style-type: none"> Pensions products Asset management products <p>Secondary:</p> <ul style="list-style-type: none"> Insurance-based investment products Investment banking products Commercial banking products Retail banking products

Source: EU Taxonomy Regulation, Catalogue of Green Bond Endorsed Projects (2021 Edition), EU-China Common Ground Taxonomy (CGT), ASEAN Taxonomy for Sustainable Finance (Version 1), Singapore’s Second GFIT Taxonomy Consultation Paper

From Table 2, we see that that the differences between the taxonomies have direct taxonomy implementation and data management implications in five key areas:

1. Granularity of data required related to taxonomy

development approach: Taxonomy development is generally based on three approaches, including specifying a list of qualifying green activities (i.e. whitelist-based approach); or setting out core principles (i.e. principle-based approach); or qualitative screening criteria including quantitative thresholds (i.e. technical screening criteria-based approach). These approaches can be used separately or in combination. Taxonomies adopting the technical screening criteria-based approach with pre-defined quantitative thresholds, i.e. the EU Taxonomy, the Singapore Taxonomy, and presumably the Plus Standard of the ASEAN Taxonomy, are more data-focused than taxonomies using the other two approaches. The former would require an FI to collect more granular data for alignment assessment. An example with reference to generating electricity from hydropower is shown in Table 3.

2. Sector coverage and classification: Sectoral coverage and number of in-scope economic activities vary across jurisdictions. Also, implementation of taxonomies requires

complex mapping of in-scope clients and transactions to one or more international and/or national classification systems (such as the Nomenclature of Economic Activities (NACE) and the International Standard Industrial Classification of All Economic Activities (ISIC)).

3. Product coverage: The number of in-scope clients and transactions to be assessed depends on the product coverage of taxonomies.

4. Other criteria on top of climate change mitigation: On top of the climate change mitigation criteria, some taxonomies require additional information collection flows to complete assessment on ‘Do No Significant Harm’ (DNSH), ‘Remedial Measures to Transition’ and/or ‘Minimum Social Safeguard’ pillars as part of taxonomy eligibility considerations.

5. Additional/changing sectors, activities and criteria due to the dynamic nature of taxonomies: All the taxonomies mentioned above have indicated that the list of activities and criteria are subject to change and will be updated based on new technologies and/or evolving scientific views, implying that FIs data management systems must be able to adapt to changing data collection requirements in a timely manner.

Table 3. Climate Change Mitigation Criteria and Information Collection Requirements for Electricity Generation from Hydropower

Jurisdictions	Criteria to be classified as ‘green’/ ‘low-carbon’	Information collection requirements
EU	Power density greater than 5 W/m ² or facilities operating at life cycle emissions lower than 100 gCO ₂ e/kWh, declining to 0 gCO ₂ e/kWh by 2050 is eligible.	Quantitative. Power density or the emission intensity of the facility.
ASEAN	N/A. Not being mentioned in the ‘Suggested Non-Exhaustive Lists of Green and Red Activities’ of the Foundation Framework.	N/A.
China	Construction and operation of facilities for generating electricity using potential energy of water under the premise of no significant impact on the ecological environment. Only the key large scale hydropower projects listed in the National Renewable Energy Program shall be included.	Qualitative. Information on whether the facility is listed in the National Renewable Energy Program.
Singapore	Power density greater than 5 W/m ² or emission intensity measured during the life cycle of the power plant is less than 100 gCO ₂ e/kWh is eligible. All pumped storage systems for hydropower plants that comply with either of the above-mentioned criteria are eligible.	Quantitative. Power density or the emission intensity of the facility.

Source: EU Taxonomy Regulation, Catalogue of Green Bond Endorsed Projects (2021 Edition), ASEAN Taxonomy for Sustainable Finance (Version 1), Singapore’s Second GFIT Taxonomy Consultation Paper

With regard to the two key challenges we identified above – interpreting and implementing the taxonomies, and collecting the data associated with them – there is a further question. Are the taxonomies accompanied with disclosure rules to ensure the integrity and transparency of financed green projects and activities?

The short answer is ‘No’. Although there are some overlaps of disclosure parameters for some taxonomies, i.e. the EU Taxonomy and the Singapore Taxonomy, most if not all taxonomies disclosure requirements of the four jurisdictions compared here are connected with and aligned to other existing mandatory or voluntary sustainability disclosure rules and directives, which have varying disclosure requirements.^{vii}

Table 4. Benchmarking Disclosure Requirements of Taxonomies

Jurisdictions	Disclosure obligations	Level of disclosure	Disclosure requirements	Third-party verification requirements
EU	Mandatory	Non-financial large companies: Entity/strategy level	1. Taxonomy-aligned turnover 2. Taxonomy-aligned CAPEX & OPEX	Not mandatory but encouraged
		Financial market participants: Strategy level, product level	1. How and to what extent they have used the EU Taxonomy in determining the sustainability of their underlying investments 2. To what environmental objective(s) the investments contribute 3. Proportion of underlying investments that are EU Taxonomy-aligned (% of the investment, fund or portfolio)	
China	Mandatory	Bond level	Depends on type of products to disclose: 1. Use of proceeds 2. Progress of green projects 3. Environmental benefits of green projects	Not mandatory but encouraged
ASEAN	Not specified	Not specified	Not specified	Not specified
Singapore	Mandatory from 2023	Portfolio/Product level	1. Taxonomy-aligned turnover 2. Taxonomy-aligned CAPEX & OPEX	Not mandatory, but requires indication of whether external verification is performed

Source: EU Taxonomy Regulation, Catalogue of Green Bond Endorsed Projects (2021 Edition), EU-China Common Ground Taxonomy (CGT), ASEAN Taxonomy for Sustainable Finance (Version 1), Singapore’s Second GFIT Taxonomy Consultation Paper

In conclusion, although all the taxonomies are generally aligned in terms of high-level environmental objectives, their key components – sector and financial product coverage, the classification and definition of economic activities, the stringency and specificity of activity-level criteria and/or threshold and the disclosure requirements – vary among taxonomies. This is because, despite the harmonization efforts, each taxonomy was developed based on a country’s or a region’s own sustainable development priorities and agenda,

in connection with country- or region-specific standards and regulations.

Having a common and clear guidance on how to identify green assets will help FIs to reduce the risk of greenwashing. However, implementation poses challenges as FIs will need to adapt to multiple taxonomies that are dynamic in nature across the FI’s operating markets and deal with an increasing volume of documentation, assessment and disclosure requirements.

THE APPROACH: NAVIGATING THE TWO KEY CHALLENGES

The challenges and opportunities in implementing the taxonomies emerging in APAC markets are captured in our two earlier problem statements.

1. How can FIs interpret and implement these taxonomies across their operating markets?

The proliferation of taxonomies across multiple jurisdictions, with varying coverage and varying levels of stringency in terms of activity-level criteria and thresholds, make it essential that FIs operating in cross-regional markets should establish an overarching Climate Aligned Financing (CAF) Framework. This set of guiding principles should:

- Outline an overall approach to determining the taxonomies relevant to each FI's operating markets, and how and to what extent the FI adopts and adapts its approach across operating markets.
- Establish and align the FI's definitions and assessment principles around green and transitional activities across the FI's operating markets with relevant taxonomies as one of the references.
- Ensure that the development of green products, sectoral strategy and policies – and the associated governance model – sticks to a consistent set of considerations across

operating markets and teams and is, at a minimum, aligned with the local taxonomy requirements.

The CAF Framework can be regarded as a common language, facilitating and governing the integration of taxonomies into the FI's investment strategy and decision-making processes across all markets and teams, while helping FIs to strengthen climate risk management and mitigate the risk of being labelled as 'greenwashing'.

2. How can FIs cope with the extensive and complex data collection and assessments required by these taxonomies?

Developing and socializing the CAF Framework to gain buy-in across the business is not sufficient. The taxonomy alignment needs to be a data-driven, evidence-based process to ensure reliability and credibility. This is likely to require the transformation of the FI's existing operational and decision-making processes across departments to adapt to the additional assessment, documentation and disclosure requirements.

Table 5. Taxonomy Application – Roles & Responsibilities

Department	Roles & Responsibilities
Sustainability department and industry specialists	Internal advisory role which sets out guiding principles and policies defining data collection requirements and assessment criteria to classify taxonomy-aligned transactions and financial services, as well as providing guidance and expertise to client relationship managers on the implementation and communication of related policies, and approach to client engagement
Client relationship managers	Client-facing front office that facilitates client data collection, provides advisory to client on taxonomy-related questions and products, and supports clients in adopting more sustainable practices
Risk department	Integrates ESG risks into company-wide risk management framework, where taxonomies can be potentially relevant to FI's approach to ESG risks, and assesses clients against taxonomy and other ESG criteria as part of the risk approval process
Internal audit department	Provides independent assurance on the effectiveness of overall ESG risk management
IT department	Enhances existing internal IT systems to cater to taxonomy-related requirements and automates the data collection, assessment and visualization process
Data Centre of Excellence (CoE)	Ensures the governance of data collection and delivery, including quality, level of detail and metadata (such as definition) of both internal and externally gathered data

The IT department and Data CoE play important roles in leading the automation of this process. The disclosure of even simple quantitative taxonomy metrics involves the collection, assessment and aggregation of a large amount of granular internal (e.g. sales and client data) and external data (e.g. asset-level greenhouse gas emissions data) in backend systems. The cost of performing the task manually, and the risk of errors, are exceptionally high. FIs might therefore consider following the three key steps in Figure 1 to begin aligning their IT systems with taxonomies.^{viii}

Figure 1. Three Step Approach to IT System Taxonomy Alignment

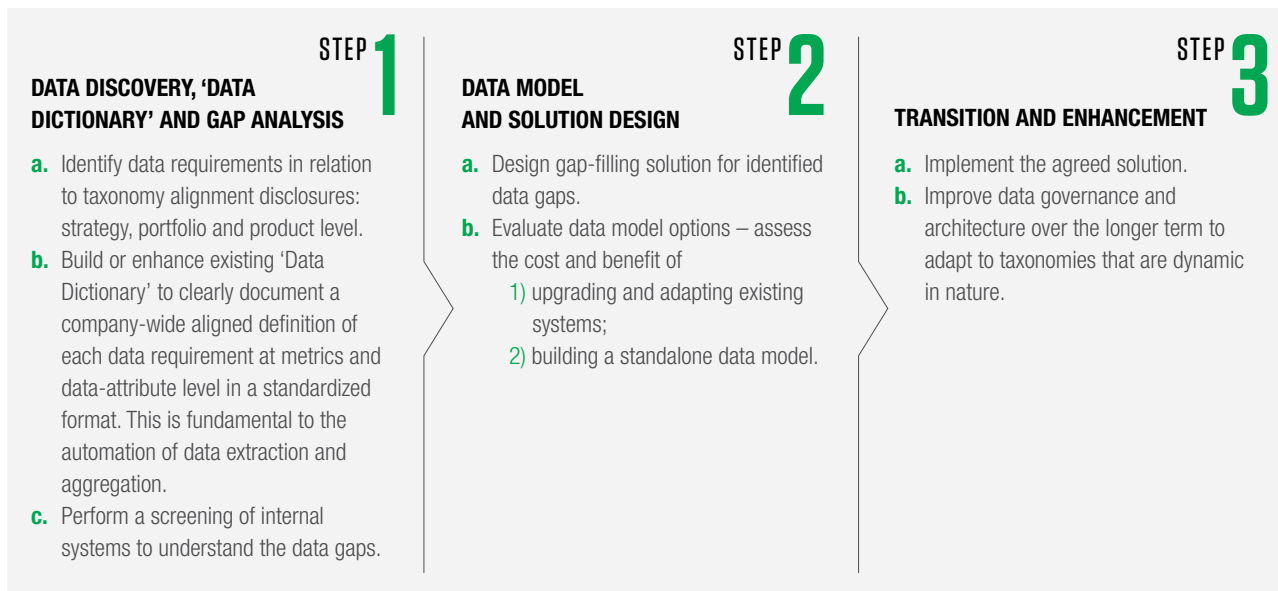


Figure 2. Robust Approach to Implement Green Taxonomies

Integration of taxonomies into investment strategy and decision-making process across the organization	
CAF Framework	Automation of IT Systems
A set of overarching guiding principles ensuring the alignment and standardization of the taxonomy approach across the organization	Replacement of manual handling of complex data collection, assessment, and aggregation with streamlined, automated IT systems
On-going engagement and capacity building with key stakeholders	

CONCLUSION

An increasing number of jurisdictions are seeking to green their financial systems by developing a taxonomy to provide a common set of definitions and criteria in relation to green and transitional economic activities. Given that the goal is to meet the terms of the Paris Agreement, these taxonomies are dynamic in nature and can be expected to evolve according to the latest climate science.

We recommend that FIs consider developing an overarching Climate Aligned Finance (CAF) Framework to establish an aligned approach towards adopting taxonomies, and also consider automating their internal IT systems to lessen the burden of data collection, assessment and disclosure. Investing in these approaches at an early stage should pay dividends in terms of developing an efficient and robust approach. It will also help firms to manage the considerable reputational risks that will arise from navigating the sustainable finance landscape while dealing with multiple evolving taxonomies across markets.

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- vi. The Second GFIT Taxonomy Consultation Paper proposed activity-level criteria and thresholds for three of the eight focus sectors.
- vii. EU Taxonomy disclosure requirements are in connection with Non-Financial Reporting Directive (NFRD), Sustainable Finance Disclosure Regulation (SFDR) and Corporate Sustainability Reporting Directive (CSRD); the China Catalogue of Green Bond Endorsed Projects (2021 Edition) listed various industrial standards as project criteria.
- viii. In an earlier whitepaper, we discussed approaches to overcome the challenges of ESG data quality and data management efficiency in the APAC emerging markets context.

AUTHORS

Edwin Hui, Executive Director and APAC Data Lead

Shelley Zhou, Managing Principal and APAC ESG Lead

Ariana Szeto, Consultant

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Capco, a Wipro company, is a global technology and management consultancy specializing in driving digital transformation in the financial services industry. With a growing client portfolio comprising of over 100 global organizations, Capco operates at the intersection of business and technology by combining innovative thinking with unrivalled industry knowledge to fast-track digital initiatives for banking and payments, capital markets, wealth and asset management, insurance, and the energy sector. Capco's cutting-edge ingenuity is brought to life through its award-winning Be Yourself At Work culture and diverse talent.

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