



Introduction to the Outcomes of the Asia Transition Finance Study Group

Asia Transition Finance Study Group (ATF SG)

September 26, 2022

An Overview of the ATF SG (Asia Transition Finance Study Group)

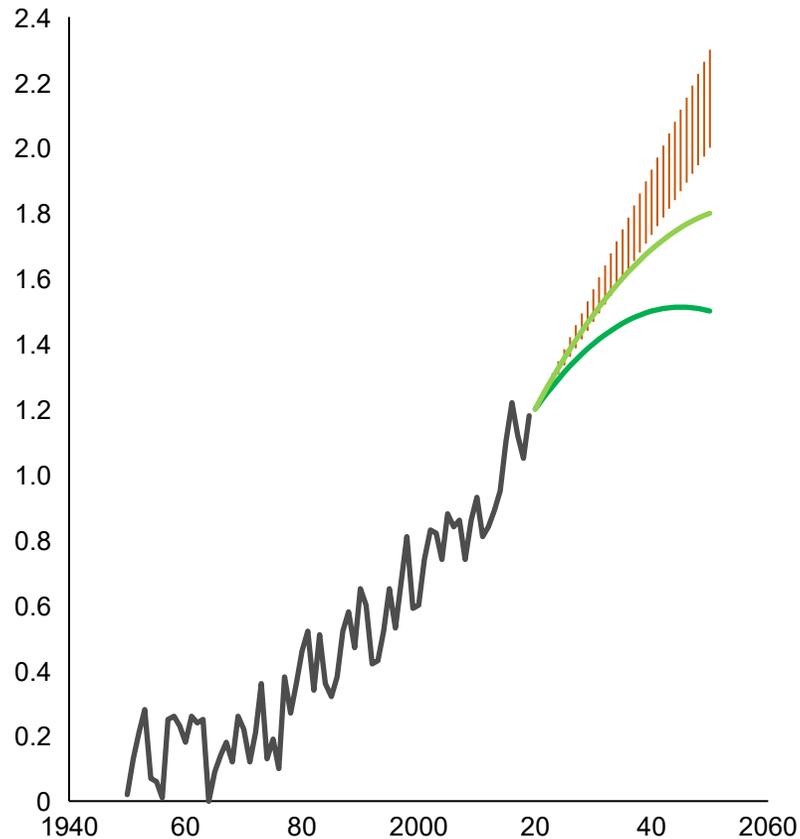
Outcomes of the ATF SG

Globally, major changes are needed to shift the climate trajectory toward a sustainable pathway (e.g., 1.5°C, 2.0°C)

— Historical — 1.5°C pathway — 2°C pathway — No further action

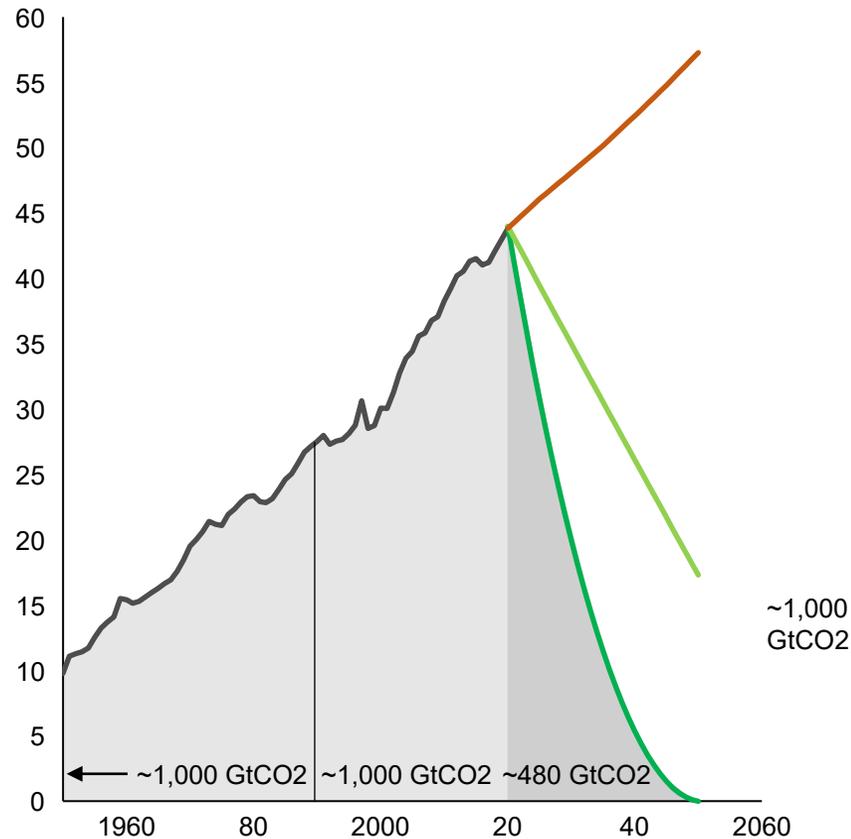
Resilience and adaptation

Rise in average global temperature (°C)



Mitigation

Annual CO₂ emissions (Gt CO₂, Global)



Intergovernmental Panel on Climate Change (IPCC)

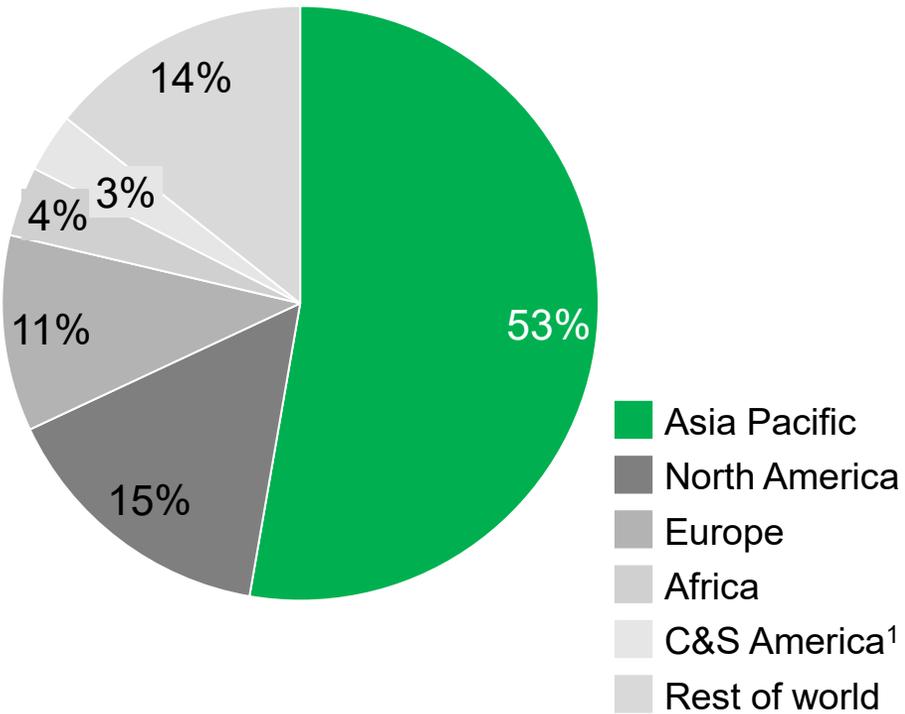
There is an over 50% chance of crossing the 1.5°C target within the next two decades

Limiting global warming to 1.5°C by the end of the century is still within reach but requires ambitious action (net zero emissions by 2050)

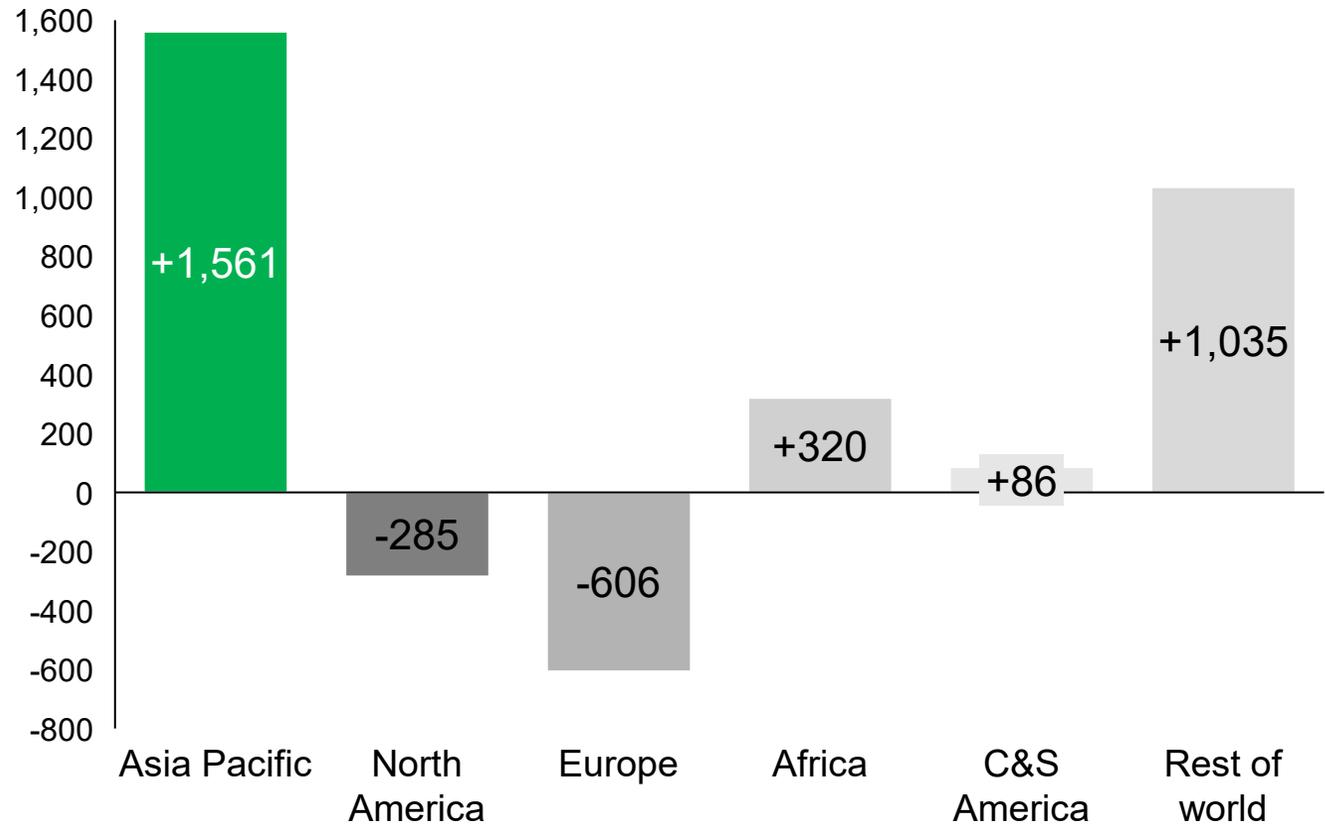
Source: CO₂ Information Analysis Centre, Oak Ridge National Laboratory (CO₂ emissions), Friedlingstien et al. ("Global Carbon Budget 2019"), Earth Systems Science Data (2019); NASA Goddard Institute for Space Studies (GISTEMP –2019; temperature record); forward projections are illustrative, based on carbon budgets estimated by Rogelj et al (2019) and the IEA CP Scenario, following Hausfather and Peters (2020); warming for "no further action" is in the RCP8.5 and RCP4.5 range, with IEA CPS plus estimates for non-energy emissions following Hausfather and Peters (2020) putting the cumulative emissions at roughly 3/4ths of the way between RCP8.5 and RCP4.5

The Asia Pacific accounts for over half of global CO2 emissions from energy, yet the emission volume is forecasted to rise in coming years

World CO2 emissions from energy by region
(%, 2020)



Estimated change in CO2 emissions from energy
(Mt CO2, 2020-2030²)



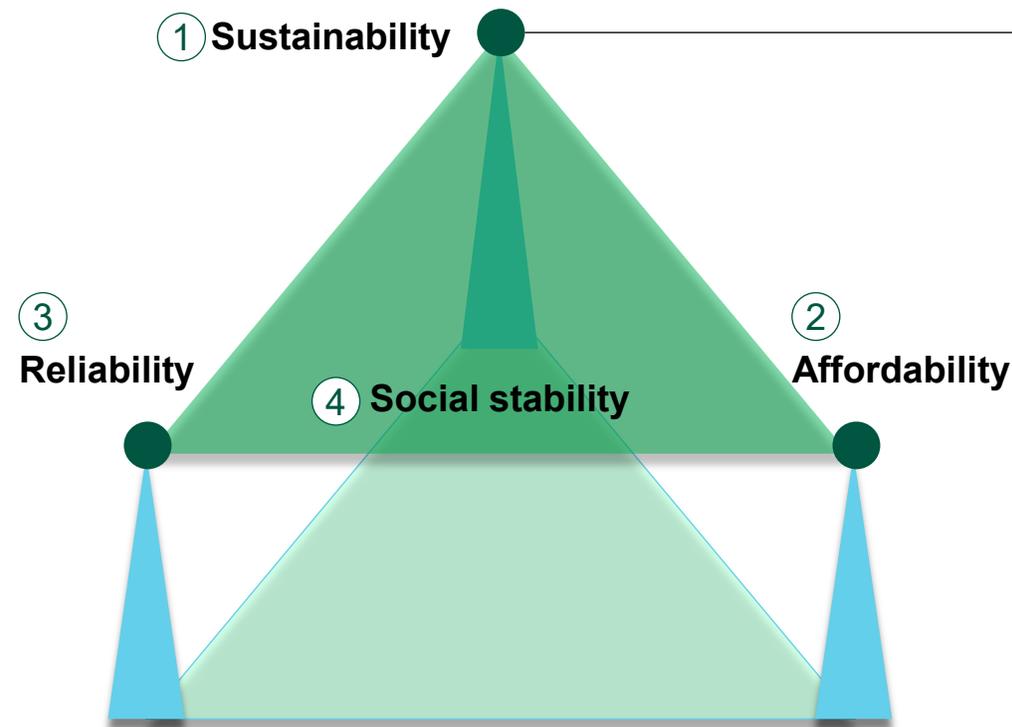
1. Central and South America
2. IEA stated policies scenario

Decarbonization while balancing affordability and reliability, maintaining social stability, is critical for realizing a Paris-aligned transition, especially in Asia

Major challenges in Asia

- **Diverse starting points** for decarbonization, e.g., high dependency on coal
- **Varying natural resource availability** for renewable energy
- **Differences in stage of economic growth**, unlike other regions such as Europe

Important elements for a just and orderly transition

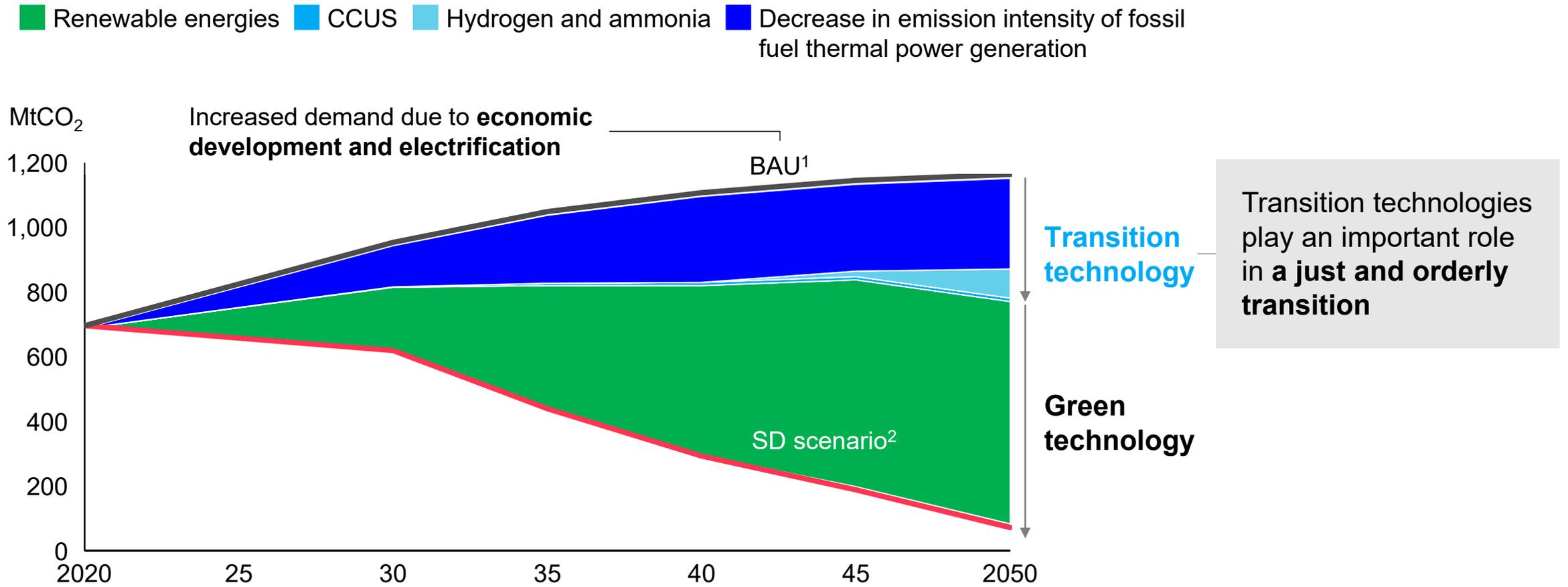


Challenges

- Not only promote climate sustainability but also ensure the reliability of energy supplies and their affordability for governments and their citizens, maintaining social stability
- Striking a subtle balance among sustainability, reliability and affordability to maintain social stability

Transition technologies complement green ones for successful decarbonization in Asian countries

ASEAN CO2 emissions from power generation



1. Business as usual
2. IEA Sustainable Development Scenario

[Reference] Transition technologies are positioned between green and brown technologies

POWER SECTOR EXAMPLE - ILLUSTRATIVE

Classification of technologies/solutions relative to fulfilling decarbonization goals

Green technologies

Zero or near-zero emissions

Renewable energy (solar, wind, biomass, small hydro, geothermal...)

Battery & other storage solutions

Grid interconnections, grid flexibility

Direct air carbon capture

Large hydro and nuclear (subject to DNSH¹ considerations)



Focus of green finance taxonomies

Transition technologies

Significantly lower emissions

Coal avoidance by early retirement and/or gas power generation

Phasing out or upgrading of inefficient plants (e.g., OCGT² to CCGT³)

Co-firing of low-carbon fuels

Low-carbon fuel production (ammonia, hydrogen)
CCUS⁴



Focus of the ATF SG

Brown technologies

Carbon-intensive technologies

Unabated coal-fired power generation⁵

Unabated oil (including diesel)-fired power generation



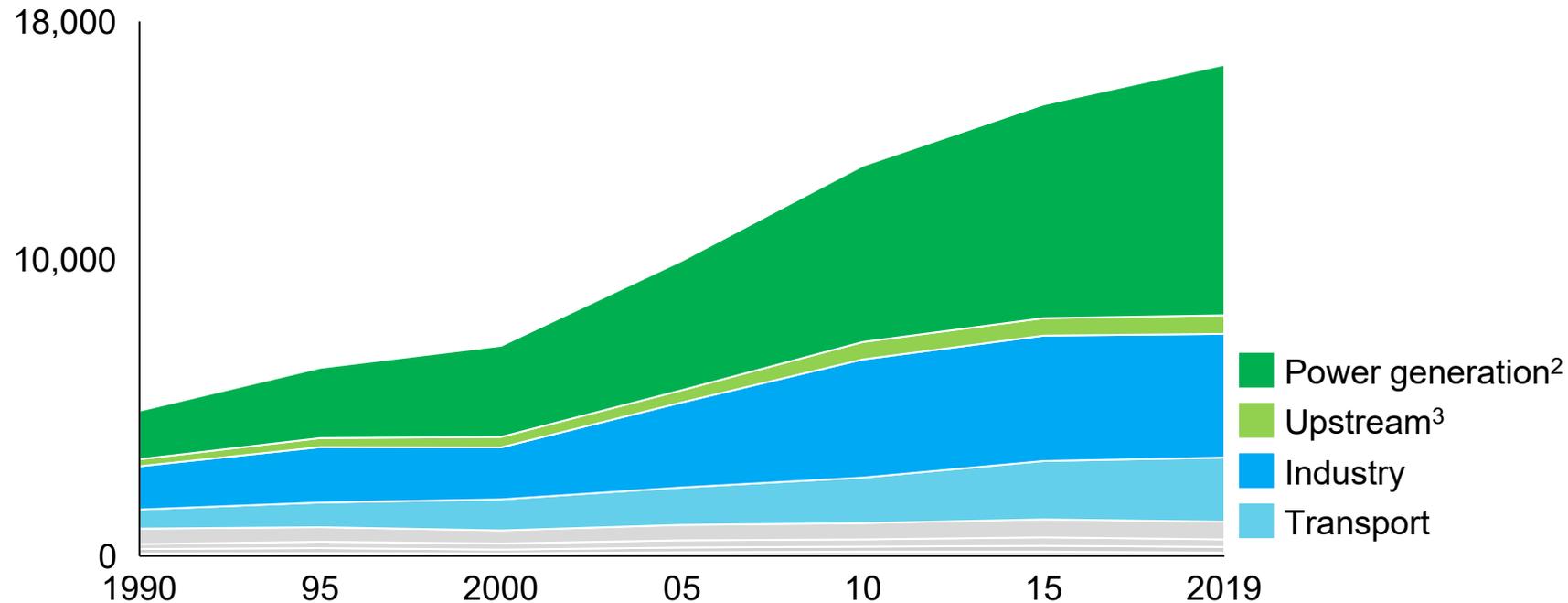
Progressively restricted from financing

1. Do no significant harm
2. Open-cycle gas turbine
3. Combined-cycle gas turbine
4. Carbon capture, utilisation, and storage
5. The Glasgow Climate Pact stipulated the phasing down of unabated coal power; this document assumes that any type of coal-fired plant (subcritical, supercritical, ultra supercritical, integrated gasification combined cycle (IGCC), etc.) without co-firing or CCUS falls under "unabated" regardless of its efficiency

Financial institutions play an important role in energy transition, which requires USD2.7T annual investment

CO2 emissions by sector¹

MtCO₂; 1990-2019, Asia Pacific



1. IEA data excludes non-fuel emissions, such as from change in land-use and forestry
2. Includes emissions from electricity production, combined heat and power plants, and heat plants
3. Includes emissions from coal mining, oil and gas extraction, other energy producing industries, and fuel combusted in oil refineries for the manufacture of solid fuels
4. Investment required to stem the rise in global temperatures to well below 2°C compared with pre-industrial levels by the end of the century

Source: IEA (2021), Greenhouse Gas Emissions from Energy: Overview, IEA, Paris <https://www.iea.org/reports/greenhouse-gas-emissions-from-energy-overview>, IEA (2021), World Energy Investment 2021, IEA, Paris <https://www.iea.org/reports/world-energy-investment-2021>, IRENA (2020), Global Renewables Outlook: Energy transformation 2050 (Edition: 2020), International Renewable Energy Agency, Abu Dhabi <https://www.irena.org/publications/2020/Apr/Global-Renewables-Outlook-2020>

Annual investment required for decarbonization⁴

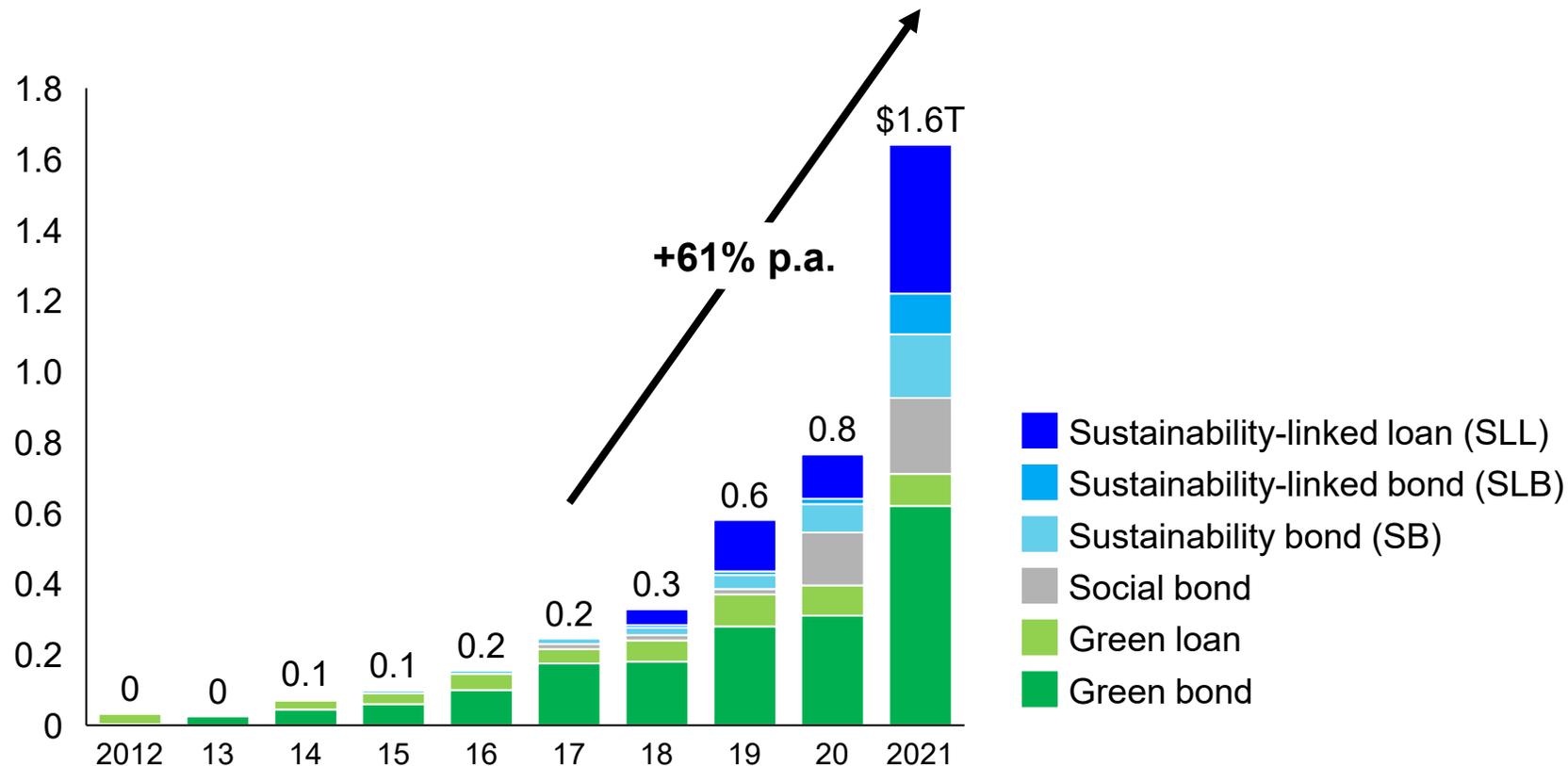
(USD trillions, 2019-2050, Global)

≈ \$2.7T

The volume of SLL, SLB and SB has been on the rise recently, implying further growth potential of transition finance

Sustainable debt issuance¹

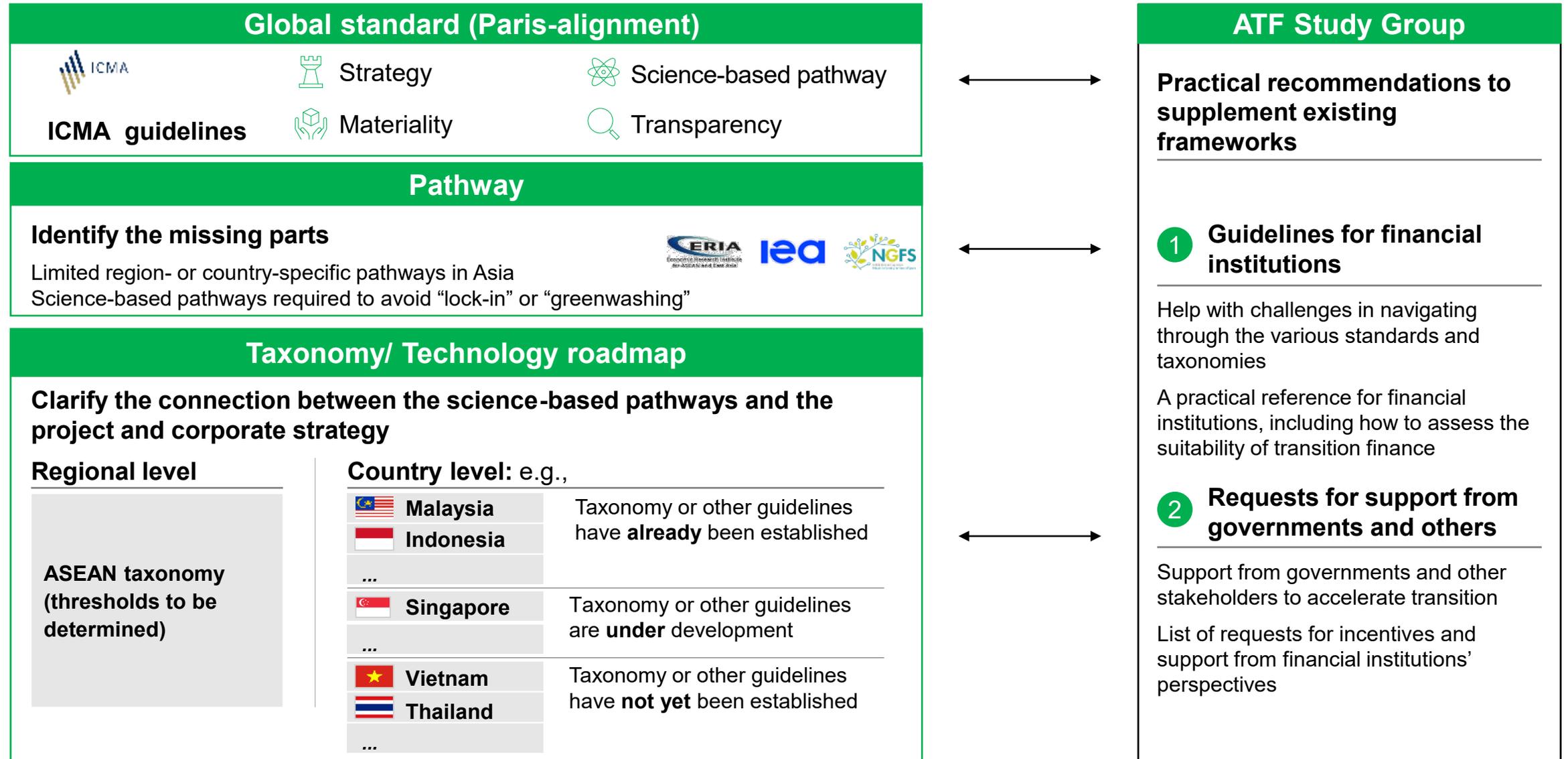
USD trillions; 2012-2021, Global



Source: Bloomberg website

- While green bonds have traditionally dominated sustainable finance, the issuance of **SLL, SLB and SB** recently been on the rise
- Given that TF is embedded in the above three instruments to some extent, the recent trend implies **TF may have the potential of growth, specifically in ASEAN**, where labeled TF has not been seen yet

ATF SG, a private-sector working group, is aiming to provide practical recommendations to supplement existing frameworks



ATF SG has covered various issues to best address

1) why TF and 2) how to best execute it going forward

Key questions

	Importance of TF	Why is TF important in Asia?	What are the challenges to decarbonization in Asia? How can FIs support a just and orderly transition in Asia?
	Fundamental framework	What elements/criteria can FIs use to judge suitability for TF?	What elements must be checked to judge suitability for TF? How can FIs assess TF eligibility? Whose strategies can be examined for SPC? How must FIs view decarbonization plans with carbon offsets? What if the sponsors have no clear decarbonization strategy and would like to utilize UoP-level finance?
	Cross-border projects	Which country's pathways/technology roadmaps/taxonomies can be used for UoP cases? What must FIs do when an MNC's decarbonization strategy coverage is limited to the HQ country?	
	Interim approach	How can FIs implement TF in the interim, while country/sector-specific pathways/roadmaps are being created?	
	Required support from stakeholders	What requests should the ATF SG make to governments, institutions, and corporates?	What is missing for the implementation of TF in Asia? What requests need to be made to ensure interoperability of taxonomies in the region?

We would like to thank all the SG members and contributors

Category	Participants				
Core members of Study Group	Commercial banks (19)	<ul style="list-style-type: none"> • MUFG Bank • Mizuho Financial Group • Sumitomo Mitsui Banking Corporation • Sumitomo Mitsui Trust Bank 	<ul style="list-style-type: none"> • Bank Mandiri • Bank Danamon • Maybank • BDO Unibank • Security Bank • United Overseas Bank 	<ul style="list-style-type: none"> • Bank of Ayudhya • Kasikornbank • VietinBank 	<ul style="list-style-type: none"> • Macquarie • Barclays Bank • Standard Chartered Bank • HSBC • UBS • Citibank
Observers of Study Group	Development banks, ECAs, and others (6)	(Multilateral) <ul style="list-style-type: none"> • International Finance Corporation 	(State-affiliated) <ul style="list-style-type: none"> • Development Bank of Japan • Japan Bank for International Cooperation 	<ul style="list-style-type: none"> • Export-Import Bank of Thailand • Nippon Export and Investment Insurance 	(Commercial) <ul style="list-style-type: none"> • DBS Bank
	Public agencies and finance associations (13)	<ul style="list-style-type: none"> • ASEAN Taxonomy Board • Sustainable Finance Institute Asia • The International Capital Market Association 	<ul style="list-style-type: none"> • Australian Government • Ministry of Energy and Mineral Resources, Indonesia • Ministry of Finance, Indonesia • Ministry of Finance, Japan 	<ul style="list-style-type: none"> • Financial Services Agency, Japan • Ministry of Economy, Trade and Industry, Japan • Economic Planning Unit, Malaysia 	<ul style="list-style-type: none"> • Department of Energy, Republic of the Philippines • Ministry of Energy, Thailand • Japanese Bankers Association
Knowledge Contributor (4)		<ul style="list-style-type: none"> • DNV • ERIA • JCR • Moody's 			

An Overview of the ATF SG (Asia Transition Finance Study Group)

Outcomes of the ATF SG

ATF published two deliverables today (September 26)



Objectives of the ATF SG

The ATF SG aims to **create practical recommendations** to supplement existing frameworks, including global standards and taxonomies

These recommendations include

- A support list of requests made of governments and other stakeholders
- Practical TF guidelines for financial institutions



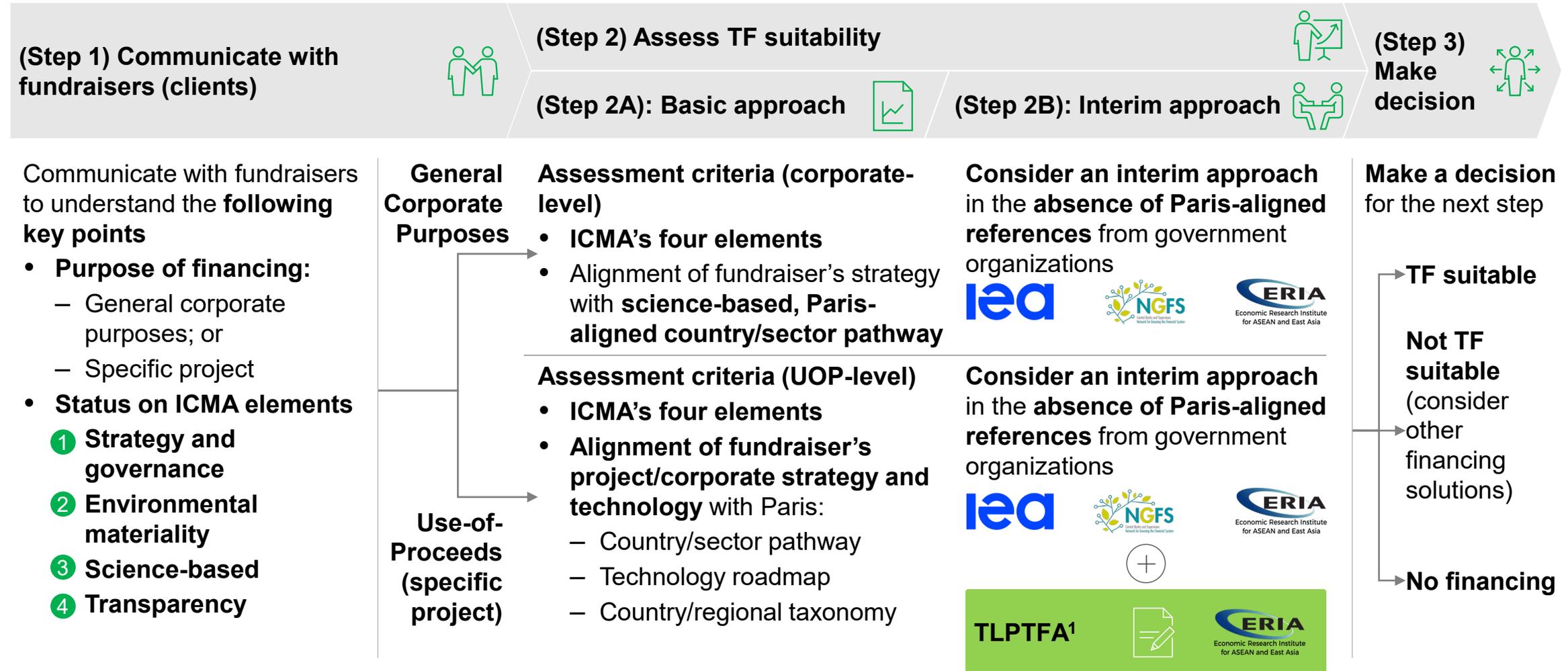
Publication Deliverables

Given the different expected audience from each of the two recommendations, ATF published two reports today:

- A ATF Guidelines (primarily for financial institutions):** technical guidance on (but not limited to) TF **aimed at FIs**
- B ATF Activity Report (for stakeholders at large):** a report on the activities of the SG, including a “support list” for stakeholder engagement

The ATF Guidelines show how to assess TF suitability using existing references

■ Details in the next section



1. Technology List and Perspectives on Transition Finance in Asia

B: The ATF Activity Report includes seven requests for stakeholder engagement



Government organizations



International/Intergovernmental organizations

Activity Report chapter	Suggested support measures	Stakeholder involved	
1. Introduction	1 Create sector- or country-level decarbonization pathways and taxonomies or technology roadmaps for ASEAN		
2. Overview of SG activity	2 Consider a just and orderly transition in accelerating decarbonization		
3. Suggested support measures from governments and stakeholders	3 Provide financing or stakeholder involvement support (e.g., through incentives) for several pilot cases with TF in Asia		
	4 Ensure interoperability between region- and country-level taxonomies through dialogue among ASEAN governments		
	5 Establish practical guidelines for the use of carbon credit in TF		
4. Concluding Remarks	6 Provide tailored support for SMEs to decarbonize their activities		
	7 Promote the acquisition and development of relevant skills for the use of transition technologies		