

Climate Mitigation Finance:

Taking Stock and Looking Forward



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THE STANDARD WEALTH



CFNT

Climate Finance Network Thailand

Catalyzing Climate Finance for Thailand Green Action





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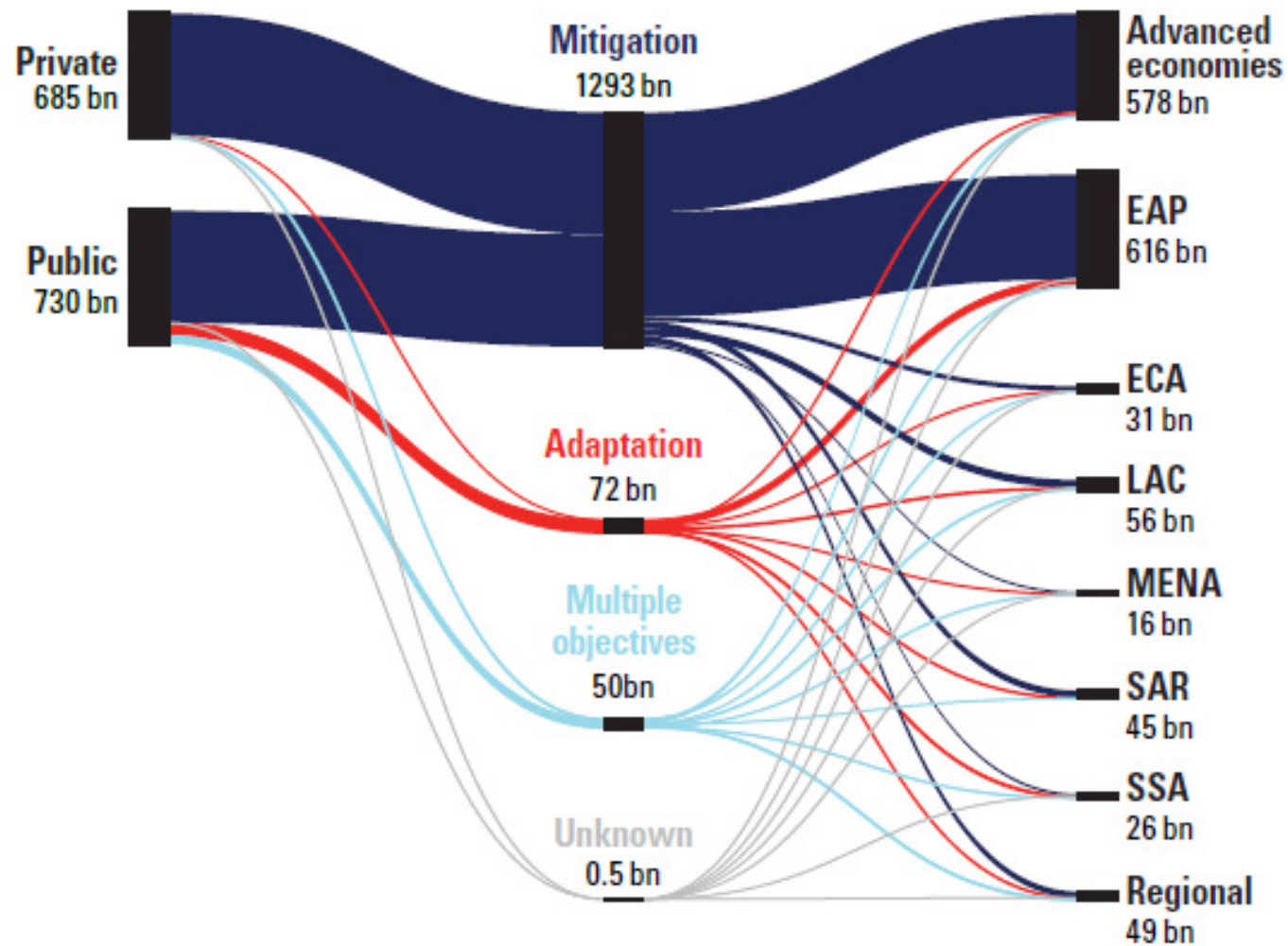
CATALYZING CLIMATE FINANCE FOR THAILAND GREEN ACTION

Melinda Good

Division Director for Thailand
and Myanmar, World Bank



Global climate finance flows in 2022 \$ billions

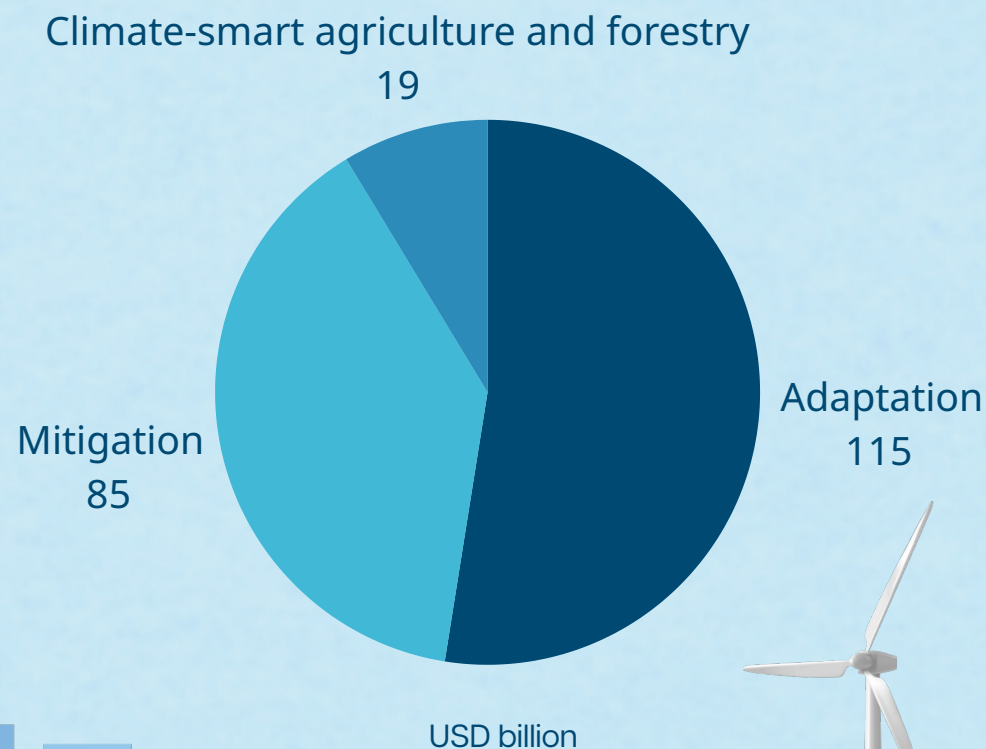


Source: World Bank staff calculation based on WEO for GDP, Buchner et al. (2023) for global climate finance flows, and EDGAR Community GHG Database for global GHG emissions



Thailand's Climate Finance Needs

Thailand will need an additional **USD 219 billion** in climate investments over the next 25 years, **around 2.4 % of cumulative GDP.**



Priority one

Advance sustainable finance through **greening finance** and **financing green.**

Priority two

Unlock new funding via carbon pricing and international carbon markets.





Role of Private Finance: Opportunities and Challenges

Greening finance

Enhancing the financial system's ability to identify, manage, and disclose climate-related financial risks.



Thailand is at the **implementation : developing sub-stage** in the 2023 SBFN Overall Progression Matrix.

42 out of **66**

countries are in the implementation stage

Advancing implementation



Vietnam



Philippines

Maturing implementation



Indonesia

Financing green

Scaling up the flow of capital into climate-smart projects and technologies that reduce emissions or build resilience.



Thailand sees **less than 1 percent of GDP** in new issuance of sustainable debts annually.

Challenges in Mobilizing Private Sector Participation



Limited ESG awareness among SMEs and mid-sized corporates



Inadequate policy incentives



Limited private sector participation to scale and lower costs



Insufficient pipeline of bankable projects



Thailand Low Carbon City offers system-building support to accelerate decarbonization investments



Advance domestic carbon pricing instruments

Support to reduce emissions in hard-to-abate sectors, build foundation for ETS, support T-VER accreditation, develop mechanism to aggregate VERs at scale, & pilot digital MRV



Strengthen regulatory & institutional frameworks for climate finance

Strengthen financial regulations to classify carbon credits, register brokers, & encourage green finance instruments



LCC enable subnational asset upgrades in cities.

Facilitate urban investments to generate large volumes of VERs

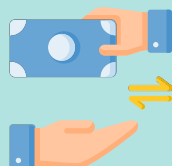


LCC enable subnational Urban credit bundling could **unlock \$1.5B in carbon value.**



Catalyze private sector participation

Engage private sector to upgrade implement asset upgrades



Support market transaction

Develop innovative financing strategies & facilitate international carbon credit sales



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Thank You

Readiness Across the Financial Sector Continues to Grow





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BANK OF THAILAND

Readiness across the financial sector continues to grow

What we wish to see

1

Financial institutions integrate environmental aspects into their decision-making and operational processes

2

Adequate offering of financial products and services to support business transition

Key actions taken

Standard Practice / Industry Handbook

Thailand Taxonomy

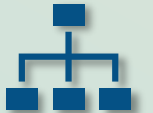
Financing the Transition Project

Significant development



Strong Commitment

Governance for sustainability



Incorporate environmental & climate aspects into risk management

Disclosure in accordance with international standard



Over **480** Billion THB

Total green loan
as of 2024



Achieved
Financing
the Transition

Climate Mitigation Finance: Tacking Stock and Looking Forward



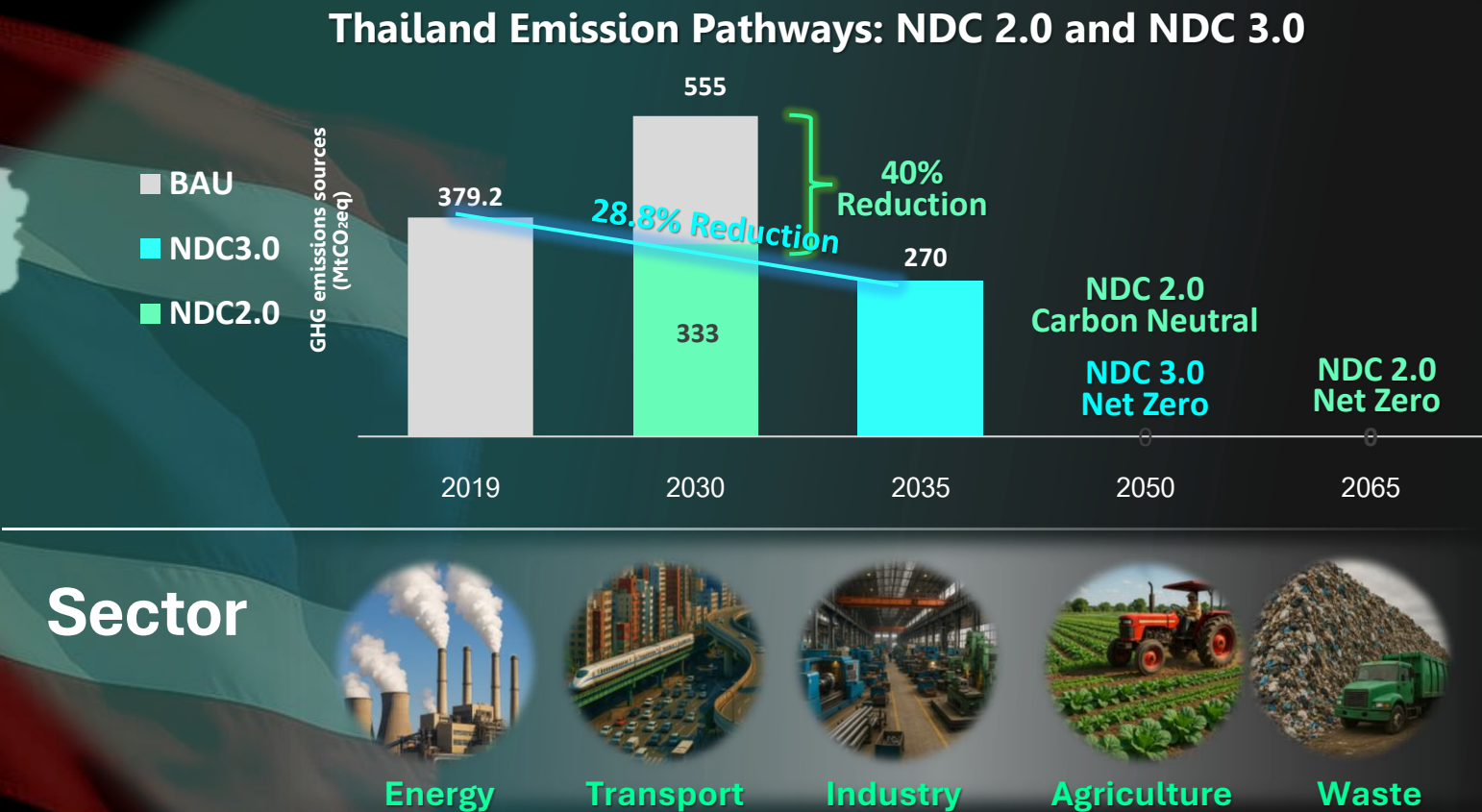


Climate Mitigation Finance: Taking Stock and Looking Forward

Karin Boonlertvanich, PHD.
EXECUTIVE VICE PRESIDENT, KASIKORNBANK PCL

Thailand NDC 2.0 VS 3.0

NDC 2.0 shows a gradual rising emissions trend, while NDC 3.0 marks a clear downward shift



KBank and Climate Change

How national regulation influence our business strategy

National Target

DRAFT NDC 3.0

2050
Net Zero

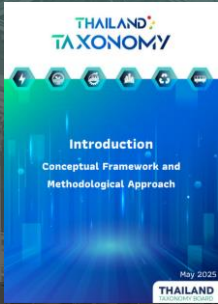
28.8%

GHG Reduction in 2035
compared to Absolute Emission in 2019
(109.2 MtCo2eq)

Banking Sector



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BANK OF THAILAND



Thailand
Taxonomy



Policy
Statement

O1: Own operation

Green operations with
cost-efficiency

1

2

O2: Transition Risk Mitigation

Decarbonizing financed portfolio in strategic
impact areas

3

O3: Lending Opportunities

Strengthening traditional revenue base
by capitalizing on sustainability trend

+1

O4: Beyond Banking Opportunities

New revenue co-creation from beyond banking
solutions



PROPELLED BY:
Scalable Climate Core Competency
(Technology, Data, Analytics, Brand and Partnership)

KBank's Climate Strategy

From Strategy to Action

How KBank Addresses Climate Risks

Steps

 **1**
Identify

 **2**
Prioritize

 **3**
Manage

 **4**
Track

Own Operation

- Assessed **physical and transition risks** to branches, data centers, and operations.
- Conducted **materiality assessment** to prioritize climate risks for own operation.
- O1** Incorporated **green operation strategy with cost efficiency**: internal carbon pricing for emission reduction project prioritization/selection
- 2024: GHG emissions of KBank's operations **reduced by 17.02%** (Baseline year: 2020)

Financed Portfolio

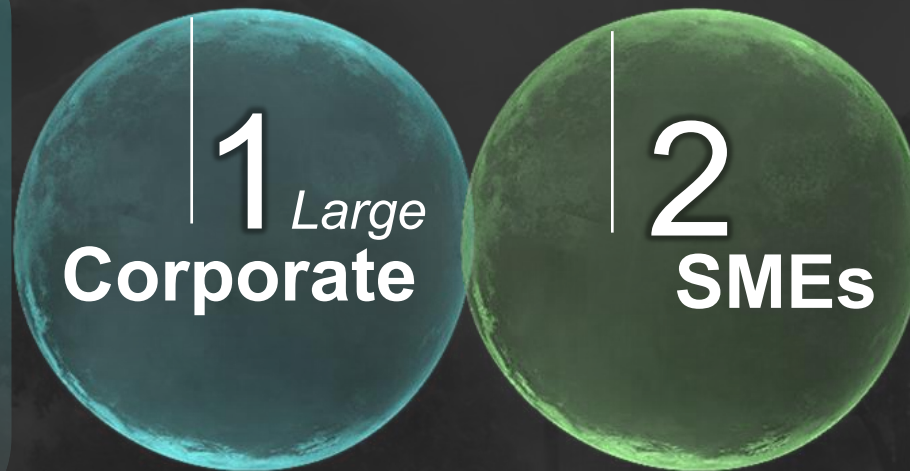
- Assessed **financed emissions** across lending and investment portfolios.
- Prioritized high emission sectors and developed **sectoral decarbonization glidepaths/ transition plan** aligned with Thailand's NDCs.
- Developed **sectoral customer approach**:
 - O2** Sector-specific policies, exclusion lists
 - O3** Credit products
 - O4** ESG-related products
- 6 sectoral glidepaths**
- Q1/25 Green Finance & Investment: **THB 147 Billion**
- Beyond Banking Product Development

Key Insights from Interacting with Clients

Level of Maturity Differs Across All Segments

Advanced Climate Maturity

- Possess a medium to high level of understanding in climate risk mitigation.
- Require investment that offers a substantial internal rate of return
- They have more opportunity in accessing climate bonds.



Low Climate Awareness

- Limited understanding of climate risk mitigation
- Most active enterprises are currently part of large corporate supply chains.
- There is a need for knowledge, resources, and funding to implement meaningful actions.
- This leads to the creation in SMEs sectoral package.



KBank 

แพ็คเกจสินเชื่อธุรกิจ เพื่อลดคาร์บอน

Financing
Products for

Transition

แพ็คเกจสินเชื่อที่จะช่วยให้ธุรกิจของคุณ
เปลี่ยนผ่านไปสู่คาร์บอนต่ำ

- ✓ เพิ่มประสิทธิภาพการผลิตและบริการ
- ✓ ลดการใช้พลังงาน
- ✓ บริหารจัดการต้นทุนในการลดคาร์บอนอย่างคุ้มค่า
- ✓ พร้อมรับมือกับมาตรการด้านสิ่งแวดล้อมต่างๆ



ธุรกิจอาหาร
และเครื่องดื่ม



ธุรกิจโรงแรม
และเฮลท์แคร์



ธุรกิจแพ็คเกจจิ้ง
และพลาสติก



ธุรกิจชิ้นส่วนยาน
ยนต์ฮาร์ดแวร์



อัตราดอกเบี้ย
แพ็คเกจสินเชื่อธุรกิจ
เพื่อลดคาร์บอน

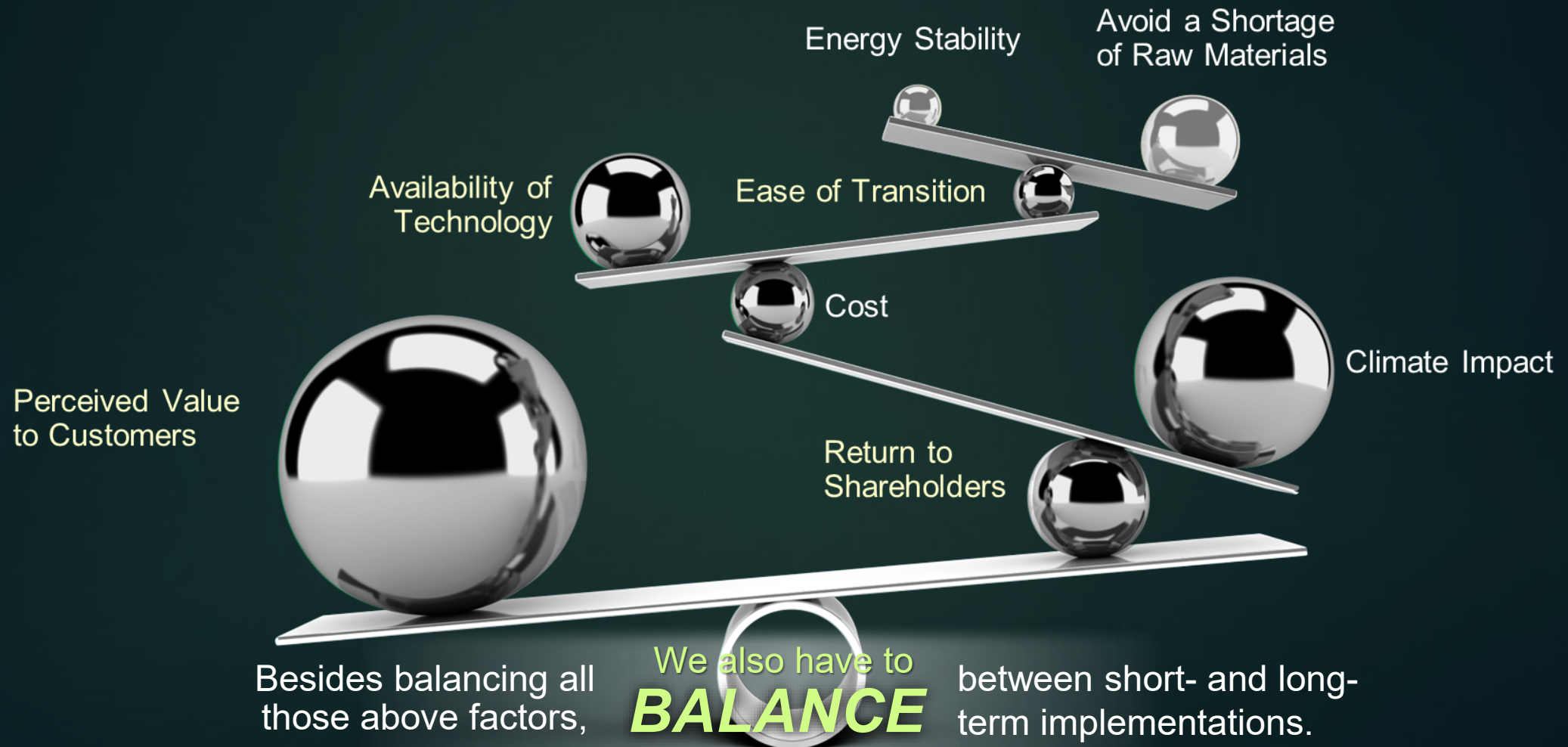
ระยะเวลาไม่เกิน 5 ปี
MLR* -1.25%

ระยะเวลาตั้งแต่ 5-8 ปี
MLR* -1.00%

*อัตราดอกเบี้ย MLR อ้างอิงตามประกาศอัตราดอกเบี้ยเงินให้สินเชื่อของธนาคาร

Key Insights from Interacting with Clients

Businesses Must Find a Balance in Transitioning



Addressing KBank's Challenges



Diversified Corporate Sectors

- Our major corporate clients operate in a variety of sectors that require tailored plans and technologies for their business transitions.
- Consequently, KBank has been creating sector-specific glidepaths aimed at high-emission industries to assist in effective management.



Large SME Portfolio

- From our experience in engaging with our clients, SMEs mostly have limited resources for managing climate risks.
- KBank is broadening its services beyond traditional banking to assist clients in different phases of climate readiness and encourage sustainable practices.



Dilemma: Green VS Profit

- Dilemma: finding a balance between adopting green practices and the necessity of making a profit.
- KBank implements strategic adjustment based on climate impact into loan origination.

FINANCIAL ECOSYSTEM DEVELOPMENT

4 Key Requirements for Climate Mitigation

Regulatory Support for Financing the Transition

- Permit banks and affiliates to offer **ESG consulting services** beyond environmental aspects, including Social and Governance dimensions.
- Allow banks to act as **intermediaries in carbon credit / REC / ETS trading** and similar certification exchanges.

Policy and Incentive Measures

- Adjust **risk-weighted asset ratios** for green-related assets to reduce capital requirements.
- **Reimburse FIDF contributions** based on sustainable finance activities to lower the cost of green loans.
- Provide funding sources to support environmental lending initiatives.

Coordination and Infrastructure Development

- Lead Inter-agency collaboration to **define standards** for environmental financial products.
- Advocate for **government incentives** and the creation of centralized green infrastructure to facilitate the transition.
- Data and Tooling. Build or acquire robust tools to identify and quantify climate risk across the portfolio, backed by a strong data strategy. Data sourcing should include asset-level data, hazard data, and client data.

Data and Tooling

- Build or acquire **robust tools to identify and quantify climate risk across the portfolio**. Data sourcing should include national-level data and client data.

SCB Approach to Net Zero Strategy



SCB approach to Net Zero Strategy

CFNT – Climate Mitigation Finance Workshop

Presented by Dr.Yunyong Thaicharoen
Chief Economist and Sustainability Officer

21 July 2025

Weathering the Storm: Net Zero Is the Endgame

2

Despite headwinds and challenges, climate is a long-term game, business must stay on course towards net zero.



Thailand can't afford to be a high carbon economy in a low carbon world

SCBX focuses on “Sustainability in Substance”

3

Sustainability that drives business success and societal good impacts.

SCBX VISION

The Most Admired Financial Technology Group in ASEAN

Sustainability
Mission

Driving sustainable business growth and positive change
for our customers, planet and society

Approach

3

Enhancing long term
competitiveness

2

Capturing business
opportunities

1

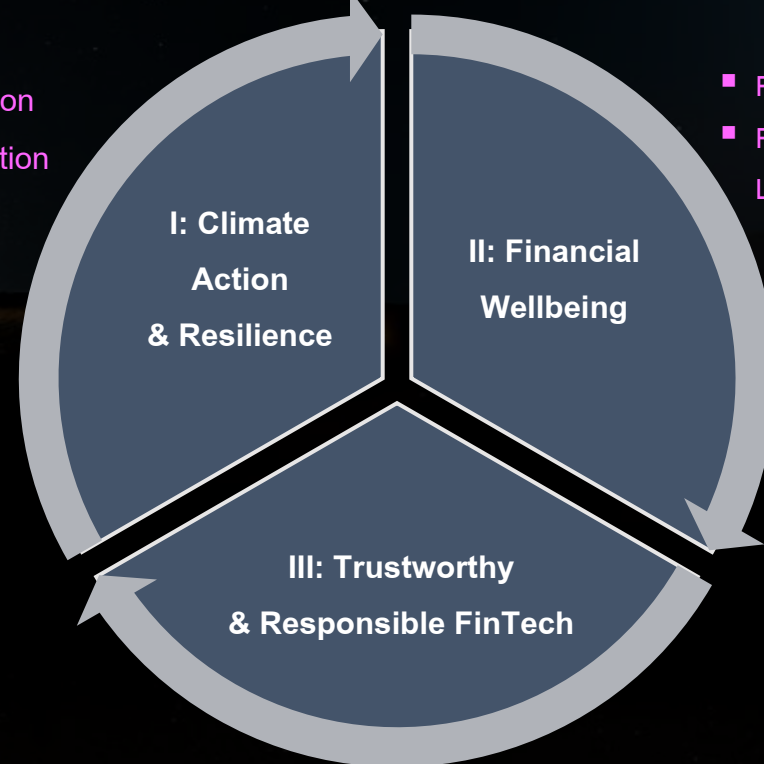
Solving customers' pain points



Sustainability at SCBX with 3 Focus

Pillars:

- Mitigation
- Adaptation



- Financial Inclusion
- Financial Health & Literacy

- Responsible Business Practices

SCB committed to be among Thai leading sustainable FI: Embedding Sustainability into Core Business Strategy and Setting Bold Targets



**Net Zero Scope 3
(loan and inv.) by
2050**

target validated by
the Science Based Targets initiative
(SBTi)



**Net Zero Scope 1-2
(Own operation) by
2030**

target validated by
the Science Based Targets initiative (SBTi)



Become member of
Equator Principles
to enhance environmental and
social standard
for large project financing



Committed to delivering
THB 150 billion
in sustainable finance
between 2023 – 2025

SCB's Pathway to Net Zero by 2030

Operational Decarbonization through Internal Transformation

Carbon
reduction by
2027

50%

Net Zero
Operations
by

2030



**Solar rooftop
installation**

at SCB Headquarters
and Training Center



Optimize **chiller usage**
leading to reduction of

1.5 hours/day

100%

R32 refrigerant in air
conditioners by 2027

Use
RE and REC
by 2030

100%



Replacement of aging air
conditioners **2,283** units
over 10 years old



Set Aircon
Temp. at
25 °C

Turn air conditioning
on/off 1 hour before/after
working hours

Transition to
electric vehicles

100%

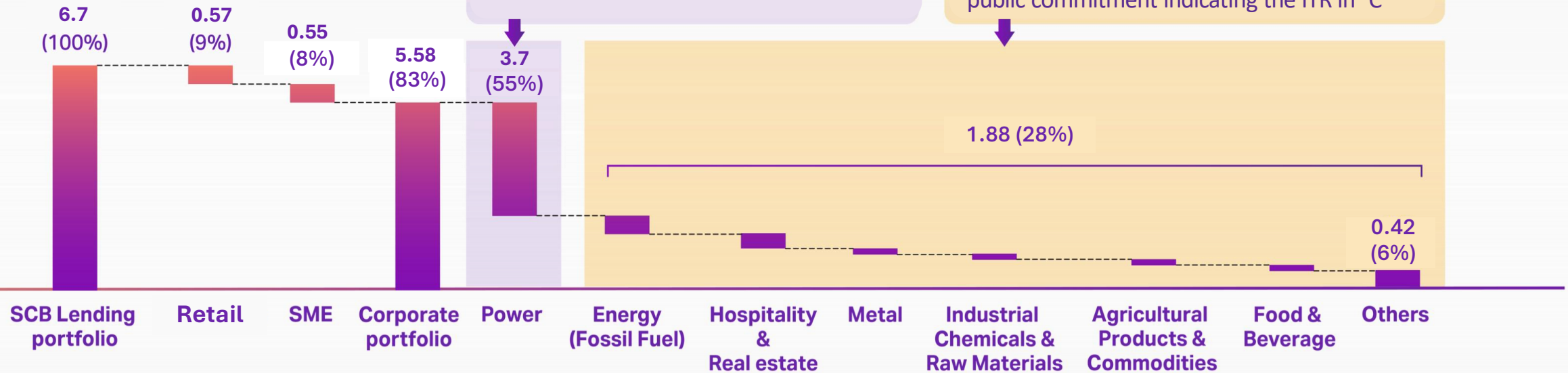
**EV adoption
by 2028**

6.7 million ton of CO₂e represented the amount of Greenhouse Gas (GHG) emissions from SCB's lending portfolio in 2024 (Financed emissions, Scope 3)

2 Metrics for Target Setting under SBTi's framework

Sector Decarbonization Approach (SDA)
Measurement of GHG emissions intensity

Implied Temperature Rise (ITR)
Measurement of a customer's GHG reduction public commitment indicating the ITR in °C



Reducing Carbon Intensity in Power Sector (SDA) by Supporting Clients with Transition to Clean Energy

GHG intensity per
Unit of Electricity

Solar, Wind,
Hydro



Strategy

1. Increased RE lending to both existing and new clients. Since 2011, SCB has extended RE loans up to THB 200 B.

2. Coal Policy: SCB will not provide financial support for new & expansion of existing coal-related businesses

3. Engagement: SCB will encourage and support the clients' ambition of transition to clean energy.

4. Continue to seek opportunities to grow the renewable energy loan portfolio in international markets

THB 118 billion

Total outstanding loans for power generation in 2024

One of the leading banks in RE financing

• Outstanding balance in 2024:

THB 69 billion

• No. 1 in Thailand
Loan Outstanding of
Wind project*

High share of renewable energy loans relative to selected global banks

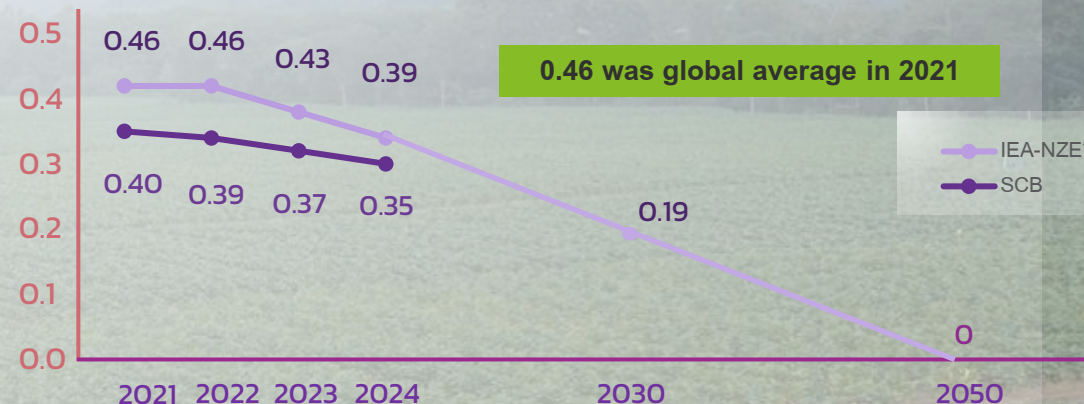
SCB 59%

Avg of 3 selected
global banks in the
world 53%*

Key results and progress

GHG emissions from SCB's power generation loan portfolio have **DECLINED** and stayed below the global Net Zero pathway

Unit: tCO₂e per unit of electricity generated



Source: BNP Paribas, DBS, Barclays (2021) compiled by McKinsey*, IEA Net Zero Emissions Scenario**

Reducing the Implied Temperature Rise (ITR) for our corporate portfolio Through proactive engagement with our clients to set and announce carbon target reductions

SCB measures its portfolio temperature using the Implied Temperature Rise (ITR) methodology

We assess the temperature alignment of our clients based on their decarbonization commitment including target years, percentage reduction goals, and other related indicators.

+4 °C
+3 °C
+2 °C
+1.5 °C
+1 °C
0 °C

← **3.2 °C** Clients** without a GHG reduction target
← **2.5 °C** Clients** targeting a 5% GHG reduction by 2030 (base year: 2020)
← **1.8 °C** Clients** targeting a 30% GHG reduction by 2030 (base year: 2020)

This particular client's GHG reduction target is aligned with a 1.8°C warming pathway.

Pre-industrial baseline average: 1850–1900

2.84 °C in 2021

Client GHG reduction ambitions in SCB's portfolio are currently aligned with a global warming pathway of 2.8°C.

Weighted average temperature of clients, based on the outstanding loan amount.

Remark:

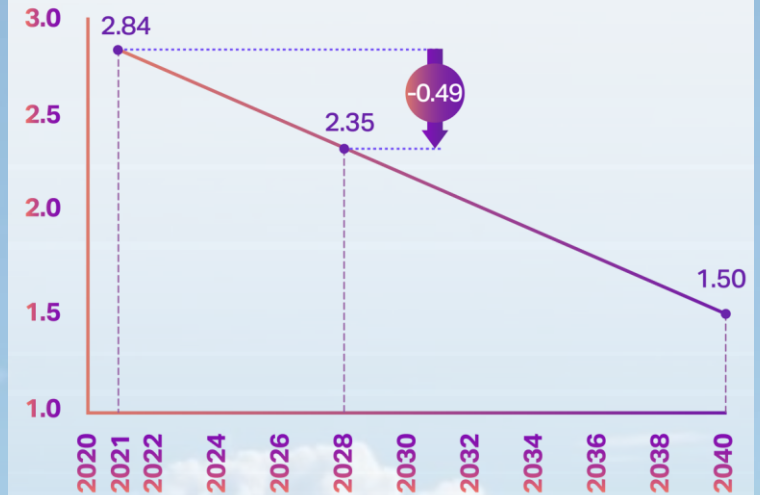
* Includes industry type, target type, target scope, target coverage, target year, and progress toward target.

** Corporate Commercial Clients.

*** Based on clients' Scope 1 and 2 emissions.

Target

SCB's portfolio temperature* based on client assessments covers approximately 78% of total large corporate loan exposure in 2021 (excluding the power generation sector)



Driving Portfolio Decarbonization Strategy thru 4 Strategic Levers

Levers

1 Engage clients to set meaningful GHG reduction targets aligned with temperature goals.

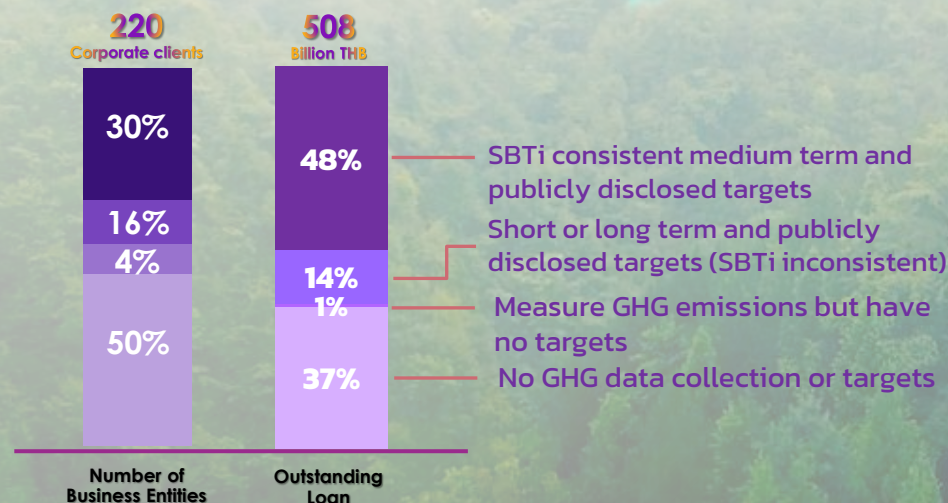
2 Increase lending to existing clients with low implied temperature scores.

3 Onboarding new clients with low portfolio temperature scores.

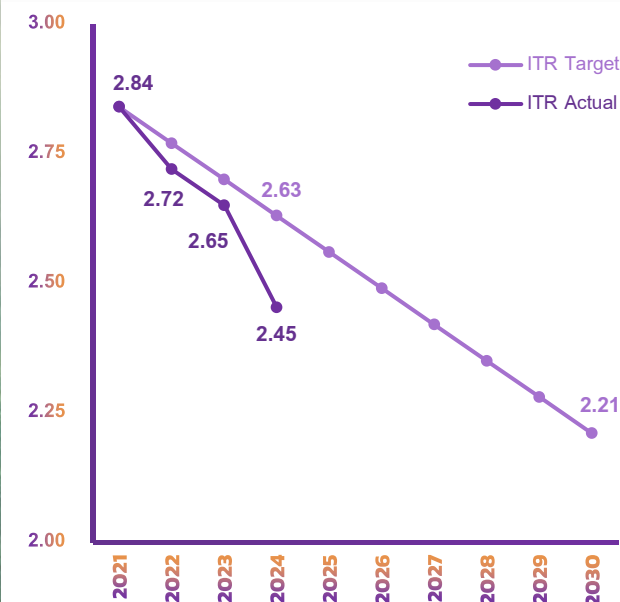
4 Gradually reduce exposure to high-temperature clients with no clear transition plans.

Progress and Outcomes

Based on SCB survey of top 220 corporate clients (Feb 2025) on their carbon reduction targeting and announcements, we found that even corporate clients are at varying stages of transition toward Net Zero.



SCB's Portfolio Temperature



Committed to be trusted partner for our clients on their Sustainability Journey

LIVE
SUSTAINABLY
อยู่อย่างยั่งยืน



Challenges: faced by clients

1. Knowledge / understanding
2. Funding / affordability
3. Technical solutions

5 Sectoral Decarbonization Strategies

Power
Generation

Fossil
Fuels

CRE
(Hospitality)

Indus.
Chemical
& Raw Mat

Automotive
& Parts

**Financial solutions
with suitable incentives
& conditions (eg.
Sustainability link loan)**

**Sustainability
Partnership and
Ecosystem**

**Engagement and
Knowledge Sharing**

Strengthening SCBX's Internal Readiness



**Upskilling employees in
sustainability**



**Investing in Climate tech to
encourage tech adoption**



**Building robust data
platforms and technologies**

Holistic Approach to Support Hotel Business on Sustainability Journey

Part of BOT's Transition Finance Initiatives

Segmented by
GHG Emissions
Levels

Brown

Less Brown

Green

Traditional hotel
businesses

Hotels beginning to
transition

Low GHG emission
hotels

Customer
Preferred
Outcome



Awareness and
understanding of
sustainability

Transition toward
sustainability

- Upgrade equipment to improve energy efficiency and reduce pollution
- Transition to EV
- Retrofit buildings to be more environmentally friendly

Certification:
Entry to
Intermediate



LEED:
SILVER



TREE:
SILVER

Certification:
Intermediate to
Advanced



LEED:
Gold
/ Platinum



TREE:
Gold
/ Platinum

Net Zero target in
place



SCB
Support

Seminar:
"Andaman Sustainable
Green Hospitality"

Knowledge Partners



SCG
BUILDING & LIVING CARE
CONSULTING

Hotel Sustainability and Efficiency Loan Program
(Preferential interest rates and term loan)

Consulting firms specialized in transition investment
solutions



Loans linked to the
customer's sustainability
performance and goals
(Sustainability-Linked Loans)



SCB Has Already Surpassed the 3-Year Target of Sustainable Financing

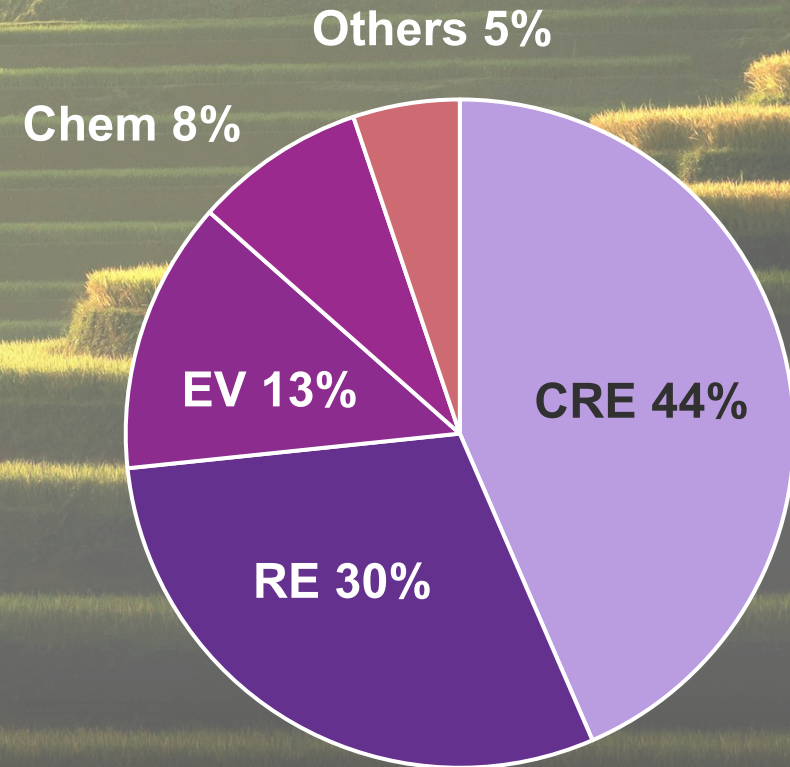


Sustainable Financing

New Credit Limit Committed and
Bond Arranged
from 2023 to 1H 2025

180,000 million baht

surpassing of THB 150 billion Target
for 3-year goal (2023-2025)



How to unlock transformative investment in climate mitigation from financial ecosystem perspective

Thailand Sustainable Finance Council (TSFC)

- Similar to Singapore's SFAS whose strengths lie in coordination, innovation and credibility
- 1) Industry-led collaboration platform with close regulator-industry alignment**
 - Bring key representatives from FIs (banks, SFIs, AMs, insurers, and fintechs), financial regulators (BOT, SEC, OIC, MOF, SET) and key real sectors (energy, transportation, manufacturing) to accelerate sustainable finance adoption
 - Provide clear and consistent policy and risk management guidance, taxonomy, and special funding schemes.
 - 2) Innovation ecosystem (green fintech, data, taxonomy)**
 - Establish a national blended finance platform to co-finance green projects, to derisk private capital via guarantees and credit enhancements, and to develop unified data platform for stakeholders.
 - 3) Capacity building and talent development**
 - provide certifications, toolkits, and training programs in climate related matters, in conjunction with local and international networks
 - 4) Regional and global connectivity**
 - encourage Thai institutions to play a regional role in ASEAN sustainable finance and cross border green investment



From Data to Action: Enhancing Climate Finance Though Better Information



Current Use of Climate-Related Data in Risk and Opportunity Assessment

The banks are increasingly integrating climate-related data across multiple layers of decision-making, especially in the context of climate mitigation financing.

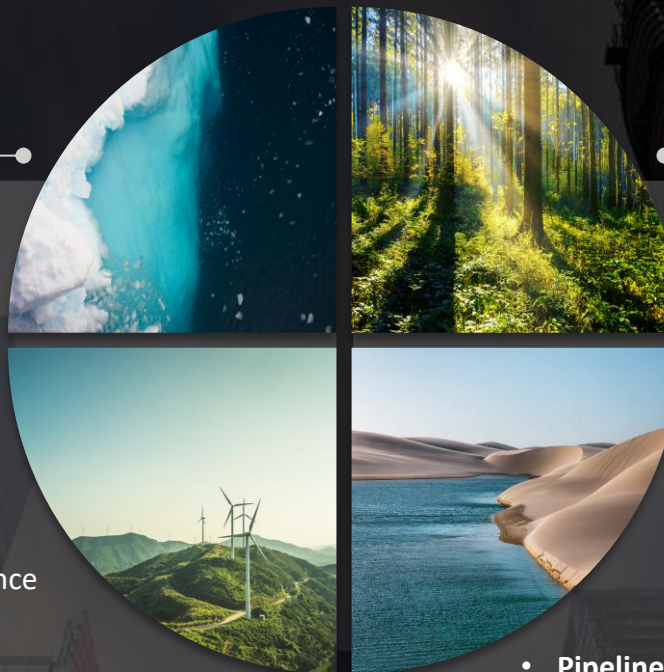
Key use cases include:

- Credit Risk Assessment
- Portfolio Stress Testing
- ESG Screening and Opportunity Mapping
- Disclosure and Compliance



Challenges in Using Climate Data Effectively

- Data Gaps
- Lack of Integration



Value of the Climate Finance Tracker

A tool like the **Climate Finance Tracker** would be highly beneficial to banks, particularly in emerging markets like Thailand, in the following ways:

- **Centralized Insights:** It helps consolidate and visualize data on climate mitigation finance by sector, geography, and financial instrument.
- **Benchmarking and Comparability:** Banks can benchmark their climate finance flows against peers or national goals.
- **Pipeline Development:** Helps banks identify underfinanced areas with high mitigation potential.
- **Risk and Impact Alignment:** Enables banks to link climate with financial performance, enhancing both fiduciary and sustainability outcomes.
- **Support for Innovation:** Data-driven tools can help create new green financial products by quantifying decarbonization impact.



LIVE
SUSTAINABLY

อยู่ อย่าง ยั่งยืน

**Sustainable Future,
Start Today Together**