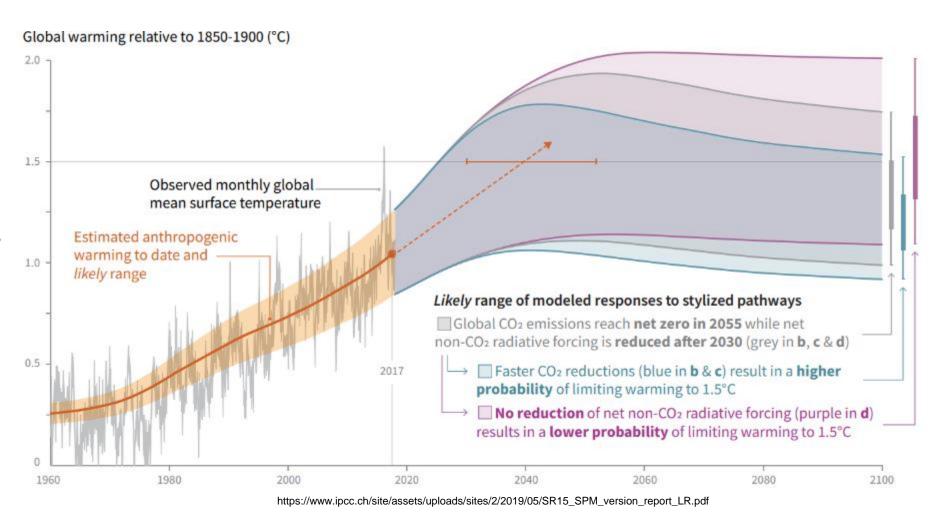


## THE BASIC SCIENCE OF CLIMATE CHANGE



Climate change is the identifiable persistent change in the state of the climate.

The overwhelming scientific consensus is that the current change is due to human activity, most notably GHG emissions and landuse change.



## THE BASIC INTERNATIONAL CLIMATE CHANGE SYSTEM

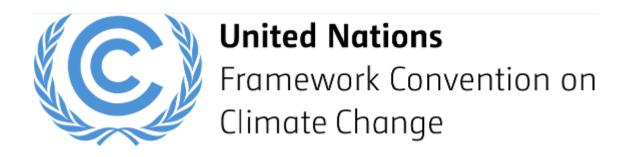


The United Nations Framework Convention on Climate Change (UNFCCC) is an international treaty by 197 countries seeking to stabilize atmospheric GHG concentrations at a level that will prevent dangerous human interference with the climate system.

It meets every year and current efforts are mostly guided by the Paris Agreement.

The Intergovernmental Panel on Climate Change is the official United Nations body which collects and assesses the science relating to climate change. The findings of the IPCC guide the direction and intensity of the UNFCCC negotiation process.

It produces synthesis assessment reports and occasional special reports.





## BASIC SCENARIOS FOR TACKLING CLIMATE CHANGE



#### YEARS OF INACTION MEAN AN ORDERLY TRANSITION IS NOT POSSIBLE

- Physical and transition risks are inextricably linked.
- To stop physical risks growing and becoming unmanageable the entire global economy must transition to a net-zero economy.
- A quicker transition minimises physical risks but enhances transition risks.
- A slower transition minimizes transition risks but enhances physical risks.
- An orderly transition is practically impossible due to decades of inaction on reducing GHG emissions.
- The current trajectory is between 'too little too late' and 'hot-house world'.
- Physical risks are already being experienced will continue to grow.

#### Disorderly Too little, too late Abrupt but required **Economic transition** response achieves occurs but not in Paris Agreement but time to prevent Transition risk causes economic significant disruption. disruption. Hot-house world Orderly **Economic transition** Business-as-usual occurs in a timely occurs and emissions and planned manner continually rise creating minimal causing significant disruption. disruption.

Physical risk

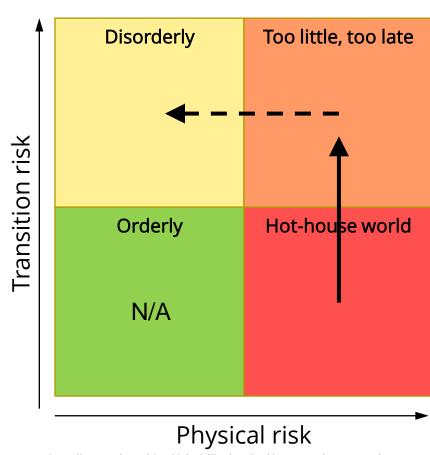
https://www.ngfs.net/sites/default/files/medias/documents/820184\_ngfs\_scena rios\_final\_version\_v6.pdf

## THE INEVITABLE POLICY RESPONSE



#### RAPID SHIFT FROM 'HOTHOUSE WORLD' TO 'DISORDERLY' EXPECTED

- Populations will increasingly demand urgent efforts too halt climate change.
- Demands for urgent action will filter into democratic and financial system governance systems.
- Financial institutions will become forced to disclose and manage climate-related financial risks.
- Market volatility will occur as capital shifts from 'high' to 'low' carbon activities.
- The low-carbon transition will result in stranded assets.
- Financial institutions will be exposed to transition risks.
- Financial institutions which do not manage climate-related financial risks will suffer the inevitable consequences.



https://www.ngfs.net/sites/default/files/medias/documents/820184\_ngfs\_scena rios\_final\_version\_v6.pdf

## UNFCCC PARIS AGREEMENT



#### ARTICLE 2.1

- a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
- b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;
- c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.



## PARIS AGREEMENT



### THE RATCHETING MECHANISM IS FUNDAMENTAL TO THE AGREEMENT

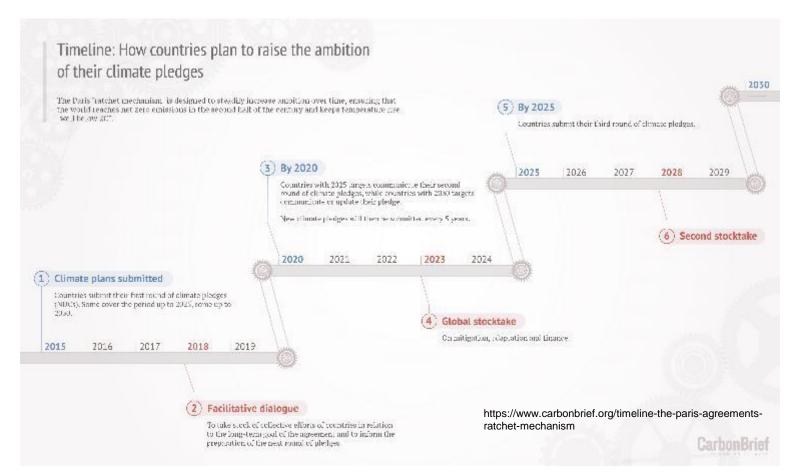
Countries agree to periodically assess progress and increase ambition until Article 2 has been achieved.

Nationally Determined Contributions signifying each country's proposed contribution to tackling climate change.

Nationally Determined Contributions dictate the short term speed of the transition.

The destination is commonly accepted as net-zero emissions by 2050.

NDCs will change frequently and their time horizon does not equate to energy infrastructure lifecycles.



# THE NETWORK OF CENTRAL BANKS AND SUPERVISORS FOR GREENING THE FINANCIAL SYSTEM



#### THE NGFS INDICATES INCREASED SUPERVISION OF CLIMATE RISK

Created in 2017 and consists of 87.

#### Mandate:

- •Monitoring and mapping of supervisory developments and practices for integrating climate-related and environmental risks into micro-prudential supervision
- •Considering the extent to which a financial risk differential exists between 'green' and other assets
- •Reviewing and assessing existing methodologies to measure climate-related and environmental financial risks at micro level.



## CLIMATE EMERGENCY DECLARATIONS



#### THE NUMBER OF DECLARATIONS HAS INCREASED RAPIDLY

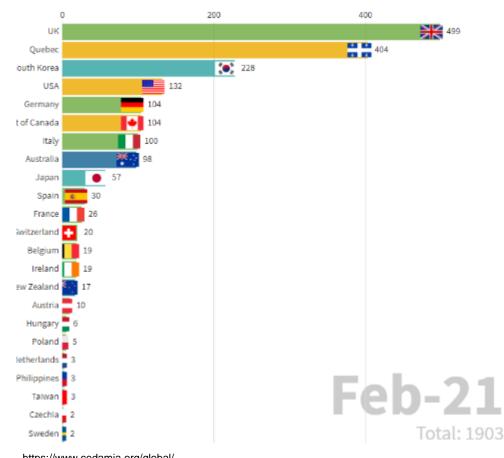
Climate emergency declarations are not uniform and it is unclear what there significance will ultimately be.

Generally, climate emergency declarations recognise that urgent action is required to halt climate change.

14 national governments plus the EU have announced a climate emergency declaration.

Almost 2000 sub-national climate emergency declarations in 33 countries.

The national governments of South Korea, Japan, Singapore have made declarations.

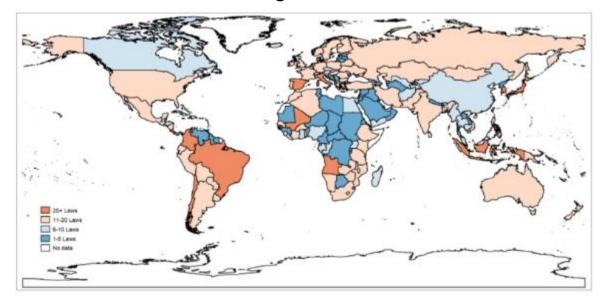


## CLIMATE LEGISLATION AND LITIGATION



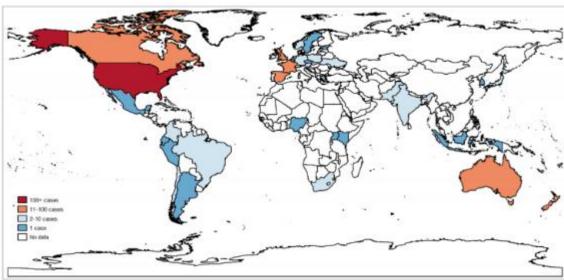
## CLIMATE RELATED LEGISLATION AND LITIGATION IS INCREASING AND WITH IT THE LIKELIHOOD OF THE INEVITABLE POLICY RESPONSE

#### Climate Legislation Instances



Note: Covers 1,872 climate laws and policies in 198 jurisdictions

#### Climate Litigation Cases



Note: Geographical distribution of 1,587 cases worldwide (1,213 climate lawsuits in the United States and 374 court cases in 37 countries)

 $https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2020/07/Global-trends-in-climate-change-litigation\_2020-snapshot.pdf$ 

## CLIMATE RISK AS POTENTIAL LEGAL DUTY OF CARE



#### CLIMATE RISK COULD BECOME PART OF LEGAL DUTY

Commissioned and released in 2016 after <u>extensive consultation with business</u> <u>leaders and legal experts</u>

5 material developments elevating need for directors to consider climate risks and opportunities:

- Coordinated engagement by financial regulators on climate
- New reporting frameworks
- Investor and community pressure
- Advances in scientific knowledge
- Increased litigation risks

"Directors who do not properly manage climate risk could be held liable for breaching their legal duty of due care and diligence."



## SUMMARY OF INEVITABLE POLICY RESPONSE



#### THEORY BASICS

- 1) National governments rapidly increase efforts to tackle climate change due to democratic pressure.
- 2) Market volatility and stranded assets emerge as economies and capital shifts from high to low-carbon activities.
- 3) Financial institutions suffer due to exposure to assets, clients, markets affected by the unpredictable transition.

#### **EMERGING EVIDENCE**

- International agreement to halt climate change at a specified level based on scientific consensus.
- International process to reduce emissions.
- Role of financial system in causing and halting climate change officially recognised and agreed by almost every country.
- Central banks and financial regulators working together to enhance understanding and supervision of climate-related financial risks.
- Tendency towards mandatory disclosure of climate-related financial risks.
- Growing climate emergency declarations worldwide.
- 30 commitments to achieve net-zero emissions by 2050 by national governments, including many more at sub-national level
- Growing number of climate legislation and litigation and the worlds first legal opinion on the legal responsibilities of directors.

## PROGRESSING FORWARDS



## SOME POTENTIAL QUESTIONS ARISING FOR BANKS IN LIGHT OF THE INEVITABLE POLICY RESPONSE

- What should banks do in light of the inevitable policy response?
- How can banks successfully navigate the market volatility that will inevitably occur?
- How can banks take advantage of what will be the next socioeconomic transformation?
- What do stakeholders expect banks to do in light of changing circumstances?

# TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES



The TCFD framework is the de facto basis of many emerging disclosure requirements by stakeholders, including regulators. This framework requests financial institutions to describe:

- Board's oversight of climate-related risks and opportunities.
- Management's role in assessing and managing climate-related risks and opportunities.
- Climate-related risks and opportunities identified over the short, medium, and long term.
- Impact of climate-related risks and opportunities on strategy and financial planning.
- Resilience of strategies to different climate-related scenarios, including a 2°C or lower scenario.
- Processes for identifying, assessing, and managing climate-related risks as well as integrating them into the organisation's overall risk management framework.
- Metrics used when assessing climate-related risks and opportunities in line with its strategy and risk management process.
- Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and related risks.
- Targets used to manage climate-related risks and opportunities and performance against targets.



## LONG-TERM PLANNING SHOULD BE SCIENCE-BASED



#### THE INEVITABLE POLICY RESPONSE IS ABOUT THE PARIS AGREEMENT





## LONG-TERM PLANNING SHOULD BE SCIENCE-BASED



Net-zero emissions by 2050 has become the mantra of international negotiations, national decarbonisation planning, climate emergency declarations, stakeholder expectations, and many globally leading corporations.

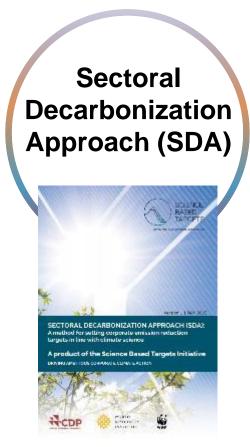
i.e. total emissions minus carbon sequestration such as forests equal zero. The net-zero emissions by 2050 mantra is built upon scientific consensus.

Benefits of aligning long-term with science:

- Build business resilience by identifying potential market volatility across each sector and economy.
- Improve competitiveness by identifying and capitalising on new commercial opportunities created by the low-carbon transition.
- Drive innovation through client engagement.
- Enhance credibility and reputation by utilising the latest available science.
- Prepare for shifts in public policy.
- Demonstrates climate leadership.

## METHODS FOR FINANCE SECTOR TARGETS





https://www.unglobalcompact.org/library/5650





https://www.cdp.net/en/investor/temperature-ratings/cdp-wwf-temperature-ratings-methodology

## SCIENCE-BASED TARGETS INITIATIVE















DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Trucost ESG Analysis



**URGENTEM** 





Bloomberg

## GLOBAL MOMENTUM BY THE NUMBERS





Companies with approved targets

1029

Companies committed to set science-based targets

\$15.4T

Combined market capitalisation

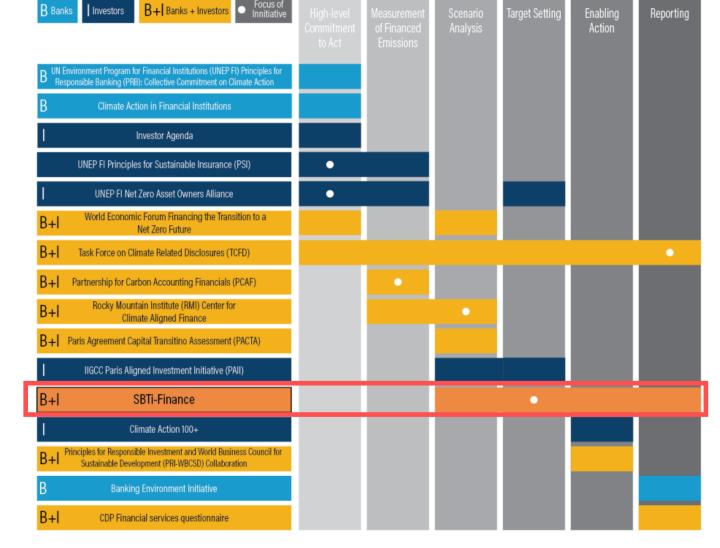
Oct. 2020



## THE INITIATIVES SUPPORTING SUSTAINABLE FINANCE



SBTi's Finance framework contributes to the wider ecosystem of related initiatives through its transparent and robust target setting platform and disclosure requirements



## SCIENCE-BASED TARGETS FOR FINANCIAL INSTITUTIONS



In 2018, the SBTi launched a project to help financial institutions align their lending and investment portfolios with the ambition of the Paris Agreement.

The primary audience includes commercial banks, asset managers, asset owners, and mortgage real estate investment trusts (REITs).



## 60 FINANCIAL INSTITUTIONS HAVE MADE COMMITMENTS



ABN Amro Bank N.V.

Direct Line Insurance Group plc Principal Financial Group, Inc.

Actiam NV

Eurazeo

Raiffeisen Bank International AG

Albaraka Türk Participation Bank

**Fubon Financial Holdings** 

SK Securities, Co., Ltd

Allianz Investment Management SE

FullCycle

Societe Generale

Amalgamated Bank

Grupo Financiero Banorte SAB de CV

Sompo Holdings, Inc.

**ASN Bank** 

**Hannon Armstrong** 

Standard Chartered Bank

Australian Ethical Investment

**Hitachi Capital Corporation** 

Storebrand ASA

**AXA Group** 

**HSBC** Holdings plc

Swedbank AB

BanColombia SA

**ING Group** 

Swiss Re

Bank Australia

KLP

T.GARANT BANKASIA. .

Bank J. Safra Sarasin AG

La Banque Postale

**Teachers Mutual Bank** 

**BBVA** 

**London Stock Exchange** 

**Tokio Marine Holdings, Inc.** 

**BNP Paribas** 

Mahindra & Mahindra Financial Services Limited Piraeus Bank SA

Tribe Impact Capital LLP

Caixa Geral de Depósitos

MetLife, Inc.

**TSKB** 

Capitas Finance Limited

MP Pension

Türkiye İş Bankası

**Chambers Federation** 

MS&AD Insurance Group Holdings, Inc.

Vakifbank

Commercial International Bank Egypt (SAE) CIB

Novo Banco, SA

**Westpac Banking Corporation** 

Commerzbank AG

**OXI-ZEN Solutions SA** 

**YES Bank** 

Credit Agricole

PensionDanmark

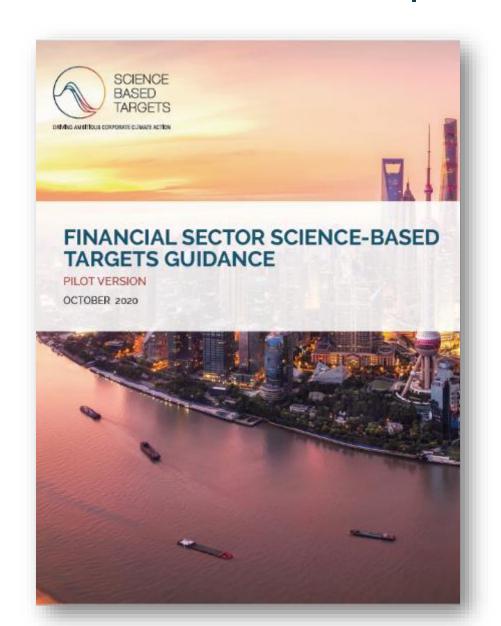
**Yuanta Financial Holding Co Ltd** 

**DGB FINANCIAL GROUP** 

Zurich Insurance Group Ltd

## SBTi Finance Framework | Guidance





#### **8 Case Studies**

Institution	Method
Amundi	Temperature Rating Method
Bank J. Safra Sarasin	SDA for Real Estate
Storebrand	SDA for Real Estate
Eurazeo	SBT Portfolio Coverage
La Banque Postale	SBT Portfolio Coverage & SDA
Mizuho Financial Group	SDA for Electricity Generation Project Finance
De Volksbank	SDA for Mortgages
Wells Fargo & Company	PCAF





together possible ...

Dr Adrian Fenton, Vice President, Asia Sustainable Finance WWF Singapore



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