

기후행동 컨퍼런스 2018

CLIMATE ACTION CONFERENCE 2018

[발표자료집]

주최



citi

후원



산업통상자원부
Ministry of Trade,
Industry and Energy



환경부
Ministry of
Environment



외교부
Ministry of
Foreign Affairs



한국에너지공단
KOREA ENERGY AGENCY

기후행동 컨퍼런스 2018

CLIMATE ACTION CONFERENCE 2018

[Session II]

Accelerating energy transition in
align with Paris Agreement (1.5°C)



Presentation II

What does TCFD mean for Korean
Companies to be sustainable?

Sungwoo Kim

(Head of Environment & Energy Research
Institute, Kim & Jang)

주최



citi

후원



산업통상자원부
Ministry of Trade,
Industry and Energy



환경부
Ministry of
Environment



외교부
Ministry of
Foreign Affairs



한국에너지공단
KOREA ENERGY AGENCY

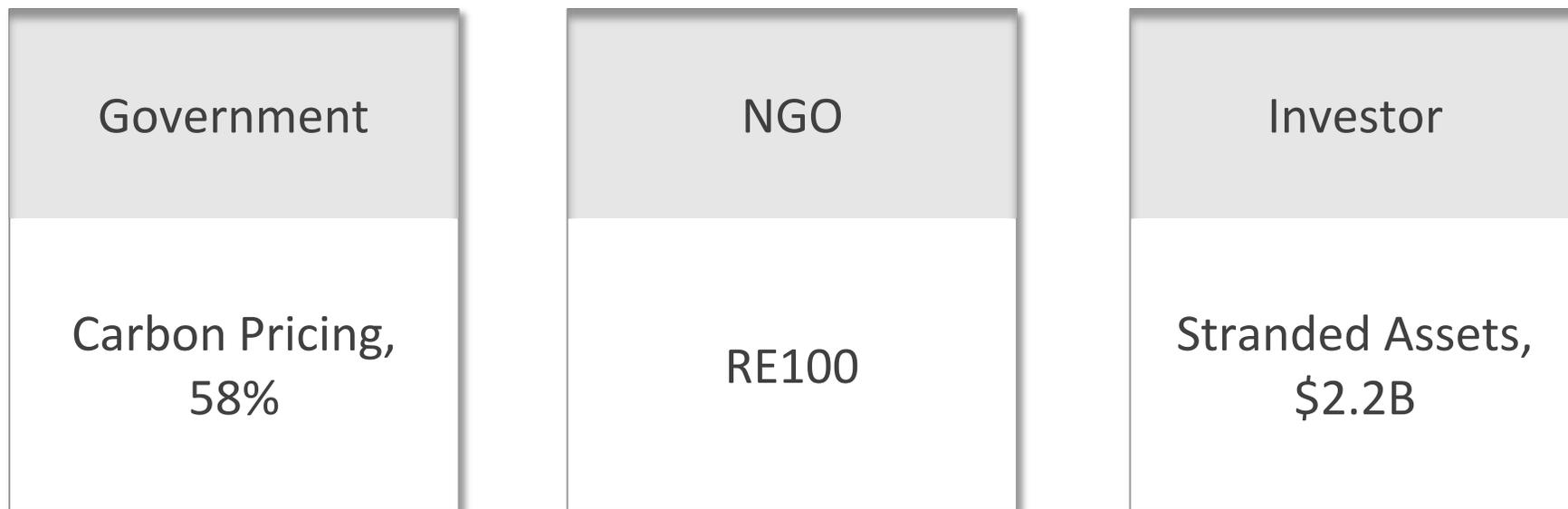
For WWF & Citi's Climate Action Conf. 2018

What does TCFD mean for Korean Companies?

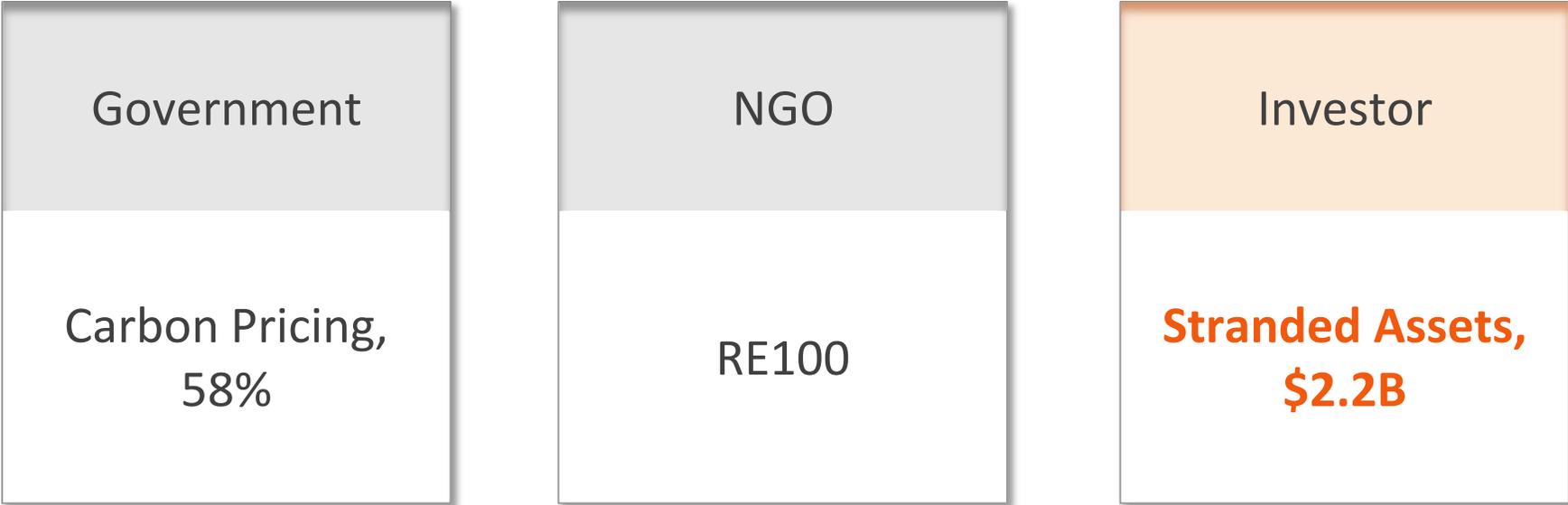


October 10, 2018

New Demand for Carbon by



New Demand for Carbon by



Last month...

ING to assess \$600bn loan portfolio based on climate impact

Dutch lender becomes first big bank to adopt policy pressing clients to meet Paris goals



Some observers have linked the recent wild fires in California to climate change © Reuters

Leslie Hook in San Francisco SEPTEMBER 17, 2018

14

ING, the Dutch bank, will start assessing its \$600bn lending portfolio based on climate impact, a first step in shifting the entire portfolio to align with the emissions reductions required by the Paris climate agreement.

The policy, the first of its kind for a big bank, will include putting pressure on clients whose businesses do not conform with the [climate](#) goals of the agreement.

“We will try to look at the entire portfolio and make sure that over time it aligns with Paris,” Isabel Fernandez, head of wholesale banking, said.

Source: Financial Times, Sep 17, 2018

JOHNS

중앙그룹 브랜드

중앙일보

경제

뉴스검색

경제일반 세테크 증권 부동산 IT/과학 경제칼럼

공무원연금공단, 국내 연기금 최초 탄소정보공개 프로젝트 가입

GEPS, First Korean Pension Funds to Join CDP



【서울=뉴시스】 김정호 기자 = 공무원연금공단은 국내 연기금 최초로 탄소정보공개 프로젝트(CDP-Carbon Disclosure Project)에 가입했다고 17일 밝혔다.

* CDP runs the global disclosure system for investors to manage their environmental impacts.

Source: Joongang Daily, Sep 17, 2018



CONTENTS

- I. TCFD?
- II. Financial Impact
- III. Suggestions



I. TCFD?

Background & Mission

Following a request from G20 Finance Ministers and Central Bank Governors, in **December 2015**, the Financial Stability Board established the Task Force on Climate-related Financial Disclosures (“**TCFD**”) to

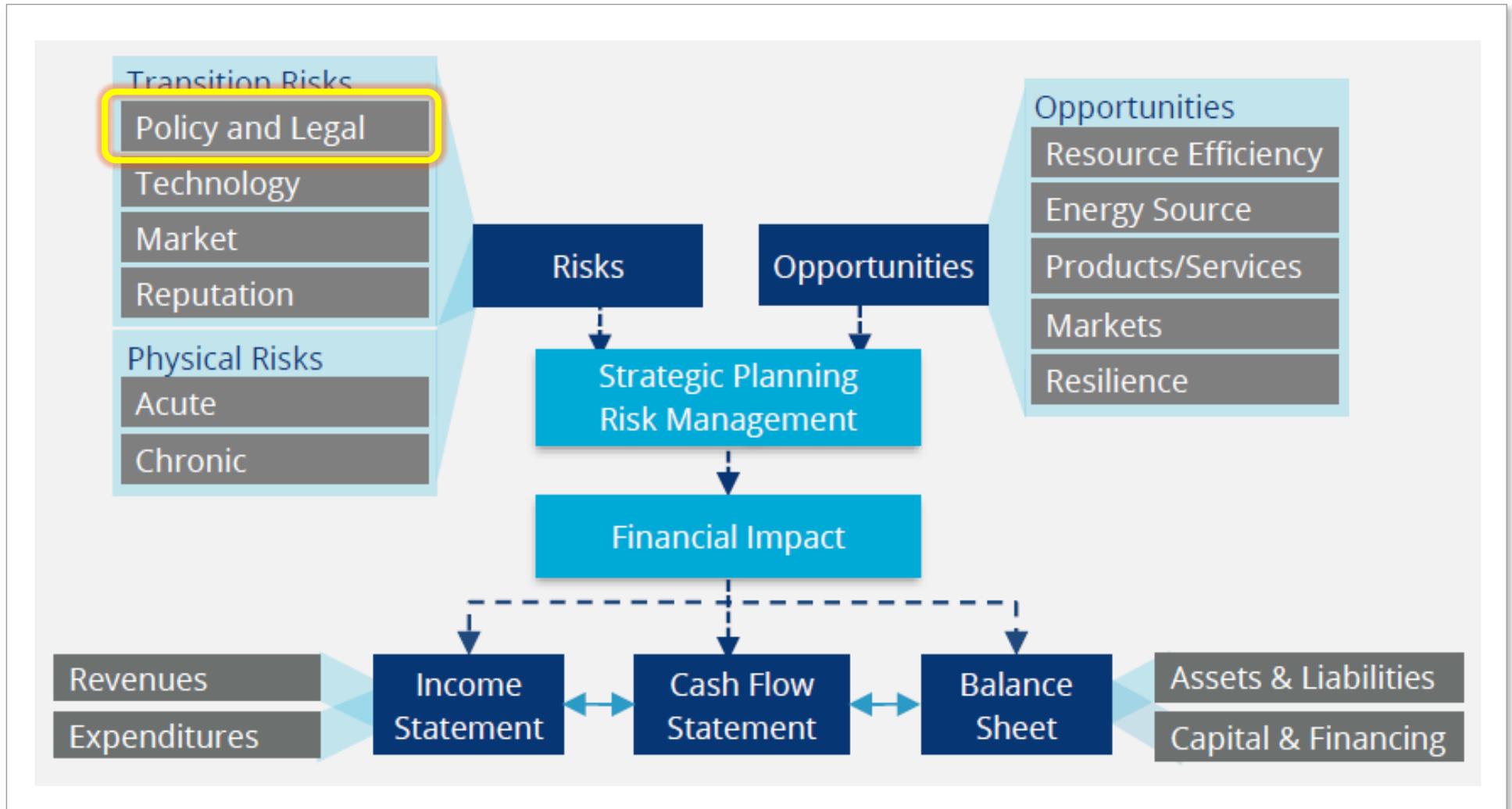
- Promote more informed investment, credit, and insurance underwriting decisions; and
- Enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system’s exposures to climate-related risks.

“Increasing transparency makes markets more efficient, and economics more stable and resilient.”

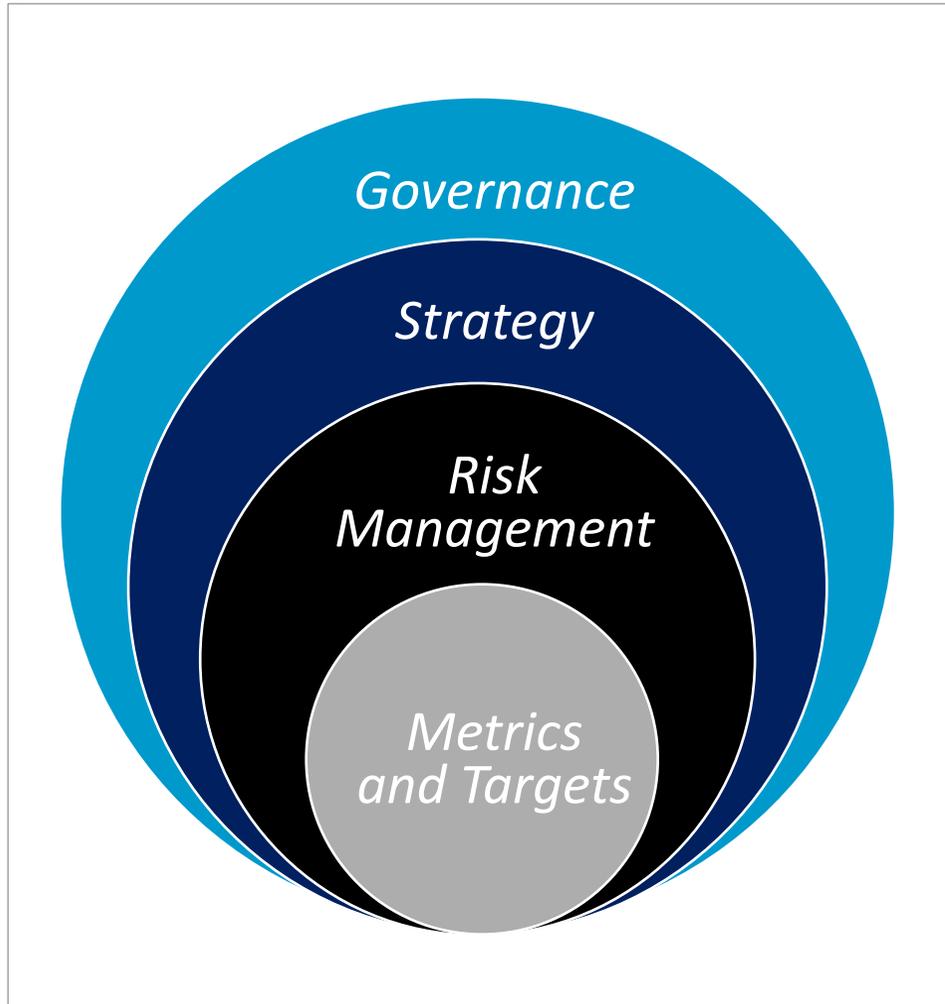
– Michael R. Bloomberg, Chair

- ❖ Recognizing impacts of climate change on finance, the **Bank of Korea** published an article on June 28, 2018, which analyzed physical and transition risks associated with climate change.

Focus on Financial Impacts



Disclosure Recommendations



Governance

The organization's governance around climate-related risks and opportunities (e.g., **whether the Board of Directors is directly involved**)

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning (e.g., **how this assessment is incorporated into existing business strategies**)

Risk Management

The processes used by the organization to identify, assess, and manage climate-related risks (e.g., **whether proper processes are established**)

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities (e.g., **whether such metrics and targets are influential**)

Knowledge Hub (<https://www.tcfdhub.org>)

The image shows a screenshot of the TCFD Knowledge Hub website. The header features the TCFD logo and the text 'TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES'. Navigation links include 'Resources', 'TCFD Recommendations', 'Contribute', 'Case Studies', 'Events', and 'Support the TCFD'. The main heading is 'TCFD Knowledge Hub', followed by a sub-heading 'Find the resources you need to understand and implement the TCFD recommendations.' Below this is a paragraph: 'Start searching for resources below, or click [here](#) to learn about the TCFD recommendations. You can also click on the four themes below for more detail on the recommendations.' The page is divided into four colored boxes representing themes: Governance (light blue), Strategy (dark blue), Risk Management (dark grey), and Metrics & Targets (light grey). Each box contains a brief description and a 'Find out more here' link with a right-pointing arrow.

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Resources | TCFD Recommendations ▾ | Contribute | Case Studies | Events | Support the TCFD

TCFD Knowledge Hub

Find the resources you need to understand and implement the TCFD recommendations.

Start searching for resources below, or click [here](#) to learn about the TCFD recommendations. You can also click on the four themes below for more detail on the recommendations.

Governance

Disclose the organization's governance around climate-related risks and opportunities.

[Find out more here](#) ➔

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

[Find out more here](#) ➔

Risk Management

Disclose how the organization identifies, assesses, and manages climate-related risks.

[Find out more here](#) ➔

Metrics & Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

[Find out more here](#) ➔

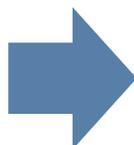
Knowledge Hub (for all sectors)



Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

[Find out more here](#)



A) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

B) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

C) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Guidance for All Sectors

Organizations should provide the following information:

- a description of what they consider to be the relevant short-, medium-, and long-term time horizons, taking into consideration the useful life of the organization's assets or infrastructure and the fact that climate-related issues often manifest themselves over the medium and longer terms,
- a description of the specific climate-related issues for each time horizon (short, medium, and long term) that could have a material financial impact on the organization, and
- a description of the process(es) used to determine which risks and opportunities could have a material financial impact on the organization.

Organizations should consider providing a description of their risks and opportunities by sector and/or geography, as appropriate. In describing climate-related issues, organizations should refer to [Tables 1 and 2](#).

Building on recommended disclosure (a), organizations should discuss how identified climate-related issues have affected their businesses, strategy, and financial planning.

Organizations should consider including the impact on their businesses and strategy in the following areas:

- Products and services
- Supply chain and/or value chain
- Adaptation and mitigation activities
- Investment in research and development
- Operations (including types of operations and location of facilities)

Organizations should describe how climate-related issues serve as an input to their financial planning process, the time period(s) used, and how these risks and opportunities are prioritized. Organizations' disclosures should reflect a holistic picture of the interdependencies among the factors that affect their ability to create value over time. Organizations should also consider including in their disclosures the impact on financial planning in the following areas:

- Operating costs and revenues
- Capital expenditures and capital allocation
- Acquisitions or divestments
- Access to capital

If climate-related scenarios were used to inform the organization's strategy and financial planning such scenarios should be described.

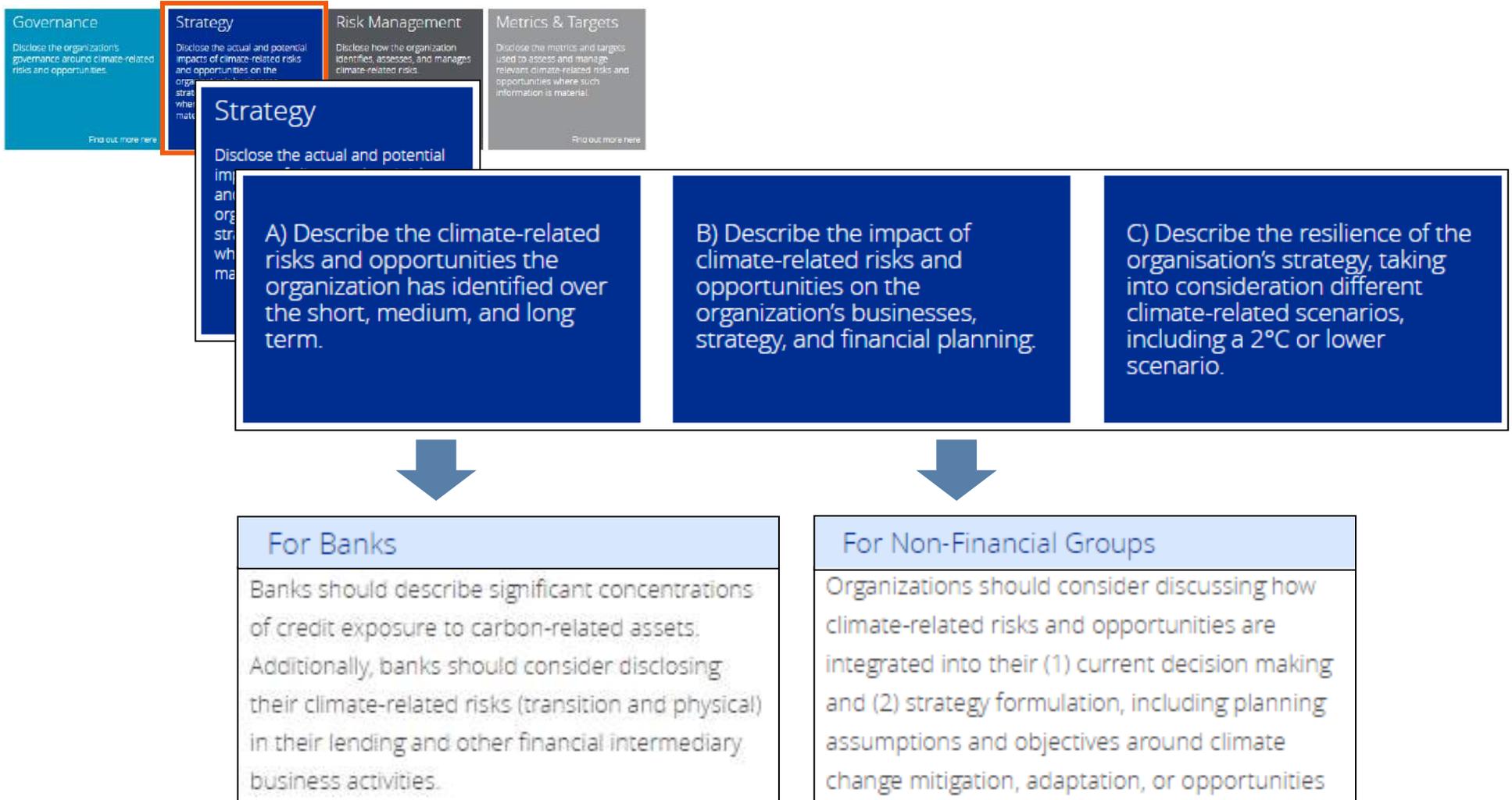
Organizations should describe how resilient their strategies are to climate-related risks and opportunities, taking into consideration a transition to a lower-carbon economy consistent with a 2°C or lower scenario and, where relevant to the organization, scenarios consistent with increased physical climate-related risks.

Organizations should consider discussing:

- where they believe their strategies may be affected by climate-related risks and opportunities;
- how their strategies might change to address such potential risks and opportunities; and
- the climate-related scenarios and associated time horizon(s) considered.

Refer to [Section D](#) of the Final Report for information on applying scenarios to forward-looking analysis.

Knowledge Hub (for a sector)



TCFD Knowledge Hub (Archive)

Search the database

Recommendation ▼

Resource Type ▲

- Legislation / Regulation
- Framework / Standard
- Guidance / Tool
- Research / Insights
- Webinar (recording)

Country ▼

Industry Groups ▲

- Financial
- Non-Financial

Article name & author

[A4S Essential Guide to Enhancing Investor Engagement](#)
Author: The Prince's Accounting for Sustainability Centre
Industry Group: All Industry Groups
[Read more](#)

[A4S Essential Guide to Managing Climate Risk](#)
Author: The Prince's Accounting for Sustainability Centre
Industry Group: All Industry Groups
[Read more](#)

[A4S Essential Guide to Strategic Climate Risk](#)
Author: The Prince's Accounting for Sustainability Centre
Industry Group: All Industry Groups
[Read more](#)

[ACSI Governance Guidelines: A Guide for Australian companies](#)
Author: Australian Council of Superannuation
Industry Group: All Industry Groups
[Read more](#)

Case Studies

Search through the case studies to learn more about how organizations are using the TCFD recommendations.

- AP2's climate report based on TCFD's recommendations – The Second Swedish National Pension Fund (G, S, R, M)
- Collaborating and communicating climate risk – Landsec (S)
- Reporting on 2 and 4 degree scenarios analysis – Unilever (S, R)

A4S ESSENTIAL GUIDE SERIES: ENHANCING INVESTOR ENGAGEMENT



ENHANCING INVESTOR ENGAGEMENT

A practical guide for investor relations teams to engage on the drivers of sustainable value
By the A4S Chief Financial Officer Leadership Network

Acceptability + Implementability

While climate change affects nearly all economic sectors, the level of exposure and the impact of climate-related risks differ by **sector**, **industry**, **geography**, and **organization**.

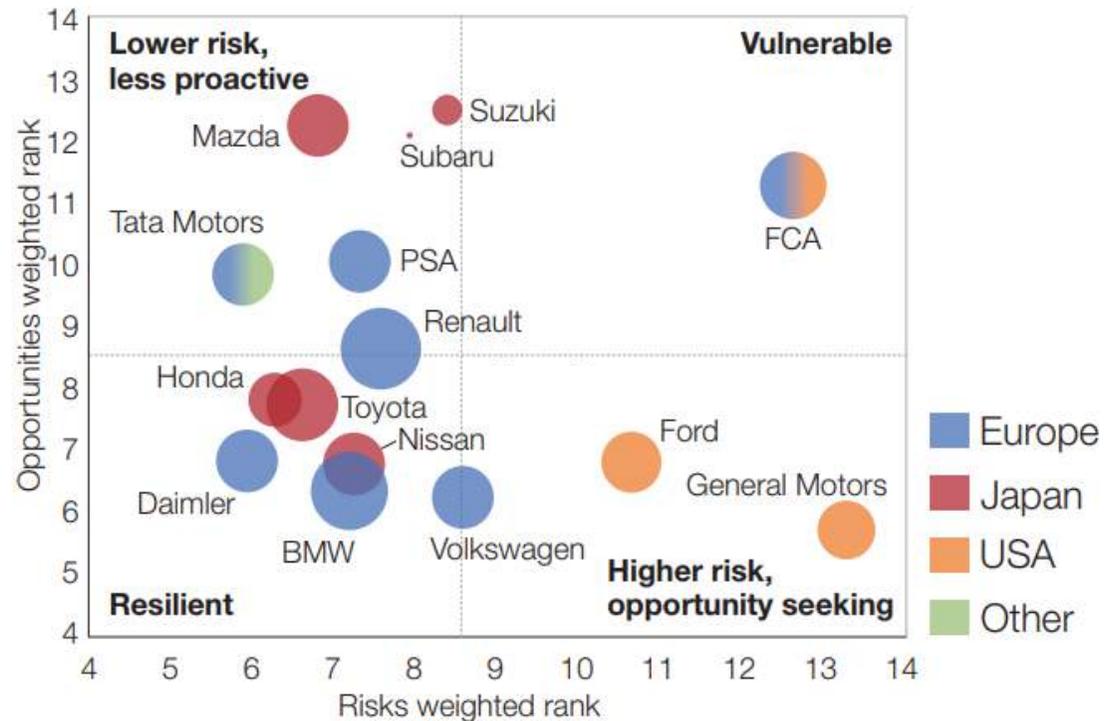
Furthermore, the financial impacts of climate-related issues on each business are not always clear because of

- Limited knowledge of climate-related issues within business;
- Tendency to focus mainly on short-term risks without paying adequate attention to risks that may arise in a long term; and
- Difficulties in quantifying climate-related risks.
 - ✓ In Korea, all climate-related tasks are generally done by a designated team within company. Also, the issues are rarely reflected to corporate strategy.

Actual Application - Auto

News > Business > Business News

BMW, Daimler and Toyota named as most climate-friendly car manufacturers



Bubble size: Larger bubble size = stronger performance on climate governance & strategy
Source: CDP

Source: Independent, 2018



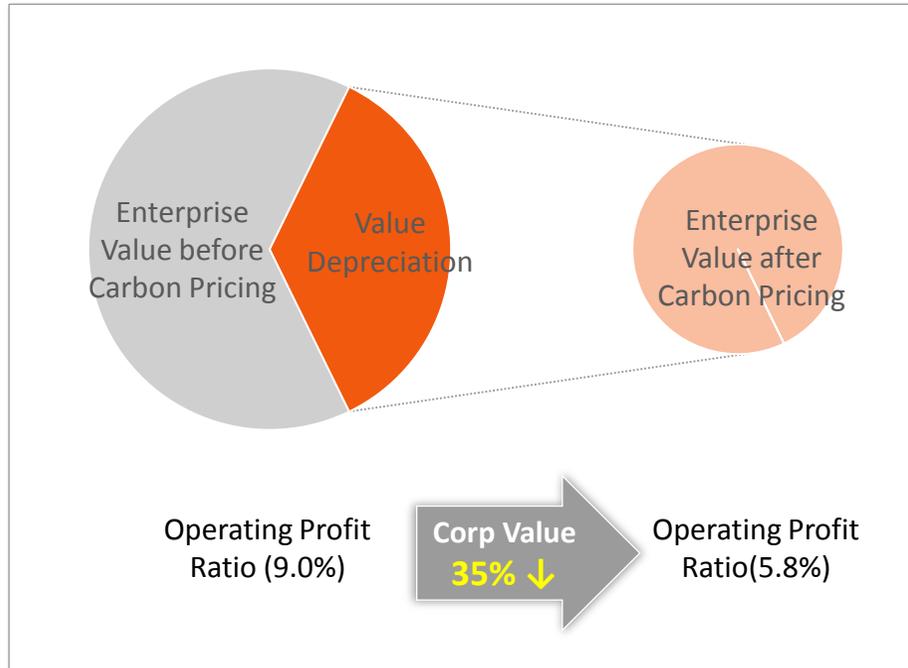
II. Financial Impact

Financial Impact by TCFD's sector criteria

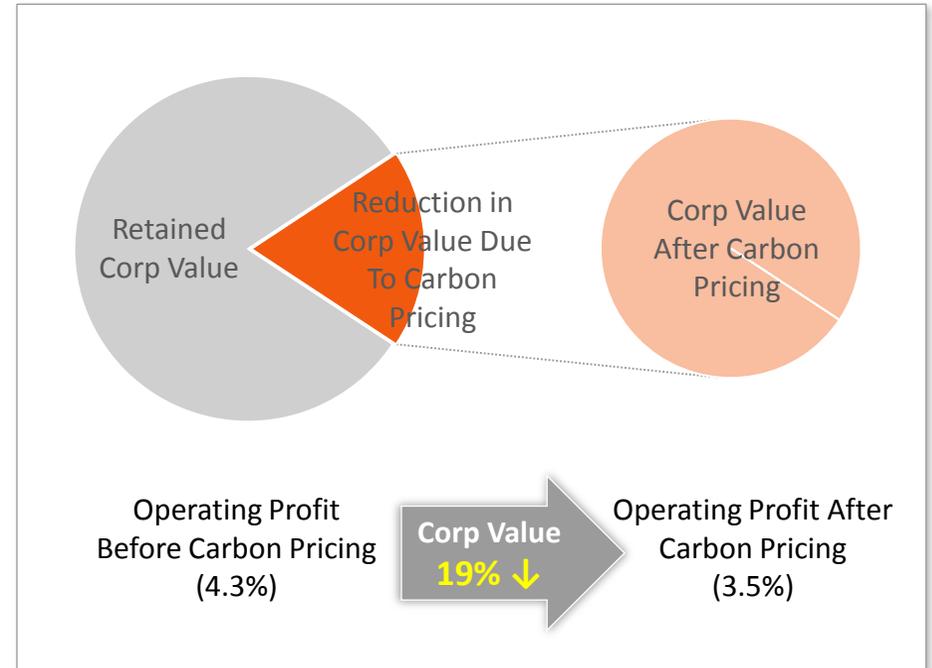
Sector	Energy	Transportation	Materials & Buildings	Agriculture, Food & Forest Products
Industries	<ul style="list-style-type: none"> Oil & gas Coal Electric utilities 	<ul style="list-style-type: none"> Air freight Passenger air transportation Maritime transportation Rail transportation Trucking services Automobiles & components 	<ul style="list-style-type: none"> Metals & mining Chemicals Construction materials Capital goods Real estate management & development 	<ul style="list-style-type: none"> Beverages Agriculture Packaged foods & meats Paper & forest products
No. of affected companies/businesses (whose financial information is available via search system)	53	162	344	74
Total cost of emissions reduction (20%)*	KRW 1,354.3 billion	KRW 97.8 billion	KRW 1,308.2 billion	KRW 50.3 billion
Ratio of emissions reduction cost to sales	3.2%	0.1%	0.8%	0.3%
Average cost of emissions reduction by company	KRW 25.6 billion	KRW 0.6 billion	KRW 3.8 billion	KRW 0.7 billion
Expected reduction in corporate value per company	KRW 120-260 billion	KRW 10 billion or less	KRW 19-39 billion	KRW 10 billion or less
Effect on operating margin (reduction rate)	9.0% → 5.8% (-35.3%)	4.6% → 4.5% (-2.7%)	4.3% → 3.5% (-19.4%)	4.8% → 4.4% (-6.8%)

Impact on Profit and Corporate Value

Energy Sector



Materials & Buildings Sector



➔ Reduction in permitted carbon emissions is expected to greatly affect the energy sector and materials & buildings sector

Disclosure Regulations

Category	Enforcement Procedures for the Regulations on Public Disclosure on the Securities Market	Regulations on the Issuance and Disclosure of Securities, etc.	Environmental Technology and Industry Support Act	Framework Act on Low Carbon, Green Growth
Whether compulsory	Voluntary disclosure	Compulsory	Compulsory	Compulsory
Companies subject to disclosure	Companies listed on the securities market	Among companies required to submit annual business reports, companies subject to management under the Framework Act on Low Carbon, Green Growth, companies certified for green technology/industry and green companies under the Environmental Technology and Industry Support Act	Green companies under the Environmental Technology and Industry Support Act, public institutions prescribed by Presidential Decree and companies having significant environmental effects	Companies subject to management under the Framework Act on Low Carbon, Green Growth
Matters to be disclosed	Matter related to information on green management	Matters regarding designation and removal of companies subject to management, matters regarding GHG emissions and energy use, certified matters regarding green technology/industry, and matters regarding designation of green companies	<ol style="list-style-type: none"> Goals and major action plans for environment protection, resource saving, pollutant emissions reduction, etc. Matters regarding development and utilization of products/services for environmental management Matters regarding results of environmental management Matters regarding green management under Article 2(7) of the Framework Act on Low Carbon, Green Growth 	GHG emissions status, energy use, etc.
Disclosure via	DART, securities information terminal and securities market magazines	Annual business report (DART)	Environmental information disclosure and verification system	Website of relevant authority for each sector or the central integrated GHG information management system
Limits	Only few cases of disclosure as disclosure is voluntary; not applicable to unlisted companies	Difficult to estimate risks for companies simply based on GHG emissions information.	Disclosure media are not well known to general users of disclosed financial information (shareholders, creditors, regulatory authorities, etc.). Difficult to convert into monetary value	

Gap analysis - TCFD Recommendation vs. the Best

GSRM	TCFD Recommendations	Best Case in Korea		Considerations
		Company A	Company B	
Governance	• a. Describe the board’s oversight	-	-	<ul style="list-style-type: none"> • The board’s responsibilities should be specified • Internal reporting lines must be established.
	• b. Describe management’s role in assessing and managing risks and opportunities.	• Company-wide energy committee	• Environmental management committee	
Strategy	• a. Describe risks and opportunities identified over the short, medium, and long term.	• Review of short-term financial/product manufacture risks and expand business portfolio through medium/long term R&D		<ul style="list-style-type: none"> • Need medium-long term strategic approach • Need to establish detailed scenarios and review financial modeling methods, etc
	• b. Describe the impacts on the businesses, strategy, and financial planning.	• Establishment of counterstrategies in relation to carbon credits	• Energy & environment business office established management counterstrategies against climate change.	
	• c. Describe the organization’s resilience	-	-	
Risk Management	• a. Describe processes for identifying and assessing climate-related risks.	• Operation of internal systems such as continuous monitoring		<ul style="list-style-type: none"> • Need risk management system reflecting climate change in the medium/long term • Need to review modifying the organization’s structure
	• b. Describe processes for managing climate-related risks.	• Explanation of the organization’s process by dividing it into visions, goals, missions, key challenges and relevant fields	• Identify risks and opportunities : report to environmental and company-wide management committees	
	• c. Describe how above processes are integrated into the overall risk management.	-	-	
Metrics & Targets	• Disclose the metrics used to assess climate-related risks and opportunities	• Establish target of reducing GHG by 23% from BAU by 2020	• Continuously manage CO2 emissions per ton of products	<ul style="list-style-type: none"> • Need to secure in advance expertise to assess feasibility and appropriateness of the metrics • Need for a new compensation system for assessment of climate-related performance
	• b. Disclose Scope 1, Scope 2 (and Scope 3 GHG emissions) and related risks.	• Disclose		
	• C. Describe the targets used and performance against targets.	• Establish target of reducing GHG by 23% from BAU by 2020	• Establish target of reducing GHG per ton generated from factories by 9% compared to 2007-2009 average by 2020	



III. Suggestions

Takeaways (1/2)

- **As the demand** for financial institutions and companies to disclose their counterstrategies against climate change is becoming **more specific and urgent**, financial institutions and companies need to **set priorities differently from the past**.
- While the recommendations from the global gurus of **TCFD under G20 must be used** as a foundation for financial institutions and companies to establish countermeasures, they **must be customized depending on country/industry/organization**.
- Korea is the second country to introduce the **emission trading scheme**, and it is expected **to cause decrease in operating profit and corporate value** of all covered Korean companies in a greater or less degree.
- **As environment-related disclosures in Korea are mostly voluntary**, neither the disclosed **information nor the number of companies making disclosure is sufficient**. Information disclosed in sustainability reports is **not standardized** and therefore does not serve as an objective standard to assess risks and opportunities.
- In Korean financial institutions or companies, countermeasures against climate change are either **only handled by a single department or neglected by the board** even though they should be an organization-wide issue.

Takeaways (2/2)

Therefore, each organization needs to take following measures:

- **Establish governance, strategies, risk management and targets** not limited to one-time projects but **covering a longer term** based on the recommendations/methods of TCFD
- Establish an internal countermeasure process **engaging the entire organization** rather than a single department
- Improve discussions by **specifying R&R of the board and management**, and divide R&R by internal working-level department
- Secure a continuous management system by **connecting achievements to a proper compensation system**
- Provide **consistent training to employers/employees** to improve their awareness of climate change including changes in external environments/demands of interested parties
- **Disclose relevant achievements** through sustainability reports and other various global initiatives **as part of shareholder engagement**
- Implement the foregoing after **customizing them based on the organization's own statusg**

Thank you

KIM & CHANG

39, Sajik-ro 8-gil, Jongno-gu, Seoul 03170, Korea

Tel: +82-2-3703-1114 Fax: +82-2-737-9091 / 9092 E-mail: lawkim@kimchang.com www.kimchang.com