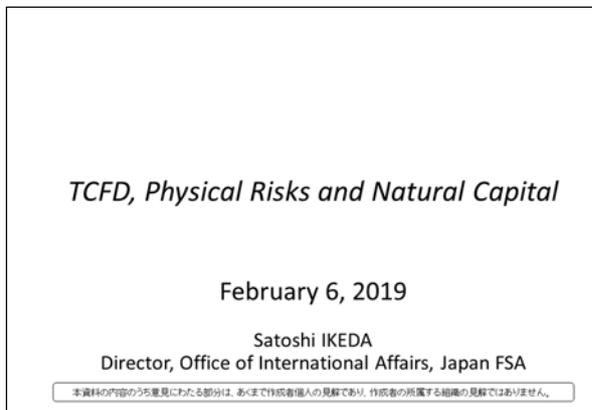
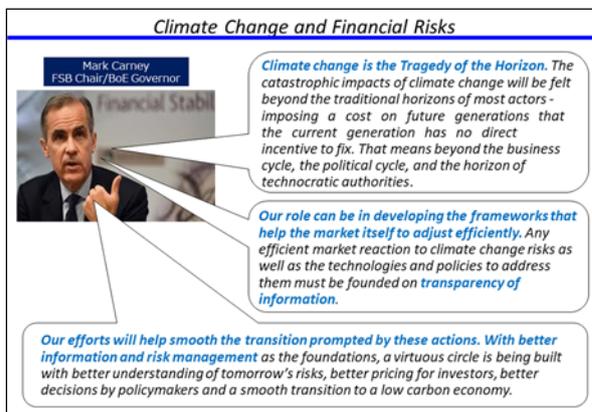


TCFD, Physical Risks and Natural Capital
Satoshi Ikeda (Financial Services Agency)



FSA in Japan is supervising the financial institutions and also building the mechanism of the financial market. What are the commonalities between REDD+ and TCFD - at least the alphabet 'D' is common. However, this 'D' is not deforestation or degradation, but disclosure. TCFD is Task Force on Climate-related Financial Disclosures. This is a framework of the climate change.

Financial Risks from Climate Change

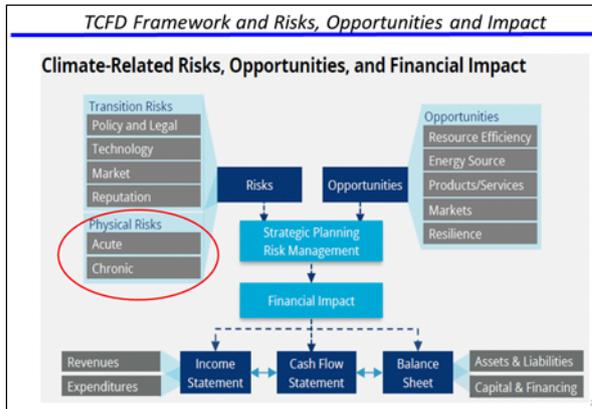


Why financial industry became interested in climate change? When we started TCFD, the chair of Financial Stability Board, Mr. Mark Carney, governor of Bank of England¹ said 'Climate change is the tragedy of the horizon'. The time horizon in which investors and companies make business or investment decisions is not as long as understanding the impact of climate change. Therefore, the impact of climate change is not considered in making these decisions. In order to solve that issue, the disclosure called TCFD project started, and in June 2017, the recommendation was built.

¹ <https://www.bankofengland.co.uk/>

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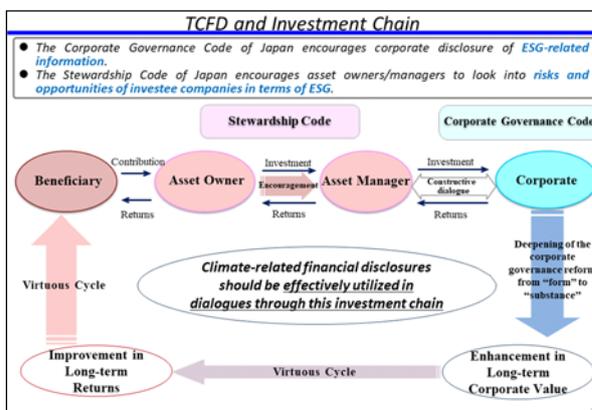
The TCFD Framework



What sort of framework is TCFD? Climate change has financial impact to corporate values through transition risks, physical risks, and opportunities. In order to implement Paris Agreement, the necessary policy and actions are taken. As a result of that, the way people think the business should run may not make sense. This is transition risk. Physical risks are divided into acute and chronic physical risks. Acute physical risk is caused by, for instance, extraordinary natural phenomenon. Chronic physical risk is caused by, for example, gradual temperature rise or climate change or water level rise.

What does this mean in relation to forests? To operate factories, companies need water, for instance. The forest plays an important role from water conservation point of view. May be there is agriculture production taken place near forest such a soy beans. As a result of climate change or policy change, companies can no longer source water and agricultural products from this forest. As a result, there could be some specific risks for companies. The companies need to capture and understand these risks as financial risk and then disclose them. This is the TCFD framework.

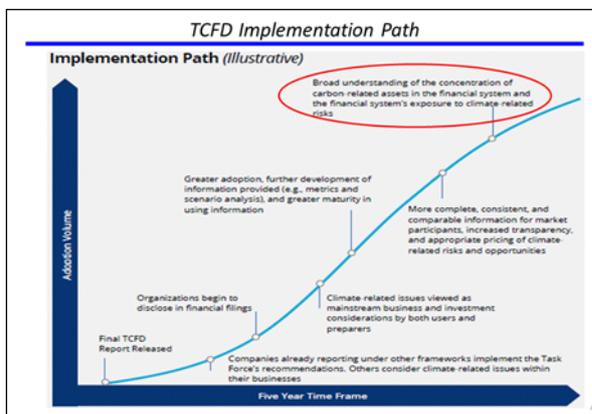
TCFD Implementation Pathway and Challenges



How are we going to implement this? In Japan, the investment chain includes is where the investment fund is coming from and where they are being invested in. In short, money from companies or individual

investors goes to asset manager and is then invested in other companies. How can corporate values be improved as a result of this asset flow? Companies having higher corporate value will be able to get more returns. The corporate value increases, and the investment return take place in parallel. That is the virtuous cycle that the people are interested in creating.

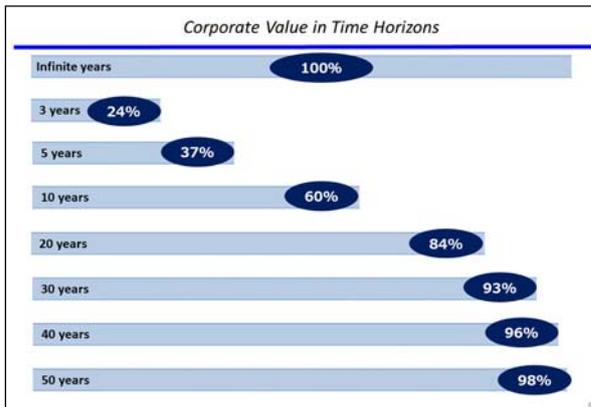
However, the climate change or forests issue is going to affect the corporate value. Hence, it will be an important challenge to solve this climate change or forest-related issues for increasing corporate value. Asset manager will be interested in it. Also, in the back of asset manager, the beneficiary such as companies and individual may have interest in it. FSA hopes that the TCFD framework is utilized in this chain of investment where the problem of climate change is taken in a constructive way between the corporate and asset manager.



However, the TCFD is not something that is easy to realize. The ultimate goal of TCFD is if the TCFD recommendation is implemented and as a result the investors and the lenders are able to fully understand climate change risk. However, it will take about five years to have the complete understanding. The report was issued in June 2017, so people in financial industries are aiming at achieving what is provided in the recommendation by 2022.

**Challenge 1:
Fostering Long-termism**

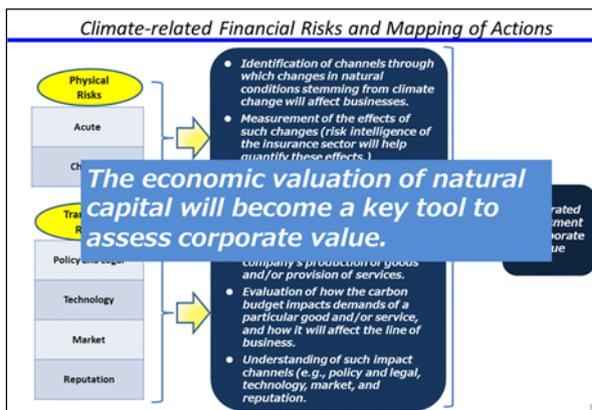
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However, there are some issues in implementing TCFD. First issue is long-term perspective. Because climate change issue is not something that will effect in near term, if companies or investors make business decision or investment decision focusing on few years' results, they will not be able to consider the TCFD.

One of the approaches is that the corporate value. Corporate value is present value of cash flow that the companies may be able to create in the future. For example, if a company continues 100 cash flow every year and the capital cost might be 10% of that, the company's corporate value will be 1000 according to the calculation. How many years should the company see the cash flow that the company generates in order to think about total corporate value? Companies tend to only look at 3 years but it is only 24% of the total corporate value. In 5 years, the company may be considering 37% of the total corporate value. In 10 years, it will be 60%, in 20years 84%, in 30 years 90%, in 40 years 96%, in 50 years 98%. Therefore, if company executives or investors think about corporate value, they have to have 20-year view at least. Promoting that long-term perspective is an important factor for TCFD.

Challenge 2:
Developing Risk Assessment Methodologies



The second challenge is that the methodology to assess physical and transition risks is not fully developed although the ways of what to do may be already in place from conceptual point of view.

For example, there are many guidelines about corporate activities and natural capital. Also, there is a tool called Exploring Natural Capital Opportunities, Risks and Exposure² (ENCORE). Global Canopy³ and CDP⁴ published a guideline *Financial Institution Guidance: Soft Commodity Company Strategy*⁵. This is the guideline at conceptual level that explains how to evaluate investment to companies deal with palm oil, timber, and soy. Investors and financial institutions are asked to utilize this guideline. However, if we want to measure financial risks concretely, we need to do quantification to some extent. In that point of view, Global Canopy has a tool called Trase⁶. Trase stands for transparent supply chains for sustainable economies. With this tool, we can trace the supplier of soy quantitatively.

The tool to understand the relations between corporate values and forests from corporations' point of view is something that is required or demanded from the financial sites. We need to develop and maintain those tools. It leads to integrated assessment of corporate values. Michael Porter advocates corporate social responsibility (CSR) and creating shared value (CSV) as one of business strategies, and in that, redefining productivity value chain or local cluster development is important. If companies consider value chain as local cluster issues, they will be able to understand how it affects the corporate values, and as a result, according to the recommendation of TCFD, they will disclose the information, as a course of investment chain, the investment may have the virtuous cycle.

2

<http://www.globalcanopy.org/publications/exploring-natural-capital-opportunities-risks-and-exposure-practical-guide-financial>

3 <http://www.globalcanopy.org/>

4 <https://www.cdp.net/en>

5

<http://www.globalcanopy.org/publications/financial-institution-guidance-soft-commodity-company-strategy>

6 <http://www.globalcanopy.org/what-we-do/supply-chains/trase>