



Tokio Marine Holdings

*To Be a **Good Company***

APAN Forum
Climate Adaptation x Disaster Risk Reduction Session

Climate Change Adaptation by Corporates ~an insurance company perspective

10 March, 2021

Masaaki Nagamura

Fellow

General Manager International Initiatives

Tokio Marine & Nichido Fire Insurance Co., Ltd.

Insurance payment for weather-related disasters

Worst 10 insurance payment for wind, flood and snow (Industry total, including estimates)

Rank	Year	Disaster	District	Payment (US\$M @105)
1	2018	Typhoon Jebi (No.21)	Osaka, Kyoto, Hyogo etc.	10,170
2	2019	Typhoon Hagibis (No.19)	Eastern Japan	5,549
3	1991	Typhoon Mireille (No.19)	Nationwide	5,410
4	2019	Typhoon Faxai (No.15)	Kanto (greater Tokyo area)	4,434
5	2004	Typhoon Songda (No.18)	Nationwide	3,690
6	2014	Snowfall	Kanto (greater Tokyo area)	3,070
7	2018	Typhoon Bart (No.18)	Kyushu	2,997
8	2018	Typhoon Trami (No.24)	Tokyo, Kanagawa, etc.	2,915
9	2018	Heavy Rain	Okayama, Hiroshima etc.	1,863
10	2015	Typhoon Goni (No.15)	Nationwide	1,564

How climate change affects business activities

Business resources and activities	Examples of climate change impacts
Buildings & equipments	<ul style="list-style-type: none">• Increasing frequency and cost of damages to facilities• Increasing need for relocation
Workforce	<ul style="list-style-type: none">• Increasing health risks• Employee lives and difficulty in commuting
Manufacturing & operation	<ul style="list-style-type: none">• Damage to manufacturing plants or business interruption• Deterioration of product quality or limited water usage
Logistics	<ul style="list-style-type: none">• Supply chain disruption• Availability or quality of raw materials, rising procurement costs
Clients/ Consumers	<ul style="list-style-type: none">• Change in client needs or customer preferences• Change in trade or lending conditions

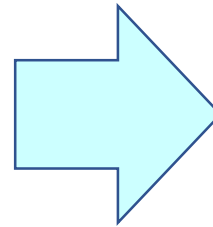
Nudging businesses for enhanced climate resiliency

Flood risk assessment offered by Tokio Marine

What corporates are looking for

- ❑ How much are we going to suffer from climate change in the worst case?
- ❑ Are we sufficiently protected?
- ❑ How can we improve our risk management? (especially companies with multiple locations)

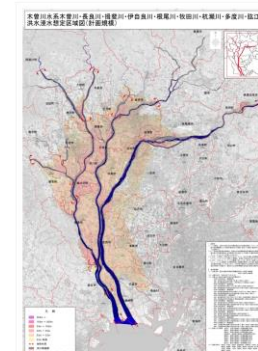
Flooded Kansai Airport
Typhoon Jebi, 2018
(MLIT)



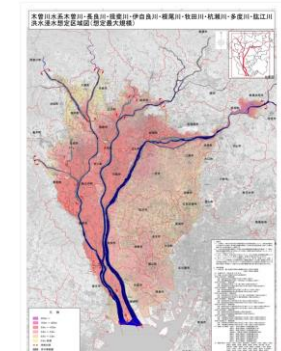
Tokio Marine's response

- Estimating Probable Maximum Loss (PML)
- Analysis on probabilistic loss estimate
- Recommendations to improve disaster resiliency
- Share good practices

Flood map
used for
city
planning



PML



(MLIT)

Key features of NADIAct (Natural catastrophe Alert Dashboard for Initial Action)

1. Real-time display of disaster conditions throughout Japan
2. Displays recommended initial action in the face of disasters
3. Offers advices on day-to-day disaster response



Promoting public-private partnership on disaster resiliency in APEC

APEC Finance Ministers' Process and Disaster Risk Financing and Insurance (DRFI)

“We recognize the importance of developing robust financial management to address increasing disaster risk in the Asia-Pacific region.”

Key milestones of APEC FMP's work on DRFI

